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Adaptation and Preliminary Evaluation of the NeoEAT-Breastfeeding Tool in Tamil: Parent-Report of Infant Feeding Behaviour

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Introduction: Early identification of infants struggling with feeding is critical. Negative behavioural responses to feeding become more established with time leading to persistence of long term feeding problems which become more challenging to treat (Georgieff, Brunette, & Tran, 2015). The Neonatal Eating Assessment Tool (NeoEAT)-Breastfeeding tool was developed and validated as a parent-report measure of feeding difficulties for use with infants younger than seven months old in English (Pados et al., 2017). The tool has 62-items divided into seven subsections with a six-point rating scale describing the frequency of a behaviour.

Objective: Adaptation of NeoEAT breastfeeding in Tamil and conducting a preliminary evaluation of the tool.

Method: The adaptation of the tool in Tamil followed standard procedures specified by the tool developers and guidelines for tool-translation and adaptation by WHO (2019). Three speech-language pathologists and two neonatologists rated the iteratively revised version for content validity using five broad questions. Data were collected from parents of 134 infants during their visit to the Sri Ramachandra Hospital. Known-groups validity was assessed by comparing total scores on the tool between typically feeding infants (n=100) and infants with a parent-reported concern of feeding difficulty (n=34) by an independent-sample t-test. Test-retest reliability was examined by having parents of 77 infants complete the tool telephonically after three days of first assessment. Internal consistency reliability of the tool was assessed for the items in the seven subsections.

Results: The content validity indices for the tool calculated as per the method suggested by Lynn (1986) ranged from 0.8 to 1.0 and was within appropriate ranges. Infants with the parental concern of feeding difficulties scored significantly higher on the NeoEAT breastfeeding tool (M=69.88, SD=12.95; t(132)=17.08, p=0.01) in comparison with typically feeding infants (M=25.95, SD=12.95) indicating known-groups validity. The test-retest reliability for total scores assessed by the intraclass correlation coefficient (ICC=0.99, p<0.001) was high. Spearman's rank correlation coefficients for test-retest reliability of overall score and total scores of subsections ranged from 0.89 to 0.99 and were significant (p<0.001). Cronbach's alpha for

four out of the seven subsections was more than 0.7 suggesting adequate or high internal consistency.

Conclusion: The NeoEAT-Breastfeeding Tool in Tamil holds promise as a clinically reliable tool for early identification of feeding issues in infants among Tamil speaking population. Research is ongoing to expand the data sample for factor analyses of the tool.