

Title of Study: Exploring the Experience of Using a Prayer Mobile App

Date: 11/6/22

Study Protocol

Research Question:

What are the feasibility and preliminary effects of using Pray.com on spiritual well-being and mental health (stress, depressive and anxiety symptoms) in racial ethnic minority adults (i.e., individuals who identify as Black/African American, Latinx/Hispanic, Asian/Pacific Islander, Native American, or Multiracial)?

Hypothesis:

Individuals who use the Pray.com app will report that they are satisfied with the app, will use the app, and will report improved spiritual well-being and reductions in mental health indices (stress, depressive, and anxiety symptoms).

Outcomes:

Primary outcome: Feasibility (i.e., acceptability, demand, practicality)

Secondary outcomes: Spiritual well-being, satisfaction with life, religious commitment, racial/ethnic identity, stress, depression/anxiety

Measures:

Feasibility questions

- Acceptability (satisfaction, intent to continue use, perceived appropriateness, fit within culture)
- Demand (actual use, expressed interest, perceived demand)
- Practicality (ease or difficulty of use, ability to use app, cost analysis)

Well-being

Spiritual well-being scale (SWBS)

Satisfaction with life scale (SWLS)

Multi-ethnic identity measure (MEIM)

Religious commitment inventory (RCI)

Mental health

Perceived Stress Scale (PSS)

Hospital Anxiety and Depression Scale (HADS)

Miscellaneous items

Demographics

Sample size and inclusion criteria:

N = 75 (main study)

Subsample *n* = 15 (qualitative interviews)

Participants will be recruited through social media and various organizations that serve racial/ethnic minorities. Participants will be over the age of 18 and identify as a racial/ethnic minority (i.e., individuals who identify as Black/African American, Latinx/Hispanic, Asian/Pacific Islander, Native American, or Multiracial). Participants also must be willing to participate in a study that involves engaging in a regular Christian religious practice and are willing to download the Pray.com app.

Procedure:

Eligible participants will be given the Pray.com app and directed to use it daily. At the end of the study, a subsample of participants (N = 15) will be randomly asked to participate in an interview.

Participants will complete measures at baseline (i.e., time 1) and four-weeks (i.e., time 2). Participants will be compensated for their time completing surveys at baseline (\$15) and post (\$25) intervention for a total of \$40 at the end of the intervention. Participants who complete the qualitative interview portion of the study will receive an additional \$40. Participants who complete both surveys will also be entered in a drawing at the end of the intervention to win one of three \$99 gift cards. Finally, all participants will receive the Pray.com app for free for one year.

Statistical Analysis Plan

Quantitative feasibility data will be analyzed using descriptive statistics. Qualitative feasibility data will be analyzed using conventional content analysis. Data for the secondary outcomes will be analyzed using longitudinal multilevel modeling, exploring the effect of time on the dependent variables. We will also check for moderation with key variables (e.g., religious commitment, racial/ethnic identity). The main hypothesis is that participants will report high levels of acceptability, demand, and practicality after using the app.

Informed Consent Form

**BIOLA UNIVERSITY
CONSENT TO ACT AS A HUMAN RESEARCH PARTICIPANT**

Exploring the Experience of Using a Prayer Mobile App

**Lead Researcher
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Participation is Voluntary

You are being asked to participate in a research study. Participation is completely voluntary. Please read the information below and reach out via email with questions or about anything that you do not understand. A researcher will be available to answer your questions via email.

Study Purpose

The purpose of this research study is to explore the experience of using a prayer mobile app, including satisfaction, fit within one's culture and belief system, and preliminary effects on mental health and well-being.

AM I ELIGIBLE TO PARTICIPATE IN THIS STUDY?

You must meet the following criteria to be included in this study:

- 18 years of age or older.

- Identify as a racial/ethnic minority (e.g., Black/African American, Latinx/Hispanic, Asian/Pacific Islander, Native American, Multiracial)
- Own a smartphone and be willing to download a mobile app.
- Willing to engage in a Christian-based religious practice on a mobile app.

WHAT PROCEDURES ARE INVOLVED WITH THIS STUDY AND HOW LONG WILL THEY TAKE?

1. In this study, you will be given a free subscription to a Christian-based mobile app. You will be required to complete an online survey at two time points. Each survey will take about 15 minutes of your time. You will be asked to engage in a personal religious practice that will be completed through a mobile app on your phone. You may receive periodic reminders on your phone to engage in the religious practice. We anticipate that this involvement will take about 25 minutes per week.
2. Participation in the study will include 2 monthly surveys as well as the regularly brief religious practice (i.e., a few minutes several times per week) and take a total of about 2-3 hours over a period of 1 month.
3. After completing the study, a smaller subset of participants will be randomly selected to complete a qualitative interview to further discuss their experience with the mobile app. This interview will be recorded and take approximately 30-60 minutes. Participants will receive additional compensation for completing the interview. Participation in this additional portion of the study is also voluntary, and you may participate in this first part of the study without committing to the qualitative interview.

WHAT ARE THE BENEFITS RELATED TO THE STUDY?

Benefits to Participants: Possible benefits to this study include participation in the personal religious practice, as well as feelings of pride and contribution from participating in a research study.

Benefits to Others or Society: Participation in this study may increase our understanding about how people experience the mobile app, as well as the effects of engaging in personal religious practices on mental health, spiritual health, and well-being.

WHAT ARE THE POSSIBLE DISCOMFORTS OR RISKS RELATED TO THE STUDY?

There are no known harms or discomforts associated with this study beyond those encountered in normal daily life. The possible risks and/or discomforts associated with the procedures described in this study include feelings of discomfort about sharing information about your mental health, spiritual health, and well-being, as well as a potential for a breach of confidentiality.

ARE THERE ANY ALTERNATIVE TREATMENTS OR PROCEDURES

There are no alternative procedures available. The only alternative is not to participate in this study.

WILL I BE PAID FOR TAKING PART IN THIS STUDY?

You will be asked to complete 2 online surveys. You will receive a \$15 gift card for completing measures at Time 1. You will receive a \$25 gift card for completing measures at Time 2. If you complete both time points, you will be entered in a raffle for one of three \$99 gift cards. You will also receive a free subscription to a Christian mobile app for one year following completion of the study. Total compensation for participation in this study is \$40 in gift cards.

If you are randomly selected to participate in the qualitative interview and agree to participate, you will receive an additional \$40 for your participation in the interview.

If you decide to withdraw from the study or are withdrawn by the research team, you will receive compensation for the surveys that you have completed.

Reimbursement

You will not be reimbursed for any out-of-pocket expenses.

Costs

There is no cost to you for participation in this study. However, there may be out-of-pocket expenses.

WHAT HAPPENS IF I WANT TO STOP TAKING PART IN THIS STUDY?

You are free to withdraw from this study at any time without loss of benefit for which you are otherwise entitled. **If you decide to withdraw from this study, you should notify the research team immediately.** The research team may also end your participation in this study if you do not follow instructions or if your safety and welfare are at risk.

WHAT INFORMATION WILL BE COLLECTED AS PART OF THIS STUDY

We will collect your name, email address, responses to questionnaires and interviews, and usage data from the religious practices mobile app. We will store all responses to questionnaires and app-usage data in a de-identified form (kept separated from any personal identifying information). The data you provide will only be linked to you through a unique participant ID number that will be assigned to you by the research team once you begin the study, except that we may provide Pray.com with your email address to obtain app usage data from the mobile app. We may pair your usage data from the religious practices mobile app with your survey responses (e.g., how often you completed the assigned practices).

HOW WILL MY PERSONAL INFORMATION BE KEPT?

Subject Identifiable Data

Identifiable information collected about you will be used to provide compensation and contact you to complete follow-up surveys. It will be removed at the end of data collection.

Data Storage

Research data will be stored electronically on a laptop computer in an encrypted file and is password protected. Datasets will be maintained in a secure, online survey management system that is password protected.

If you are randomly selected to participate in the qualitative interview and agree to participate, the audio/visual recording of the interview will be stored in a secure location and transcribed. The recordings will be erased at the end of the study.

WHO WILL HAVE ACCESS TO MY STUDY DATA?

The research team, authorized Biola personnel and service providers, the study sponsor, and regulatory entities and other public authorities such as the Office of Human Research Protections (OHRP), may have access to your study records for the purposes described in this consent form, and to protect your safety and welfare or the safety and welfare of others.

Identified (email) data regarding mobile app usage will be shared only between Pray.com and the research team on this study. Identifiable survey responses will not be shared with Pray.com.

While the research team will make every effort to keep your personal information confidential, it is possible that an unauthorized person might see it. We cannot guarantee total privacy.

Aggregate results of this study may be used in reports, presentations, and publications.

Future Research Use

Researchers will use your information to conduct this study. Once the study is done using your information, we may share them with other researchers so they can use them for other studies in the future. We will not share your name or any other private identifiable information that would let the researchers know who you are. We will not ask you for additional permission to share this de-identified information.

ARE THERE OTHER ISSUES TO CONSIDER IN DECIDING WHETHER TO PARTICIPATE IN THIS STUDY?

Investigator Financial Conflict of Interest

The Principal Investigator has equity interests in Pray.com. The Co-Principal Investigators received payment from Pray.com in exchange for helping with this research project.

WHO CAN ANSWER MY QUESTIONS ABOUT THE STUDY?

If you have any comments, concerns, or questions regarding the conduct of this research, please contact the research team listed at the top of this form.

If you have general questions, have concerns or complaints about the research, have questions about your rights as a research subject, or have general comments or suggestions, please contact the Biola Institutional Review Board by phone at (562) 903-4894, or by e-mail at IRB@Biola.edu.

What is an IRB? An Institutional Review Board (IRB) is a committee made up of scientists and non-scientists. The IRB's role is to protect the rights and welfare of human participants involved in research. The IRB also assures that the research complies with applicable regulations, laws, and institutional policies.

HOW DO I AGREE TO PARTICIPATE IN THIS STUDY?

You will indicate your consent electronically below by typing your name, date, and clicking "I agree to participate in the study." You should not indicate your consent until all of your questions about this study have been answered by a member of the research team listed at the top of this form. You may be given a copy of this signed and dated consent form to keep. **Participation in this study is voluntary.** You may refuse to answer any question or discontinue your involvement at any time without penalty or loss of benefits to which you might otherwise be entitled. Your decision will not affect your future relationship with Biola University.

Your consent below indicates you (a) are at least 18 years of age or older, (b) have read the information in this consent form, and (c) have had a chance to ask any questions you have about this study.

Typed Name of Participant

Date

I agree to participate in the study.

Yes

No

If you are randomly selected to participate in the qualitative portion of this project, please indicate your willingness to have your interview recorded:

Yes, I agree to allow the research team to record my interview.

No, I do not agree to allow the research team to record my interview.