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Barriers to and enablers of contraceptive use among adolescent females and their interest in an emergency department based intervention☆

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Abstract

Objective: Over 15 million adolescents, many at high risk for pregnancy, use emergency departments (EDs) in the United States annually, but little is known regarding reasons for failure to use contraceptives in this population. The purpose of this study was to identify the barriers to and enablers of contraceptive use among adolescent females using the ED and determine their interest in an ED-based pregnancy prevention intervention.
Study design: We conducted semistructured, open-ended interviews with females in an urban ED. Eligible females were 14–19 years old, sexually active, presenting for reproductive health complaints and at risk for pregnancy, defined as nonuse of effective (per the World Health Organization) contraception. Interviews were recorded, transcribed and coded based on thematic analysis. Enrollment continued until no new themes emerged. A modified Health Belief Model guided the organization of the data.
Results: Participants (n=14) were predominantly Hispanic (93%), insured (93%) and in a sexual relationship (86%). The primary barrier to contraceptive use was perceived health risk, including effects on menstruation, weight and future fertility. Other barriers consisted of mistrust in contraceptives, ambivalent pregnancy intentions, uncertainty about the future, partner's desire for pregnancy and limited access to contraceptives. Enablers of past contraceptive use included the presence of a school-based health clinic and clear plans for the future. All participants were receptive to ED-based pregnancy prevention interventions.
Conclusions: The identified barriers and enablers influencing hormonal contraceptive use can be used to inform the design of future ED-based adolescent pregnancy prevention interventions.
Implications: Adolescents who visit the emergency department (ED) identify contraceptive side effects, mistrust in contraceptives, limited access, pregnancy ambivalence and partner pregnancy desires as barriers to hormonal contraception use. They expressed interest in an ED-based intervention to prevent adolescent pregnancy; such an intervention could target these themes to maximize effectiveness.

Keywords: Teenage pregnancy; Emergency medicine; Pregnancy prevention; Sexual health; Family planning counseling

1. Introduction

In the United States, adolescents account for over 15 million emergency department (ED) visits annually [1]. Many of these adolescents are underinsured and use the ED recurrently [1,2]. Adolescents who use the ED as their usual source of care are more likely to report substance abuse, worse health status and mental health problems [3].

Female adolescents often present to the ED with reproductive health complaints, and many participate in risky sexual behaviors [4–6]. Compared to the general population, adolescent females in the ED are at substantially high risk for unintended pregnancy, mainly due to lack of contraceptive use [7,8]. Those at highest risk of pregnancy more frequently lack a primary care provider (PCP) and use

Abbreviations: ED, emergency department; IUD, intrauterine device; OCPs, oral contraceptive pills; HBM, Health Belief Model.

☆ Conflicts of interest: All authors have nothing to disclose.

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the ED [7]. While there is a need to link these at-risk adolescents to primary care, current practices to refer adolescent females from the ED to preventive reproductive care have shown limited success [9,10].

It is unknown why adolescents in the ED are not using contraception and whether they would be receptive to an ED-based pregnancy prevention intervention. While qualitative studies have examined the reasons adolescent females in outpatient settings inconsistently use contraception, females who often use the ED may have different reasons for inconsistent use than those seeking outpatient care [11–13]. Understanding these reasons is imperative to designing effective pregnancy prevention strategies. Therefore, the objectives of this study were to 1) identify the barriers and enablers affecting contraceptive use among adolescent females using the ED who are at high risk for pregnancy and 2) determine interest in ED-based pregnancy prevention interventions.

2. Materials and methods

We conducted semi-structured interviews from June to October 2013 at an urban tertiary-care pediatric ED. The Institutional Review Board approved the study with written informed consent for participants and a waiver of parental consent.

2.1. Study subjects

We enrolled a convenience sample of females 14 through 19 years who presented to the ED. Eligibility required being (a) sexually active with a male partner in the past 3 months, (b) a reproductive health complaint and (c) high risk for pregnancy, defined as nonuse of contraception at last intercourse and currently not using any of the following: the injectable (Depo-Provera®), an intrauterine device (IUD), the intravaginal ring (NuvaRing®), an implant (Implanon® or Nexplanon®), the patch (Ortho Evra®) or oral contraceptive pills (OCPs). We excluded patients if pregnant, trying to become pregnant, too sick per the attending physician, cognitively impaired, in foster care or a ward of the state, or not English speaking. We enrolled only English-speaking patients as our prior studies demonstrated that our adolescent Hispanic population is bilingual [7].

The participants interviewed in this study were part of a two-part qualitative study. The first part (presented herein) explored why adolescents were not using contraception and their receptivity to an ED-based pregnancy prevention intervention. The second part concentrated on the use of text messaging from the ED. Therefore, we also excluded patients who did not own a mobile phone with text messaging capabilities.

2.2. Study procedures

Eligibility screenings were completed by attending physicians. Patients were consented by the research team. After obtaining consent, participants completed a paper-based questionnaire regarding demographics, access to care, sexual behaviors and pregnancy intentions. To understand the multidimensionality of pregnancy intentions, participants were asked about trying, wanting and planning to become pregnant; partner desire for pregnancy; and timing of future pregnancy. Interviews were conducted in a private room by one of two trained interviewers (L.C. or R.S.), recorded and transcribed by a professional service.

2.3. Interview guide

The study team iteratively wrote and refined the interview guide. The interview began by showing photos to the participant of unlabeled contraceptive methods, asking "Have you heard of any of these devices/pills?" and requiring an explanation to the answer. The interviewer inquired about prior contraceptive use, experiences with those methods, where she received them and what made her stop use. Probes included past conversations about contraceptives with family, friends, partners and medical professionals. Participants who expressed ambivalence about pregnancy intentions were asked to explain their reasoning. Lastly, the interviewer inquired about attitudes toward an ED provider discussing reproductive health and providing contraceptives, reasons for using the ED and ideas for future ED-based pregnancy prevention interventions.

2.4. Data analysis

We had approval to conduct 20 interviews; however, interviews were conducted until no new themes emerged. Two investigators (L.C. and T.H.) coded the transcripts using Excel and NVivo 10 software. A set of codes was independently generated by each analyst. We used a modified Health Belief Model (HBM) to organize our themes, which focuses on explaining and predicting compliance with health and medical care recommendations [14]. A codebook was developed for use during analysis. Study team members discussed discrepancies in coding until consensus was achieved. Quotes were classified as either a barrier or enabler.

3. Results

Fourteen interviews were conducted, with no new themes emerging after the twelfth. Participants were predominantly older adolescents, Hispanic, Medicaid insured and prior contraceptive users (Table 1).

Based on the modified HBM, themes were organized into two main topics areas — Readiness to Use Contraception and Modifying Factors, with 10 themes emerging (Fig. 1). Table 2 lists theme definitions and quotes that exemplify barriers to and enablers of contraceptive use.