The role of the general practitioner in postnatal care: a survey from Australian general practice

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SUMMARY

Background. *Despite the practice of routine postnatal check-ups, many women experience problems in the months after childbirth. General practitioners (GPs) are involved in routine postnatal care, yet little research has been undertaken to explore this role.*

Aim. *To report the views of Australian GPs as to what physical examination and discussion should take place at the routine six week postnatal check-up and to determine the influence of gender on the approach to the check-up.*

Method. *Postal survey of 1104 Australian GPs, yielding an eligible sample of 1022.*

Results. *A total of 715/1022 (70%) usable surveys returned. Over 65% of GPs recommend routine examination of the abdomen, blood pressure, perineum, vagina, pelvic floor, and breasts at the six week check-up. Fewer than a half the sample believed that physical problems (urine and bowel symptoms, back problems), sexual issues, relationship and parenting issues should be routinely discussed. After controlling for age, practice location, obstetric practice, and qualifications, the sex of the GP remains an important factor influencing the GP's approach to postnatal care. Female GPs are three times more likely to believe that maternal feelings should be discussed routinely and about twice as likely to believe that infant sleeping/behaviour, maternal sleeping/diet/tiredness, coping with other children, relationship with partner, and household work should form part of the routine discussion with all recent mothers.*

Conclusions. *Sex of practitioner and older age (60 years or more) are the two most important influences on a GP's approach to postnatal care. This study indicates a need for GPs to shift their focus from routine examination to indicated examination to allow more time to discuss common postnatal problems.*

Keywords: postnatal check-up; routine examinations; women's health; general practitioners; postal survey.

Introduction

The routine review of women six weeks after they have given birth has been practised since the early 1900s in an attempt to reduce maternal morbidity.[1] Uptake of the check-up is high: over 90% in the UK.[2] Despite this check-up there remains substantial morbidity following childbirth; 13-18% of women will be depressed[3] and up to 80% will have significant physical problems in the postnatal weeks and months.[4] Recently, a number of authors have recommended a review of the routine postnatal examination.[2,5-9] To monitor changes in postnatal morbidity, better postnatal data collection is required, including documentation of the involvement of general practitioners (GPs).[10] In Australia, the six-week postnatal check-up is often provided by a GP rather than the hospital postnatal clinic (privately insured women continue to return to their own consultant or GP obstetrician).

This work follows from a study that sought the views of GPs on their role in shared obstetric care.[11] This paper reports the views of Australian GPs with regard to what should take place at the routine six-week postnatal check-up. As recent studies have shown that female GPs differ in their consulting style[12,13] and are more likely to identify and manage psychosocial problems,[14] we also focus on the influence of the sex of the GP on the approach to postnatal care. These differences have the potential to impact on postnatal care where psychosocial issues may be of major importance to the well-being of mother and baby.

Method

Postal survey

The initial survey items were based upon the postnatal themes that emerged from interviews with GPs undertaken during the shared-care study.[11] Minor alterations were made following review by the project reference group. The final survey listed nine items for examination and 30 items for discussion. GPs were asked to state whether an item should nearly always, sometimes, or rarely be a part of the routine six-week check-up; there was also space for open-ended comments. The survey was piloted on a convenience sample of 35 GPs (some of whom had particular interest in the area), 10 recent mothers, and three maternal and child health researchers, resulting in a few minor wording and layout changes. Ethics committee approval was granted from the University of Melbourne.

Sample selection

It is difficult to obtain a representative sample of Australian GPs as there is no national general practice database. In this study we obtained the names of GPs via the divisional structure. In Australia, Divisions of General Practice, funded via the Federal Government, enable GPs to group together on a geographical basis to undertake continuing medical education and develop projects that address the needs of their communities. We approached all 32 divisions in Victoria at the time of the study to identify those with a comprehensive database of all the GPs in their area. This meant that they had listed not only members but also non-members practising in their area. This method of sampling meant that locums would not have been included and that trainee GPs on short placements (3-6 months) were likely to be under represented. As these two groups are unlikely to be involved in the ongoing care of mothers and babies, we preferred this method to the known pitfalls of including practitioners who are not GPs – encountered so often when using the alternative sampling frames of Medicare provider numbers or Medical Board registration lists.

At the time of our survey, 22 divisions had developed comprehensive lists of GPs. One division refused to participate in the

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survey. One division was not included as they were conducting their own project on obstetric care which might have influenced their response, and one division failed to supply the list despite agreeing to be involved. The remaining 19 divisions (consisting of 2464 GPs, which represents approximately 50% of the Victorian GP workforce[15]) were included in the survey: 10 rural and nine metropolitan divisions spread throughout Victoria.

The survey sample consisted of all listed female GPs (n = 503) and a random sample of male GPs (n = 601) from each division. Equal proportions of male GPs were surveyed from each division. To study the effect of sex of the GP on the provision of postnatal care, female GPs were oversampled and made up almost half the survey population. In Victoria, 24% of GPs are female (personal communication, Health Insurance Commission, Professional Review Division, 1994).

The postal survey was sent to 1104 GPs followed by a reminder postcard at two weeks, a second survey at four weeks, and a follow-up telephone call at six weeks. To maintain vocational registration, GPs must take part in a quality assurance and continuing medical education program which works on a points system over a three-year period. As an incentive to participation, GPs were eligible to receive three practice assessment points (20 were required over a triennium) for returning a completed survey.

Analysis

As GPs were sampled from a selection of Divisions of General Practice in Victoria, analysis techniques that assume independence are innappropriate.[16] To take account of the clustered nature of the data, the hierarchial data analysis techniques provided by STATA for Windows (Stata Corporation College Station, USA, 1995) statistical software package were used to calculate odds ratios (ORs) and 95% confidence intervals (95% CIs). Both univariate and multivariate analyses were performed using the 'svylogit' command of STATA while accounting for the divisional (clustered) nature of the data.

The analysis was undertaken to determine the association of certain GP characteristics (sex, age, practice location, obstetric qualifications, obstetric practice, and being a parent) with beliefs about the routine postnatal examination and discussion. These characteristics were chosen prior to analysis as variables that may be likely to influence a GP's response to the survey items.

Results

Table 1 shows the characteristics of the surveyed GPs. By oversampling female GPs we have a younger group who practise less intrapartum obstetrics but more shared and postnatal care than the average GP from Victoria, but are similar in terms of practice location, qualifications, vocational registration, and divisional membership. Out of the original sample of 1104 GPs, 37 had left that address, eight had received two surveys, 13 had recently retired, 17 were not in general practice (in termination clinics, sports medicine, psychotherapy), and seven had left the State, leaving an eligible sample of 1022. In total, 776/1022 (76%) surveys were returned; 15 were incomplete as the doctor was not involved in any postnatal care and 46 were returned blank, leaving 715/1022 (70%) usable surveys. Female GPs were more likely to return a survey (74%) than male GPs (57%), and rural GPs (78.1%) were more likely to return a survey than metropolitan GPs (65.8%).

Table 2 shows the examinations and discussion GPs believe should usually occur at the six-week postnatal check-up.

What should take place at the six-week check-up: results of univariate analysis

Table 1. Demographic characteristics of surveyed GPs.

	Male (% male)	Female (% female)	Total (% total)
Responders	341 (47.7)	374 (52.3)	715
Age (25-40)	119 (35)	237 (63)	356 (50)
Age (41-60)	172 (51)	119 (32)	291 (41)
Age (61+)	47 (14)	18 (5)	65 (9)
Metropolitan	204 (60)	239 (64)	443 (62)
Rural	136 (40)	135 (36)	271 (38)
DRACOG holder	118 (35)	135 (36)	253 (36)
FRACGP holder	82 (24)0	79 (21)	161 (23)
Divisional member	236 (70)	276 (74)	512 (72)
Vocationally registered	302 (90)	339 (92)	641 (91)
GP obstetrician	85 (25)	42 (11)	127 (18)

GPs' beliefs about what should occur routinely at the check-up differed significantly according to sex (Table 3). GPs more than 60 years of age also reported a different approach to postnatal care (Table 4). However, these GPs were more likely (OR = 8.0, 95% CI = 4.4-15.2) to report not seeing any women for a postnatal check-up in the previous year. Practice location, obstetric practice (Table 5), and postgraduate qualifications accounted for few differences.

Rural GPs were less likely than metropolitan GPs to believe that the routine postnatal check-up should include abdominal examination (OR = 0.3, 95% CI = 0.2-0.6), vaginal examination (OR = 0.6, 95% CI = 0.4-0.9), or breast examination (OR = 0.5, 95% CI = 0.3-0.8), and were more likely to suggest that a routine Pap test should be taken (OR = 1.5, 95% CI = 1.1-2.2). Apart from the Pap test, these differences remained significant when adjusted for age, sex, obstetric practice, and qualifications.

General practitioners with no postgraduate obstetric qualifications (e.g. DRACOG) were more likely than GPs who held the DRACOG to believe that a urine sample should be taken (OR = 2.1, 95% CI = 1.5-2.7), the weight should be recorded (OR = 1.6, 95%CI = 1.1-2.4), and relaxation should be discussed (OR = 2.0, 95% CI = 1.2-3.3). None of these items remained significant when adjusted for age, sex, practice location, and obstetric practice.

Most GPs surveyed were parents (n = 616; 86.5%). There were no clinically significant differences found between GPs who were parents and those who were not.

Logistic regression analysis

To explore further the influence of the key characteristics studied in the univariate analysis, logistic regression analysis was performed (accounting for the clustered nature of the data) using each examination and discussion variable while controlling for age, sex, location of practice, whether the GP was involved in intrapartum or shared care obstetric practice, and had obstetric qualifications (DRACOG or equivalent).

After adjusting for key characteristics, sex remained a clinically important influence on 16 variables (Table 3), age older than 60 years on 10 variables (Table 4), obstetric practice on five variables (Table 5), practice location on three variables, and qualifications on none.

Discussion

This study deals with GPs' self-report about what they believe should constitute routine postnatal care and not with what they actually do. It is likely that most GPs are unable to achieve what

Table 2. What should occur at the six-week postnatal check-up – a general practice perspective.

	Nearly always		Sometimes		Rarely	
	n	%	n	%	n	%
Examination						
Abdomen	645	90.6	44	6.2	23	3.2
BP	629	88.2	75	10.5	9	1.3
Perineum	601	84.2	85	11.9	28	3.9
Vaginal examination	552	77.5	99	13.9	61	8.6
Pelvic floor	462	65.5	126	17.9	117	16.6
Breast	463	64.9	176	24.7	74	10.4
Weight	374	52.5	159	22.3	179	25.1
Urine	314	44.3	236	33.3	159	22.4
Pap smear	262	37.0	325	45.9	121	17.1
Discussion						
Infant feeding	703	98.7	8	1.1	1	0.1
Contraception	697	97.9	13	1.8	2	0.3
Mother's feelings	620	87.6	69	9.7	19	2.7
Infant sleeping	623	87.5	74	10.4	15	2.1
PV bleeding	613	86.6	87	12.3	8	1.1
Immunization	591	83.0	88	12.4	33	4.6
Infant behaviour	565	80.0	106	15.0	35	5.0
Infant crying	552	78.0	126	17.8	30	4.2
Labour and birth	544	77.4	124	17.6	35	5.0
Mother's sleep	549	77.1	127	17.8	36	5.1
Pelvic floor exercises	537	75.8	135	19.1	36	5.1
Tiredness	474	67.3	185	26.3	45	6.4
Mother's diet	463	65.3	191	26.9	55	7.8
Mother's exercise	416	58.7	221	31.2	72	10.2
Coping with other children	414	58.6	234	33.1	59	8.3
Parenting	362	52.2	247	35.6	84	12.1
Sexual issues	348	49.2	284	40.2	75	10.6
Relationship with partner	345	48.9	273	38.7	88	12.5
Care in hospital	335	48.5	248	35.9	108	15.6
Urine problems	307	43.7	285	40.5	111	15.8
Bowel symptoms	274	38.9	309	43.8	122	17.3
Time out from baby	269	38.4	306	43.7	126	18.0
Household work	258	36.9	284	40.6	158	22.6
Back problems	204	28.9	364	51.6	138	19.5
Return to work	199	28.2	343	48.6	164	23.2
Next pregnancy	179	25.4	271	38.5	254	36.1
Headache	99	14.1	304	43.4	297	42.4
Relaxation techniques	94	13.5	302	43.3	301	43.2
Financial concerns	40	5.7	260	37.0	402	57.3

they think should be done on all occasions and, therefore, the data presented are likely to be an overestimate of what occurs in practice. It should be remembered that domiciliary midwives, health visitors, and maternal and child health nurses will also be involved in postnatal care depending upon the policy of the country.

The sample was obtained from the GP divisional structure in Australia and analysed using techniques that take the clustered nature of the data into account. These relatively new data analysis techniques have important implications for general practice research, where the sampling frame and unit of data collection are often different; for example, recruiting GPs with data then collected at the patient level.

Univariate analysis shows that a GP's beliefs are influenced by factors such as sex, age, obstetric practice, practice location, and qualifications. After adjusting for the other key characteristics, sex remains a major influence on a GP's beliefs about postnatal care. Age greater than 60 years is also an important factor. However, GPs older than 60 years reported far less involvement in postnatal care. Obstetric practice, practice location, and qualifications account for only minor differences.

The routine examination

It is more than a decade since Bowers questioned the need for the pelvic focus of the postnatal check-up.[6] Since that time a retrospective study has been undertaken, which concluded that the routine vaginal examination should be abandoned,[7] and Noble recommended the time taken could be better spent talking with the woman.[8] This study indicates that GPs (particularly females) place considerable importance on conducting a routine pelvic examination at the check-up. If a careful history is taken about vaginal bleeding, perineal pain, dyspareunia, and the timing and result of the last Pap smear, a GP would be able to undertake a pelvic examination only if indicated. This would allow the GP more time to listen to the concerns of mothers within general practice time constraints.

Discussion at the six-week check-up

Nearly all GPs believed that infant feeding and contraception should be discussed. This is most appropriate. However, the common physical problems are somewhat neglected – only two-thirds would routinely enquire about level of tiredness; a half or less about sexual issues, urine, bowel or back problems – despite

Table 3. Routine examination and discussion at the six-week postnatal check-up: differences according to sex of doctor.

	Male (n = 341)[b]	Female (n = 374)[b]	Unadjusted OR female versus male (95% CI)	Adjusted OR[a] female versus male (95% CI)
Examination				
Vaginal examination	241	311	2.1 (1.4-3.1)	2.5 (1.8-3.6)
Pelvic floor	194	268	2.0 (1.4-2.8)	2.6 (1.8-4.0)
Breast	188	275	2.3 (1.5-3.6)	2.4 (1.6-3.87)
Weight	204	170	0.6 (0.4-0.8)	0.7 (0.5-1.0)
Urine	183	131	0.5 (0.3-0.7)	0.5 (0.4-0.6)
Pap smear	137	125	0.7 (0.6-1.0)	1.0 (0.8-1.3)
Perineum	265	336	2.6 (1.7-4.1)	3.3 (2.1-5.3)
Discussion				
Contraception[c]	327	370	4.5 (0.9-22.6)	4.0 (0.8-22.0)
Mother's feelings	269	351	4.2 (2.2-7.8)	3.1 (1.6-5.9)
Infant feeding	332	371	3.9 (0.9-16.3)	2.4 (0.7-9.1)
Infant sleeping	278	345	2.7 (1.7-4.3)	2.2 (1.3-3.7)
Infant behaviour	244	321	2.3 (1.5-3.6)	2.1 (1.4-3.1)
Infant crying	246	306	1.7 (1.3-2.4)	1.7 (1.2-2.4)
Immunization	282	309	1.0 (0.6-1.5)	0.8 (0.5-1.3)
Labour & birth	242	302	1.9 (1.3-2.8)	1.6 (1.0-2.4)
Mother's sleep	239	310	1.0 (0.6-1.5)	1.8 (1.2-2.6)
Mother's diet	194	269	1.9 (1.5-2.5)	1.8 (1.4-2.3)
Sexual issues	152	196	1.4 (1.1-1.8)	1.3 (1.0-1.6)
Pelvic floor exercises	221	316	2.9 (1.8-4.6)	2.7 (1.7-4.4)
Tiredness	191	283	2.5 (1.8-3.4)	2.4 (1.7-3.5)
Relaxation techniques	48	46	0.9 (0.6-1.2)	1.0 (0.6-1.4)
Back problems	103	101	0.9 (0.7-1.2)	1.0 (0.7-1.3)
Coping with other children	174	240	1.7 (1.3-2.3)	1.6 (1.3-2.1)
Relationship with partner	138	207	1.8 (1.3-2.6)	1.7 (1.2-2.5)
Time out from baby	110	159	1.5 (1.1-2.1)	1.4 (1.0-2.1)
Household work	95	163	2.0 (1.5-2.6)	2.0 (1.5-2.7)
Next pregnancy	101	78	0.6 (0.5-0.9)	0.8 (0.6-1.1)

Analysis takes the clustered nature of data into account. [a]Adjusted for age, location of practice, provision of intrapartum care, provision of shared care and post-graduate qualifications in obstetrics (DRACOG or equivalent). [b]Sample sizes varied from 692 to 700 for logistic regression analysis. [c]GP obstericians dropped from logistic regression analysis as variable predicted success perfectly.

the finding that over 80% of women will have at least one of these problems following childbirth.[4] To address the common physical problems, GPs will have to ask about them routinely, as less than a half of the women experiencing a problem are likely to seek help.[9] Around 80% of mothers experience problems with their baby's sleeping, crying, and feeding habits in the first 18 months of life.[4] Most GPs recognize the importance of these issues with only 20% failing to include baby issues in the routine discussion.

Depression after birth is a major public health problem. The postnatal check-up provides GPs with a unique opportunity to detect women with depression and possibly prevent depression. Some GPs are unlikely to make the most of this opportunity: 12% would not routinely enquire about a mother's feelings, 41% would not routinely ask about coping with other children, one quarter would not routinely ask about the mother's sleep, one-third would not enquire about tiredness, and more than half would not routinely address sexual issues, relationship concerns, the opportunity for time away from mothering, and help with household work. These issues, if addressed, would help the GP to diagnose and manage depression, as allowing women time to talk resulted in less depressed women in the health visitor trial in the UK.[17]

The issue of gender

This study adds to the growing literature which shows that male and female GPs practise differently. It supports the findings that female GPs are more aware of psychosocial issues. This has important implications for the likelihood of diagnosing postnatal depression and parenting problems. These sex differences need to be researched further to enable the development of educational resources for GPs that meet the differing needs of male and female GPs. Interestingly, there were no sex differences found with regard to discussing the common physical problems following birth.

Conclusion

This study indicates differences between male and female GPs in their approach to the postnatal check-up. If GPs are to address the common postnatal problems there should be a shift in focus from routine examination to indicated examination to allow time to talk with women about their concerns.

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Table 4. Routine examination and discussion at the six-week postnatal check-up: significant differences according to age of doctor.[b]

	20-40 years (n = 356)	40-60 years (n = 291)		>60 years (n = 65)	
	Used as base no.	no.	Adjusted OR[a] (95% CI)	no.	Adjusted OR[a] (95% CI)
Examination					
Vaginal examination	273	224	1.3 (1.0-3.6)	53	2.0 (1.0-4.3)
Pelvic floor	220	186	1.4 (0.9-2.1)	54	5.4 (3.2-9.2)
Breast	232	183	1.1 (0.7-1.8)	46	1.6 (0.9-2.8)
Weight	158	168	1.5 (1.0-2.1)	45	2.4 (1.2-4.8)
Urine	123	143	1.5 (1.1-2.2)	45	3.2 (1.8-5.9)
Pap smear	107	125	1.8 (1.3-2.7)	28	1.9 (1.1-3.4)
Perineum	296	245	1.6 (0.9-2.5)	57	2.8 (1.3-6.2)
Discussion					
Contraception[c]	352	283	1.0 (0.3-4.7)	59	0.3 (0.1-0.9)
Mother's feelings	333	242	0.5 (0.3-1.0)	43	0.2 (0.1-0.4)
Infant feeding	355	282	0.2 (0.02-2.3)	63	0.1 (0.02-0.8)
Infant sleeping	329	239	0.5 (0.3-0.9)	52	0.5 (0.2-1.0)
Infant behaviour	298	221	0.8 (0.5-1.4)	45	0.6 (0.4-1.2)
Infant crying	285	217	0.9 (0.5-1.6)	48	1.0 (0.6-1.6)
Immunization	301	233	0.7 (0.4-1.1)	54	0.8 (0.3-2.0)
Labour and birth	280	220	1.0 (0.6-1.7)	42	0.6 (0.3-1.2)
Mother's sleep	295	206	0.6 (0.4-1.1)	45	0.6 (0.4-1.0)
Mother's diet	236	187	1.1 (0.8-1.5)	38	0.9 (0.5-1.8)
Sexual issues	190	131	0.8 (0.6-1.0)	25	0.6 (0.4-1.0)
Pelvic floor exercises	282	207	0.9 (0.6-1.3)	45	1.0 (0.5-1.8)
Tiredness	252	179	0.9 (0.6-1.4)	41	1.2 (0.6-2.1)
Relaxation techniques	36	42	1.5 (0.9-2.6)	15	2.6 (1.4-4.7)
Back problems	86	90	1.4 (0.9-2.2)	25	2.0 (1.3-3.2)
Coping with other children	216	165	1.1 (0.8-1.4)	32	0.8 (0.6-1.1)
Relationship with partner	182	135	1.0 (0.8-1.4)	26	0.9 (0.5-1.7)
Time out from baby	140	108	1.1 (0.7-1.6)	20	0.8 (0.5-1.1)
Next pregnancy	70	84	1.7 (1.2-2.3)	23	2.2 (1.0-4.9)
Household work	127	107	1.3 (0.9-1.9)	23	1.4 (0.9-2.0)

Analysis takes the clustered nature of data into account. [a]Adjusted for age, location of practice, provision of intrapartum care, provision of shared care and post-graduate qualifications in obstetrics (DRACOG or equivalent). [b]Sample sizes varied from 692 to 700 for logistic regression analysis. [c]GP obstericians dropped from logistic regression analysis as variable predicted success perfectly.

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Acknowledgements

We thank all GPs who took part in the survey and members of the project reference group for their time and interest. At the time of the study JG was a PhD student supported by a doctoral scholarship from the General Practice Evaluation Program. Project funding obtained from the Royal Australian College of General Practitioners, Trainee Scholarship, Research and Development Fund. JL is supported by a programme grant from the Victorian Health Promotion Foundation.

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