

## **Abstract**

### [Background]

Behavioral characteristics gained attention in health economics as they affect people's health and communication in clinical settings (Axon, Bradford & Egan 2009; Anderson and Mellor 2008; Galizzi et al. 2016), yet the evidence is limited largely due to difficulties in data collection.

### [Purpose]

We examine how pregnant women's risk and time preferences as well as pregnant women-health workers' preference differences affect treatment and health outcomes.

### [Method]

An interview-style survey was conducted at 32 health centers located in Phnom Penh, Cambodia during August 2023. We obtained responses from 361 pregnant women (exist survey) and 314 health workers. Then we conducted the telephone follow-up survey in May 2024 to obtain birth outcomes, which we managed to follow up 221. To obtain behavioural characteristics, we used (i) lottery while playing a few games (*Risk*), (ii) preferred options for timings to receive hypothetical reward money sooner or later (*Impatience*), (iii) tendency to postpone tasks for future (*Procrastination*). For the health worker- pregnant woman differences, we subtracted the pregnant woman's score from the average score of health workers working in the health centre. We used healthcare satisfaction, blood pressure and baby's death in the course of pregnancy and newborns as a health indicator.

### [Results]

Lower and significant risk tolerance scores for pregnant women than health workers were found. For time preferences, health workers were more patient and less procrastinate. A risk taker has a lower systolic blood pressure, procrastinating individuals have lower healthcare satisfaction, and higher probability of losing her baby during the pregnancy or at the newborns. Impatience is not related to any treatment and health outcomes. Pregnant women-health workers' difference in risk and procrastination affects both treatment and health outcomes. When health workers are more risk averse, the health outcome of pregnant women became better in terms of blood pressure and baby's death. For procrastination, the results are mixed, and what is apparent is differences matter.

### [Discussion]

In line with previous literature, health workers do not discount future gains than pregnant women, yet risk attitude is unique as pregnant women are more risk averse than health workers. Further, risk takers have

lower blood pressure. This could be caused by the uniqueness of pregnant women to experience constant worries during the pregnancy and being risk tolerant may provide stable mental health preventing higher blood pressure. Although procrastination has negative consequences on health, we find no association between impatience and health outcomes. Further study is needed to explore the mechanism and conducting the research focusing on pregnant women in other country with different experiments for robustness and generalizability is beneficial.

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