A research team led by Assistant Professor Shefaly Shorey (left) developed a novel mobile application to deliver postnatal educational programmes. Pilot testing of the app showed that new parents who used it experienced significantly better parenting outcomes. Credit: National University of Singapore
A research team led by Assistant Professor Shefaly Shorey from the Alice Lee Centre for Nursing Studies at the National University of Singapore's (NUS) Yong Loo Lin School of Medicine has developed a novel mobile application to deliver postnatal educational programmes and to provide the much needed postnatal supportive care on the go. Findings from a pilot test showed that new parents who use the app experienced significantly better parenting outcomes.

The 'Home-but-not Alone' app was developed to address the current gap in the continuity of care for new parents between the maternity ward and home setting, and help couples make a smoother transition to parenthood. "The early period after a mother gives birth can be a stressful transitional period for both parents. The app is specially designed to deliver postnatal psychoeducation to new parents who are not confident in caring for their newborn on their own. This provides additional support to help parents cope with the challenges of parenthood and newborn care," Asst Prof Shorey explained.

Piloted over a period of six months from December 2015 to May 2016 with a total of 250 participants, 126 of the participants (63 couples) had received the educational support via the app and were compared against a control group of 124 participants (62 couples). The early-postnatal educational app was found to boost the parenting confidence of new parents; assured the new parents of better perceived social support and hence encouraged them to proactively seek help when they encountered uncertainties; and brought them greater parenting satisfaction - all of which positively affect their emotional and general well-being.

The findings on the intervention have been published online in the Journal of Advanced Nursing in March 2017.

Gap in existing postnatal supportive care
The early postpartum period is often a challenging but crucial period for new parents because they typically feel anxious or overwhelmed while trying to cope with their new role as a parent. Early studies have shown that postnatal educational programmes are beneficial as they could help ease the transition of new parents into parenthood. The added knowledge and support acquired from the programmes strengthen the psychological wellbeing of the parents.

According to Asst Prof Shorey, "There's a gap in existing postnatal supportive care in Singapore. Here, the average length of stay for mothers post-delivery is two to three days and early discharge within 24 hours is also not uncommon. It is not possible to carry out such educational interventions smoothly and effectively for these short hospital stays. New parents, especially, feel overwhelmed by the amount of information given to them by their healthcare providers during their short stay, and some have difficulties retaining the information."

She added, "Although postnatal education programmes are beneficial, the focus remain primarily on mothers. Based on our previous studies, both mothers and fathers, alike, would like to have fathers be more involved in the caring for their newborn. Fathers often feel that they lack the confidence and know-how. The delivery of the programmes through this mobile app is able to help overcome this challenge. It equips fathers with child-caring information and a helpline at their fingertips so they are more empowered to step up and take on a more proactive role."

**Features of the 'Home-but-not Alone' app**

The app, which took Asst Prof Shorey and her team six months to develop, was designed to provide new parents with psychoeducation support - the knowledge-based content serves to guide and empower the parents to deal with their parenting situations in an optimal way. The app featured an easy-to-navigate database on role-specific educational
contents, periodic push notifications to provide timely information and asynchronous communication with healthcare professionals (i.e. participants could ask specific questions they may have about any parenting matter ala-forum on the app and these would be answered by a dedicated mid-wife at a scheduled time daily).

The educational content included PDF files on topics ranging from newborn to maternal care; videos on various newborn care tasks such as baby bathing and breastfeeding; and audio files on the content covered in the PDF files for mothers who had restrictions on reading during their confinement period.

Better parenting outcomes with 'Home-but-not Alone' app

The usefulness and effectiveness of the 'Home-but-not Alone' app was evaluated by comparing the results from the intervention group which had access to the mobile app on top of the routine maternity care provided by the hospital, against the results from the control group which only received routine maternity care support. The routine postnatal care involved educational support on maternal and infant care from nurses and midwives during each mother's hospital stay and an appointment with doctors between 10 days to six weeks postpartum. The couples were randomly assigned to the intervention and control groups.

At the end of the four-week access to the app, the intervention group had scored higher for parenting confidence, perceived social support and parenting satisfaction, compared with the control group which had no access to the app.

Feedback from new parents was largely positive, and all participants found the app easy to use and a convenient information resource.

**Future developments and research**
Asst Prof Shorey and her team are currently refining the app to introduce educational sessions and care guides from as early as a mother's discovery of pregnancy until after she has given birth. The team will also incorporate some recommended features from the user feedback before testing the app further at a few centres at some local tertiary hospitals in the near future.

Asst Prof Shorey also plans to do a longer term study on the postnatal psychoeducational programme, to see whether it could help reduce postnatal depression among parents.


Provided by National University of Singapore


This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.