Patient perspectives of prolonged and secondary post-partum vaginal bleeding

Abstract
Vaginal bleeding following childbirth (lochia) gradually subsides over the few days that follow. Some women experience a variant in its pattern. When bleeding resumes or intensifies significantly after the first 24 hours of natural or caesarean delivery, it is termed: Secondary post-partum hemorrhage (SPPH).

SPPH is much less common than its primary counterpart and it may be difficult to distinguish between prolonged heavy normal lochia and SPPH.

This review specifically addresses such bleeding from a patient’s perspective including social, cultural and religious, to help Obstetric and maternity care providers understand patient expectations and implications for practice and policy.

Introduction
Vaginal bleeding following childbirth (lochia) gradually subsides over the few days that follow. Some women experience a variant in its pattern. When bleeding resumes or intensifies significantly after the first 24 hours of natural or caesarean delivery, it is termed: Secondary post-partum hemorrhage (SPPH). It may occur, up to 42 days after childbirth.

SPPH is much less common than its primary counterpart. It may be difficult to distinguish between prolonged heavy normal lochia and SPPH.

This review specifically addresses such bleeding - where surgical or radiological intervention is deemed unnecessary - from a patient’s perspective and to help Obstetric and maternity care providers understand patient expectations.

Because of the rather unorthodox method of collation of information, the account that follows may be regarded as a documented and deductive synthesis from the published literature.

Process of literature search, collation and review synthesis
An on-line literature search on the PUBMED, MEDLINE, ASTOR, Web of Science, Clinical Trials and Cochrane Library databases was undertaken for the period between 1980 and 2015, restricted only to the English language literature. Case reports, case series, systematic and non-systematic reviews, commentaries and editorials were searched for using the mesh terms: “secondary postpartum hemorrhage”; “delayed postpartum hemorrhage”; “uterine sub-involution” and “post-partum complications”; “social medicine”; “post-childbirth care”; “abnormal puerperium”; “childbirth practices”; “postpartum practices”; “uterine sub-involution”; “culture and childbirth”; “socio-economics of menses”; “haemorrhage in the late postpartum period” and “irregular vaginal bleeding after childbirth”.

We went on to further ‘snowball’ selected referenced publications from our initial yield on this first step, which suggested additional information on SPPH and how patients or their maternity, obstetric, primary or community care providers perceived it.

In addition, we performed a free on-line search on Google.com web engine, using the same terms. This enabled us capture notable views in the social media.

The listed references were perused, and relevant articles or papers obtained. We then grouped the overall retrievals into seven (7) thematic foci.

Our initial exploration of some social aspects of menstruation was to set the scene upon which to understand the possible impact of SPPH on the patient and her immediate social environment.

Defining the problem
SPPH may occur up to 6 weeks postpartum. The reported incidence of SPPH in the developed world ranges from 0.47% to 1.44%. The patient and her family would primarily identify postpartum bleeding requires a Physician’s attention, or hospital care.

The WHO multinational study on postpartum bleeding and lochia in breastfeeding women posits that “knowledge of the duration of lochia can help identify postpartum discharge that is excessively prolonged, suggesting pathology”. In the index study, lochia persisted for greater than 40 days in 11% of the subjects. The mean number of days of lochia ranged between 22 days in Chengdu (China) and 34 days in Uppsala (Sweden). Nowhere was it stated that any of the subjects required hospital referral or hospital admission.

The World Health Organization also advises that women seek care at a hospital or health center if bleeding from the genital tract increases rather than decrease within 6 weeks of childbirth.

Although the volume of blood loss and rapidity of SPPH may be occasionally life-threatening in a few, most patients simply want of a prompt control of the bleeding, rather than awaiting reassurances over its natural resolution.

The United Kingdom’s NICE guideline on Post Natal Care is a useful in escalating women who need urgent hospital attention. Consequently, many healthcare workers may probably not see beyond the unwritten aspects of care in the majority of women with SPPH.
The US-ACOG Committee Opinion on Optimizing Postpartum Care makes no mention of SPPH at all, though it makes a note of weight retention, nutrition, fatigue and depression. To put this in context, an online survey of 1072 women who had given birth in US hospitals indicates that ‘heavy (vaginal) bleeding’ was regarded as either a ‘minor’ or ‘major’ problem in the first two months after childbirth by 27% of respondents. Perceived as a major problem, ‘bleeding’ was mentioned by 9% of the respondents, compared to a mention of ‘feelings of depression’.

Women have died or lost their future reproductive potential in the course of medical and surgical treatment of SPPH. Admittedly, these are uncommon outcomes.

SPPH tends to occur after the newly-delivered mother has been discharged home from hospital, when a delay in prompt care does matter if blood loss is significant. The treatment of SPPH depends on the identified cause. In a case series from Hong Kong, retained gestational products were histologically confirmed in just about 42% of the SPPH patients who had suction evacuation of the uterus. The fallback diagnosis may therefore unclear. A relatively recent reference book in Family Medicine states that ‘abnormal or excessive vaginal bleeding up to (after) 12 weeks of delivery is commonly as a result of uterine sub involution’. When no obvious cause is identified and SPPH is not profuse enough to indicate urgent uterine evacuation or exploration, the Maternity Care Provider may choose to wait until the SPPH settles or offer some form of empirical treatment. Many women may not be content with the first option, for reasons which are addressed in this review.

**Are social culture precepts about menses and abnormal menses relevant to SPPH?**

The pathophysiology of SPPH varies greatly from that of normal or abnormal menstruation. But to the patient, they both translate into an inconvenience of variable impact. Until more work is done in the field of SPPH or prolonged lochia therefore, we can only attempt a parallel translation of patient perspectives from studies of either.

How womankind manages menstrual containment varies from place to place. Women reportedly walk long distances to find private places for menstrual management, sometimes needing to cross fences and high walls to achieve this. In certain parts of Africa, re-cycled or available ‘rags’ are used. In developed societies, the choices are between intra-vaginal tampons or sanitary towels, or menstrual cups. These are obtainable for purchase by most basic stores, at pharmacies and by mail-order or on-line order. The need for travel (or delegation) for the acquisition of menstrual sanitary products, may pose personal challenges. For example, some male shop-owners (the majority) in certain developing countries often decide not to stock sanitary hygiene products.

The estimated personal cost on menstrual containment varies from country to country. A recent report from the United Kingdom estimates a monthly spend of about 13 pounds for the purchase of sanitary pads, tampons or panty liners. Prolonged or SPPH may easily translate into spending well above this amount.

Furthermore, the Health-related quality of life (HRQoL) of women with abnormal uterine bleeding puts a significant economic burden on society. The indirect economic costs are estimated to be 10-fold the annual direct economic costs, apart from other intangible costs. Braunstein et al. from the USA, assessed comparative cost-saving in relation to menstruation, using parameters such as: the tangible costs of female hygiene products, physician visits for menstrual-related concerns, opportunity costs of physician visits, loss of wages due to related disability, and the need to take iron tablets.

A seemingly small payment for maternal care (during or after childbirth) may translate into major financial strains on the family, leading to cutting down on the expenditure on food and shelter. Between 48% and 93% of respondents across various social and cultural settings across the world believe that menses is ‘dirty’. In the same vein, some religious thinking is that ‘menstrual blood is dark, thick and has a strong odor…..while non-menstrual blood (Istihadha) is bright red, thin and less disagreeable in smell’. There were 18, 316 ‘reads’ of this article, but no responses or comments. It may be conceivable therefore, that this impression may indirectly influence the tendency to replace a sanitary towel or tampon more frequently, not because it was soaked, but for ‘hygiene’. A proportion of women in the BLiPP study did not change their ‘sanitary pads simply because it was soaked’, but for reasons parallel to this.

Understandably, women who feel strongly about such perception may go the additional length of purchasing fragrances, which may effectively mask any such perception. This would predictably add onto the household spending volume, especially if duration of bleeding is prolonged or heavy. Other traditional practices, related to self and perineal care, may also be engaged in, in an attempt to ‘clean and minimize bleeding’ following childbirth.

Being reminded that a woman was still menstruating, led to a decreased liking for her, a marginal tendency to avoid sitting close to her and a lower evaluation of her competence.

Despite the desire of most recently-delivered mothers to resume their normal household chores, prolonged duration of lochia or SPPH may somewhat preclude her from preparing the family meals in certain traditional settings. Among Indian (Hindus), between 75% and 79% of respondents believed that cooking should be avoided during menstruation.

When menstrual blood loss is deemed heavy, and is associated with any measure of anaemia, an elevated fatigue severity score has been described in menstruating adolescents.

**Other practical aspects of SPPH in home and healthcare settings**

Medical treatments of significance for SPPH may not be more effective than placebo. This was the finding when oral Methergin tablets (Methylheterometrine) were administered for three days in patients, between 3 and 19 days after childbirth. Yet, oral Methergin is the only uterotonic approved by the US Food and Drug Administration for ‘subinvolution of the uterus’, in 8-hourly doses for up to 3 days. Physicians may be unsure about whether to prescribe or not.

From one teaching hospital practice in New York, a focus-group study of obstetric care providers noted that their postpartum clients had expectations of the amount of postpartum vaginal bleeding that were not accurate. The authors point out that an underlying theme may be related to the so-called Common-Sense model which considers, among other things: a cause, a time-frame, control and...
consequence. We may not have evidence-based answers to the first three components of the model.

This is angle from which a patient may engage Family Physicians, Hospital Obstetricians, Community Midwives and Community Health workers.

**Society and culture**

There may be societal beliefs, which may have important implications of SPPH on the woman. For example, it is not clear if prolongation of the duration of heavy postpartum bleeding in Pakistan would be deemed valuable, since there is a belief that, ‘unclean’ menstrual blood that had accumulated through the duration of pregnancy needs expulsion.

Among three ethnic groups in Malawi, ‘child-strengthening rituals’ can only be performed after the end of the postpartum bleeding. Prolonged postpartum bleeding in such a setting may become a major defining issue for the newborn’s acceptance and welcome into its parents’ social culture.

SPPH complicates nearly 1 in 4 childbirths in women with inherited bleeding disorders, with those with von Willebrand’s disease presenting sometimes between the 10th and 25th days post-partum. Neo-natal circumcision of the male newborn will be generally delayed in societies where it normally performed after cessation of SPPH. Even if there had been adequate factor replacement, there could still be significant blood loss complicating circumcision in such circumstances. Education and enlightenment of the appropriate leaders of thought needs to be sensitively managed.

The terms: ‘mushara’ in certain parts of Egypt, or ‘kabseh’ in parts of Lebanon refer to traditional beliefs which associate the fear of the evil eye on mother and baby with the presence of a menstruating woman in the vicinity. What parameters in SPPH may encroach on this concept?

One sampling of the on-line social media was instructive. On the ‘Pregnancy and You’ blog of Mayo Clinic in the United States, there were 35 comments on the posting titled: ‘Postpartum bleeding: how much is too much?’ The initial thread reads: ‘You may pass clots larger than golf balls’ and: ‘the bleed seems to increase when you bring the baby home…..simply being up and about sometimes (seems) to increase postpartum bleeding’.

A contributor added that neither of (her) 2 doctors had a reason. A first time mother could be easily alarmed by these observations. It may also be frustrating to the patients, if their Physicians cannot proffer a reason for their SPPH. It is convenient to offer ‘infection’ as a cause, and a course of antibiotics. A mention of ‘retained products’ also may trigger-off a demand for a uterine curettage on the short term, with a subsequent possible medico-legal proceeding for negligence.

Vaginal blood loss in the postpartum period is believed by certain tribes in South America to cause a ‘cold’ state. Traditional wood-fired ‘midwife’ commented during a focus group discussion: ‘Pregnancy and You’ blog of Mayo Clinic in the United States, there were 35 comments on the posting titled: ‘Postpartum bleeding: how much is too much?’ The initial thread reads: ‘You may pass clots larger than golf balls’ and: ‘the bleed seems to increase when you bring the baby home…..simply being up and about sometimes (seems) to increase postpartum bleeding’.

A contributor added that neither of (her) 2 doctors had a reason. A first time mother could be easily alarmed by these observations. It may also be frustrating to the patients, if their Physicians cannot proffer a reason for their SPPH. It is convenient to offer ‘infection’ as a cause, and a course of antibiotics. A mention of ‘retained products’ also may trigger-off a demand for a uterine curettage on the short term, with a subsequent possible medico-legal proceeding for negligence.

Vaginal blood loss in the postpartum period is believed by certain tribes in South America to cause a ‘cold’ state. Traditional wood-fired sauna baths (chuj) are therefore logically used on a weekly basis. One traditional ‘midwife’ commented during a focus group discussion: ‘and with this (chuj), one doesn’t complain, oh my feet hurt or I am bleeding. No, to the contrary, after one week, there is no more bleeding’.

In face-to-face interviews with women from Iran and Turkey, 99% and 92% of respondents respectively, felt that traditional therapies were employed to encourage ‘involution of the uterus’.

Ingestion of certain foods, deemed to be ‘acidic’ (tajam) are prohibited amongst one rural community in Malaysia, as a measure to avoid prolonged vaginal bleeding after childbirth.

**Spouse perception and resumption of coitus**

Although sexual intercourse is not frequently resumed after soon after childbirth, pregnancies have occurred before the first postnatal menses. It may be engaged in, as early as 3 days after delivery. Although only 5.4% among 167 breastfeeding women attending their first postpartum visits in three Ontario obstetricians’ offices indicated ‘bleeding’, as the reason for non-resumption of intercourse, respondents also had given more than one reason.

Understandingly, such intimate details, of practices that are not commonly discussed, are rarely readily volunteered.

Among Orthodox Jews, a woman is ‘sexually unavailable’ (niddah), some 7-14 days after the flow of lochia has ended. During such period of niddah, the husband and wife do not have intercourse or sleep in the same bed and they are not even allowed to touch.

**Pregnancy interval spacing**

For many couples, the first normal postnatal menses is believed to signify the re-establishment of fertility. Prolonged bleeding could distort or cause confusion over this important milestone.

Most advice on postpartum contraception does not address the problem when SPPH or prolonged lochia distorts the picture. A wait of ‘not earlier than’ 6 weeks post-partum before the placement of the Mirena IUS, but ‘if (uterine) involution is substantially delayed, to consider waiting until 12 weeks’.

Amongst Kenyan women who sought contraception between 6 and 12 weeks post-partum, ‘modesty issues’ were given as the reason for not choosing the Mirena IUS, despite its benefits. It is not clear if ‘modesty’ in this context, infers to a cultural reluctance to allow examination or procedure on the genitalia with on-going bleeding, which is unique to the early postpartum days or weeks.

**Resumption of religious obligations**

In Islam, the woman with (prolonged) lochia or SPPH is not expected to pray or have any contact with the Holy Book and is to avoid places of worship.

Groff cites an ethnographic study among the Balinese and Chinese populations, with regards to post-partum vaginal bleeding. The post-partum period is seen as an unclean period, especially while the woman is bleeding, and being a family event, the entire family stays away from the temple.

These restrictions may in some way, constitute significant psychological distress to women with deep religious commitment. Indeed, religious self-identification is known to be one of the independent predictors of postpartum anger around the childbirth experience. A care provider who does not appear to appreciate the patient’s concern about SPPH and its wider implications may escalate frustration, leading to its projection as anger.

**Household work/chore resumption**

Up to one year following maternal childbirth complications in one state in India, women struggled with important financial repercussions or had difficulty completing daily household chores.
Among the self-reported symptoms by a proportion of the cohort at between 6 and 8 weeks after delivery, some 22% mentioned ‘excessive bleeding’.

**Suggested management strategies**

The Physician needs to acknowledge the concerns of the patient and her family. Even if conservative management is decided upon—because the SPPH is not profuse or life-threatening—a time frame and criteria for care escalation need to be agreed upon. This may somewhat help to reduce unnecessary intervention. Most women would not need a pelvic ultrasound scan to exclude retained products, and in those who have one, nothing ‘treatable’ is usually found. A cornerstone of overall management is to be aware of the wide variation in normal post-partum bleeding that is not life-threatening. This information may be useful in family counselling and improvement of ‘women’s preparation for postpartum recovery process’.

A study of 5322 parous women from 14 cultural groups across the world, but excluding those from sub-Saharan Africa found that, amongst other things, reduction in the duration of menstrual bleeding are likely to be interpreted as reduction in the overall volume of loss. Concerned postpartum clients therefore need SPPH treatments that will reduce not only its duration, but also its cumulative volume, which could result in anemia.

A conservative medical approach may be superior to surgical treatment of SPPH. Many newly-delivered mothers, who have to contend with these foregoing and other personal issues, may not think so.

Consequently, Clinicians must strive to align with expectations of the patient with a reasonable balance of care. One approach to this may be to set a time-frame for sequential interventions, say from observation, to medical therapies and finally surgical procedures, provided there is no endometrial or vascular lesion demonstrable on imaging.

**Implications for practice and/or policy**

Clinicians in postnatal care may need to consider factoring in, the subtle patient factors which could underlie the presentation of patients with SPPH, and their expectations of management. What is deemed ‘trivial’ to the Maternity Care provider may constitute a source of profound distress to the woman and her family. Newly-delivered mothers would appear to value being understood, reassured and supported in clinical encounters. New mothers would desire advice from healthcare professionals rather than from friends or family. But, unfortunately, as Declercq et al. found out, “common problems”, encountered by most new mothers in the first 6 postpartum months, were not addressed by healthcare professionals.

**Acknowledgments**

None.

**Conflicts of interest**

The authors declare no conflicts of interest.

**References**

1. Sherman D, Lurie S, Frenkel E, et al. Characteristics of normal lochia. *Am J Perinatol.* 1999;16(8):399–402.

2. Groom KM, Jacobson T. The management of secondary postpartum hemorrhage. In: Anulkumaran S, Karoshi M, Keith L, et al, editors. A comprehensive textbook of postpartum hemorrhage: An essential clinical reference for effective management. 2nd ed. London: Sapiens Publishing; 2012.

3. Aiken CE, Mehassse MK, Prentice A. Secondary postpartum haemorrhage. *Fetal and Maternal Medicine Review.* 2011;23(1):14.

4. Doussou M, Debost-Legrand A, Dechelette P, et al. Severe secondary postpartum haemorrhage: a historical cohort. *Birthing.* 2015;42(2):149–155.

5. King PA, Duthie SJ, Dong ZG, et al. Secondary postpartum haemorrhage. *Aust N Z J Obstet Gynaecol.* 1989;29(4):394–398.

6. World Health Organization Task Force on Methods for the Natural Regulation of Fertility. The World Health Organization Multinational Study of Breastfeeding and Lactational Amenorrhea. IV. Postpartum bleeding and lochia in breast-feeding women. *Fertil Steril.* 1999;72(3):441–447.

7. Integrated management of pregnancy and childbirth. Pregnancy, childbirth, postpartum and newborn care: a guide for essential practice. Geneva: World Health Organisation; 2006.

8. *PostNatal Care. Guideline No. 37. United Kingdom: National Institute for Clinical Excellence; 2006.*

9. American College of Obstetricians and Gynecologists. Committee opinion No 666. Optimizing postpartum care. *Obstet Gynecol.* 2016;127(6):e187–e192.

10. Declercq ER, Sakala C, Corry MP, et al. Listening to mothers III. New mother speak out. New York: Chilbirth Connection; 2013.

11. Hoveyda F, MacKenzie IZ. Secondary postpartum hemorrhage: incidence, morbidity and current management. *BJOG.* 2001;108:927–930.

12. Petrovitch I, Beatty M, Jeffrey RB, et al. Subinvolution of the placental site. *J Ultrasound Med.* 2009;28:1115–1119.

13. Shweni PM, Bishop BB, Hansen JN. Severe secondary postpartum haemorrhage after caesarean section. *S Afr Med J.* 1987;72(9):617–619.

14. Carter CE, Baxley EG. Postpartum biomedical concerns. Family Medicine Obstetrics. In: SD Radcliffe, editor. Elsevier Health Services. 2008:618–619.

15. Sahoo KC, Hulland KRS, Rojalin BC. Sanitation-related psychosocial stress: a grounded theory study of women across the life course in Odisha, India. *Soc Sci Med.* 2015;139:80–89.

16. Bukar M, Jauro YS. Home births and postnatal practices in Madagali, North-Eastern Nigeria. *Niger J Clin Pract.* 2013;16(2):232–237.

17. SHARE/Wateraid. Menstrual hygiene matters: a resource for improving menstrual hygiene around the world. In: S House, T Mahon, S Cavill, editors. UK-DFID; 2002.

18. Moss R. Women spend more than £18,000 on having periods in their lifetime, study reveals. Huffington Post Lifestyle; 2016.

19. Liu Z, Doan QV, Blumenthal P, et al. A systematic review evaluating health-related quality of life, work impairment and health-care costs and utilization in abnormal uterine bleeding. *Value Health.* 2007;10(3):183–194.

20. Braunstein JB, Hausfeld J, Hausfeld J, et al. Economics of reducing menorrhagia with trimonthly-cycle oral contraceptive therapy: comparison with standard cycle regimens. *Obstetrics Gynecol.* 2003;102(4):699–708.

21. Anderson I, Axelson H, Tan B-K. The other crisis: the economics of financing of maternal, newborn and child health in Asia. *Health Policy and Planning.* 2011;26(4):288–297.

**Citation:** Babarinsa I, Ahmed G, Khair H. Patient perspectives of prolonged and secondary post-partum vaginal bleeding, *Obstet Gynecol Int J.* 2019;10(2):121–125. DOI: 10.15406/ogij.2019.10.00427
22. World Health Organization. A cross-cultural study of menstruation: implications for contraceptive development and use. Task Force on Psychosocial Research in Family Planning. Special Programme of Research, Development and Research, Training in Human Reproduction. Stud Fam Plann. 1981;12(1):3–16.

23. Anonymous. Menstruation and post-childbirth bleeding. 2008.

24. Marchant S, Alexander J, Garcia J, et al. A survey of women's experiences of vaginal loss from 24 hours to three months after childbirth (the BLIPP study). Midwifery. 1999;15(2):72–81.

25. SIDRA Medical and Research Center. Beliefs, practices and experiences of Qatari women related to childbirth postpartum experience and breastfeeding. Community Relations and Development Study Report; 2013. 26 p.

26. Roberts TA, Goldenberg JL, Power C. “Feminine protection”. The effects of menstruation on attitudes towards women. Psychology of Women Quarterly. 2002;26(2):131–139.

27. Wang W, Bourgeois T, Klima J, et al. Iron deficiency and fatigue in adolescent females with heavy menstrual bleeding. Hemophilia. 2013;19(2):225–230.

28. Anderson B, Anderson LL, Sorensen T. Methylergometrine during the puerperium: a prospective randomized double blind study. Acta Obstet Gynecol Scand. 1998;77(1):54–57.

29. US. Food and Drug Administration. The Orange Book: Approved Drug Products With Therapeutic Equivalence Evaluations. 2019.

30. Martin A, Horowitz C, Balbierz A, et al. Views of women and clinicians on postpartum preparation and recovery. Mat Child Health J. 2014;18(3):707–713.

31. Fikree FF, Ali T, Durocher JM, et al. Health service utilization for perceived postpartum morbidity among poor women living in Karachi. Soc Sci Med. 2004;59(4):681–694.

32. Zulu EM. Ethnic variations in observance and rationale for postpartum sexual abstinence in Malawi. Demography. 2001;38(4):467–479.

33. Chi C, Kadir RA. Management of women with inherited bleeding disorders in pregnancy. The Obstetrician and Gynaecologist. 2007;9(1):27–33.

34. Rodriguez V, Tiaprwatakan R, Moir C, et al. To circumcise or not to circumcise? Circumcision in patients with bleeding disorders. Haemophilia. 2010;16(2):272–276.

35. Osman H, El Zein L, Wick L. Cultural beliefs that may discourage breastfeeding among Lebanese women: a qualitative analysis. Int Breastfeed J. 2009;4:12.

36. Murry MM. Pregnancy week by week. “Postpartum bleeding: how much is too much?”. Pregnancy and You blog; 2016.

37. Fejgin MD, Shvit TY, Gershkantsev Y, et al. Retained placental tissue as an emerging cause for malpractice claims. IMAJ. 2014;16(8):502–505.

38. Radoff KA, Thompson LM, Romero C. Practices related to postpartum uterine inversion in the Western Highlands of Guatemala. Midwifery. 2013;29(3):225–232.

39. Ozsoy SA, Katabi V. A comparison of traditional practices used in pregnancy labour and the postpartum period among women in Turkey and Iran. Midwifery. 2008;24(3):291–300.

40. Hishamsah M, Bin Ramzan M, Rashid A, et al. Belief and practices of traditional postpartum care among a rural community in Penang Malaysia. Internet J Third World Medicine. 2010;9(2).

41. Chang SR, Chang TC, Chen KH, et al. Sexual function in women 3 days and 6 weeks after childbirth: a prospective longitudinal study using the Taiwan version of the Female Sexual Function Index. J Sex Med. 2010;7(12):3946–3956.

42. Rowland M, Foxcroft L, Hopman WM, et al. Breastfeeding and sexuality immediately post partum. Can Fam Physician. 2005;51:1366–1367.

43. Feldman P. Sexuality, birth control and childbirth in orthodox Jewish tradition. CMAJ. 1992;146(1):29–33.

44. Mineira Data Sheet. 150420. Bayer New Zealand Limited; 2015. 5 p.

45. Hubacher D, Masaba R, Manduku CK, et al. Uptake of the Levonorgestrel intra-uterine system among recent postpartum women in Kenya: factors associated with decision-making. Contraception. 2013;88(1):97–102.

46. Groff J. Revisioning postpartum care in the United States: global perspectives. Institute of Midwives. Philadelphia University; 2011.

47. Graham JE, Lobel M, Deluca RS. Anger after childbirth: an overlooked reaction to postpartum stressors. Psychology of Women Quarterly. 2002;26(3):222–233.

48. Iyengar K, Yadav R, Sen S. Consequences of maternal complications in women’s lives in the first postpartum year: a prospective cohort study. J Health Popul Nutr. 2014;30(2):226–240.

49. Fletcher S, Grotegut CA, James AH. Lochia patterns among normal women: a systematic review. J Womens Health (Larchmt). 2012;21(12):1290–1294.

50. Babarinsa IA, Hayman RG, Drucyct TJ. Secondary post-partum haemorrhage: challenges in evidence-based causes and management. Eur J Obstet Gynecol Reprod Biol. 2011;159(2):255–260.

51. Neill AC, Nixon PM, Thornton S. A comparison of clinical assessment with ultrasound in the management of secondary postpartum haemorrhage. Eur J Obstet Gynecol Reprod Biol. 2002;104(2):113–115.

52. Feigenberg T, Eitan Y, Sela HY, et al. Surgical versus medical treatment for secondary post-partum hemorrhage. Acta Obstet Gynecol Scand. 2009;88(8):909–913.

53. Marshall JJ. An exploration of women’s concerns about heavy menstrual blood loss and their expectations regarding treatment. Journal of Reproductive and Infant Psychology. 1998;16(4):259–276.

54. Hartley S, Sutherland G, Brown S, et al. ‘You’re more likely to tell the GP if asked’: women’s views of care from General Practitioners in the first postpartum year. Aust J Prim Care. 2012;18(4):308–312.

55. Aston ML. Learning to be a normal mother: empowerment and pedagogy in postnatal classes. Public Health Nursing. 2002;19(4):284–293.

56. Deleerq ER, Sakala C, Corry MP, et al. New mothers speak out: National survey results highlight women’s postpartum experiences. New York: Childbirth Connection; 2008.