



Health after childbirth: Patterns of reported postpartum morbidity from Lebanon

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ABSTRACT

Problem and background: The postpartum period is under-researched in low and middle income countries. The scarce literature reveals heavy burden of ill health experienced in that period and under utilisation of health services. Understanding the postpartum morbidity burden and identifying the care-seeking behaviours is essential to improve service delivery.

Question: This paper examines reported postpartum morbidity, care seeking behaviour and whether postpartum morbidity is associated with method of birth.

Methods: A cross sectional study of women delivering in 18 private hospitals from two regions in Lebanon was undertaken. Women in their second or third trimester of pregnancy, visiting private obstetric clinics affiliated with participating hospitals were interviewed for baseline information. Reported postpartum morbidity was assessed in an interview conducted at women's homes from 40 days up to six months postpartum.

Findings: Of the 269 women recruited, physical postpartum health problems were reported by 93.6% and psychological health problems by 84.4% of women, with more health problems being reported beyond two months postpartum. Women were less likely to seek professional care for psychological health problems. Reporting postpartum health problems was not associated with method of birth.

Conclusion: A heavy burden of postpartum morbidity is experienced by women with gaps in utilisation of relevant health services. Efforts should be directed towards the organisation and delivery of comprehensive maternity care services.

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1. Introduction

The postpartum period or the puerperium is defined as the period “encompassing the first few weeks following birth”.¹ This definition of the postpartum period has long guided services and research towards a restrictive approach to postpartum health focusing on problems related to the reproductive organs and neglecting other aspects of women's physical and psychosocial health in addition to limiting the time period for postpartum recovery. In fact, WHO defines postpartum maternal morbidity as morbidity occurring within the first six weeks of giving birth.²

There is relatively limited number of studies, mainly from high income countries,³ addressing the full range of postpartum health

problems faced by women. The postpartum period remains vastly under-researched in low and middle income countries.⁴ The very few studies from Pakistan, Bangladesh and India^{3–5} indicate to a heavy burden of vaginal bleeding, vaginal discharge, low abdominal pain, fever, perineum pain and excessive weakness. The only study conducted in Lebanon on the prevalence of postpartum depression, reports a proportion of 21.2% of depression and 12.8% of reported urinary tract infections, three to five months postpartum.⁶ Despite these limited findings, research in this area reveals the high burden of ill health during the postpartum period.

The different range of conditions identified in high income countries includes backache, headache, piles, constipation, anxiety, painful intercourse, lack of sexual desire, extreme tiredness and depression.⁷ These problems are found to be persistent up to three⁸ and six to seven months postpartum.⁹ High prevalence of breast problems and backaches are also documented up until 12–18 months postpartum.^{10,11} In general, these studies show that postpartum health problems are experienced up until eight weeks,¹⁰ three months⁸ or nine to 12 months postpartum.¹¹

Exploring the range and extent of ill-health is essential not only to build our understanding of the postpartum disease burden but also to identify the care-seeking behaviours associated with

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³ The World Bank divides economies according to Gross National Income (GNI) per capita: low income 1025\$ or less; middle income 1026\$–12,475\$; high income 12,476\$ or more (<http://data.worldbank.org/about/countryclassifications>).

self-reported morbidity in order to improve service delivery. This aspect has also been neglected in the literature with only few studies discussing postpartum health care-seeking behaviour of women. Brown and Lumley⁹ report that 72% of women who had health problems after delivery sought the help of a health professional in a sample of 1336 women from Victoria, Australia. In contrast, 49% of women who reported postpartum morbidities sought care from informal providers and 45% from formal providers in India.¹²

Caesarean births have increased worldwide.¹³ Lebanon is identified as one of the countries of the Arab region with high rates¹⁴ where hospital based studies are reporting rates above 40%.¹⁵ Nevertheless, the effect of this intervention on postpartum health is not well understood. There is some indication that method of birth may have some bearing on postpartum morbidities.^{10,16} In general, women having normal spontaneous vaginal birth report fewer symptoms or conditions during their postpartum period compared to those having a caesarean birth¹⁰ or assisted vaginal birth.¹⁷

The Lebanese health care system is dominated by the private sector serving around 80% of the population. Antenatal care is widely used with 96% reporting visiting at least once during their pregnancy. Hospital deliveries are the norm (98%) with 92% of births attended by obstetricians.¹⁸ Nurses are the main health care providers on postpartum wards in hospitals. Women's postpartum hospital stay averages to 24 h for vaginal births and 48 h for caesarean sections. There are no organized systems of delivering postpartum services after discharge from hospitals, such as home visits, and postpartum care is confined to the six weeks check-up after delivery, something used by only half of postpartum women in the country.¹⁸

There has never been a thorough investigation of postpartum morbidities in Lebanon. The scarcity of research in this area and the potential opportunities of providing different forms of postpartum care that responds to women's needs necessitate a closer understanding of the different array of problems experienced by women postpartum. This paper examines women's reported postpartum health problems, their health care seeking behaviour and the correlates of self-reported postpartum morbidity, specifically its association with method of birth.

2. Subjects and methods

A cross sectional study was undertaken aiming at exploring women's postpartum health problems. Participants included all pregnant women who used private obstetric clinics affiliated with 18 private hospitals in 2 regions in Lebanon, Mount Lebanon and the South, during the period from December 2007 to December 2008. The eligibility criteria included: being Lebanese, speaking/understanding Arabic, being in their second or third trimester of pregnancy and planning to give birth in Lebanon.

Three hundred seventy one women were identified as eligible. Two trained field workers contacted all eligible woman and after obtaining informed consent conducted a baseline interview by phone. This interview collected information on women's contact details, their socio-demographic profile and a short assessment of their childbirth expectations. The interviewers visited women's homes to conduct the postpartum interview, during a period from 40 days to six months postpartum.

Postpartum morbidity was defined in this study as women's reports of any health problem experienced after giving birth till the date of the interview. The postpartum home interview assessed postpartum morbidity through a checklist of the most common and known postpartum problems to which the woman was asked to report with a "yes" if she had suffered from that problem anytime since giving birth. The checklist included the following:

heavy bleeding, high fever, anaemia, crying with no reason, headache, high blood pressure, low mood, wound infection, burning during urination, urinary incontinence, breast pain, constipation, haemorrhoids, depression, back pain and tiredness. In addition, they were asked about the care sought and the onset for each reported problem. The method of birth was also assessed in the postpartum interview.

The baseline and the postpartum structured questionnaires were developed by the study team in Lebanese Arabic dialect. They were pilot tested with 50 women in a different setting from the ones used to recruit women. Some changes were made to the questionnaires to improve the comprehensibility of the questions and the flow of the interview.

Reports of heavy bleeding, high fever, anaemia, headache, high blood pressure, wound infection, burning during urination, urinary incontinence, breast pain, constipation, haemorrhoids, back pain and tiredness were grouped under "reported physical health problems". Reports of low mood, depressive mood or crying with no reason were grouped under "reported psychological health problems".

Health care seeking behaviour of women was assessed for each reported postpartum health problem. It was regrouped as "formal care" comprising of a visit to a physician, a midwife, a hospital or a pharmacist, "informal care" comprising of using home remedies or asking the advice of family members or friends and "no care" referring to no attempt to remedy their problem.

The time of the postpartum period was categorized using the cut point of two months. This was done considering the Lebanese context, where women are intensely supported by their extended family during the first two months postpartum as this early phase is considered as a recovery period. This support gradually decreases afterwards. Women also would be resuming their jobs after their maternity leaves of 60 days in Lebanon.

Data were entered and analyzed using the SPSS software. Chi-square statistics with continuity correction was used to compare proportions. Multivariate analysis was conducted using stepwise logistic regression. Two-sided significance tests were used throughout all analyses. Significance level was set at five percent.

The study protocol was approved by the Institutional Review Board of the American University of Beirut. Informed consent was obtained from all women participating in the study at all stages of contact.

3. Results

A total number of 269 were recruited into the study from a total of 371 eligible women. All eligible women were contacted by phone, 29 could not be reached and another 29 refused to participate. The remaining 313 women were interviewed for the baseline interview. After giving birth, women were contacted to book an appointment for a home visit in order to complete the postpartum interview. At this stage, 28 women opted to discontinue their participation in the study and 16 women were lost to follow-up (Fig. 1).

The majority of participating women were 25–35 years old. Primiparas constituted 42.9% of the sample, and only 32.1% reported working. The educational attainment of participating women was high and all women could read and write. Caesarean births constituted 43.5% of the sample and 21.2% reported suffering from severe complications during pregnancy (Table 1).

The majority of women reported a postpartum health problem (93.6% reporting any physical health problem and 84.4% reporting any psychological health problem). Psychological symptoms of crying with no reason (41.7%) or depressive (59.8%) or low mood (46.2%) were most commonly reported by women interviewed in both postpartum periods, as well as constipation (45.8%), back pain

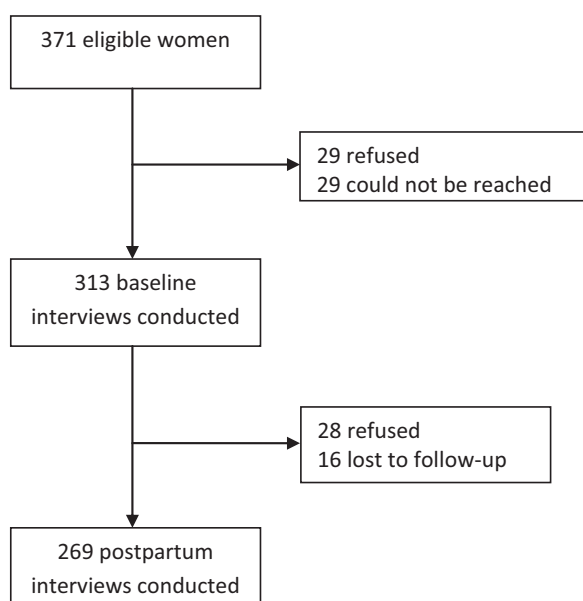


Fig. 1. The flow of participants in the study.

(42.4%) and tiredness (33.7%). Most of these problems were reported to have started after delivery except for anaemia and high blood pressure (Table 2).

The majority of women suffering from bleeding, fever, anaemia, wound infection, high blood pressure, and burning during urination reported seeking formal care, whereas those suffering from symptoms of depressive mood, crying for no reason and low mood reported not seeking care. Informal ways of care were used for constipation (Table 3).

Reporting a postpartum health problem was not associated with maternal age, parity, educational level, occupational status or

Table 1
Socio-demographic and other selected characteristics of participants.

Characteristics	N	%
<i>Maternal age (years)</i>		
<24	70	26.0
25–29	74	27.5
30–34	73	27.1
>35	52	19.3
<i>Parity</i>		
Primipara	115	42.8
Multipara	154	57.3
<i>Education</i>		
Less than high school	92	34.2
High school	87	32.3
University level	90	33.5
<i>Region</i>		
Mount Lebanon	131	48.7
South Lebanon	138	51.3
<i>Occupational status</i>		
Employed	80	29.7
Unemployed	189	70.3
<i>Method of birth</i>		
Vaginal	152	56.6
Caesarean	117	43.5
<i>Complications in pregnancy</i>		
Yes	57	21.2
No	212	78.8
<i>Time of interview in the postpartum period</i>		
≤2 months	81	30.1
2–6 months	188	69.9

region of residence. No statistically significant associations were found between reporting of postpartum health problems and reporting a complication during pregnancy or method of birth (Table 4).

4. Discussion

The majority of women reported a certain postpartum health problem, specifically among the group who were interviewed within the first two months postpartum. These results are consistent with the literature where studies reveal high levels of reported postpartum morbidity extending beyond the traditional postpartum period of six weeks, and recommend better recognition of this problem in the provision of care and research.^{5,9–11,17}

It is difficult to compare findings of this study with ones in the literature as different questions and segments of the postpartum period were used. Nevertheless, it is interesting to note that most commonly reported health problems, namely tiredness, backache, haemorrhoids and depression were also common symptoms reported in the literature.^{7,9,10,19}

Social meanings of ill-health influence women's perceptions and reporting of signs and symptoms. Variations in women's reports could be attributed to cultural differences in recognition of symptoms and in considering these important to warrant reporting. Misreporting of health problems can occur due to the different perspectives women might have in their understandings and interpretation of disease such as in evaluating blood loss as heavy bleeding.

All reported health problems were developed in the postpartum period except for high blood pressure and anaemia starting mainly during pregnancy. Only one study in the literature looked at health problems emerging strictly after giving birth. MacArthur et al.¹⁹ reported symptoms starting within three months of giving birth and lasting for at least six weeks. A lower proportion of back pain (14%), depression (9.1%) and tiredness (12.2%) are reported in that study, restricting the reporting of symptoms to the ones that were experienced for at least six weeks anytime during the postpartum period. Although comparison as such is difficult, the findings indicate the need to extend our understanding of postpartum morbidity and look at the aetiology of these problems within the general health status of the mother, the pregnancy and the birthing process itself as well as in the circumstances surrounding the postpartum period.

The results of this study show that women reporting psychological problems, back pain, tiredness and headache were less likely to take action to remedy their problem. In contrast to those reporting bleeding, high fever, anaemia, high blood pressure, wound infection and burning during urination who sought medical advice. A similar finding is reported by Bhatia²⁰ from a study on maternal morbidity in Southern India, where only 27% of women reporting depression sought treatment. In rural Egypt more than half of the women experiencing postpartum bleeding had sought care however none reporting depression did so.²¹ It is to be noted that problems such as anaemia and high blood pressure could only be reported after clinical diagnosis, therefore there is a possibility of having missed some women suffering from this condition but who did not seek care and were not knowledgeable about their condition.

In the Lebanese context, mental health problems are not regarded as problems requiring medical attention. Low level of seeking care might also be attributed to social understandings of certain conditions, as well as to perceptions of the severity of the experienced problem. For example, problems of back pain, headaches, and tiredness are perceived as transient conditions that are expected to disappear in a relatively short period of time therefore not perceived as meriting medical advice.

Table 2
Women's reports of postpartum health problems by time of reporting and onset of the problem.

Reported postpartum health problems	Postpartum period						Onset of the problem					
	≤2 months postpartum		>2 months postpartum		Total		Pre-pregnancy		During pregnancy		Postpartum	
	n	% ^a	n	% ^a	n	%	n	%	n	%	n	%
High blood pressure	0	0.0	5	1.2	5	1.2	0	0.0	3	60.0	2	40.0
Heavy bleeding	3	1.1	7	2.7	10	3.8	0	0.0	1	10.0	9	90.0
Urinary incontinence	2	0.8	8	3.0	10	3.8	0	0.0	2	20.0	8	80.0
Wound infection	3	1.1	11	4.2	14	5.3	0	0.0	0	0.0	14	100.0
High fever	2	0.8	16	6.1	18	6.9	0	0.0	1	5.6	17	94.4
Breast pain	9	3.4	21	7.9	30	11.3	1	3.3	3	10.0	26	86.7
Anaemia	17	6.4	31	11.7	48	18.1	10	20.4	24	49.0	15	30.6
Headache	19	7.2	29	11.1	48	18.1	8	16.7	3	6.3	37	77.1
Burning during urination	15	5.7	42	16.0	57	21.7	5	8.9	19	33.9	32	57.1
Haemorrhoids	22	8.3	42	15.9	64	24.2	10	15.6	6	9.4	48	75.0
Tiredness	25	9.5	64	24.2	89	33.7	5	5.6	8	9.0	76	85.4
Back pain	34	12.9	78	29.5	112	42.4	13	11.6	16	14.3	83	74.1
Constipation	42	15.9	79	29.9	121	45.8	12	9.9	14	11.6	95	78.5
Depressive mood	35	13.3	75	28.4	110	59.8	2	1.8	7	6.4	101	91.8
Crying with no reason	39	14.8	83	31.4	122	41.7	3	2.5	9	7.4	110	90.2
Low mood	49	18.6	112	42.4	161	46.2	4	2.5	12	7.5	145	90.1
Others	5	1.9	20	7.6	25	61.0	0	0.0	1	4.0	24	96.0
Any physical health problem ^b	71	26.9	176	66.7	247	93.6						
Any psychological health problem ^c	52	19.7	121	64.7	173	84.4						

^a Percentages are out of the total reported problems and are not mutually exclusive.

^b Heavy bleeding, high fever, anaemia, headache, high blood pressure, wound infection, burning during urination, urinary incontinence, breast pain, constipation, haemorrhoids, back pain, tiredness.

^c Low mood, depressive mood or crying with no reason.

Table 3
Health care seeking behaviour of women reporting postpartum health problems.

Reported postpartum health problems	Health care seeking behaviour						N
	No care		Informal provider		Formal provider		
	n	%	n	%	n	%	
Heavy bleeding	0	0.0	1	11.1	8	88.9	9
High fever	2	11.8	2	11.8	13	76.5	17
Anaemia	2	4.9	6	14.6	33	80.5	41
Crying with no reason	100	84.7	6	5.1	12	10.2	118
Headache	26	54.2	14	29.2	8	16.7	48
High blood pressure	0	0.0	0	0.0	4	100.0	4
Low mood	130	87.2	7	4.7	12	8.1	149
Wound infection	1	7.1	1	7.1	12	85.7	14
Burning during urination	5	9.1	4	7.3	46	83.6	55
Urinary incontinence	3	30.0	3	30.0	4	40.0	10
Breast pain	6	21.4	6	21.4	16	57.1	28
Constipation	21	18.6	49	43.4	43	38.1	113
Haemorrhoids	15	4.5	11	19.6	30	53.6	56
Depressive mood	87	85.3	4	3.9	11	10.8	101
Back pain	62	60.8	17	16.7	23	22.5	42
Tiredness	49	68.1	19	26.4	4	5.6	72
Others	7	30.4	1	4.3	15	65.2	23

There are also other factors limiting women's use of health services. Generally, rates of use of postpartum services in Lebanon are low, not exceeding 65% in urban areas in Lebanon.¹⁸ Having a dominant private sector where cost consideration of the fee-for-service model might act as a barrier for use, the Lebanese health care system is also deficient in offering organized outreach postpartum services (such as home visits, community programmes, etc.) to women. It is important to note that given the fact that the study population was recruited from private clinics, this study does not shed light on the small proportion of Lebanese population who utilise public health services for maternity care.²²

The results of this study do not indicate any association of reporting a postpartum health problem with method of birth. However, these data do not capture all aspects of postoperative

recovery related to caesarean births which is a long and demanding process. Studies looking into women's postpartum health status and method of birth do not present a conclusive understanding of this issue.^{17,23}

Future research is needed to address different aspects of postpartum health problems. This study has captured postpartum problems by their onset and measured health care seeking behaviour, however, a longitudinal approach would be helpful in identifying the trends and changes in postpartum problems with time. Moreover, larger sample sizes covering all groups of women including marginalized sections of the society would provide a complete description of the problem and its determinants. Qualitative methods are also needed to have a better understanding of women's experiences with this heavy burden of ill-health during the postpartum period.

Table 4
Adjusted OR and 95% confidence intervals for reporting of physical and psychological postpartum health problems, socio-demographic characteristics and type of delivery.

Characteristics	N	Reported physical health problems		Reported psychological health problems		Any reported symptom/condition	
		n (OR)	95% CI	n (OR)	95% CI	n (OR)	95% CI
<i>Maternal age (years)</i>							
≤ 28	128	120 (1.00)		82 (1.00)		121 (1.00)	
>28	141	128 (0.72)	0.52–1.95	91 (0.96)	0.41–1.50	131 (0.58)	0.55–1.72
<i>Parity</i>							
Primipara	115	104 (1.00)		76 (1.00)		108 (1.00)	
Multipara	154	144 (0.47)	0.92–1.86	97 (0.95)	0.40–1.51	144 (1.00)	0.13–2.13
<i>Education</i>							
Less than high school	92	86 (1.00)		54 (1.00)		86 (1.00)	
High school level or beyond	177	162 (1.29)	0.01–2.59	119 (1.54)	0.94–2.93	166 (0.88)	0.32–2.07
<i>Region</i>							
Mount Lebanon	131	126 (1.00)		82 (1.00)		126 (1.00)	
South Lebanon	138	122 (0.67)	0.56–1.94	91 (1.39)	0.85–1.94	126 (0.38)	0.78–1.54
<i>Occupational status</i>							
Employed	86	79 (1.00)		59 (1.00)		82 (1.00)	
Unemployed	183	169 (0.73)	0.72–2.18	114 (0.89)	0.38–1.58	170 (0.91)	0.29–2.11
<i>Method of birth</i>							
Vaginal	152	10 (1.00)		93 (1.00)		142 (1.00)	
Caesarean	117	108 (0.80)	0.36–1.97	80 (1.42)	0.89–1.95	110 (0.73)	0.33–1.78
<i>Complications in pregnancy</i>							
Yes	57	53 (1.00)		39 (1.00)		54 (1.00)	
No	212	195 (1.09)	0.26–2.44	134 (0.86)	0.22–1.50	198 (1.14)	0.06–2.34

5. Conclusion

This study sheds light on an important and often unrecognized women's health problem. Postpartum problems identified in this study could resonate with other middle-income countries where there is dominance of private sector with a number of constraints to seek care and lack of comprehensive models of delivering maternity care, starting at pre-conception and continuing to the postpartum. Our findings ascertain the heavy burden of ill health experienced by women in the postpartum period up to six months postpartum. Further studies from middle-income countries are needed to advocate the recognition of this significant health problem by health care providers.

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