Co-Designing for Menstruation Journey using Asynchronous Remote Communities (ARC) Method

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Abstract

Prior have previously highlighted that menstrual tracking does not support other experiences affected my menstrual health, such as religious implications.
Our study aims to engage with Muslim women (N=16) through Asynchronous Remote Communities (ARC) to complete a set of remote activities for 8 weeks. This is to allow us to collectively design for the menstrual tracking experience that simultaneously considers their health and religious well-being. We present preliminary findings and next steps for our work. We aim to contribute design considerations for designing equitable health tracking technologies.

Introduction

The use of Asynchronous Remote Community (ARC) as a research method contribute to an ongoing conversation of accessing stigmatized populations (Maestre et al. 2018). ARC studies allows data collection through multiple methods (email, survey, interview, etc.) because it allows participants to engage with activities on their own schedule. A limitation to this method of research is that recruitment is limited to those with access to technology.

Epstein et al. (2017) examines how and why women track their menstrual cycle. Women typically utilize apps, digital or paper calendars, noticing early symptoms to predict their period or ovulation. People often change their goals and methods of menstrual tracking, and apps rarely support these transition. Epstein et al. (2017) notes that there should be more information and options relating to fertility, pregnancy, and post-partum. Building on this work, Ibrahim et al. (2024) highlights that the conversation about menstrual tracking can be expanded upon when discussing religious accommodations for Muslim women

The purpose of this study is to engage with other participants in designing for the menstrual journey for Muslim women population in the US. The target population for this study is Muslim women above the age of 18 who practice the faith and track their menstrual cycle.

Methodology

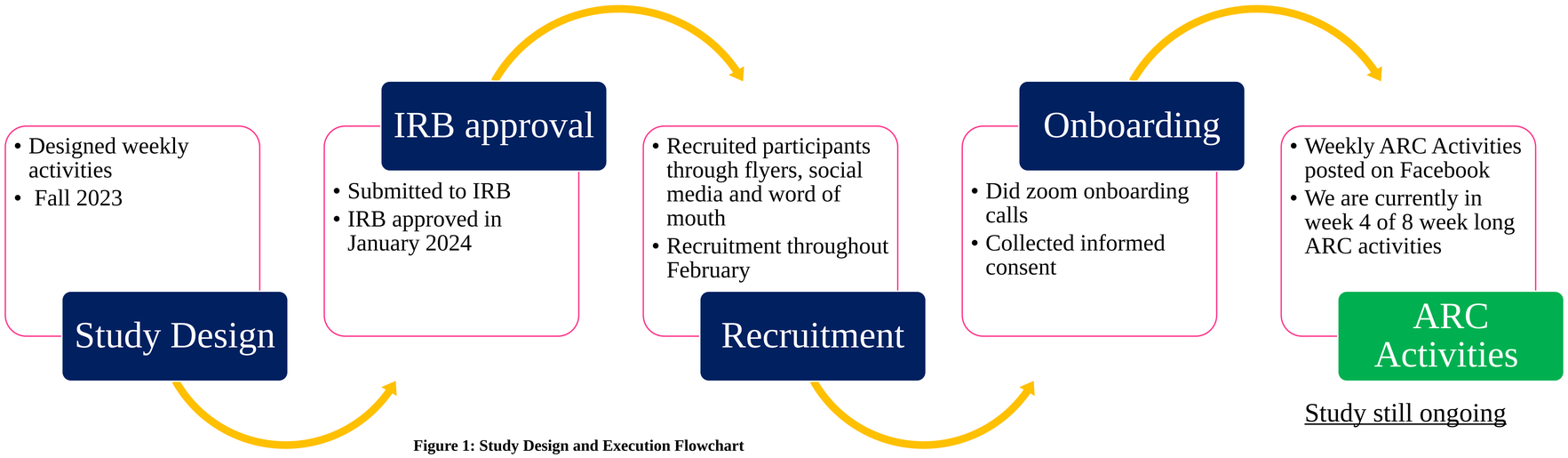

Figure 1: Study Design and Execution Flowchart

Preliminary Results

Activity	% Engagement
1A	80
1B	93.3
2A	66.7
2B	46.7
3A	60
3B	53.3
4A	53.3

Figure 2: Shows percentage of participants who completed each ARC Activity

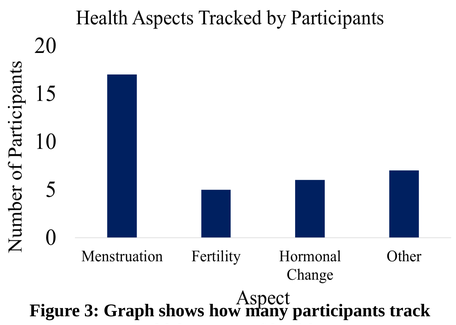

Figure 3: Graph shows how many participants track which aspects of health

Thematic Analysis

A2B: Scenario- Menarche Experience [Health]

This scenario asked participants to explain how they would educate a 12-year-old Muslim girl about menstrual health, what resources they would use, and what they wished they knew at her age. We identified four key themes in the responses: **Explain Biological/Physiological Aspects, Use Visual Aids, Talk to a Professional, and Lack of Education.**

Explain Biological/Physiological Aspects

Many participants revealed that while educating the young girl, they would place emphasis on the biology behind menstruation.

*P4 - "I would explain to her the **biological aspect** of the menstrual cycle and explain that every woman experiences it. It's just like an alarm clock."*

Use Visual Aids

Some participants also revealed that they would use visual aids to help explain the process of menstruation.

*P13 - ""...The **health encyclopedia physical book**, online with Mayo Clinic, with Cleveland Clinic, and a **physical anatomy diagram**. CDC sexual health website and posters and pamphlets....trying to **read scientific pictures** to become more informed..."*

Talk to a Professional

Participants displayed an interest in having the young girl speak with an expert in the field

*P4 - "an all-female Muslimah panel consisting of a **psychologist, gynecologist, Ustadha, and an educator** to go over the girls' development of the mind and body from an Islamic and scientific perspective"*

Lack of Education

Many participants voiced that they wish they had more education in their childhood on women's health

P3 - "I wish I knew my period would not be regular always because of pcos"

Future Directions

The next course of action will be to finish the last 4 weeks of the ARC activities.

Next, we will conduct a larger thematic analysis for every ARC activity.

What I've Learned

- Reading scientific literature
- IRB Approval and Participant Consent
- ARC Study Design
- Creating a Qualtrics Survey
- Thematic Analysis

References

Epstein, D. A., Lee, N. B., Kang, J. H., Agapie, E., Schroeder, J., Pina, L. R., ... & Munson, S. (2017, May). Examining menstrual tracking to inform the design of personal informatics tools. In *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems* (pp. 6876-6888).

Ibrahim, Z., Panchpor, P., Nurain, N., & Clawson, J. (2024). "Islamically, I am not on my period": A study of menstrual tracking in Muslim women in the US. *In Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems*. https://doi.org/10.1145/3613904.3642006.

Maestre, J. F., MacLeod, H., Connelly, C. L., Dunbar, J. C., Beck, J., Siek, K. A., & Shih, P. C. (2018, April). Defining through expansion: conducting asynchronous remote communities (arc) research with stigmatized groups. *In Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems* (pp. 1-13).