Abstract

Background

In cross sectional, case control and retrospective cohort studies, duration of Exclusive Breastfeeding (EBF) usually depends on maternal recall. Retrospective data are often subjected to recall bias and could lead to a potential for exposure misclassification. The purpose of the present paper is to assess the validity of maternal recall of EBF duration during infancy, after cessation of EBF and to evaluate the two methods to collect retrospective data on EBF.

Methods

A cohort study was carried out in Naula Medical Officer of Health (MOH) area. Study cohort included all infants born during the months of February to April 2008 and currently residing in Naula MOH area. Baseline data collection was carried out using the pregnancy record, the child health development record and by using an interviewer administered structured questionnaire. Data extraction from the pregnancy record and the child health development record were carried out by public health midwives. The interviewer administered structured questionnaire was administered by the MOH during the follow-up visits. Duration of EBF was assessed in three ways; based on prospective data since birth: Retrospective data based on an event calendar: and the Mother reported EBF duration.

Results

A total of 114 mother-infant pairs were recruited and followed up. Proportion of infants receiving EBF up to the completion of the sixth month by the three methods were; data since birth (actual EBF rate) - 23.9%; mother reported data - 77.7% and event calendar method - 41.3%. Median duration of EBF reported in the three methods was 5, 6, and 5 respectively. A statistically significant difference was observed in these differences from Kaplan-Meire Survival analysis (Log rank test - Chi square-63.4, $p < 0.001$). Validity of retrospective methods was analysed using data since birth as the gold standard. Sensitivity of both methods to detect exclusively breastfed babies were 100.0%. Specificity of mother recall data was 26.2% (95%CI-17.9, 36.8%) compared to 75.0% (95% CI-64.5, 83.2%) in the event calendar method.

Conclusions

Retrospective evaluation methods systematically overestimate the duration of EBF. Maternal recall data provide highly unspecific data whereas use of an event calendar provided more valid data. Reporting of data accrual methods in breastfeeding studies will allow the readers to interpret findings accurately and the use of event calendars rather than direct questioning as a valid method of determining EBF is recommended