

Assessment of Maternal Awareness of Neonatal Danger Signs in Makkah, Saudi Arabia: A Cross-Sectional Study

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ABSTRACT

This study evaluated maternal knowledge of neonatal danger signs among mothers of young children in Makkah, identified the most and least recognized danger signs, and analyzed associations between sociodemographic characteristics and knowledge score. A cross-sectional study was conducted among mothers with children aged two years or younger. Participants were recruited from well-baby and vaccination clinics in Makkah and via social media. A validated Arabic AQ-KNDS questionnaire, which covers sociodemographic variables and 16 neonatal danger signs was utilized for data collection. Each correct response received one point (total score range: 0–16). Descriptive statistics summarized knowledge scores, and univariate and multivariable analyses examined associations with sociodemographic factors. 200 mothers completed the questionnaire. Knowledge scores were non-normally distributed. The median knowledge score was 12 (IQR = 5), indicating a moderate level of knowledge. The most frequently recognized danger signs were absence of anus (95%) and failure to pass urine within 24 hours (93.5%), while cough unrelated to breastfeeding (52%) and diarrhea (55%) were the least recognized. In multivariable linear regression, antenatal care attendance was the strongest independent predictor of higher knowledge scores. Saudi nationality, higher parity, and younger maternal age were also independently associated with higher knowledge levels. Mothers in Makkah showed a moderate level of knowledge regarding neonatal danger signs. Maternal knowledge appeared to be influenced by antenatal clinic attendance. Adjusting how education is delivered to specific groups could help improve how well some mothers recognize clinical signs in newborns.

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