

Poster title adjustment: “Boosting Flu IQ: Moms for Vaccination”

MomsTalkShots, tailored Educational App, Improves Vaccine Attitudes: A Randomized Controlled Trial

I. Introduction

a. Only 55% of pregnant women received an influenza vaccine in the 2020-21 season.

i. This is below the 80% goal for pregnant women.

b. Knowledge, Attitude, Beliefs (KABs) on vaccines

i. Mothers form vaccine decisions for child’s life after first pregnancy

ii. Opinions differ based on race, ethnicity, education, gender, and socioeconomic status.

iii. HCP find it hard to change a mother’s personal decision (opinion is usually negative)

c. Misinformation on vaccines leads to many misperceptions from pregnant women about vaccines.

i. New moms discover they’re pregnant and go to social media/network sites.

1. Littered with people that lack a license to give medical advice.

ii. Inadequate information from primary HCP creates uneducated decisions.

iii. Prenatal care providers lack education and training to discuss vaccines.

d. Reach undecided people with tailored information about vaccines.

i. Chance to properly educate pregnant women.

e. MomsTalkShots (educational app) was created to help educate pregnant women in a personalized manner on why they should keep up with their vaccines while pregnant.

i. Liquidates false information and misperception.

ii. Personalized information helps pinpoint areas of concern.

iii. Increases knowledge and willingness to get vaccinated

II. **Purpose** -

“The main objective of this analysis was to evaluate the impact of MomsTalkShots on vaccine KABs.”

III. **Methods** -

A. The study used a factorial design and randomization to assess the impact of the interventions.

- i. The app was part of a larger intervention to improve maternal and infant vaccine uptake which included provider and practice level interventions.

B. Patients lived in Colorado and Georgia.

- i. This study recruited pregnant women from diverse prenatal care practices in both states, with half of final participants being from either state.

C. Patients received randomly assigned educational videos.

- i. After the video assignments, surveys were used to assess vaccine intentions and knowledge.
- ii. The women were to potentially refer this app to their contacts to increase vaccine uptake.

IV. **Results** -

A. Of 3904 eligible women, only 2087 contributed data to the standards of the analysis.

- i. 1524 women completed the initial survey (1-month post-birth), 1117 completed the final survey (1-year post-birth).
- ii. 46% were first time pregnancies.

B. Initial vaccine intentions.

- i. 56% of women intended to receive both (flu and Tdap) vaccines initially, 16% to receive one, 14% to receive neither, 13% were unsure.
- ii. 81% intended to receive all recommended vaccines, 11% to receive some or none, 8% were unsure.

C. MomsTalkShots videos' effects on all participants.

- i. In the one-month survey, 61% of recipients had high perceived risk of maternal influenza compared to 55% in controls.
- ii. 73% of recipients had high confidence in vaccine efficacy compared to 63% in controls.
- iii. 55% had high perceived vaccine knowledge, 48% in controls.
- iv. In the one-year survey, 62% of recipients had high perceived vaccine knowledge compared to 50% in controls.

D. Effect of the videos on only those not intending to vaccinate.

- i. In the one-month survey 38% of recipients had high perceived risk of maternal influenza, 32% in controls.
- ii. 44% of recipients had high confidence in vaccine efficacy compared to 28% in controls.

E. Effect of the videos on only those who were unsure about their vaccination intentions.

- i. In the one-year survey, 47% of recipients had high perceived vaccine knowledge compared to 12% in controls.

- ii. 71% of recipients had high specific safety concerns with infant vaccines compared to 91% in controls.

V. **Conclusion** -

- A. Through public health oriented and preventive measure programs such as MomsTalkShots, people can be swayed from a position of little education, mistrust or even indifference on infant vaccination to one of education and confidence in vaccines.
- B. Public health services such as the MomsTalkShots videos are an improvement over some types of information that is already provided surrounding infant vaccination because the program considered demographics, ease of use (smartphone app), and algorithms tailored to an individual's education needs.

References -

Dudley, M.Z., Omer, S.B., O'Leary, S.T., Limaye, R.J., Ellingson, M.K., Spina, C.I., Brewer, S.E., Bednarczyk, R.A., Chamberlain, A.T., Malik, F., Frew, P.M., Church-Balin, C., Riley, L.E., Ault, K.A., Orenstein, W.A., Halsey, N.A., Salmon, D.A. (2022). MomsTalkShots, tailored educational app, improves vaccine attitudes: A randomized controlled trial. *BMC Public Health*, 22(2134), 1-12. <https://doi.org/10.1186/s12889-022-14498-7>.