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Original article

Put a Ring in It: Exploring Women's Experiences with the Contraceptive Vaginal Ring in Ontario

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A B S T R A C T

Background: Although the contraceptive vaginal ring (CVR) has been available in Canada since 2001, overall use and availability remain low compared with other combined hormonal contraceptive methods. We aimed to explore women's experiences with the CVR in Ontario as well as factors that influenced their decisions to choose the method and continue/discontinue use.
Methods: We conducted a multimethod qualitative study that consisted of an anonymous online survey and in-depth telephone interviews with a subset of survey participants. We used descriptive statistics to analyze the survey data and analyzed our interviews for content and themes using both deductive and inductive techniques.
Results: From May to July 2015, we received 103 survey responses and conducted 29 in-depth interviews. Many participants described positive experiences with the CVR and found it to be an especially convenient method. Women who discontinued use of the CVR cited high costs, access barriers, and negative media reports as important factors in their decision. Our participants primarily relied on their physicians for contraceptive information but did not feel fully informed about potential side effects. Several women identified the CVR as an "in between" method in the transition from oral contraceptive pills to the intrauterine device.
Conclusions: Our findings suggest that the CVR represents a convenient and desirable contraceptive option for some women. However, participants expressed a desire for health care providers to provide more comprehensive information about a full range of contraceptive methods. Improving access to a full range of low-cost contraceptives in Ontario seems to be warranted.

Although efforts to develop the contraceptive vaginal ring (CVR) were initiated more than 45 years ago, overall use and availability remain low compared with other hormonal contraceptive methods (Brache & Faundes, 2010); around 1.5 million women worldwide use a CVR (Merki-Feld & Hund, 2010), whereas there are roughly 100 million users of oral contraceptive pills (OCPs; Christin-Maitre, 2013). In Canada, the only available CVR is marketed under the brand name NuvaRing and it has been available since 2005 (Fisher & Black, 2007). The pliable transparent ring is inserted into the vagina by the user and left in place for 3 weeks, and it is 98% effective in preventing pregnancy when used correctly (Roumen & Mishell, 2012). Less than 1% of contraceptive users in Canada use the CVR (Black et al., 2015a).

The overall safety profile of the CVR is excellent (Hatcher, 2011). However, studies exploring the relationship between CVR use and the risk of blood clots have shown mixed results. Some studies have found similar risks between the NuvaRing and other hormonal contraceptives, and others identified risks six times higher for the NuvaRing (Lidegaard, Nielsen, Skovlund, & Lokkegaard, 2012; Dinger, Mohner, & Heinemann, 2013; Sidney et al., 2013; Nguyen & Jensen, 2014; Oddsson et al., 2005). These varied results mean that the evidence on elevated risk of blood clots for the CVR when compared with other hormonal contraceptives remains inconclusive.

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However, recent media attention devoted to the NuvaRing has focused primarily on negative aspects of the method and has failed to put the reported risks into context. News coverage in North America has focused overwhelmingly on several sensationalized cases that resulted in negative health outcomes and a consequent lawsuit against Merck, the NuvaRing's manufacturer (Langhart, 2015). Litigants claimed that Merck failed to provide proper warnings or information about possible side effects and complications, resulting in strokes, heart failure, and the death of several women. In mid-2014, amid this conflicting medical evidence, Health Canada issued a warning stating that the NuvaRing should not be used by women over 35 years of age who smoke, have risk factors for thrombosis, or experience migraines that affect their vision (Health Canada, 2014). However, the new warnings were issued to prescribers, not patients (Sifferlin, 2014). Anecdotal evidence suggests that primary health care providers in Ontario, Canada's largest and most populous province, lack knowledge about this method, and either do not provide patients with information about the NuvaRing or provide inaccurate information about eligibility of use and side effects.

There remains a lack of data on women's experiences using the NuvaRing outside of clinical or experimental settings, and no study to date has explored this phenomenon in Ontario. It is also important to understand where women find information about the NuvaRing, given the overwhelmingly negative portrayal of the NuvaRing in mainstream media, and whether this coverage influences women's decisions to start or stop using the method. In the spring and summer of 2015, we conducted a multimethod study to address these gaps and explore women's experiences using the CVR, as well as the factors that influenced their decision to use and discontinue use of the method. We also aimed to document Ontarian women's perceptions of the NuvaRing as a contraceptive, and to identify avenues through which contraceptive counselling and service delivery could be improved in the province.

Methods

Our multimethod, qualitative study consisted of two components: an anonymous online survey and in-depth interviews by telephone or Skype with a subset of survey participants. Eligible participants included anyone who had ever used the NuvaRing and was 18 years old or older, sufficiently fluent in English or French to answer questions, and residing in Ontario at the time of the study. We used a multimodal recruitment strategy that included social media engagement (Twitter and Facebook), online advertisements, and posts on listservs. This study received approval from the Social Sciences and Humanities Research Ethics Board at the University of Ottawa.

Online Survey

Our bilingual survey instrument included closed-ended and open-ended free response questions and took an average of 20 minutes to complete. We developed questions from existing questionnaires, prior surveys conducted by A.M.F. and her research group at the University of Ottawa, and the literature and pilot tested the online instrument with a small group of Anglophone and Francophone university students in Ottawa before launching the survey. After obtaining consent and ensuring eligibility, the 50-question survey asked participants about their background, relationship status, and reproductive health and contraceptive histories. We then asked participants to comment on their experiences using the CVR, the information provided by their physician when adopting the method, and their experiences, if any, with side effects. At the end of the survey, we offered participants the opportunity to enter a draw for a CAD50 gift certificate. We concluded the survey by inviting respondents to participate in an in-depth interview; we delinked this information from survey data.

In-depth Interviews

We contacted all survey respondents who expressed interest in participating in the second phase of the study by email to schedule a telephone/Skype interview. We audio-recorded all interviews, which lasted an average of 30 minutes. K.L. and G.S., both master's students in the Interdisciplinary Health Sciences program at the University of Ottawa at the time of the interview, conducted the interviews after receiving training from A.M.F., a medical anthropologist and medical doctor with extensive qualitative research experience. Interviewers followed the same guide and asked participants a series of open-ended questions about their background, reproductive health and contraceptive histories, and experiences using the CVR. In these interviews, we explored how women made the decision to adopt this contraceptive method, as well as the dynamics that shaped continuation or discontinuation, as applicable. We concluded the interview by asking participants how contraceptive services could be improved in Ontario. We took notes during the interviews and formally memoed shortly afterward. We sent all participants a CAD20 gift card and later transcribed and translated (to English) all interviews.

Data Analysis

We exported our survey data to Microsoft Excel (Microsoft Corp, Redmond, WA) and performed descriptive statistical analyses, including frequencies and cross-tabulations. We analyzed the free response questions for content and themes using both deductive and inductive techniques. We began reviewing interview data during the collection phase to identify common themes and draw initial connections between ideas. Based on interview content and insights derived from the memos K.L. created an initial codebook, with input from E.G. and A.M.F. We analyzed for content and themes using a priori (predetermined) codes and categories based on the research questions and interview guide, and inductive codes and categories that emerged as we familiarized ourselves with the data (Denzin & Lincoln, 2011; Elo & Kyngäs, 2008); we used ATLAS.ti to manage our data. Guided by regular team meetings and discussions, our analysis centered on grouping categories of information, drawing connections between ideas, and understanding relationships. In the last analytic phase, we combined the results from the two study components, paying particular attention to concordant and discordant findings. In this article, we organize our results around salient themes. We removed and/or masked all personally identifying information and use pseudonyms throughout.

Results

Participant Characteristics

Over a 3-month period, we obtained 103 surveys responses. Most participants were between the ages of 25 and 29, identified