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Unplanned Pregnancy and Contraceptive Use in Hull and East Yorkshire

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Abstract

Objective—This study has two aims. The first is to assess the proportion of unplanned pregnancies among women attending antenatal clinics and those undergoing induced abortion (IA). The second is to assess both their previous contraceptive use and contraceptive intention, with particular focus on the use or consideration of any long acting reversible contraceptives in Hull and East Riding in order to inform service redesign.

Study Design—Consecutive women attending their first antenatal clinic (ANC) appointment and women attending a gynaecology clinic undergoing induced abortion (IA) were asked to complete a 2-page questionnaire that contained a validated pregnancy intendedness questionnaire (the London Measure of Unplanned Pregnancy (LMUP)) and questions to establish contraceptive use and access prior to this index pregnancy.

Results—The overall response rate was 69%. We received 648 evaluable questionnaires for women undergoing IA. Of these pregnancies, 75.8% (95% CI 72.3%-79.0%) were unplanned (LMUP score 0-3). We received 1001 evaluable questionnaires from women booking at antenatal clinics. Of these pregnancies, 5.5% (95% CI 4.2%-7.0%) were unplanned. Among those with unplanned pregnancies who were not using contraception 31% reported that they were unable to obtain the method they wanted. Among those using a method immediately prior to the index unplanned pregnancy, 33% stated it was not the method they wanted; of these 75% would have preferred sterilization, the implant, injectable, or intrauterine contraceptive.

Conclusion—Unplanned pregnancies in this population are common among women undergoing IA but are uncommon among women attending an ANC. About a third of women not using contraception reported that they were unable to obtain the method they wanted, and about a third

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Competing Interests

None declared

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of women using contraception stated that they were not using the method they would have preferred.

Implications—Opportunities to prevent unplanned pregnancies are missed when staff in primary and secondary care looking after women do not knowledgeably inform, discuss and offer contraception in a timely manner, particularly the most effective long acting reversible contraceptive methods. Services should be deliverable where women are: this includes within pregnancy care services. Seeking patient experience is an essential component of service re-design.

1. Introduction

Unintended pregnancies include unwanted pregnancies (when childbearing had been completed or when no children are desired) as well as those that are mistimed (came earlier than desired). These can result in births, induced abortions and miscarriages. Worldwide, 40% of pregnancies are unintended, resulting in approximately 42 million induced abortions per year, and 34 million unintended births.[1] Amongst developed countries, England has the second highest rate of unintended pregnancy despite the NHS provision of free contraception, and these pregnancies generate substantial costs to the NHS in direct medical costs.[2] Unintended pregnancy can force women and their families to confront difficult abortion decisions or the potential negative consequences associated with unplanned childbearing including child health and development issues, relationship instability, and compromises in education and employment that may exacerbate ongoing poverty.[3]

The National Institute for Health and Clinical Excellence has estimated that if 7% of women switched from the contraceptive pill to long acting reversible contraceptive methods the NHS could save about £100m (£130m; \$200m), by reducing unintended pregnancies by 73,000 per annum.[4] A recent study in Scotland found that about 89% of pregnancies among women requesting terminations but only 8% of women continuing pregnancies were unplanned.[3] Increasing the uptake of long acting reversible contraception (LARC) is part of the UK strategy to reduce the number of unintended pregnancies.

Our study has two aims. The first is to assess the proportion of unplanned pregnancies among women attending antenatal clinics and those undergoing induced abortion (IA). The second is to assess both their previous contraceptive use and contraceptive intention, with particular focus on the use or consideration of any long acting reversible contraceptives in Hull and East Riding in order to inform service redesign.

2. Methods

Convenience samples of consecutive women attending their first antenatal clinic (ANC) appointment and women attending a gynaecology clinic to undergo an induced abortion (IA) were approached to take part in the study. This took place over the period running between June 2013 and November 2014.

We allowed anyone to participate who was over the age of 16, could speak or read English, and was attending either their first antenatal appointment or attending a gynaecology

appointment to terminate her pregnancy. We asked them to complete a 2-page questionnaire that contained a validated pregnancy intendedness questionnaire (the London Measure of Unplanned Pregnancy⁵ (LMUP)) and questions to establish contraceptive use and access prior to this index pregnancy. Women recorded responses in the form of tick box answers; however, space was provided to allow additional comments. Those who did not wish to participate in the study were advised to return the questionnaire uncompleted and were reassured that their subsequent care would not be affected in any way. Women who were attending their first ANC clinic appointment were sent a patient information leaflet and the questionnaire by post with a letter containing details of their appointment. Their questionnaires were collected by the ANC midwife and sent to the research team. Gynecology patients attending for a termination of pregnancy were approached by either a research nurse or doctor during their appointment and given a patient information leaflet, a questionnaire and an envelope. We asked participants to read the study information and return the questionnaire, either completed or uncompleted, in the envelope provided before their discharge home. All questionnaires were confidential and anonymised, and participation was entirely voluntary.

Complete anonymization of data was achieved by lack of any personal identifiable characteristics on the questionnaire. Access to anonymous data was password protected and only accessed by the immediate research team. The study received ethical approval on 24/01/2012 from NRES committee: Yorkshire & the Humber-South Yorkshire REC Reference number 11/YH/0361. The sponsor was Hull & East Yorkshire Hospitals NHS Trust. The NRES committee did not require women to give informed consent.

Approximately 6,000 women attend ANC clinics and 1,300 women undergo IA annually in the study setting hospital. For a 95% confidence interval of ± 0.03 , based on the assumption that 60% of pregnancies in the ANC are unplanned and 80% of pregnancies among women obtaining IA are unplanned, we required 1,025 women attending their first ANC clinic and 683 undergoing IA for the study.

LMUP consists of six questions, each scored 0, 1, or 2. These are added to obtain the final scores. Pregnancies with scores of 0-3 are classified as unplanned, 4-9 as ambivalent, and 10-12 as planned.

We evaluated written responses about why women were not using the method they wanted to use. We extracted responses until saturation was achieved.

3. Results

The overall response rate was 69%. 1,800 questionnaires were distributed to eligible women attending ANC clinics and 1,032 were returned nonblank for a response rate of 57%. 703 questionnaires were distributed to eligible women undergoing an IA and 684 were returned nonblank for a response rate of 97%. We think that this exceptionally high response rate was achieved because of personal contact with the study team; the lead author (HB) saw every single woman face-to-face and they all agreed to return the questionnaire; either she or the second author (KG) collected the envelopes.

Among women having an IA, 75.8% (95% CI 72.3%-79.0%) of pregnancies were unplanned (Table 1, top). Among women presenting for antenatal care, 71.3% (95% CI 68.4%-74.1%) of pregnancies were planned (Table 1, bottom), while only 5.5% (95% CI 4.2%-7.0%) were unplanned.

Among the women with unplanned pregnancies, 40% (N=219) reported that they were always, 34% (N=183) reported that they were sometimes, and 26% (N=142) reported that they were not using contraception at the time when they became pregnant. Women who reported using more than one method were classified as using the most effective method reported. Among the women who reported using a method before they got pregnant, 5% (N=22) reported using the implant, injectable, or intrauterine contraceptives, 41% (N=179) reported using the pill or patch, and 53% (N=228) reported using condoms, withdrawal or periodic abstinence. Among those who reported using a method, 33% (N=116) stated it was not the method they wanted; of those who reported using a method that was not the one preferred 75% (N=77) would have preferred sterilization, the implant, injectable, or intrauterine contraceptive. Among the 238 women with unplanned pregnancies who reported not using contraception before they got pregnant 31% (N=31) stated that they were unable to obtain the method they wanted. Among parous women, 20-35% stated that nobody had discussed the implant, injectable, or intrauterine contraceptives with them during or after their last pregnancy. Among nulliparous women similar proportions stated that their GP had not discussed these methods.

Among those who were not able to obtain or were not using the method they wanted, 37 wrote in reasons why. The following 13 quotes fully capture those reasons.

- Had irregular periods gp wouldn't give anything to me.
- Was informed couldn't get pregnant.
- Waiting to start the pill but need to wait for period.
- Was booking an appointment to get the implant.
- Stopped taking the pill, waited for the coil (IUD).
- Couldn't get an appointment.
- Was using condoms because forms were lost at the sexual health clinic for the coil fitting.
- Couldn't get to clinic work times.
- Doctors were messing about with appointments.
- No appointments EVER available at the GP surgery.
- Didn't book to get it done quick enough.
- Wanted sterilisation but under 30 at present.
- I didn't know how to go about getting a coil fitted but wondered if it hurt

4. Discussion

We compare our results with those from Edinburgh[3] and England[6] in Table 1. The proportion of pregnancies classified as unplanned among those seeking IA vary widely from a high of 90% in Edinburgh to a low of 57% in England. There is also variation in the ambivalent and planned categories. In contrast, the results for births are far more uniform. The NHS spent nearly £200 million in direct medical costs of unplanned pregnancies in England in 2010.[2] Reducing this burden through increased use of contraception, particularly the most effective methods, would be highly cost effective.[4]

Our study has one major limitation; women were not consistent in reporting contraceptive use. Those who reported not using contraception in question 1 on the LMUP or in our question 3 should logically have not reported specific methods used when they got pregnant, but many did. Another problem is item nonresponse. For example, some women who reported using a method that was not the one they preferred did not report what method they would prefer.

Unmet demand for highly effective contraception has been documented in the United States, primarily attributed to its high cost.[7,8] Although in Hull and East Yorkshire, as in the rest of the UK, contraception is available at no cost to the woman, we found that many women were unable to obtain the method they wanted, often due to service provision problems such as being unable to obtain a timely appointment or clinic hours that conflicted with work or childcare. Among those unable to obtain the method they wanted, many wanted the methods with highest effectiveness. . A big missed opportunity in the UK is failure to provide contraception prior to discharge following a delivery.[9] These service provision failures could be avoided.

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Table 1

Unplanned, Ambivalent, and Planned Pregnancies in Hull, Edinburgh, and England

Induced abortion			
	<i>London Measure of Unplanned Pregnancy Score</i>		
	Unplanned	Ambivalent	Planned
	0-3	4-9	10-12
Hull (N=648)	76%	24%	1%
Edinburgh (N=907) [3]	90%	10%	0%
England (N=80) [6]	57%	33%	10%

Continuing pregnancy			
	<i>London Measure of Unplanned Pregnancy Score</i>		
	Unplanned	Ambivalent	Planned
	0-3	4-9	10-12
Hull (N=1,001)	6%	23%	71%
Edinburgh(N=2,908) [3]	8%	27%	66%
England (N=418) [6]	6%	28%	66%

In England those continuing pregnancy had full-term births. There is a separate category for spontaneous abortions but no estimate for full-term birth and spontaneous abortion combined.