Validating the Kimberley Mum's Mood Scale (KMMS)

Feedback for staff

Why was this study done?

- Perinatal mental ill health is a major public health issue affecting 20% of Australian mothers within the first year post birth, impacting on capacity to bond and "mother" her infant.
- Perinatal anxiety and depressive disorders are the most prevalent of these conditions. Early identification, appropriate support and if necessary treatment, can divert the potential for a negative trajectory for mother and baby, enhance parenting and life skills, emotional development, and strengthen relationships.
- The Edinburgh Postnatal Depression Scale (EPDS) is the most widely used screening tool for perinatal depression. However, it is recognised that the language in the EPDS can be complex and confusing for many Aboriginal women and engaging them in its use can be challenging. The level of acceptability and healthcare provider compliance in administering this tool among Aboriginal women is low.
- The need for a culturally safe screening tool led to the development of the Kimberley Mum's Mood Scale (KMMS). We wanted to see if the KMMS is a reliable, valid and acceptable tool for identifying Kimberley Aboriginal women who are at risk of perinatal anxiety or depressive disorders when compared to a clinical diagnosis.

How was this study done?

- From 9 May 2013 to 11 June 2014, 97 Aboriginal women aged 16 years and older, from 15 Kimberley towns and communities, who intended to continue with their pregnancy or had a baby within the previous 12 months enrolled in the study.
- Study personnel administered the KMMS and using the score from Part 1 (similar in structure to the EPDS, but with Kimberley English and locally designed graphics) and the psychosocial discussion (Part 2) gave an overall risk assessment of no risk, low risk, medium risk or high risk.
- 91 of these women were also seen by an experienced GP (most within 24 hours of the KMMS), who used DSM IV criteria to clinically diagnose anxiety and/or depressive disorders. The severity of diagnosis was based on the GP Mental State Examination. The GP did not know what the overall KMMS risk assessment was (this is the blinded reference standard).
- We compared the KMMS risk assessment to the diagnosis made by the study GP.
- Directly after the KMMS was administered participants were asked to complete a short questionnaire about their experience. After data collection, study personnel were also asked to complete a questionnaire; this was followed up by an interview with the study coordinator regarding their experiences in using the KMMS.

What did we find?

KMMS is sufficiently accurate to be used to screen for anxiety and depressive disorders:

- Part 1 had high internal consistency (Cronbach's alpha = 0.89). This suggests the change from 'standard English' to 'Kimberley English' and use of local graphics did not affect KMMS' reliability.
- The overall KMMS risk equivalence level for screening for anxiety or depressive disorders was ≥ moderate (sensitivity, 82.6%; specificity, 86.8%; positive predictive value, 67.9%).
- An overall KMMS risk of moderate or high detected all participants who were diagnosed with moderate or high risk anxiety and/or depressive disorders.
- The 4 participants who were "missed" by this cut-point were assessed as low-risk (low severity anxiety or depression) by both the study personnel and the study GP. They had all strong social supports, were already engaged with appropriate services and had demonstrated high resilience. The study personnel and study GP management plans were consistent.

The KMMS was accepted by participants and after debriefing by most study personnel

- Participants reported that “it was good”, “helpful”, and that they “liked the questions”, which were clear and ‘easy’ to answer and understand. They also said that they liked telling their life story: “I talked about my childhood, family, personal life”.
- This gave them an opportunity to decide if the clinician (study personnel) could cope with their reality; to place themselves in the world; to give the clinician an understanding of what the world looks like from their perspective; and that this should now be clear to the clinician.
- Study personnel found the KMMS moderately or extremely useful for screening. They reported that through KMMS Part 2’s guided enquiry women opened up to them at far deeper levels than they had done before.
- Both participants and study personnel often described a painful but positive and productive shift in their relationship. Extensive debriefing for study personnel was usually required following sessions where participants divulged difficult and traumatic experiences.

What does this mean?

- The KMMS is a reliable and valuable tool for identifying Kimberley Aboriginal perinatal women at risk of anxiety and depressive disorders.
- The sensitivity of KMMS (83%) to detect anxiety and/or depression is similar to other studies using the EPDS (median 88.5%).
- We found KMMS to be a culturally safe and non-judgemental tool. The questions used in KMMS helped shape the conversion and opened up a space for participants to talk about anything they wanted to discuss. This enabled healthcare providers to gain a better understanding of participants’ experiences and contributing factors to perinatal anxiety and depression. This process allowed generation of mutual respect and understanding.
- The diagnostic accuracy and acceptability of the KMMS is better than current practice. Appropriate training and support will be crucial for the uptake of KMMS into routine screening.
- We think that adoption of KMMS will improve the screening process and provide a timelier diagnosis of perinatal anxiety and depressive disorders for Kimberley Aboriginal women.

What happens now?

- Kimberley health services have further refined the KMMS training package and have incorporated it into regional training programs – the first wave of training occurred in 2014.
- Due to the relatively small numbers recruited in this study, further validation of KMMS will be required. We will incorporate this into the implementation of KMMS across the Kimberley.

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If you have any questions or comments on the validation of the KMMS please direct them to A/Professor Julia Marley (Julia.Marley@rcswa.edu.au or (08) 9194 3235); on using the KMMS please direct them to Melissa Williams (Melissa.williams@health.wa.gov.au) or Janet de San Miguel (mchcoord@kamsc.org.au).

For more information about the KMMS and training see: www.kimberleymumsmoodscale.weebly.com.

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