Promoting Patient-Centered Family Planning Care Through a Novel Web-Based Decision Support Tool

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Outline

- Background: Women Veterans’ reproductive health status & gaps in VA care
- CDA and MyPath intervention overview, including theoretical and conceptual frameworks
- MyPath development process and preliminary usability findings
- Conclusions and next steps
Poll question #1

What is your primary role in VA?

a) VA researcher
b) Non-VA researcher
c) Clinician
d) Management/operations
e) Other
Women Veterans are the fastest growing population of new VA users

Number of women Veteran VHA patients in each year, FY03-FY12

Age distribution among women Veteran VHA patients, FY12

Sourcebook Vol. 3: Women Veterans in the Veterans Health Administration
Who are reproductive-aged women Veterans?

- Multiple risk factors for adverse reproductive-health outcomes
  - Disproportionately from lower income strata and high prevalence of homelessness
  - Disproportionately from racial/ethnic minority groups
  - High medical disease burden (e.g. obesity & chronic pain)
  - High psychiatric disease burden (e.g. depression & PTSD)
  - High prevalence of sexual assault histories

Reproductive health status of women Veterans

UNINTENDED PREGNANCY

- Examining Contraceptive Use and Unmet Need (ECUUN study, PI Borrero, VA IIR 12-124)
  - Cross-sectional, telephone-based survey of 2302 women Veterans to assess reproductive outcomes and factors affecting reproductive health risks

- Key finding: 1/3 of pregnancies among women Veterans are unintended, similar to age-adjusted general population despite increased access to care through VA

Borrero, Callegari, et. al.: JGIM 2017
Reproductive health status of women Veterans

PREGNANCY OUTCOMES

- Veterans have higher incidence of gestational diabetes (40% increase) and pre-eclampsia (30% increase)

- Possible increased risk of preterm birth
  - Established risk factors - minority race/ethnicity, low SES
  - Novel risk factors - PTSD and recent deployment

Recommendations to address unintended pregnancy and poor pregnancy outcomes

- CDC and OPA advocate comprehensive family planning care services including:
  - Reproductive goals assessment
  - Contraceptive care to enable women to prevent unwanted pregnancies
  - Preconception care to help women optimize medical and mental health prior to pregnancy
  - Patient-centered approach
 Nearly 30% of women Veterans at risk of unintended pregnancy not using effective contraception

- Contraceptive and reproductive health knowledge low

Over 1/3 of Veterans disagreed that VA providers offered key elements of patient-centered contraceptive counseling

Fewer than half of Veterans considering pregnancy received any preconception counseling

Borrero, Callegari, et. al.: JGIM 2017; Rosenfeld, et. al.: Contraception 2017; Callegari: SFP Annual Meeting 2016; Callegari: Academy Health Annual Meeting 2018
Interventions to improve family planning services?

Reproductive Life Planning
- Do you have any children now?
- Do you want to have (more) children?
- How many (more) children would you like to have and when?

Johnson: AJOG 2006
Poll question #2

What percentage of women report ambivalent feelings about becoming pregnant?

a) 5-10%
b) 10-20%
c) 20-30%
d) 30-40%
Is “reproductive life planning” a meaningful concept for all women?

- As many as 30-40% of women experience ambivalent feelings about potential pregnancy that make defining a plan difficult.

- Some low-income women may not see pregnancy planning as achievable (relationship/financial security “pre-requirements” are elusive).

- Pregnancy planning may not be valued by all women.

- Unintended pregnancies may be happy, welcome events.

Borrero: Contraception 2015; Aiken: Perspect Sex Reprod Health, 2016; Callegari: AJOG 2017
Patient-Centered Family Planning Care

Reproductive Goals Assessment

- Preconception Counseling
- Contraceptive Counseling

- Women who desire pregnancy now
- Women who do not desire pregnancy now and are open to preconception counseling
- Women who do not desire pregnancy now and are not open to preconception counseling

Callegari: AJOG 2017
CDA Aims

- To develop & test a patient-facing, patient-centered web-based decision support tool to improve quality of family planning services in VA primary care and reproductive outcomes among women Veterans

Specific Aims

1. To determine Veterans’ and providers’ family planning decision support preferences and needs
2. To develop and pilot test a patient-facing web-based family planning tool (“MyPath”)
3. To test the effect of the tool compared to usual care in a randomized controlled trial
Theoretical Framework: Self-determination Theory in Health

Patients’ motivation is determined by whether their psychological needs are met:

- **Autonomy**
  - Perception of being the origin of one’s own behavior, behaviors align with central values

- **Competence**
  - Confidence & self-efficacy to achieve change through having necessary skills & tools

- **Relatedness**
  - Being respected, understood & cared for by provider; trust & connectedness to support behavior change

*Ryan, Patrick, Deci, and Williams 2008; Ng 2012*
MyPath Conceptual Model

Veteran characteristics

Women Veterans ages 18-44 in primary care settings
Use MyPath Decision Support Tool before visit
Engage with provider

Provider characteristics

Communication Outcomes

Patient-centered Outcomes

Autonomy

Health behaviors

Health outcomes

Adapted from Self Determination Model of Health Behavior (Ryan, Patrick, Deci, and Williams 2008) and Patient-Centered Care Model (Epstein and Street 2007)
MyPath Tool Development Framework

Aim 1
Evidence synthesis
Qualitative needs assessment of users

Aim 2
Veteran Focus Groups
MyPath Tool Prototype
Steering Committee & Veteran Engagement Group
Usability and Pilot Testing

Aim 3
Final Product for RCT

Aim 1: Qualitative studies of Veterans’ & Primary Care Providers (PCPs)’ Needs

Objectives

1. What are Veterans’ and PCPs’ experiences of receiving or delivering family planning counseling and care?

2. What are Veterans’ and PCPs’ preferences and needs related to family planning counseling and care?
Aim 1: Qualitative Veteran study

- **Study population**: Women Veterans ages 18-44 w/primary care visit at VA Puget Sound or Pittsburgh in past year

- **Methods**
  - Recruitment by mail, oversampled racial/ethnic minorities
  - Semi-structured qualitative telephone interviews 2/16-5/16
  - Open-ended questions about experiences with reproductive health care in military/VA and preferences for care
  - Recruitment continued until thematic saturation reached

- **Analysis**
  - Transcripts analyzed using deductive and inductive content analysis and identified key themes
  - Variation in themes by race/ethnicity
# Veteran Sample Characteristics

<table>
<thead>
<tr>
<th>Total sample N=32</th>
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<tbody>
<tr>
<td><strong>Puget Sound</strong></td>
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<tr>
<td><strong>Mean age (SD)</strong></td>
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<tr>
<td><strong>Race</strong></td>
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<tr>
<td>NH White</td>
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<td>NH Black</td>
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<td>Hispanic</td>
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<td>Asian</td>
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<tr>
<td>&gt;1 Medical conditions</td>
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<tr>
<td>&gt;1 Mental health conditions</td>
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</table>
Experiences: Gender-based discrimination

Military: “[Providers] were judgmental based on my age and the fact that I’m a female. They made it sound like I’m going to miss doses [of the pill], going to be negligent and going to get pregnant. The military opened my eyes to just how sexist people are.”

Military: “Just how doctors word stuff, like you’re a kid. Like they’ll try to shy away from the topic.”

VA: “They kind of blow me off with, ‘you have PTSD and you’re a woman, so it must be in your head, it’s not something real.’”
Experiences: Pressure & Judgment

Military: “She was a very nice doctor and all, but it felt like she was trying to push that medication on me, telling me she was on it herself, and knew people who have tried it. It made me feel pressured to choose it.”

VA: “Some of the doctors kept trying to push more things with ‘if you don’t want this, maybe you should try this’. And I’m like ‘no, I don’t want any of this.’”
Military: “I was only 20. I was nervous to even talk about [wanting to get pregnant] to a lot of providers because I didn’t want to be judged.”

VA: “Mostly, the thing I get is that I’m 28 and I have three kids...So my kids are fine financially, so why are you worried about me being 28 with three kids? At the end of the day, you’re not raising the kids, I am.”

Military: “I was like ‘oh my God, my doctor is going to think that I’m a whore’. I knew that was unrealistic and she probably didn’t think anything of it, but it was just those racing thoughts talking to her about birth control.”
Variation by Black race: judgment & stereotype threat

Military: “I was like ‘oh my God, my doctor is going to think that I’m a whore’, I didn’t want to be judged.”

VA: “Mostly, the thing I get is that I’m 28 and I have three kids...So you’re 28 and you have three kids? At the end of the day, you’re not raising the kids, I am.”

Military: “I was only 20. I was nervous to even talk about [wanting to get pregnant] to a lot of providers because I didn’t want to be judged.”

Being sexually promiscuous

Having too many children
Experiences: Validation and partnerships

VA: “She’ll go over every single option and the pros and cons of each and she’ll answer any questions at all...she didn’t pressure me. She understood and let me make my own decision. She’s never made me feel like I wasn’t valid in any of my concerns.”

VA: “She actually gives me choices and suggests what’s best for me and what’s not best for me. But she does give me the choice of what to take. She just doesn’t say ‘here take this.’ She gives me the risks and benefits and together we choose from there what is best for me.”
Implicit/Explicit Preferences

Counseling Preferences:
1. Provider initiates and validates the conversation
2. Trust and non-judgmental support
3. Preferences and values elicited and shared decision making

Information preferences:
1. Information ahead of visit to be prepared
2. Web-based information helpful if can review it with a provider
Aim 1: Qualitative VA PCP study

- **Study population:** Designated women’s health PCPs in VA Puget Sound or Pittsburgh systems

- **Methods**
  - Recruitment by email
  - Semi-structured qualitative telephone interviews 11/16-2/17
  - Open-ended questions about their approaches and experiences with providing reproductive health care
  - Thoughts and preferences related to tools/interventions

- **Analysis**
  - Transcripts analyzed using deductive and inductive content analysis and identified key themes
Provider Sample Characteristics

- 10 providers: 4 internal medicine MDs, 1 family medicine MD, 4 nurse practitioners
- 6 from Puget Sound, 4 from Pittsburgh
- 9 females, 1 male
- 5 VA only, 5 VA & University affiliation
Experiences: Provider approaches

- Most described using patient-centered approaches to counseling

“Sometimes the right method is the one that the woman is going to stick with. It’s not helping her out if she tells me one thing because she thinks I want to hear it. I’ll ask what’s going to work and what she’s going to actually use.”

“Really it’s about being open to and letting the patient drive it. It’s their plan, not my plan, so it’s ‘what do you want’? And let me figure out how to help get what you want.”
Experiences: Challenges to patient-centered care

- Difficulty with understanding ambivalent pregnancy intentions or decisions to not use contraception.

“I just clarify that with them, ‘so basically what you’re telling me is that you’re trying to conceive, because if you’re not preventing, then you’re trying’. [Ambivalence] is usually a red flag if there’s some other strange thing happening in the relationship. I just find that it’s such an aberrant attitude towards pregnancy, that I start to wonder what else is going on with them.”
Experiences: Challenges to patient-centered care

- Difficulty when women’s preferences did not align with effective or hormonal birth control methods.

“I wish people wouldn’t have these preconceived notions about chemicals or hormones.”

“The conferences probably have placed something in my brain because I really try to push IUDs and implantables. I think that’s what gets emphasized a lot in training programs.”
Preferences related to interventions to improve counseling & care

- Tools to provide education or identify patients’ needs ahead of visit viewed as potentially useful.

- Interventions or tools should not add to PCP workload or disrupt clinic flow.

- No additional clinical reminders!
Poll question #3

If you are a clinician, have you used any patient-facing web-based decision support or education tools in your practice?

a) Yes
b) No
MyPath Tool Development Framework

- Evidence synthesis
- Qualitative needs assessment of users
- Veteran Focus Groups
- MyPath Tool Prototype
- Steering Committee & Veteran Engagement Group
- Usability and Pilot Testing
- Final Product for RCT

Aim 1
Aim 2
Aim 3

## Aim 2: MyPath Paper-based Storyboard

<table>
<thead>
<tr>
<th>Section</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Thoughts &amp; Feelings about Pregnancy</td>
<td>Help women clarify reproductive goals and communicate them to providers</td>
</tr>
<tr>
<td>2. Menstrual Cycle &amp; Fertility</td>
<td>Educate about fertility and menses common misperceptions</td>
</tr>
<tr>
<td>3. Health Before Pregnancy</td>
<td>Educate about preconception risk factors and health behavior modification.</td>
</tr>
<tr>
<td>4. Birth Control*</td>
<td>Educate women about method aspects, side effects, support women in linking individual preferences and needs to specific methods</td>
</tr>
</tbody>
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*Summary Printout: Bring to visit to facilitate shared decision making*

*Birth control section adapted from a previously developed tool by Dehendorf et. al at UCSF*
Aim 2: Usability Testing Highlights

1. Many women did not read instructions → “show rather than tell” with modal pop-up boxes

2. Women wanted control over what they viewed and order → made content optional with open menu

3. Some women uncomfortable with personal nature of pregnancy thoughts questions → added “Prefer not to answer” response

4. Overall most women had very positive experience of tool, however some felt too much info → control over amount of information they view
YOUR MYPATH JOURNEY

In 15 minutes or less, MyPath gives you information to help you make informed decisions about pregnancy and/or birth control. Tap on each menu item below to explore and learn more.

- Thoughts about pregnancy and children
- Menstrual cycle and fertility FAQ
- Health before pregnancy info
- Birth control – find your method
- Show MyPath summary

Got Questions?

Keep track of them here and they will be added to your summary page.
QUESTIONS FOR YOUR PROVIDER

Type your questions in the box below and they will be saved to your summary page.

Can you feel the implant under your skin?

Can I keep taking anti-depressants while pregnant?
YOUR MYPATH JOURNEY

In 20 minutes or less, MyPath gives you the chance to consider your thoughts about pregnancy and provides information on a variety of topics. Tap on the menu items below to explore and learn more.

THOUGHTS ABOUT PREGNANCY

The next few questions are designed to help you consider your thoughts and feelings about pregnancy. There are no right or wrong answers and these answers might change over time.

Do you currently have any children?

- yes
- no
- not sure

Do you think you might like to have children at some point?

- yes
- no
- not sure

What are your thoughts about pregnancy today?

- I'd like to get pregnant right now
- Not trying, but I'd be ok with it
- I would like to be pregnant later, but not now
- I don't want to get pregnant ever
- I'm not sure
HEALTH BEFORE PREGNANCY

If you are considering pregnancy now or in the future, you might be interested in learning about how your health could affect a pregnancy.

Click on each of the images below to learn about things you can do before pregnancy so you and your baby can be as healthy as possible.

MENTAL HEALTH

Mental health conditions like depression, anxiety, and PTSD may increase your chance of having a baby born early and having postpartum depression. Working with your mental health providers to be as healthy as possible can help.

MEDICATIONS

Many medications are safe in pregnancy, but some medications or vitamins can be harmful to a developing baby. Talking to your provider about your medications before pregnancy can help you be prepared.
YOUR MYPATH SUMMARY

Here is a summary of your information from MyPath. You can take it into your visit with your health care provider to start your conversation about your reproductive goals and health.

<table>
<thead>
<tr>
<th>My Thoughts on Pregnancy and Children</th>
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<tbody>
<tr>
<td>Your thoughts on children</td>
<td>Not sure if I want children</td>
</tr>
<tr>
<td>Your thoughts on pregnancy</td>
<td>I would like to be pregnant later, but not now</td>
</tr>
<tr>
<td>When you think you might like to become pregnant</td>
<td>In the next few years</td>
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<tr>
<td>How important avoiding pregnancy is to you</td>
<td>Very important</td>
</tr>
<tr>
<td>How happy you would feel if you got pregnant</td>
<td>Somewhat happy</td>
</tr>
<tr>
<td>How upset you would feel if you got pregnant</td>
<td>Somewhat upset</td>
</tr>
<tr>
<td>Your current birth control method(s)</td>
<td>the pill</td>
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<tr>
<td>Satisfaction with your current birth control method(s)</td>
<td>Somewhat satisfied</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>My Topics: Menstrual cycle and fertility FAQ / Health before pregnancy</th>
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<tbody>
<tr>
<td>Fertility</td>
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<tr>
<td>Vaccines</td>
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<tr>
<td>Finances or housing</td>
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<tr>
<td>My medical conditions</td>
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<tr>
<td>Zika virus</td>
<td></td>
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<tr>
<td>Family history of medical or mental health problems</td>
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<tr>
<td>My medications</td>
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<tr>
<td>Healthy birth spacing for me</td>
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</table>

| Birth control methods you want to talk about /                         |
|------------------------------------------------------------------------|--|
| hormonal iud                                                          |  |
| implant                                                               |  |
Aim 2: MyPath Pilot Study

- **Primary objective:** Assess acceptability and feasibility of using MyPath in real-world clinical setting

- **Study population:** Women Veterans ages 18-44 with scheduled primary care visit at the VA Puget Sound Women’s Clinics

- **Inclusion criteria:** Self or partner not sterilized or infertile, sexually active with men

- **Design:** Non-randomized 2-arm pilot study
  - Recruit 30 controls prior to introducing the tool in clinic
  - Recruit 30 intervention after introducing the tool in clinic
MyPath Pilot Study

Usual care Control (n=30)
- Baseline survey in waiting room before visit
- Provider interaction
- Post-visit survey
- 3 month follow up survey

Intervention (n=30)
- Baseline survey in waiting room before visit
- Uses MyPath Tool in Clinic Waiting Room
- Receives 1-page Summary to Bring to Visit
- Provider interaction
- Post-visit survey
- 3 month follow up survey
MyPath Pilot Study Outcomes

- **Acceptability and feasibility:**
  - Surveys and open-ended questions for Veterans and PCPs

- **Preliminary assessment of efficacy:**
  - **Communication Outcomes**
    - Receipt of counseling
    - Provider-patient communication quality and shared decision making
    - Provider-patient communication self-efficacy (PEPPI scale)
  - **Behavioral/Clinical Outcomes**
    - Contraceptive use
    - Effectiveness of contraceptive method
    - Preconception health behavior change

- **Patient-centered Outcomes**
  - Preconception/Contraception knowledge
  - Preconception/Contraception self-efficacy
  - Decision conflict scale for contraception
Summary and next steps

- Addressing gaps in VA reproductive health services needed to ensure women Veterans are able to achieve healthy and desired pregnancies

- MyPath Decision Support tool was developed using theory and evidence-based design to educate and empower women Veterans and has the potential to improve care and outcomes

- Next steps include completion of pilot testing, further refinement of tool/intervention in preparation for RCT and implementation studies in partnership with Women’s Health Services
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“Women 4 Women Veterans”
Questions?

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