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Original research article

Interest in self-administration of subcutaneous depot medroxyprogesterone acetate in the United States☆

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Abstract

Objective: Subcutaneous depot medroxyprogesterone acetate (DMPA-SC) is a low-dose formulation of depot medroxyprogesterone acetate (DMPA) that nonmedical personnel can administer safely and effectively. We sought to determine United States women's interest in self-administration of DMPA-SC to understand whether such use can overcome barriers to contraceptive access.

Study design: We analyzed survey data on contraceptive attitudes collected in March–July 2011 from 1592 women at 13 family planning and six abortion clinics throughout the US. A mixed-effects logistic regression model with random site effects examined the determinants of interest in self-administering DMPA-SC.

Results: Overall, 21% [95% confidence interval (CI): 19%–23%] of women reported interest in self-administration. A multivariable model found that women currently using DMPA (Adjusted Odds Ratio [AOR]=3.93, 95% CI: 2.37–6.53, p<.001) and women who previously used DMPA (AOR=1.71, 95% CI: 1.26–2.32, p<.001) were more likely to have an interest in DMPA-SC than those who never used it. Women reporting difficulty obtaining or refilling a prescription were almost twice as likely to have interest in DMPA-SC as women who reported no difficulty (AOR=1.99, 95% CI: 1.43–2.77, p<.001). Women surveyed at abortion sites were more likely to report interest in self-administration than women surveyed at family planning sites (AOR=1.55, 95% CI: 1.05–2.30, p<.05). Interest in DMPA-SC was primarily driven by a desire to eliminate unnecessary return visits to a facility for repeat injections.

Conclusions: Offering women the option to self-administer DMPA-SC at home can expand access and tailor contraceptive provision to the needs of clients, thus supporting client-centered care. To the extent that self-administration may improve contraceptive continuation, DMPA-SC can prevent unintended pregnancies among women who discontinue DMPA use because of difficulty returning for repeat injections.

Implications: There is substantial interest in self-administration of DMPA-SC among current DMPA users, women who have recently had an abortion and women reporting difficulty returning to a family planning provider. Offering self-administration of DMPA-SC could potentially increase contraceptive continuation, reduce unintended pregnancies and enhance reproductive autonomy among DMPA users.

Keywords: Subcutaneous DMPA; Depot medroxyprogesterone acetate; Self-administration; Self-injection; Acceptability; Injectables

1. Introduction

Globally, injectable contraception is among the most popular contraceptive methods and women's interest in it is growing [1,2]. In the United States (US), nearly 3% of women of reproductive age use depot medroxyprogesterone acetate (DMPA) [3]; as many as 26% of sexually active women have ever used it [4]. The first-year typical-use failure rate of DMPA is 6% [5] while its 1-year continuation rate in the US is 54% [6].

The need to return to a facility for reinjection every 3 months reduces DMPA continuation rates [7–9]. In a nationally representative US study, 23% of women at risk of unintended pregnancy reported gaps in their contraceptive use, most commonly due to problems accessing or using methods [10]. In one study among adolescents in New York

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Table 1
DMPA-related survey questions

All respondents received the following initial question about past experience with DMPA and information about DMPA-SC:
Have you ever used "the shot," otherwise known as *Depo*, *Depo-Provera* or *DMPA*, to prevent pregnancy?
Yes
No
The shot is a birth control method that requires an injection every 3 months. While currently the shot is usually given in the muscle, there is a new formula that is injected just under the skin. Women could give themselves this new shot at home (like diabetics do). Here are some information about it:
- Your health care provider would teach you how to give yourself the injection on your first visit.
- You would not have to return to a health care provider for your next shots.
- You would give yourself an injection every 3 months
- The injection could be given in the arm or the buttocks.*
- It is just as effective as the shot that is currently available (very effective).
- The side effects are the same as the shot that is currently available (it may cause irregular periods or weight gain).
- The regular shot that a health care provider gives would still be available

Participants recruited from the Family Planning clinics received the following questions:
82. If this new formula was available for self-injection at home, would it make you MORE LIKELY or LESS LIKELY to consider the shot as a method of birth control?
More likely
Not more or less likely
Less likely
Don't know
_____83. [If 82 = more likely] Why? (check all that apply)
I think I could give myself the injection.
I would not have to keep returning to a health care provider for shots.
I would save money by not having to return to a health care provider.
It would be less of a hassle.
I would feel more in control.
I could hide it from my partner or parents.
Other (please tell us)
_____84. [If 82 = less likely] Why? (check all that apply)
I don't like needles.
I just do not want to give an injection to myself.
I'm worried I would not remember to use it.
I would be worried about giving it correctly.
I prefer to see the doctor every 3 months.
I like my current method.
I want a more effective method than the shot.
I want a method that protects against sexually transmitted infections.
I would not like a method that changed my menstrual periods.
I am worried about weight gain with the shot.
I am worried about other side effects of the shot.
I do not want to use any hormones.
Other (please tell us)

Participants recruited from the abortion clinics received the following questions:
67. [If previously used DMPA] If this new formula was available for self-injection at home, would you be willing to try giving yourself injections?
[If never used DMPA] If this new formula was available for self-injection at home, do you think you would be more willing to try the shot?
Definitely yes
Probably yes
Probably no
Definitely no
68. [If 67a = definitely or probably yes] Why would you be willing to try it? (Check all that apply)
I think I could give myself the injection.
I would not have to keep returning to a health care provider for shots.
I would save money by not having to return to a health care provider.
It would be less of a hassle.
I would feel more in control.
I could hide it from my partner or parents.
Other (please tell us)_____

* Note: Sayana Press is currently approved for use only in the front upper thigh or abdomen.

City, the most common reason for discontinuing DMPA (42%) was a missed appointment [8]. In Edinburgh, United Kingdom (UK), 61% of respondents said that they would prefer to attend the clinic less often for contraceptive supplies [7]. Allowing women to self-administer subcutaneous DMPA (DMPA-SC) directly addresses such barriers.