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Contraception Education in Brookfield, CT

Kiyon Naser-Tavakolian

July-August 2015; Danbury, CT

In Collaboration with:

Dr. Laurie Schedgick-Davis, DO

Kathleen McCoy, APRN

Problem Identification and Description of Need

- ▶ After speaking with Dr. Robert Mascia, Tricia Harrity, Dr. Laurie Schedgick-Davis, and nurses at the Brookfield Family Medicine Practice, I decided that providing information about the various forms of contraceptives and their effectiveness to patients in the practice would be beneficial to the community.
- ▶ Danbury is a heavily populated area with a low socioeconomic status and from 2002-2014 Connecticut as a whole has had 46-52% of all pregnancies considered unplanned or unintended compared to the 51% nationally.
- ▶ After discussing with Dr. Mascia as well as other providers in the community, I realized that there is a need for simplified information and education regarding contraception for younger populations. The target population includes teenagers, both male and female, ages 15-19 as well as young adults ages 20-44 who are of reproducing age. Considering about half of pregnancies in CT are unplanned, targeting teenagers and young adults would be most effective because they can educate their peers on the usefulness and effectiveness of contraception.

Public Health Cost and Unique cost Consideration in Host Community

Nationally:

- ▶ In 2014, there were 249,067 births in girls ages 15-19 in the US (24 births per 1,000 girls aged 15-19)
 - ▶ Public spending on teen childbearing was estimated to be 9.4 billion USD in 2010.
- ▶ In 2013, an estimated 47% of high school students have had sex and an estimated 86% of high school students used some type of contraceptive during their last intercourse.

Connecticut:

- ▶ In 2010, there were 5,400 pregnancies in girls aged 15-19 in CT (44 pregnancies per 1,000 girls aged 15-19)
- ▶ In 2013, there were 1,606 births to girls ages 15-19 (12.9 births per 1,000 girls aged 15-19)
 - ▶ 208.5 million USD was spent on unintended pregnancies in Connecticut in 2010.
- ▶ In 2013, an estimated 41.4% of CT high school students have had sex and 91.2% of high school students used some type of contraceptive (range from spermicide to IUD) during their last intercourse.
- ▶ 51% of pregnancies in women ages 15-44yoa in CT are unplanned (2010) and 209 million USD were spent on the unplanned pregnancies in 2010.
- ▶ Even though CT's statistics are less than the nation's, more work can be done to educate the population about effective and reliable forms of birth control.

Community Perspective on Issue and Support for Project (1/2)

- ▶ Dr. Laurie Schedgick-Davis, DO, Brookfield family practice
- ▶ “Healthcare providers truly underestimate how much their patients retain from appointments. This disparity in communication in all aspects of medicine accounts for not only in contributing to possible preventable unplanned pregnancies, but also medication compliance, physician-patient relationships, and patient understanding of their own health.”
- ▶ “The importance of interviewing teenagers alone for part of their visits is of paramount importance, sometimes the things they ask you about in private are things you would never expect!”

Community Perspective on Issue and Support for Project (2/2)

- ▶ Kathleen McCoy, APRN, WCHN Danbury Hospital Campus
- ▶ “Every woman of childbearing age should be asked a key question, ‘would you want to become pregnant this year?’. This question needs to be asked every year. Providers need to review options and the patient has to be comfortable and understand how to take these options.”
- ▶ “When discussing options it’s now being recommended that each patient who is given a contraceptive should be given an emergency backup.”
- ▶ “Patient’s here at the family practice are very receptive to contraceptives. However Danbury has a different population and they struggle more with teen pregnancy and improving their knowledge and understanding of contraception is the first step we as providers need to take.”

Intervention and Methodology (1 / 2)

- My objective was to educate younger patients on the most common types of contraception, their effectiveness, how they work, and what they protect against (pregnancy, STIs etc.). Pamphlets were handed out to patients ages 15-44 who were of reproducing age while they waited for their annual health maintenance appointment.

<http://www.drmaia.org.au/wp-content/uploads/2014/11/082209-9-sticker-LARC-Opt-in-form-centros-Fortale-credit-2.jpg?ikall>

Long Acting Reversible Contraception:

- Intra-uterine-device (IUD) (>99% effective)**
 - Placed in and removed from the uterus by healthcare provider
 - does not protect against STIs
 - Hormonal:** Skyla which lasts for ≤ 3 years and Mirena which lasts for ≤ 6 years. Both are *progestin-only*.
 - Non-Hormonal:** ParaGard Copper IUD which lasts for ≤ 10 years
- Implantable Rod - (>99% effective)**
 - Placed under the skin in your upper arm & is effective for ≤ 3 years
 - Does not protect against STIs.
 - Progestin Only*
- Depo-Provera Injection - (>94% effective)**
 - Injection given every 3 months
 - Does not protect against STIs
 - Progestin Only*

Emergency Contraception

- ParaGard Copper IUD**
 - Placed within 120 hours, decreased pregnancy risk by 99.9% (most effective option available)
 - Need to see a healthcare provider.
 - Discussed under Long-Acting Reversible Contraception
- Progestin (levonorgestrel) Pill (aka Plan-B)**
 - Available over the counter to anyone 15+
 - Taken within 120 hours, but decreases in effectiveness every day. Recommended to take within 72 hours.
- Ulipristal Acetate Pill (aka Ella)**
 - Works as a selective progesterone receptor modulator and delays/prevents ovulation.
 - Taken within 120 hours.
 - Requires prescription or you can purchase from an online pharmacy without a prescription.
 - More effective than progestin pill emergency contraceptive.



CONTRACEPTIVES & WHAT YOU SHOULD KNOW

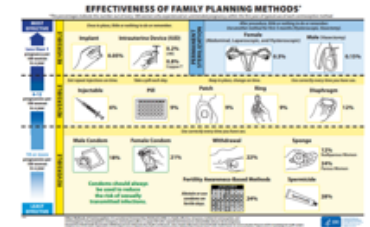


Barrier Methods – Block sperm from reaching egg

- Male Condoms - (~82% Effective)**
 - Placed over the penis when erect before intercourse, used once and then thrown away.
 - Protects against STIs*
- Female Condom - (~79% Effective)**
 - Placed in vagina before intercourse, used once and then thrown away.
 - Protects against STIs*
- Diaphragm w/ spermicide (~88% Effective)**
 - Dome shaped disk that fits around cervix. Place spermicidal jelly on inside of diaphragm before inserting into vagina before sex.
 - Must stay in vagina for 6 hours after sex.
 - Fitted by a healthcare provider
 - Does not protect against STIs*
- Spermicide Alone (~72% effective)**
 - Insert in vagina near cervix
 - Does not protect against STIs.*

Hormonal Methods – Interfere with ovulation and thicken cervical mucous

- Oral Contraceptives ("the pill") - (91% effective)**
 - Pill must be taken every day at the same time whether or not you have sex.
 - Requires a prescription.
 - Available in progestin only ("the mini pill") and combined estrogen-progestin.
 - Does not protect against STIs*
- Intra-vaginal contraceptive ring - (91% effective)**
 - Flexible ring that is 2 inches around. The ring stays in the vagina for 3 weeks and is removed for week 4 (your menstrual period starts during this week).
 - Cannot be outside of the vagina for more than 3 hours.
 - Combined Estrogen and progestin
 - Does not protect against STIs*
- Trans-dermal patch (91% effective)**
 - Beige 2in square that looks like Band-Aid that is stuck onto skin.
 - Replaced every week for three weeks and then week 4 is patch-free (your menstrual period starts during this week).
 - Does not protect against STIs.*



<http://www.cdc.gov/reproductivehealth/UnintendedPregnancy/TOT/Family-Planning-Methods-2014.pdf>

There are many birth control options to choose from. **There isn't one choice that works best for everyone. Talk with your doctor, nurse, pharmacist and research online for more information.**

Please note: Not all possible contraceptives are outlined in this brochure, only the more common ones. For more information about the methods listed as well as alternatives, please ask your provider or go to:

<http://www.fda.gov/ForConsumers/ByAudience/ForWomen/FreePublications/ucm313215.htm#>

Intervention and Methodology (2/2)

- ▶ Once, patients reviewed the pamphlet, I provided a questionnaire to the patients that assessed how helpful the pamphlet was and how/if it could be improved.
- ▶ The questionnaire also assessed if the patient learned any new information and whether or not they wanted to discuss contraception during their visit.

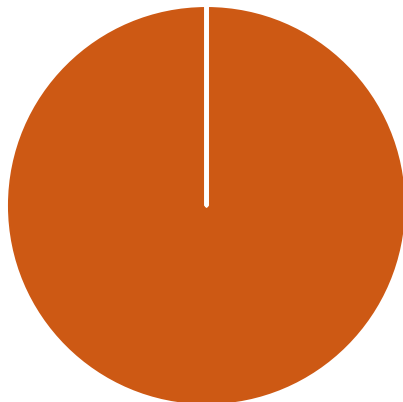
Contraceptives Brochure Questionnaire

1. On a scale of 0-10 how helpful was this brochure in informing you about the various contraceptives?
0 1 2 3 4 5 6 7 8 9 10
Not helpful somewhat helpful Mostly Helpful Very helpful
2. Would you like to see more pamphlets like this regarding other health topics? E.g. Vaccinations, Blood pressure medications, Diabetes medications?
Yes No
3. What was something you learned from this pamphlet that you didn't know before?
4. If applicable, are you interested in discussing contraceptives with your provider?
Yes No
5. Did this pamphlet influence your decision?
Yes No
6. What, if anything, would you change on this pamphlet?

Results and Response 1/2

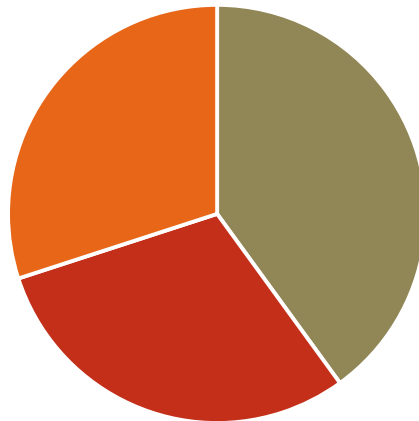
- ▶ Patients and medical assistants were given a copy of the contraceptive pamphlet as well as a survey.
- ▶ All participants completed the survey, all were female
- ▶ 10 participants total
- ▶ Pamphlet was rated an average of 9.7/10 in terms of information and helpfulness.

Would you like to see other health pamphlets similar to this one? (e.g. for diabetes medications, vaccinations, etc)



■ Yes ■ No

If applicable are you interested in discussing contraceptives with your provider? Did this pamphlet influence your decision?



■ Yes, Yes ■ Yes, No ■ No, No

Results and Response 2/2

- ▶ Patient's were asked what they learned from this pamphlet that they didn't know before:
 - ▶ "I didn't know the effectiveness rates of IUD's were so much higher than other forms of contraceptives!"
 - ▶ "I was unaware of the presence of hormones in some of the contraceptives."
 - ▶ "That I can purchase Ella online without a prescription in some states!"
 - ▶ "I learned more about the long acting reversible contraceptives, I did not know much about them. This pamphlet informed me of each kind."
- ▶ Patients were also asked what, if anything, they would change on the pamphlet:
 - ▶ "Everything was clear and understandable, I wouldn't change anything!"
 - ▶ "Please explain the difference between progesterone and estrogen"
 - ▶ "Nothing! The pamphlet was very informative!"

Evaluation of Effectiveness and Limitations

- ▶ Dr. Rob Mascia, Dr. Laurie Schedgick-Davis, and Kathleen McCoy have all expressed that the pamphlet was very informative yet simple enough that a 15 year old could understand the types, effectiveness, and uses of the various contraceptives.
- ▶ The patients who were provided samples of the pamphlet were engaged, asked thoughtful questions of their providers, and most took the pamphlet home with them.
- ▶ The patients were a biased, pre-selected group of people (based on age and availability) who were presenting for their annual health maintenance exam and were patients served by Brookfield Family Practice.
- ▶ Limited by a sample size of 10. Dr. Mascia claimed that this is likely because most younger patients and teenagers are of good general health and usually only visit for their annual health maintenance exam. Furthermore for the age group being monitored Connecticut only requires an annual physical for school for 9th grade, play sports or if the physical is required for work-related purposes. In addition most of the patients interviewed were known by Dr. Mascia and pre-selected due to the increased likelihood that the pamphlet and questionnaire would be viewed and completed.

Recommendations for future Interventions/Projects

- ▶ Recommendations for targeting teens ages 15-19:
 - ▶ 1. Hosting an educational session in the Danbury High School and other local high schools such as Henry Abbott Technical School which serves high school students as well as adults.
 - ▶ 2. Reach out to local community centers such as the YMCA and to clinics, such as Seifert and Ford Family Community health center in Danbury CT, that target the underserved populations.
 - ▶ 3. Contact Samaritan Health Center and provide copies of the contraceptive pamphlet for teenagers who frequent the clinic. Samaritan Health Center is in Danbury, CT serves underserved and uninsured children and teenagers in the area.
- ▶ For future possible interventions in the population aged 20-44:
 - ▶ 1. Attaching the contraceptives pamphlet to the packet of paperwork given to all young new patients at family practices in Danbury in order to provide more widespread knowledge of the types of contraceptives.

References

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- ▶ 2. Trussell, James, et al. "Preventing unintended pregnancy: the cost-effectiveness of three methods of emergency contraception." *American Journal of Public Health* 87.6 (1997): 932-937.
- ▶ 3. Forrest, Jacqueline Darroch. "Epidemiology of unintended pregnancy and contraceptive use." *American journal of obstetrics and gynecology* 170.5 (1994): 1485-1489.
- ▶ 4. McNicholas, Colleen, et al. "The Contraceptive CHOICE Project Round Up: What We Did and What We Learned." *Clinical obstetrics and gynecology* 57.4 (2014): 635-643.
- ▶ 5. Secura, Gina M., et al. "Provision of no-cost, long-acting contraception and teenage pregnancy." *New England Journal of Medicine* 371.14 (2014): 1316-1323.
- ▶ 6. Sonfield A and Kost K, *Public Costs from Unintended Pregnancies and the Role of Public Insurance Programs in Paying for Pregnancy-Related Care: National and State Estimates for 2010*, New York: Guttmacher Institute, 2015, <<http://www.guttmacher.org/pubs/public-costs-of-UP-2010.pdf>>, accessed February 23, 2015.
- ▶ 7. "National & State Data | The National Campaign." *National & State Data | The National Campaign*. N.p., n.d. Web. 06 Aug. 2015.

Interview Consent Form

- ▶ Thank you for agreeing to be interviewed. This project is a requirement for the Family Medicine clerkship. It will be stored on the Dana Library ScholarWorks website. Your name will be attached to your interview and you may be cited directly or indirectly in subsequent unpublished or published work. The interviewer affirms that he/she has explained the nature and purpose of this project. The interviewee affirms that he/she has consented to this interview.
Yes / No

If not consenting as above: please add the interviewee names here for the department of Family Medicine information only.

Name: Dr. Laurie Schedgick-Davis

- ▶ Thank you for agreeing to be interviewed. This project is a requirement for the Family Medicine clerkship. It will be stored on the Dana Library ScholarWorks website. Your name will be attached to your interview and you may be cited directly or indirectly in subsequent unpublished or published work. The interviewer affirms that he/she has explained the nature and purpose of this project. The interviewee affirms that he/she has consented to this interview.
Yes / No

If not consenting as above: please add the interviewee names here for the department of Family Medicine information only.

Name: Kathleen McCoy APRN