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A motivational interviewing-based counseling intervention to increase postabortion uptake of contraception: A pilot randomized controlled trial

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ABSTRACT

Objective: To determine if a counseling intervention using the principles of motivational interviewing (MI) would impact uptake of long-acting reversible contraception (LARC) after abortion.
Methods: We conducted a pilot randomized controlled trial comparing an MI-based contraception counseling intervention to only non-standardized counseling. Sixty women 15–29 years-old were randomized. Primary outcome: uptake of LARC within four weeks of abortion. Secondary outcomes: uptake of any effective contraceptive, contraceptive use three months after abortion and satisfaction with counseling. Bivariate analysis was used to compare outcomes.
Results: In the intervention arm, 65.5% of participants received a long-acting method within four weeks compared to 32.3% in the control arm ($p = 0.01$). Three months after the abortion, differences in LARC use endured (60.0% vs. 30.8%, $p = 0.05$). Uptake and use of any effective method were not statistically different. More women in the intervention arm reported satisfaction with their counseling than women in the control arm (92.0% vs. 65.4%, $p = 0.04$).
Conclusion: Twice as many women in the MI-based contraception counseling intervention initiated and continued to use LARC compared to women who received only non-standardized counseling.
Practice implications: A contraception counseling session using the principles and skills of motivational interviewing has the potential to impact LARC use after abortion.

1. Introduction

In the United States, 21–27% of women experience a repeat pregnancy within 12 months after abortion, and 11–15% have a repeat abortion within one to three years after abortion [1,2]. In the European Union, 20–60% of abortions are performed for women with a history of a prior abortion [3]. Immediate provision of long-acting reversible contraceptives (LARC), which include intrauterine devices (IUDs) and contraceptive implants, reduces rates of repeat pregnancy within one year after abortion [4–8]. Several trials have investigated contraception counseling at the time of abortion, but most have not shown an increase in contraceptive uptake [9,10]. However, a recent cluster randomized controlled trial (RCT) demonstrated increased LARC uptake among women attending both family planning and abortion clinics in which multiple interventions to increase LARC uptake occurred including counselor training about LARC [11]. Thus, it appears that contraception counseling training can have an effect on LARC uptake at the abortion visit.

Motivational interviewing (MI) is a patient-centered counseling style that aims to create a collaborative relationship between counselor and patient. MI uses skills such as open-ended questioning, reflective listening, empathic statements, and exploration of ambivalence to elicit a patient's intrinsic motivation for behavior change. MI counselors support patients to build confidence and self-efficacy, encouraging patients to design their own plans to change. The spirit of MI recognizes that people are "the undisputed experts on themselves," and counselors avoid arguing for change [12]. Studies of women's contraceptive decision-making preferences have found that women strongly

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value autonomy but appreciate provider input and expertise [13,14]. Thus, a collaborative and non-coercive style of counseling, such as MI, may represent an approach that aligns well with women's preferences for contraceptive decision-making.

The primary aim of this study was to determine the effect of an MI-based intervention on young women's use of LARC after abortion. We hypothesized that more women in the intervention group would start a LARC method within 4 weeks of the abortion procedure, including immediate same-day initiation, compared to a control group receiving non-standardized counseling.

2. Methods

2.1. Study procedures

This RCT was a 1:1 parallel group pilot trial of an MI-based contraception counseling intervention, conducted at an urban academic center. English speaking women aged 15–29 years presenting for abortion were eligible. Women requesting abortion for fetal or maternal medical indications, with pregnancy resulting from sexual assault, or with a desire for repeat pregnancy within 6 months were not eligible. We obtained written informed consent from all eligible and interested participants prior to initiating any study procedures. The Institutional Review Board of the Biologic Sciences Division of the University of Chicago approved all study procedures and granted a waiver of parental consent for minors.

Participants used a tablet device to complete a baseline survey designed for this study. The survey assessed demographic information, contraceptive and pregnancy history, and intended postabortion method of contraception. Upon completion of the baseline survey, participants were randomized to one of the two study arms: intervention or control. Women in the intervention arm completed an MI-based counseling session with a counselor who had training in the principles and skills of MI prior to returning to routine clinic flow, which included non-standardized contraception counseling delivered by a clinic physician: a gynecology resident, a Fellow in Family Planning, or a faculty member (usual care). Women in the control arm immediately returned to usual care and received only the non-standardized counseling. In both groups, arrangements for starting a contraceptive method, if the participant chose to start one, were performed during usual care. Study personnel determined randomization allocation via sequentially numbered, sealed, opaque envelopes. Counselors for the study (AW and SQM) did not participate in recruitment into the trial nor determination of group allocation. A research assistant who was not involved with other aspects of study conduct prepared the envelopes using a computer-generated blocked randomization scheme with permuted block sizes of four and six. Clinic staff and physicians were not informed of a participant's allocation. A research assistant blinded to group allocation surveyed participants by telephone one and three months postabortion. Subjects were compensated a total of $30 for participation.

2.2. Intervention

We designed the MI-based counseling session for the purpose of this study. Details of the intervention, its development and counselor training are previously published, including a table describing the steps of the intervention [15]. Briefly, we created a seven-step contraception counseling session, incorporating principles and skills of MI, including: reflective listening; collaborative discussion of benefits and drawbacks of contraceptive methods; and avoidance of confrontation. A two-page outline of the intervention was provided to each counselor for use during the sessions (Appendix). The seven steps of the intervention were not designed to be a static outline, and counselors were free to move between the steps in a fluid manner but were instructed to include all seven steps: (1) establish rapport, (2) set the agenda, (3) discuss prior contraception use, (4) ask permission to give educational information about contraceptive methods, (5) assess importance, confidence and readiness to use contraception, (6) continued discussion of very effective contraception, and (7) wrap up. The educational component of the intervention used a pictorial guide adapted from the US Agency for International Development (USAID) and World Health Organization (WHO), which depicts contraceptive methods in tiers organized by effectiveness [16]. Although counselors emphasized the top two tiers, they elicited participant preferences for contraceptive attributes other than effectiveness and incorporated these preferences into the session. Counselor training included six hours of didactic instruction with skill practice and feedback, followed by five hours of practice counseling sessions with professional standardized patients that were videotaped for grading and feedback [15]. For this trial, there were two counselors. One physician (AW, the principal investigator [PI]) was trained and evaluated during the intervention development phase, prior to a 20-subject feasibility study [15] and did not undergo additional training or evaluation prior to this RCT. One Licensed Clinical Social Worker (LCSW) (SQM) completed training after the development phase and was not involved in the feasibility study. Both counselors underwent the same training protocol and were evaluated for competency and fidelity to the principles of MI using the Motivational Interviewing Treatment Integrity (MITI) Scale [17] by an expert in MI training and evaluation (MQ). However, one counselor (SQM) left the institution prior to the end of recruitment, and it was not feasible to train another counselor. The remaining trained counselor (AW) performed all interventions after that point. No further training or assessments took place, and individual sessions were not monitored for quality of MI.

2.3. Trial outcomes

Our primary outcome was uptake of a LARC method of contraception within four weeks of the abortion visit, including same-day uptake, as determined from the electronic medical record by an investigator not involved in training or counseling (EM). Secondary outcomes included effective contraceptive method uptake within four weeks of the abortion, method use and satisfaction at the one and three month telephone contacts, and satisfaction with the contraception counseling received. We defined effective contraception to include IUDs and hormonal methods of contraception. Contraceptive method uptake within four weeks of the abortion visit was determined by review of the electronic medical record. For LARC and for DMPA, we were able to verify actual method start, i.e. insertion or injection. The clinic offered these methods free of charge for immediate use regardless of insurance status. For combined hormonal contraception (CHC) and progestin-only pills, we considered prescription for the medication as indication of method uptake. Method use and method satisfaction at one- and three-months postabortion as well as satisfaction with contraception counseling were assessed during follow-up telephone contacts. Satisfaction with contraceptive method was assessed using an 11-point scale (0 = "least satisfied" and 10 = "most satisfied"), and in analyses, high satisfaction was defined as a rating of 8–10. Satisfaction with counseling was assessed using a 5-point Likert-type scale (1 = "strongly disagree" and 5 = "strongly agree") to rate agreement with five positive statements about the counseling they received. We defined satisfaction with the counseling as rating all five statements as 4 "agree" or 5 "strongly agree." We also assessed feasibility