

Pulse: A Web-Based, Teen Pregnancy Prevention Mobile App Intervention

The Office of Population Affairs (OPA) funded the development and rigorous evaluation of the Pulse program to determine if it is an effective approach for improving contraceptive knowledge and decreasing risky sexual behavior. This program joins the ranks of Teen Pregnancy Prevention (TPP) programs that have experienced positive outcomes when evaluated for effectiveness. OPA's TPP Tier 2 grantees develop, replicate, refine, and rigorously evaluate additional models and innovative strategies to reduce teen pregnancy. The TPP programs that experience favorable impacts are then considered evidence-based and become eligible to replicate in communities across the country.

Program Overview

Pulse is a web-based mobile health application (app) accessible through mobile devices. The goals of Pulse are to increase birth control use and reproductive healthcare clinic use, and ultimately decrease teen pregnancy. Participants include Black and Latinx women ages 18 to 20 who were not pregnant or trying to become pregnant at baseline and who have daily access to a smartphone. Pulse provides comprehensive, medically accurate sexual and reproductive health information, in English and Spanish, through engaging interactive and multimedia features. These features include dynamic text and graphics, self-assessments, comics that present sexual and reproductive health scenarios, videos of racially diverse peers that model real-life scenarios, including short films promoting birth control use and clinic use. Pulse has six sections covering approximately three hours of material: (1) Know your options (birth control methods and birth control reminders); (2) Get personal (healthy relationships and consent); (3) Know your body (anatomy and physiology, sexually transmitted infections); (4) Take action (find a provider, what to expect at a clinic, appointment reminder); (5) Make a plan (pregnancy and pregnancy testing); and (6) Get savvy (frequently asked questions, links to external resources).

Users can interact with Pulse as frequently or infrequently as they choose. They can access the app anywhere as long as they have their mobile device and internet connection. Youth randomly assigned to the intervention condition receive access to Pulse indefinitely and receive regular multimedia messaging services (MMS)

Program/Intervention Name

Pulse

Program Overview

A web-based mobile health application grounded in the theory of planned behavior and self-efficacy. It provides medically accurate sexual and reproductive health information to young women, in English and Spanish, through engaging interactive and multimedia features. Pulse is self-led and does not require a specific sequence.

Setting

Web-based mobile health app

Population

Black and Latinx young women ages 18 to 20

Type/Mode

Web-based mobile health app

Length/Duration

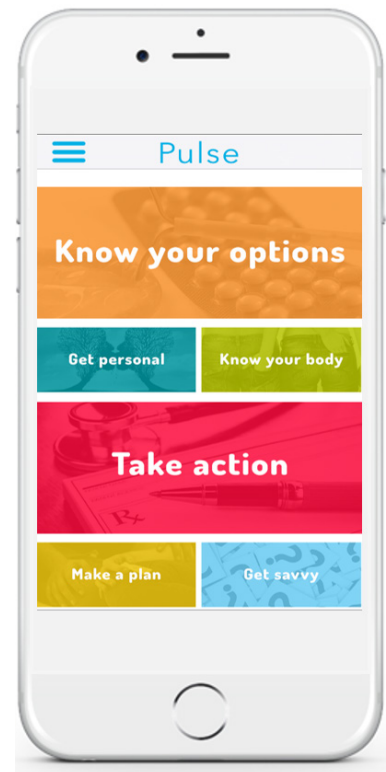
Six sections covering approximately three hours of material

approximately every three days related to sexual health for six weeks. These MMS strengthen core information included in Pulse, link users to specific Pulse activities, alert them of upcoming surveys and research updates, and provide a channel of communication if they experience any technical difficulty.

Evaluation Study Design and Results

The evaluation design was an individual randomized controlled trial. In total, the evaluation team randomly assigned 1,300 women to the Pulse intervention group or the Pulse comparison group. Immediately after completing a baseline survey, the comparison group was directed to the Pulse “comparison” app which was custom-built to be identical to the Pulse intervention and bears the same name and branding. The intervention Pulse and comparison Pulse look and feel similar aesthetically but contain different content. Like the intervention group, the comparison group received MMS approximately every three days containing Pulse “comparison” app content, links to its activities, and alerts. Unlike the intervention group, the comparison MMS was about general health and nutrition rather than sexual health. Participants in both the intervention and comparison groups received a baseline survey and an immediate post-intervention survey (six weeks after randomization). All surveys took place online. The implementation evaluation assessed adherence, quality, contextual factors, responsiveness, and youth experiences with the app.

Pulse was found to be effective at improving contraceptive knowledge. Adolescents in the first cohort receiving the Pulse intervention, compared to those receiving the Pulse comparison, were less likely to have risky sex and had greater contraceptive knowledge and birth control self-efficacy at the six-week follow-up. Adolescents in the second cohort of the intervention reported improved contraceptive knowledge.



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