Background: Pregnancy is accepted as a maturation crisis. Health behaviour is very important, because it has a direct effect on health of pregnant mothers and their foetus. PREG-CAL is a mobile application program which operated on smartphones or tablets based on android operating system. This application was developed as an alternate tool for promoting self-care potential of pregnant women and their families sustainably.

Method: A Quasi-experimental research design, one-group with pre-test and post-test, aimed to examine effectiveness of applying the PREG-CAL to promote health of Thai pregnant women. Therefore, knowledge, health behaviour and haematocrit between pregnancies were tested. Sample of this study composed of 30 pregnant women who received antenatal care at Chokchai Community Hospital, Nakhon Ratchasima Province. Data was analysed using a paired-t test.

Results: It was found that the score on knowledge (mean = 35.77, SD = 3.07) and health behaviours (mean = 173.00, SD = 9.47) of pregnant women after using the application called PREG-CAL 3.0 was higher than the score on knowledge (mean = 28.93, SD = 5.13) and health behaviours (mean = 162.27, SD = 12.29) before using the application statistically (p< .01). In case of haematocrit, it demonstrated that mean haematocrit level (mean = 36.05, SD = 3.28) after using PREG-CAL was statistically higher than level of haematocrit before (mean = 34.60, SD = 3.37) using the application (p <.001).

Conclusion: This study showed that the PREG-CAL could improve knowledge, health behaviours and haematocrit level of Thai pregnant women. Therefore, due to an ease for use and access, the PREG-CAL could be an alternative tool for promoting health behaviours of Thai pregnant mothers. Recently, the PREG-CAL has been downloaded more than 70,000 times and has current users on smartphones or tablets more than 20,000 users. Moreover, satisfaction level which was rated by Google play is approximately 4.8 from 5.0.

Biography
Jantakan Kanjanawetang had completed her PhD in Nursing from Chulalongkorn University, Thailand. She is the Deputy Director of the Centre for Innovation and Educational Technology, and the Former Associate Dean of Nursing Institute, Suranaree University of Technology, Thailand. She has long experience on teaching maternal nursing and midwifery for nursing students for more than 20 years.