Brief behavioural intervention for infant sleep problems reduces depression in mothers

**QUESTION**

**Question:** Does brief behavioural intervention aimed at modification of infant sleep patterns at age 8 months improve maternal depression and child sleep at 2 years?

**Patients:** 328 mothers reporting infant sleep problems at age 7 months. Mothers were recruited to the study when the infant was 4 months old but were only allocated to intervention or usual care if they reported infant sleep problems in a questionnaire administered at 7 months of age. Exclusions: infants born before 32 weeks’ gestation; or mother’s English too poor to complete self-report questionnaire.

**Setting:** Well child centres in six government areas (two low, two medium and two highly disadvantaged), Melbourne, Australia. Recruitment October to November 2003.

**Intervention:** Brief behavioural sleep intervention (n = 174) or usual well child care (n = 154). Sleep intervention was delivered by specially trained nurses who taught parents two main strategies: either ‘controlled crying’, where parents respond to the infant’s cries at increased time intervals, or ‘adult fading’, where a parent sits with the infant until they fall asleep and then slowly removes this presence over a few weeks. The nurse worked with the mother to develop an individual sleep management plan based on controlled crying, adult fading or simple strategies such as bedtime routine or pacifier use.

**Outcomes:** Primary outcome: maternal depression (Edinburgh Postnatal Depression Scale score community cut-off of >9 or clinical cut-off of >12). Secondary outcomes: parenting practices (Parent Behaviour Checklist), child mental health (Child Behaviour Checklist) and mother’s report of child sleep problems at 2 years or of persistent sleep problems (present at 10, 12 and 24 month assessments).

**Patient follow-up:** Intervention, 82%; usual care, 84%.

**METHODS**

**Design:** Cluster randomised controlled trial (well child centres were the unit of randomisation).

**Allocation:** Concealed.

**Blinding:** Single blind (assessors blinded).

**Follow-up period:** 17 months (until infant was 2 years old).

**MAIN RESULTS**

Of the 174 mothers offered the brief behavioural sleep intervention, 100 took up the offer of help. The controlled crying strategy was chosen by 53 families, adult fading by seven families and the remaining 40 families chose simple strategies such as bedtime routine. When the infants were 2 years old, mothers in the brief behavioural intervention group were less likely to report clinical levels of depression than mothers who received usual care (see online table). There was no difference between the groups in the proportion of children reported to have sleep problems at age 2 years (see table), in parenting practices (harsh discipline and nurturing) or in child mental health (externalising and internalising behavioural problems).

**CONCLUSIONS**

Brief behavioural strategies aimed at improving sleep patterns in infants with sleep problems can reduce depression in mothers.

**ABSTRACTED FROM**


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Emotional distress in mothers of infants constitutes a significant public health problem internationally but few epidemiological investigations have considered the contribution of infant behaviour to maternal mood. Education about strategies to optimise infant sleep and establish sustainable routines of daily care is not widespread and remains controversial. Persistent crying, resistance to soothing, frequent overnight waking and short daytime sleeps in infants are common reasons for help seeking.

While these poorly understood infant behaviours are often attributed to hunger or gastrointestinal pain, they might rather be attributable to infant fatigue in a sociocultural context which emphasises early stimulation. Behaviour management, including regulating feeds, reducing stimulation, recognising tired cues and applying consistent, sustainable soothing and settling strategies, is effective in promoting sleep and reducing crying in infants, and in improving maternal mood and confidence.1 However, opposites suggest that this approach undermines infant trust and the mother–infant relationship and compromises development.

Hiscock and colleagues have already made seminal contributions to evidence, demonstrating that straightforward strategies to promote infant sleep can be taught in primary care and reduce problematic infant sleep and maternal distress. This study makes a further vital contribution through demonstrating that neither infant development nor the mother–infant relationship is compromised by sleep behaviour management and that improvements to maternal mental health are sustained. It also demonstrates that primary health care professionals can incorporate this non-stigmatising intervention readily into routine practice.

Postnatal depression is a widely used but broadly defined construct. Occupational fatigue caused by prolonged work hours, shiftwork and insufficient or interrupted sleep is well researched but not yet applied to the work of mothering a newborn. Like depression, it is characterised by irritability and reduced mood, concentration and functional efficiency.2 The investigators speculate on the links between poor infant sleep and maternal mood. Their data support the notion that occupational fatigue might underpin maternal depression and that improvements in the domestic working environment, by improving infant sleep, are central to the development of a competent, confident maternal identity.

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