Contraceptive practices and menstrual patterns in women aged 18–50 years awaiting bariatric surgery

The Faculty of Sexual & Reproductive Healthcare (FSRH) Clinical Effectiveness Unit is developing a guideline looking at contraceptive options for women with weight issues. We hope that this guideline will include information for those facing bariatric surgery as almost 80% of women requesting this procedure are in their reproductive years.[1] These women are also advised to avoid pregnancy for up to 24 months following surgery, making effective, reversible contraception an ideal choice.[2]

With this in mind, we therefore asked women aged between 18 and 50 years on a bariatric surgery waiting list to complete a voluntary, anonymous online survey about their sexual and reproductive health. Ethical approval was granted by the National Health Service, University of Sunderland and City Hospitals Sunderland NHS Foundation Trust Research Ethics Committees.

There were 42 responders with the majority (38%, n=16) aged between 35 and 44 years old, 92% (n=38) were heterosexual and 71% (n=30) had children. All participants (n=42) described their ethnic origin as white with an average body mass index (BMI) of 42 kg/m^2.

Menstrual cycles were described as regular in half the participants (n=21), and 21% (n=9) reported the average length of bleeding per cycle to be 3–4 days. Nearly half of the respondents experienced heavy menstrual bleeding (HMB) (n=19), defined as needing frequent changes of sanitary protection (pads or tampons) during the day and/or night. Painful periods (dysmenorrhoea) were reported by 60% (n=25). Medication for dysmenorrhoea was taken by 39% (n=12). Bleeding in between periods was experienced by 12% (n=5).

Contraception was used by either the woman or her partner in 76% (n=32) of participants, with 5% (n=2) stating that they were not in a relationship. Over half the participants (55%, n=23) were using contraception, with the hormonal intrauterine system (IUS) (n=8) being the most common method, followed by the progestogen implant (n=5) and progestogen-only pill (n=3) (table 1).

Menstrual data from participants using hormonal contraception and intrauterine systems (IUSs) or devices (IUDs) (n=20) showed low levels of HMB and high rates of amenorrhoea (table 2). Polycystic ovary syndrome (PCOS) had been diagnosed in 16% (n=7) of the respondents.

This is the first British survey looking at menstrual bleeding patterns and contraceptive use in obese women before bariatric surgery. No woman

Table 1 Pre-surgical contraception participant information

Question	Response	%	n
Do you use contraception at present?	Yes	55	23
	No	24	10
	In a same sex relationship	2	1
	No, partner uses condoms	21	9
	Not in a relationship	5	2
Do you suffer from or undertake any of the following that may affect your contraceptive choices?	Smoking	0	0
	History of deep vein thrombosis	5	2
	History of heart disease	5	2
	Migraine	10	4
	Did not answer	83	35
Type of contraception used	Progestogen-only pill	7	3
	Progestogen implant (eg, Nexplanon)	12	5
	Progestogen injection (eg, Depo-Provera)	5	2
	Intrauterine device – copper	5	2
	Intrauterine device – hormonal (eg, Mirena or Jaydess)	19	8
	Condoms – male		
	Female sterilisation	5	2
	Male sterilisation	5	2
	None	12	5
	Did not answer	5	2
		26	11
Are there contraceptive methods you have been told you cannot use?	Yes	24	10
	No	66	28
	Did not answer	9	4
Reasons given for not using contraceptive methods (optional response)	Irregular cycles		1
	Lack of efficacy		1
	Familial history of deep vein thrombosis		3
	Overweight		3
	High blood pressure		2
Who do you speak to about contraception?	General practitioner	42	18
	Practice nurse	26	11
	Family planning clinic	26	11
	Gynaecologist	5	2
	Genitourinary medicine clinic	2	1
	Pharmacist	0	0
	Other	0	0
	Did not respond	14	6

was using a contraceptive method where there were safety issues, although 23% who reported being in a heterosexual relationship were not using contraception. This suggests that the UK Medical Eligibility Criteria for Contraceptive Use guideline was being followed, and just three women would need to choose an alternative non-oral method after bariatric surgery.[3] The updated US Medical Eligibility for Contraceptive Use do not recommend oral hormonal methods, citing the potential to decrease contraceptive effectiveness associated with the procedure and postoperative complications such as long-term diarrhoea and/or vomiting.[4] The reported incidence of PCOS was similar to data found in other studies investigating overweight and obese women. A survey of 563 Swedish women found that prior to surgery, the most common methods were hormonal IUDs (16%, n=86), followed by progestogen-only pills (15%, n=85), and copper IUDs (14%, n=77), with 32% (n=182) reporting not using any contraception, but this did not specify whether this was inclusive of male or female sterilisation[5]

When looking at the menstrual data for women prior to bariatric surgery our findings showed similar levels of dysmenorrhoea in our pre-bariatric surgical cohort when compared with the general population of a similar age.[6] Hormonal IUSsystems offer protection against dysmenorrhoea, endometrial hyperplasia, pelvic pain and HMB, in addition to providing contraceptive protection, which may be attributed to their high use in our cohort.

Further research is needed to investigate the menstrual changes that occur after bariatric surgery and the effects of gastric bypass procedures on oral hormonal absorption.

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Table 2 Menstrual patterns in participants using hormonal contraceptive and intrauterine devices

Contraceptive used (n=20)	Description of menstrual cycle	Average length of bleed	Self-reported heavy menstrual bleeding
Intrauterine systems (hormonal) (n=8)			
	Regular	4–5 days	No
	Irregular	1–2 days	No
	Irregular	Varies	Varies
	Irregular	Amenorrhoeic	No
	Irregular	Amenorrhoeic	No
	Irregular	Amenorrhoeic	No
	Irregular	Amenorrhoeic	No
	Irregular	Amenorrhoeic	No
Intrauterine devices (copper) (n=2)			
	Irregular	Amenorrhoeic	No
	Irregular	3–4 days	No
Progestogen implants (n=5)			
	Irregular	Amenorrhoeic	No
	Irregular	Amenorrhoeic	No
	Irregular	Amenorrhoeic	No
	Irregular	4–5 days	No
	Irregular	4–5 days	No
Progestogen-only pill (n=3)			
	Regular	Amenorrhoeic	No
	Regular	Amenorrhoeic	No
	Irregular	Amenorrhoeic	No
Progestogen injections (n=2)			
	Irregular	Amenorrhoeic	No

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