



RESEARCH INSIGHTS

Addressing Provider Bias through Evidence-Based Medicine: A Randomized Controlled Trial in Jordan

This study examines the impact of an evidence-based medicine program on family planning providers' knowledge, attitudes, and reported clinical practices in Jordan. The findings suggest that this program, particularly as a standalone intervention, might not be effective when there is strong provider and consumer bias against a contraceptive method.

Over the past 10 years, the modern contraceptive prevalence rate in Jordan has remained unchanged at around 42 percent. A relatively high proportion of married women (19 percent) uses traditional family planning methods, reflecting a general reluctance to use modern methods. Hormonal methods are especially unpopular among consumers due to fears of side effects and other health concerns. Biases and misconceptions toward hormonal methods are equally found among Jordanian health providers.

The SHOPS project in Jordan (*Ta'ziz Tanzim Al Usra*) and its predecessor project implemented an evidence-based medicine (EBM) program to address biases among family planning providers in the private sector, an important source of modern methods in the country. EBM encourages providers to take into account updated medical evidence, along with their clinical expertise and patient values, to deliver high quality health services. Using facilitated roundtable discussions and detailing visits to clinics, the SHOPS EBM program aims to reduce misconceptions and improve knowledge of methods by providing information on the side effects of modern methods based on scientific evidence.

The first EBM programs targeting oral contraceptives demonstrated promising results: Approximately 66 and 71 percent of targeted providers participated in roundtables on combined oral contraceptives (COC) and progesterone-only pills (POP) respectively. This indicated a strong interest in the EBM approach. In addition, a COC pre-post program evaluation showed an increase in the ability of providers to correctly identify specific risks and benefits of COCs, an increase in the reported discussion of family planning with clients, and an increased willingness to prescribe COCs to women who had not yet had a child. In 2012, SHOPS expanded the EBM program to target the contraceptive injectable, DMPA, an unpopular method in Jordan due to concerns about its short-term side effects. The SHOPS project



Mais Halaïqa

The SHOPS evidence-based medicine program aims to reduce misconceptions and improve knowledge of family planning methods through detailing visits (shown here) and facilitated roundtable discussion.

Key Findings

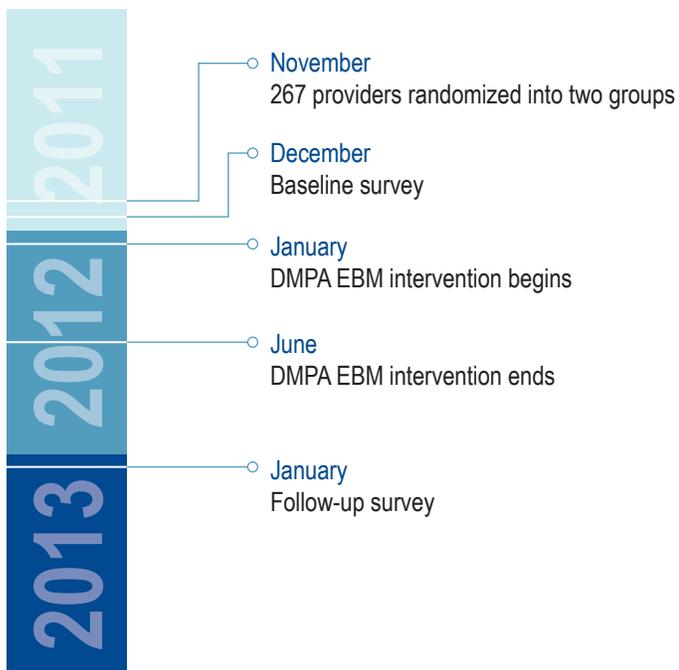
- Participation in the EBM DMPA roundtables was very low.
- There was no detectable impact of the EBM program on providers' knowledge of DMPA and its side effects.
- Evidence suggests that the intervention led to a slight improvement in attitudes toward and confidence in DMPA.
- The EBM program did not lead to a detectable change in DMPA practice.

conducted a randomized controlled trial of the DMPA program to assess provider interest and the impact of EBM on changes in knowledge, attitudes, and practices.

Methods

The evaluation sample consisted of 267 private family planning providers in two urban areas: Amman and Zarqa. SHOPS randomly assigned 135 providers to a treatment group and 132 providers to a control group. Over the course of six months, only the treatment group providers were invited to attend the roundtable discussion on DMPA and received two detailing visits at their clinics. SHOPS conducted a baseline and a follow-up survey with both groups before and after the EBM DMPA program (see Figure 1). The surveys collected information about the providers' knowledge of DMPA side effects, their attitudes toward and confidence in the method, and their reported clinical practices such as discussing DMPA with clients or prescribing it. The SHOPS team constructed four scores to assess main outcome measures in knowledge, attitude, confidence, and practice.

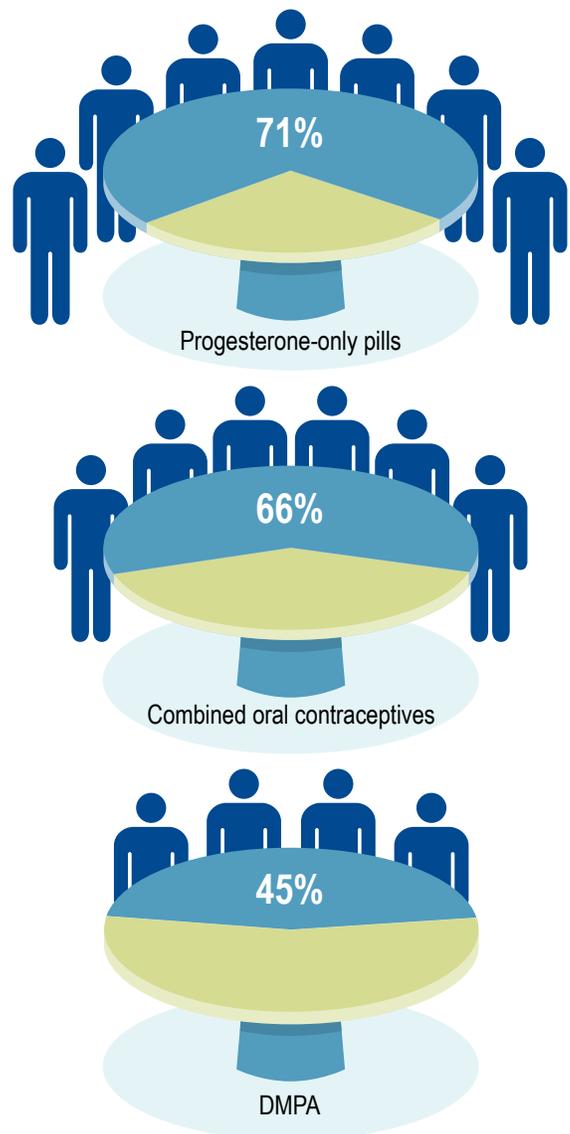
Figure 1. Study Timeline



Findings

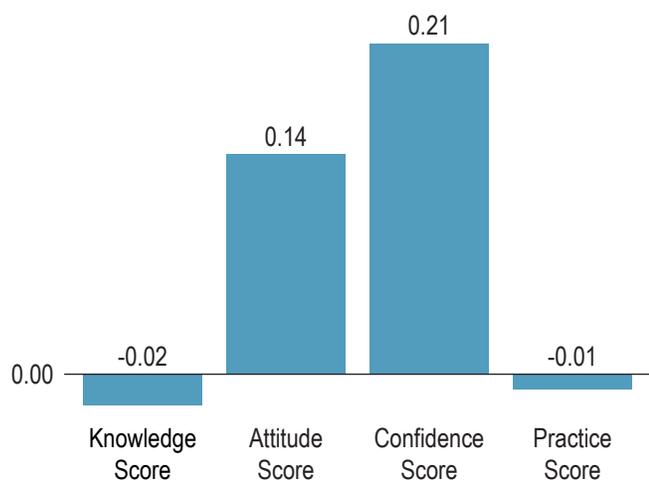
Participation in the EBM DMPA roundtables was very low. Approximately 45 percent of the treatment group providers invited to the DMPA roundtables attended. In comparison, the COC and POP roundtables had a 66 percent and a 71 percent attendance rate, respectively (see Figure 2). About 76 percent of the treatment group providers received both detailing visits. Overall, only 38.5 percent of the treatment group providers participated in the complete EBM DMPA program. These low participation rates may be associated with the unpopularity of DMPA among providers and consumers.

Figure 2. Attendance Rates at EBM Roundtables (%)



There was no detectable impact of the EBM program on providers' knowledge of DMPA and its side effects. Providers in the treatment group, who were assigned to participate in the EBM program on DMPA, had a similar knowledge score as providers assigned to the control group (see Figure 3). Thus, the intervention did not appear to increase provider knowledge.

Figure 3. Difference in scores between treatment and control groups



Evidence suggests that the intervention led to a slight improvement in attitudes toward and confidence in DMPA. The attitude score is on average 0.14 higher in the treatment group compared to the control group (equivalent to a 15 percent difference). Likewise, the confidence score is 0.21 higher in the treatment group (equivalent to a 6 percent difference) compared to the control group. While these results suggest that the impact of the EBM program on attitudes and confidence is positive, the estimates are not significant at traditional confidence levels, possibly because of limited sample size.

The EBM program did not lead to a detectable change in DMPA practice. Similar to the knowledge score, the practice score—which measures providers' level of stocking, discussing, and prescribing DMPA at their clinics—is similar for both treatment and control groups. This finding is not surprising, given that providers' knowledge and attitude scores remained largely unchanged. In addition, given that EBM encourages providers to consider patient values and preferences when making clinical decisions, strong consumer biases against DMPA may have been a major barrier for providers to discuss or prescribe this method.

Program Implications

Evidence-based medicine, particularly as a standalone intervention, might not be effective when there is strong provider or consumer bias against a method. Faced with low demand and negative consumer attitudes toward DMPA, Jordanian providers may be resistant to changing their own attitudes and clinical practice regarding the method, despite the availability of research evidence refuting biases and misconceptions. While EBM appeared to be effective at addressing provider biases with respect to contraceptive pills, the program was less effective in the case of DMPA. A low rate of attendance at the DMPA roundtables undermined the potential effect the EBM program could have had.

In the context of DMPA or similarly challenging clinical topics, the EBM program should look for ways to optimize the roundtable and detailing activities and complement them with additional approaches. Providers may benefit from a more well-informed and empowered consumer. Complementary and simultaneous interventions that provide method-specific information to consumers in a way they can easily understand may help reduce the negative consumer attitude that limits provider interest in the method. Related evidence continues to emerge from the SHOPS project's experience. This includes promising results from the project's work on other family planning methods in which provider behavior change interventions are complemented by consumer education and behavior change interventions. Additional investigation is needed to understand the order and intensity of consumer and provider focused interventions, and their impact on uptake.



Arwa Bustami

A facilitated roundtable discussion on DMPA.

This summary is based on research conducted by the SHOPS project. For more information, contact info@shopsproject.org.

The evaluation team for this study included Dr. Rebecca Thornton as a third-party researcher from the University of Michigan Department of Economics to ensure objectivity.

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For more information about the SHOPS project, visit: www.shopsproject.org



Abt Associates Inc.
4550 Montgomery Avenue, Suite 800 North
Bethesda, MD 20814 USA
Telephone: 301.347.5000 • Fax: 301.913.6019
www.abtassociates.com