Development of an iPad waiting room “app” for contraceptive counseling in Title X Clinics

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Introduction
• Unintended pregnancy rates remain high in the U.S., especially for young women.
• Uptake of LARC by young women is low; novel approaches needed.
• Previously, we systematically assessed barriers to IUD service delivery in 3 Chicago Title X clinics using Failure Modes Effects and Criticality Analysis (FMECA).
  o Mixed-methods approach engaging care team and patients
  o Created process maps of IUD care
  o Identified then ranked potential problem areas ("failures") according to risk
  o High-risk failures targeted for intervention
• Decided on waiting room iPad application ("app") to address 3 high-risk failure areas:
  1. Insufficient educational materials on LARC methods
  2. Limited time for contraceptive counseling
  3. Low awareness of LARC methods

Methods
Guiding principles of app development:
• Human-centered design
  o Visually appealing, fun to use
  o Emphasis on LARC, but info on all methods
  o Reflects multiple learning styles (e.g. text, graphics, video)
  o Opportunities for self-navigation vs. prescribed pathways
• Strong grounding in behavioral theory (Fig. 1)
• Evidence-based content
• Synergy with clinic counseling and procedures
• Easy integration into clinic environment

Steps:
1. Developed low-fidelity prototypes in Powerpoint.
2. From August 2012 to March 2013, conducted iterative rounds of usability testing with young women at the University of Chicago (n=7) and Title X clinics (n=10) to gauge user experience re: content, design, and navigation.
3. Made multiple adjustments between rounds of user testing, based on feedback.
4. Filmed brief video testimonials with young women using LARC to provide firsthand perspective.
5. Worked with University of Chicago programming team to design native iPad app.

Results
• Users preferred contraceptive effectiveness conveyed in absolute numbers vs. percentages or categories.
• Patient testimonials received very favorably.
• Most popular information categories for contraceptive methods: “How does it work?” “What can I expect?” and “What will he think?”
• Final app prototype depicted in Figure 3.

Figure 3. Flow and example pages from final app prototype

• App was well received by clinic staff and did not disrupt clinic flow.
• Impact of app on LARC attitudes and uptake was evaluated in pilot RCT (n=60) of young women ages 15-29 in one Title X clinic. Analysis underway.

Conclusions
• Digital technology and HCD are useful tools for creating low-cost, patient-centered interventions.
• The ubiquity of digital media in patients’ everyday lives can be harnessed to motivate behavior change.
• Clinic-based efforts may be further enhanced via apps that can be downloaded directly to patients’ phones in advance of a clinical visit.

Figure 1. Theory of Planned Behavior

Figure 2. Users testing app prototype

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