Evidence Check

Sleep and settling interventions

An Evidence Check rapid review brokered by the Sax Institute
for the NSW Ministry of Health—June 2024

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Parenting Research Centre.

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Contents

Glossary **1**

Executive summary **3**

Background 3

Evidence Check questions 3

Summary of methods 3

Key findings 4

Recommendations 6

Background **8**

Methods **10**

Aims and scope of the study 10

Search strategy, approach and rationale 10

Findings **13**

Evidence gathering 13

Question 1—What is the evidence that settling interventions for infants and young children that are currently recommended and/or in use in the Australian community improve outcomes? 16

Question 2—Based on the findings from Question 1, are there any interventions/approaches that are not recommended? 25

Question 3—Based on the findings from Question 1, are there common elements to settling interventions identified in Question 1 for which there is underpinning evidence? 26

Applicability and recommendations **27**

Recommendations 28

Limitations 29

Declaration of conflict of interest 30

References **31**

Appendices **33**

Appendix 1—Search strategy 33

Appendix 2—PRISMA diagram 39

Appendix 3—Details of included systematic reviews 40
Appendix 4—Details of settling practices recommended by Australian organisations 53

Glossary

Terminology	Definition
Bedtime routine-based approaches	Activities leading up to the child's bedtime.
Bedtime fading/fading out	Gradual change of the child's bedtime to earlier time.
Bedtime resistance	Child postponing bedtime by refusing to go to bed or stay in the bedroom.
Behavioural-based approaches	Strategies/practices based on behavioural learning theory aimed at changing child sleep behaviours.
Camping out/transition settling	Staying in the child's room and providing comfort until the child is asleep.
Comfort settling	Gentle comforting for a few minutes and leaving the room when the child is calm.
Extinction-based approaches	Ignoring the child's crying for a period of time at night.
Feed-play-sleep cycle	Routine of feed and play until the child shows signs of being tired.
Free pass	Giving the child a pass for one request at bedtime.
Gradual extinction	Ignoring the child's crying/demands for specific period of time based on the child's age and temperament.
Gradual withdrawal	Increasing the distance between the child and parent in the room over time with minimal interactions.
Hands-on settling	Gentle touching and comforting of the child while in their cot.
Listen-wait-plan-respond	Listening to and assessing the child's cry and responding appropriately based on cues.
Parental presence	Sleeping in the child's room for a few nights with minimal interactions.
Reward chart	Giving the child a reward (e.g. a stamp) to encourage positive bedtime behaviours.
Responsive settling	Responding to the child's cues and providing comfort to assist the child to fall asleep.
Scheduled awakening	Waking the child before their spontaneous awakening and providing typical comforting/routine.
Settling in arms	Cradling/rocking in arms until the child is asleep and then transferring the child to the cot.

Sleep algorithms	Numerical estimate of the average duration of wake time needed before a sleep and length of time the child should sleep.
Sleep onset latency	The duration of time the child takes to fall asleep.
Sleep remodelling	The child is not permitted to have naps at times that can impact the child's night-time sleep.
Systematic extinction	Ignoring the child's crying or request until the next morning, while ensuring that the child is well (e.g. not sick or injured).
Tired signs	Learning and recognising the child's signs of being tired for specific age groups.
Wrapping/swaddling	Wrapping infants. The concept of swaddling in the systematic review included in this Evidence Check was poorly defined, because of a lack of description of swaddling techniques and tightness in the primary papers included in that review. Wrapping techniques described on Australian websites varied; however, they often referred parents to Red Nose Australia guidelines.

Executive summary

Background

Sleep and settling concerns are common in families with young children; however, there is varying information available to assist parents with this issue. The NSW Ministry of Health is regularly called on to provide advice about strategies to improve settling. The Maternity, Child and Family Unit at the Ministry of Health commissioned this Evidence Check into sleep and settling interventions for infants and children aged 0–5 years. The Parenting Research Centre was contracted to undertake a rapid review addressing the questions below.

Evidence Check questions

This Evidence Check aimed to address the following questions:

Question 1—What is the evidence that settling interventions for infants and young children that are currently recommended and/or in use in the Australian community improve outcomes?

Question 2—Based on the findings from Question 1, are there any interventions/approaches that are not recommended?

Question 3—Based on the findings from Question 1, are there common elements to settling interventions identified in Question 1 for which there is underpinning evidence?

Summary of methods

Our approach involved three steps:

1. Rapid review of systematic reviews of parent-delivered interventions to improve infant and child sleep and settling
2. Scoping review of settling interventions for infants and young children that are currently recommended and/or in use in the Australian community
3. Mapping of Australian interventions and/or elements of interventions to evidence from systematic reviews.

Our rapid review of systematic reviews was limited by strict inclusion and exclusion criteria. For research topics that are known to have several existing systematic reviews, a rapid review of systematic reviews limits the comprehensiveness of the search while reducing review replication by identifying high-level synthesised evidence to address the research questions.

We developed a rapid review search strategy that covered the period January 2000 to April 2024, using the following databases: Cumulative Index to Nursing and Allied Health (CINAHL), PsycINFO and MEDLINE. Systematic reviews were in scope if they assessed the evidence for parent-delivered sleep and settling interventions for infants and children aged 0–5 years and reported on child sleep outcomes. Other child, parent, parenting and parent–child outcomes were also in scope.

In partnership with the Ministry of Health, we selected 39 key organisation websites from which to locate current recommendations for settling interventions in Australia.

We then assessed the extent to which the interventions recommended in Australia, and elements of those interventions, are supported by the evidence[*] identified from our rapid review of reviews.

Key findings

Thirteen systematic reviews on infant and child sleep and settling met the criteria for inclusion in the review of systematic reviews. We excluded 20 systematic reviews because we were not able to disaggregate findings for infants and children 0–5 years. Of the 39 Australian organisation websites searched in the scoping review, 22 included guidance for parents to improve sleep and settling in infants and children and five provided no guidance but did provide links to other sources.

There were considerable consistencies in messaging across websites, which typically provided detailed steps or settling practices for parents to follow. Several Australian organisations referred to their approach to settling as ‘responsive settling’, which was not specifically referred to in the systematic reviews but is recognised as a parenting practice that demonstrates attunement to child needs. Responding to infant and child cues was mentioned in some reviews included in this Evidence Check, but it was not a settling practice specifically tested in the studies included in the reviews.

Overall, there were similarities between some recommendations on Australian websites and evidence found in systematic reviews; however, the systematic reviews often reported effects for broader approaches—that is, a collection of practices—rather than for specific settling practices as outlined by many Australian organisations. Generally, approaches to settling fell into two domains—behavioural and bedtime routines. By **behavioural, we refer to strategies based on behavioural learning theory or behaviourism that are designed to change the sleeping behaviours of children,** whereas **bedtime routines are activities put in place by parents leading up to the child’s bedtime**. We also noted differences and overlap in terminology and definitions across sources that made some direct comparisons challenging (see glossary for definitions used here). In some instances, in reviews and on websites aspects of routine settling were referred to as behavioural approaches.

[*] This Evidence Check relies on high-level findings from systematic reviews. An absence of evidence available for this Evidence Check does not imply that an intervention does not work, rather that we found no evidence to suggest it does or does not improve sleep.

The systematic review evidence and most recommendations by Australian organisations were aimed at general populations[*] rather than for specific or diverse groups, and therefore the interventions described here do not account for any developmental, health, cultural or other child, parent or family differences.

Question 1

A large amount of the systematic review evidence was at the overall approach level[†] rather than specific practices that could be mirrored to content on the Australian websites. Our initial consideration was to look at where the evidence lies for the broader behavioural and bedtime routine approaches to settling infants and children. That is, we looked at whether in general behavioural approaches and bedtime routines were effective rather than at which behavioural practices and bedtime routines were effective (see glossary for definitions).

Broadly, bedtime routine-based approaches have strong evidence for improving:

- Child sleep and settling across all age groups
- Some non-sleep outcomes for children aged six months to three years including mood, bedtime resistance and temper tantrums
- Parent sleep when used with infants and children aged six months to three years.

Many Australian organisations also recommend the use of bedtime routines. There is little definitive evidence for the effectiveness of specific practices that form part of the bedtime routines as described by the Australian organisations, such as use of a feed-play-sleep cycle, language-based activities and massage.

Evidence for behavioural-based approaches—as a whole, rather than for specific techniques—for improving child sleep is moderate for ages six months to five years. The evidence for behavioural-based approaches for improving other child outcomes, parent outcomes and parent–child outcomes is inconsistent. We found moderate evidence for improved child sleep with the use of ‘camping out’ with 6–12-month-olds, a strategy recommended by some Australian organisations. There was limited evidence to suggest this practice impacts other child or parent outcomes. Other specific behavioural-based practices recommended by Australian organisations, including settling/soothing in arms, hands-on settling, comfort settling, feeding to sleep, listen-wait-plan-respond, bedtime fading and free passes, also had limited or no evidence. Many Australian organisations combined behavioural-based practices with bedtime routines.

Question 2

Some caution is needed when considering wrapping infants, beyond the existing advice suggested by Australian organisations (i.e. don’t wrap a child who can roll, don’t wrap too warmly). One review identified concerns that while swaddling (wrapping) promotes quiet sleep and sleep efficiency, it may

[*] Further to this, most of the samples included in systematic reviews were referred to as mothers.

[†] The evidence often reported effects of ‘behavioural interventions’ or ‘bedtime routines’, not specific types of behavioural practices or aspects of routines.

present a risk for sudden unexpected infant death or sudden infant death syndrome in infants who are unaccustomed to swaddling[*], because of very low arousability from sleep.

Extinction-based practices were found to be not recommended for infants 0–6 months, with one review suggesting no behavioural-based approaches should be used in the first six months. Similarly, some Australian organisations recommend not using extinction-based practices, particularly in the first six months. Some authors suggest parents find behavioural-based practices, particularly those based on extinction[†], difficult to implement.

There was some evidence linking the use of rewards and also 'parenting presence' to poorer child sleep outcomes. Both the evidence and the Australian organisations noted that the use of screens as part of a bedtime routine may have an undesirable impact on child sleep.

Question 3

There are several aspects of settling practices that are referred to across the systematic reviews reporting improved child sleep outcomes. Effects for these as discrete practices have not been confirmed but the following can be considered common practices used within effective and recommended evidence-based approaches:

- Consistency in bedtime routines
- Bedtime routines that consist of calming, peaceful and enjoyable activities
- Bedtime routines that are no longer than 30 minutes
- Language-based activities in the bedtime routine, such as reading, singing and talking
- Responsiveness to infant and child cues.

Recommendations

Taking into account the systematic review evidence and absence of evidence, how the evidence maps to the recommendations provided on Australian websites, and the applicability of the findings to the current Australian context, we provide the following recommendations for the Ministry of Health and other organisations providing sleep and settling guidance to families:

> Advice to parents regarding sleep and settling should continue to promote the use of **bedtime routines**.
>
> Advice regarding bedtime routines should promote the use of **consistent routines that are up to 30 minutes in duration**, and the use of **calming, language-based activities**.

[*] Authors of the systematic review on swaddling noted limitations in reporting of swaddling techniques and tightness, whereby few studies described techniques and none reported tightness. When described, swaddling techniques included enclosing/restraining infants' arms. One paper referred to wrapping in two or three layers up the neck and another mentioned firmly wrapping. No studies in the systematic review mentioned testing sleeping bags.

[†] Extinction-based practices vary in their rigidity; however, the general principle involves some degree of ignoring the child's crying or requests for a period of time.

Advice to parents regarding sleep and settling should continue to promote practices that are **responsive to infant and child cues**.

Organisations providing sleep and settling advice to parents should consider **limiting the use of behavioural-based approaches**, particularly those applying extinction-based principles.

Organisations providing settling advice to parents should review messaging regarding wrapping and **limit recommendations to wrapping only if commenced from birth**.

Organisations providing settling advice to parents should consider the applicability of practices for the individual differences in children, parents and families, including differences in development, health and neurobiology, different family compositions, and differences in family culture and circumstances.

Organisations providing settling advice to parents should engage with specific cultural groups, or with organisations or individuals with lived experiences to gain insights into the applicability of sleep and settling practices for diverse groups.

To avoid perpetuating outdated sexuality and gender stereotypes and inequities, organisations should ensure sleep and settling policies, practices and supports are suited to a broad scope of family compositions and whole families.

Organisations providing sleep and settling advice to parents or delivering settling education interventions should engage in evaluation of approaches to ensure they are resulting in the desired outcomes for children and parents.

Background

Infant and child sleep is a common concern for families with children 0–5 years old. Research has estimated that globally between 25% and 40% of families report child sleep difficulties during infancy and early childhood.[1] For example, an infant and toddler sleep study in Australia and New Zealand indicated that about one-third of parents perceived their child had a sleep problem.[2] The Parenting Today in Victoria survey conducted in 2022 and involving 2602 Victorian parents of children aged 0–5 years found more than 50% of parents indicated their child's sleep presented a problem for them, with one in three parents of 0–2-year-olds and one in four parents of 3–5-year-olds saying it was a moderate or large problem.[3]

Sleep difficulties in infancy and early childhood can affect child health, behaviour and wellbeing. Research has found associations between early child sleep problems and child growth[4], emotional symptoms[5], risk of being overweight[6] and cognitive difficulties such as memory, language and executive function.[4] Further, a review of longitudinal and prospective studies has linked early childhood sleep disorders with the development of mental health difficulties during adolescence, including anxiety, depression and attention deficit hyperactivity disorder.[7]

Early childhood sleep difficulties also affect parental sleep and functioning, including increased levels of stress, anxiety and depression symptoms[8, 9] and poorer general health and wellbeing.[3, 10] Parents of very young children and parents of children with complex needs are also less likely to get enough sleep.[3] Child sleep problems in infancy and early childhood have been found to be related to lower quality of family relationships. This includes the relationship between parents as well as the relationship between parent and child.[10]

Parents often seek professional help for child sleeping difficulties. Child sleep and settling was identified as one of the main reasons for parents attending a residential parenting service in NSW[11], with 83% of women attending the service seeking support for child sleep and settling.[12] Parents also seek advice on child sleep and settling online. In 2018, the Raising Children Network website, which provides a range of information on parenting based on evidence and expert recommendations, had about 1.4 million parents access resources related to child sleep. Since the website started operating in 2006, topics related to child sleep continue to be among the top five visited pages.[13] Parents also often turn to other sources for help with sleep and settling concerns in the early years, including to friends, family and social media. Accessing reliable information may be challenging for parents if they are receiving conflicting messages about what settling approaches might be best for their family.

In keeping with Goal 1 of NSW Health's First 2000 Days Framework and Implementation Strategy, which aims to bring consistent, evidence-based information to parents and professionals[14], the Maternity, Child and Family Unit at the Ministry of Health commissioned this Evidence Check looking into sleep and settling interventions for infants and children aged 0–5 years.

The purpose of this Evidence Check was to:

- Identify the evidence for sleep and settling interventions delivered by parents
- Identify online recommendations by Australian organisations for how parents can improve infant and child sleep and settling
- Map the sleep and settling evidence to the interventions and practices recommended by the Australian organisations.

Methods

Aims and scope of the study

We conducted a rapid review of systematic reviews and a scoping review of current recommended practice in Australia to answer the following research questions:

- **Question 1—**What is the evidence that settling interventions for infants and young children that are currently recommended and/or in use in the Australian community improve outcomes?
- **Question 2—**Based on the findings from Question 1, are there any interventions/approaches that are not recommended?
- **Question 3—**Based on the findings from Question 1, are there common elements to settling interventions identified in Question 1 for which there is underpinning evidence?

Search strategy, approach and rationale

Our approach to addressing the research questions of this Evidence Check involved three steps:

1. Rapid review of systematic reviews investigating parent-delivered interventions to improve infant and child sleep and settling
2. Scoping review of settling interventions for infants and young children that are currently recommended and/or in use in the Australian community
3. Mapping of Australian interventions and/or elements of interventions to evidence from systematic reviews.

Rapid review of systematic reviews

Initial scoping of sleep and settling interventions identified several existing relevant systematic reviews. To avoid replication of reviews and enable synthesis of this high level of evidence, we determined a review of systematic reviews would be suitable as the primary source of evidence for this Evidence Check.

The rapid review was conducted between April and May 2024, and our search strategy was designed in collaboration with the Ministry of Health. We used systematic search and selection processes to identify relevant systematic reviews; however, because of short timelines, we limited searches to three databases: Cumulative Index to Nursing and Allied Health (CINAHL), PsycINFO and MEDLINE. We limited selection to English-language papers and the year 2000 onwards. Additional sources were not sought through grey literature, reference list checks of included studies, or by requesting additional papers or data from the authors of included studies. We used search terms designed to

identify published systematic reviews about sleep and settling interventions for infants and children (see Appendix 1 for search strategy).

Predetermined selection criteria were established in collaboration with the Ministry of Health. We only included reviews that used systematic search and selection processes; however, in the interest of time, we did not assess them for quality. We did not include traditional literature reviews or meta-analyses that were not underpinned by systematic processes to select studies. Systematic reviews specific to countries without a comparable population to Australia were not included. Systematic reviews reporting interventions that involved parent education were in scope, as were those reporting naturally occurring parenting practices. We included any interventions—strategies, practices, approaches—implemented by parents or other caregivers that aimed to improve child sleep and reported child sleep outcomes, including administration of medication. Surgical interventions and nutritional supplement interventions were excluded. Interventions solely on safe sleeping practices were out of scope. Systematic reviews were excluded if they were about factors associated with child sleep rather than sleep and settling interventions. Systematic reviews that did not report infant or child sleep outcomes were excluded.

Information gathered from identified systematic reviews included: overall intervention approach, intervention practices, population details, outcomes achieved[*], systematic review findings, and limitations of the systematic reviews.

Scoping review of settling interventions recommended in Australia

We searched select Australian organisation websites for recommended approaches and practices for parents to use to improve the sleep and settling of infants and children. Websites used in this search were selected in collaboration with the Ministry of Health (see Appendix 1 for website list). We gathered information about approaches suggested for different age groups and the steps or components associated with each approach.

Mapping the recommendations to the evidence

Taking child age and variations in terminology across sources into account, we determined where the same or similar approaches and practices were identified across the systematic reviews and Australian websites. To provide an indication of the extent of evidence for recommended sleep and settling interventions, we applied the following decision-making schema:

Strong evidence = positive effects reported across multiple reviews or in a meta-analysis.

Moderate evidence = positive effects reported in one review.

Moderate evidence = positive effects for a broad approach found across more than one review with some specific settling practices not showing effects.

[*] Outcomes of interest in data gathering and evidence analysis included any infant and child sleep outcomes, such as sleep latency, duration and wakefulness (required for inclusion) and also other child outcomes such as child development and health; parent sleep outcomes; other parent outcomes such as mental health; parenting outcomes such as confidence; and parent–child outcomes such as the parent–child relationship.

Limited evidence = positive effects in one study within a review.

Inconclusive = inconsistent evidence across reviews or inconsistent findings within a review.

Unsupported = undesirable effects suggested, including poorer outcomes or unintended negative outcomes.

Absence = an absence of systematic review evidence; no systematic reviews reported on relevant findings for this intervention. This does not suggest the intervention does not work, but that no evidence was found to suggest it does or does not work.

Findings

Evidence gathering

Rapid review of systematic reviews

Database searches produced 913 results from which we identified 13 systematic reviews that were suitable for inclusion (see Appendix 2 for PRISMA flow chart, Table 1 for list of included systematic reviews and Appendix 3 for systematic review details). During full-text screening we excluded 20 systematic reviews because while they included samples of young children, the findings relevant to infants and children 0–5 years were not discernible. All the included systematic reviews reported child sleep outcomes. Three systematic reviews also reported on parent sleep outcomes, four on other child outcomes and seven on other parent outcomes.

Six of the included systematic reviews reported on the effectiveness of parent education interventions in which parents received various forms of education primarily to assist them with their child's sleep. While we are not reporting on the effectiveness of parent education interventions in this Evidence Check, we have included these systematic reviews because they also included findings about approaches to improve sleep.

Table 1—Systematic reviews included in the review of systematic reviews

Systematic reviews	Target child age	Included interventions	Outcomes assessed
Chae et al. (2024)[26]	Infants < 24 months	Extinction-based behavioural interventions	Child sleep Parent sleep Parent psychosocial Parent cognitions about child sleep
Cook et al. (2023)[15]	Children 1–3 years	Parental sleep-related practices including settling practices and bedtime routines	Child sleep
Dixley et al. (2022)[27]	Infants < 12 months	Swaddling	Infant sleep

Systematic reviews	Target child age	Included interventions	Outcomes assessed
			Infant arousal
Douglas & Hill (2013)[22]	Infants 0–6 months	Behavioural-based interventions	Infant sleep Infant crying Parent sleep Parent depression
Fenton et al. (2014)[16]	Children 0–5 years	Bedtime routines Parental presence Graduated extinction	Child sleep
Halal & Nunes (2014)[17]	Children 0–48 months	Sleep hygiene	Child sleep Parent quality of life
Kempler et al. (2016)[23]	Infants 0–12 months	Behavioural-based interventions	Infant sleep Maternal mood
Lecuelle et al. (2024)[18]	Children < 6 years	Behavioural-based interventions Pharmacological interventions	Child sleep Parent perception of child sleep
Liu et al. (2023)[25]	Pregnant women and infants < 12 months	Behavioural-based interventions	Infant sleep Maternal sleep Maternal mood
Meltzer & Mindell (2014)[24]	Children 0–5 years	Behavioural-based interventions	Child sleep
Park et al. (2022)[21]	Children < 36 months	Behavioural-based interventions Bedtime routines	Child sleep Maternal sleep Maternal depression

Systematic reviews	Target child age	Included interventions	Outcomes assessed
Ramchandani et al. (2000)[19]	Children 0–5 years	Behavioural-based interventions Bedtime routines Pharmacological interventions	Child sleep
Reuter et al. (2020)[20]	Infants 0–24 months	Behavioural-based interventions Bedtime routines Massage	Child sleep Maternal depression

Scoping review of settling interventions recommended in Australia

We found the following information for parents on sleep and settling in the 39 Australian organisation websites we searched:

- 22 included suggestions for how parents can improve infant or child sleep and settling
- Five did not provide suggested strategies but did provide links to other sources with information about sleep and settling
- 10 did not provide any information about sleep and settling
- Two websites only mentioned that they offered programs on sleep and settling but detail about the sleep or settling advice offered in those programs was not provided on the website.

We found some consistency in messaging across many websites, with some using the same phrasing or exact wording to convey strategies parents can try for settling their infants and children.

Mapping the recommendations to the evidence

While there were several similarities between the interventions covered in systematic reviews and recommendations made by Australian organisations, we observed some disparities in terminology across sources. We also found some gaps in the systematic reviews, which did not always provide evidence for specific settling practices in a way that could be clearly mapped to the suggestions provided by the Australian organisations. For instance, six systematic reviews examined only or primarily the broad approaches used to aid sleep and settling, that is behavioural-based approaches* and/or bedtime routine-based approaches†, rather than specific types of behavioural approaches or specific aspects of bedtime routines. The recommendations to parents provided by Australian organisations typically drilled down to more discrete steps, which we will call settling practices here.

* Strategies based on behavioural learning theory aimed to change child sleep behaviours.

† Activities leading up to the child's bedtime.

Seven systematic reviews provided evidence for some of the specific settling practices. While we only included systematic reviews that provided some description of what the behavioural or bedtime routine approaches entailed, there were some limits to our ability to disaggregate findings for specific settling practices, as detailed in the following sections.

Question 1—What is the evidence that settling interventions for infants and young children that are currently recommended and/or in use in the Australian community improve outcomes?

Overall, the broad approaches to settling infants and children currently recommended by the Australian organisations included in our scoping review have good evidence based on findings of systematic reviews identified in our review of systematic reviews; however, there are gaps in evidence for some specific settling practices. In this section we first outline the systematic review evidence for broad approaches (see Table 2), then we map specific settling practices recommended by Australian organisations to the systematic review evidence for these practices (see Tables 3 and 4).

Table 2—Evidence for settling approaches from systematic reviews

Types of approaches covered in systematic reviews	Example settling practices* covered in systematic review	Child age	Systematic review evidence for this age				
			Child sleep	Child other outcomes	Parent sleep outcomes	Parent other outcomes	Parent–child outcomes
Bedtime routine-based approaches	Bath, massage, quiet activities, language-based activities (reading, singing, talking, praying)	0–6 months	S	L	L	I	A
		6–12 months	S	S	S	I	A
		1–3 years	S	S	S	I	A
		4–5 years	S	L	A	L	A
Behavioural-based approaches	Extinction, gradual extinction, minimal checking with systematic extinction, camping out, parental presence, parental involvement, scheduled waking, bedtime fading	0–6 months	U	U	I	I	A
		6–12 months	M	M	I	I	A
		1–3 years	M	M	A	I	A
		3–5 years	M	M	A	A	A

Note. S = strong evidence; M = moderate evidence; L = limited evidence; I = inconclusive evidence; U = unsupported evidence; A = absence of evidence

* Evidence reported in this table is for the overall approach (i.e. bedtime routine-based or behavioural-based approaches). Specific settling practices mentioned here (e.g. massage, scheduled waking) may not have been individually tested and therefore the level of evidence may differ from the evidence for the overall approach.

Bedtime routine-based approaches

Overall evidence

Establishing a **bedtime routine for infants and children was consistently found to have a positive effect on child sleep**[15–20] for promoting child sleep in general and for addressing child sleep problems (see Table 2). We found the evidence for bedtime routines to be strong for infants and children aged 0–5 years, that is, across **all age groups** in scope for this Evidence Check. Bedtime routines described in systematic reviews consist of practices such as giving the infant or child a bath, infant massage, quiet activities and language-based activities such as using soothing words, talking, singing and reading. Several Australian organisations promoted the value of bedtime routines (see Appendix 4).

The systematic review evidence indicates that there is a positive relationship between child sleep outcomes and the consistent use of a structured bedtime routine.[15, 16, 18] Bedtime routines were associated with the following child sleep outcomes: increased sleep duration, reduced sleep onset latency, earlier bedtime and decreased number of night-waking episodes.

Findings from the systematic reviews suggest longer bedtime routines and routines with greater variability in length (i.e. inconsistent length in routine from night to night) produce poorer sleep outcomes.[15] This systematic review also noted a seemingly contradictory finding suggesting that bedtime routines with a higher number of activities were associated with increased sleep duration.[15] While not a definitive finding from a systematic review, we note that one study within an identified systematic review contradicted the general findings about bedtime routines, suggesting bedtime routines were associated with parental perceptions of increased child sleep problems.[15]

For infants aged 0–6 months[18] there was limited evidence reported about the effects of bedtime routines on *other outcomes*. However, for infants and children aged **six months to three years, there was strong evidence for the impact of bedtime routines on other child outcomes**, such as improved child mood on waking, reduced bedtime resistance and a reduction in temper tantrums.[16] There was little reporting of outcomes associated with bedtime routines for older children, with only limited evidence of the effects of bedtime routines on reduced child temper tantrums for children aged 4–5 years.[17]

We found **strong evidence to support the use of bedtime routines for improved parent sleep outcomes in infants and children aged six months to three years.**[17, 21] There was also limited evidence for positive effects of bedtime routines for parents' sleep in infants 0–6 months found in one study within a systematic review.[21] No systematic reviews investigated the impact of bedtime routines on other parent outcomes for children 4–5 years.

Systematic review evidence for the effects of bedtime routines on other parent outcomes was overall inconclusive, with differing results regarding depressive symptoms for mothers of children 0–3 years being reported in different reviews[17, 21–23], and limited evidence in the case of stress, anger, fatigue and confusion for mothers of children aged 4–5 years, based on the results of one study within one systematic review.[17]

No systematic reviews included here reported on the effects of bedtime routines on parent–child relationships.

Table 3—Evidence for settling approaches recommended in Australia—bedtime routine-based

Settling practices recommended by Australian organisations	Brief description of settling practices mentioned by Australian organisations	Ages recommended by Australian organisations	Systematic review evidence for this age			
			Child sleep	Other child outcomes	Parent outcomes	Parent–child outcomes
Wrapping	Wrapping babies if they cannot yet roll over, typically delivered as part of hands-on settling	0–6 months +	U*	A	A	A
Feed-play-sleep	Routine of feed and play until child shows signs of being tired	0–12 months	A	A	A	A
Language-based activities	Soothing words, talking and singing gently, reading stories	0–12 months	L	A	A	A
Massage	Using massage as part of bedtime routine	0–12 months	I	I	I	I
		1–3 years	A	A	A	A
No screen time	Avoiding using screen time before or during sleep	0–5 years	M	A	A	A
Child tired/sleep signs	Learning and recognising the child's signs of being tired for specific age group	0–6 months	A	A	A	A
		1–3 years	A	A	A	A
		3–5 years	A	A	A	A

Note. S = strong evidence; M = moderate evidence; L = limited evidence; I = inconclusive evidence; U = unsupported evidence; A = absence of evidence

* Unfavourable outcomes were found for infants who were not accustomed to swaddling.

Evidence for specific bedtime routine-based settling practices

While Australian organisations promote the benefits of establishing bedtime routines, we found limited suggestions on Australian websites for what bedtime routines might consist of, and fewer still specific bedtime routine practices were mentioned in the systematic reviews. We note that at times, because of definitional differences, some systematic reviews did group behavioural-based approaches within bedtime routine-based approaches, which may account for some lack of granularity in specific practices.

Table 3 provides a breakdown of specific bedtime routine practices recommended by Australian organisations, mapped to evidence available in systematic reviews, by child age and outcomes. We identified systematic reviews that discuss swaddling (wrapping*), using language-based activities, and infant massage, which were suggested across several of the Australian websites we reviewed. While the evidence for establishing a bedtime routine as an overall approach is strong, **the evidence for these specific practices named by the Australian organisations is not well established**, likely due to limited examination of individual components in the research.

While massage was often mentioned as a component of bedtime routines in several systematic reviews, only one review investigated the effects of massage on child and parent outcomes, with inconsistent findings.[20] Some studies within this systematic review found positive effects of massage on the mother–child interaction and child sleep and crying outcomes for infants 0–6 months with sleep problems, while other studies showed no positive effects. For other age groups, this review reported findings from several studies where massage was one element of bedtime routine and indicated that positive bedtime routine effects were found for child sleep problems, sleep onset latency and the frequency and duration of night waking, as well as maternal sleep and mood in children 0–3 years old.[20]

Incorporating language-based bedtime activities in bedtime routines was reported in several systematic reviews.[15, 16, 18] However, only one systematic review reported outcomes specifically for this component of bedtime routines and suggested language-based bedtime routines were linked to longer sleep duration.[16]

No reviews examined evidence for feed-play-sleep routines or ‘recognising signs of tiredness in children 0–5 years’.

Behavioural-based approaches

Overall evidence

Behavioural-based approaches for child sleep and settling are well researched. The **overall evidence to support the use of behavioural-based approaches is moderate** for infants and children aged **six months to five years** for promoting sleep or addressing sleep problems, such as sleep onset latency, night waking frequency and night waking duration[24] (see Table 2). As a collective, the behavioural approaches were not rated here as having strong evidence because of **differing findings for specific settling practices** (see more detail below). Behavioural-based settling practices described in the systematic reviews included extinction, gradual extinction, minimal

* Australian organisation websites recommend wrapping before the infant starts rolling.

checking with systematic extinction, camping out, parental presence, parental involvement, scheduled waking and bedtime fading. Several Australian organisations recommended using behavioural-based approaches.

We found **moderate evidence to support the use of behavioural-based approaches for improving other child outcomes**, including bedtime resistance and crying in children aged six months to five years.[18]

The evidence for behavioural-based approaches for improving parent quality of sleep is inconsistent in infants 0–12 months.[17, 25] While one review found positive effects of behavioural-based approaches on parent sleep quality, the other review found mixed evidence for this outcome. No reviews included outcomes for the impact of behavioural-based interventions on parental sleep quality in children aged 1–5 years.

In relation to other parent outcomes, such as maternal mood and fatigue, the evidence for behavioural-based approaches was inconsistent for children 0–3 years, with some systematic reviews suggesting positive effects, some indicating no changes and some reporting mixed results.[17, 21, 22, 25, 26] Other parent outcomes related to behavioural-based interventions for parents of children aged 3–5 years were not reported in any systematic reviews.

We found no systematic reviews reporting the effects of behavioural-based approaches on parent–child relationships.

Evidence for specific behavioural-based settling practices

Terminology used by Australian organisations often differed from that used in systematic reviews. This difference reflects the use of parent-friendly language on the websites and behaviourist language in the research. There also appeared to be some context-relevant adaptations to settling practices on the Australian websites. This section discusses some of the settling strategies recommended by Australian organisations that were a clear match with those reported in the systematic reviews (see Table 4).

Some Australian organisations recommended the use of camping out/transition settling in children six months to three years, for which we found limited evidence for improving child sleep.[18] There was **moderate evidence for camping out/transition settling for reducing child sleep problems for infants aged 6–12 months**.[20]

In relation to parent outcomes, we found limited support for the effects of camping out on reducing maternal depression symptoms in children 6–12 months.[20] No systematic reviews reported findings for other child and parent outcomes in children 1–5 years.

Some Australian organisations recommended bedtime fading; however, we found limited systematic review evidence for the use of bedtime fading in improving child sleep outcomes, including decreased sleep latency, reduced frequency and duration of night-time waking and increased duration of sleep in children under two years old.[18] No reports on the impact of bedtime fading were included in the systematic reviews for other child outcomes or parental outcomes.

Table 4—Evidence for settling practices recommended in Australia—behavioural-based

Settling practices recommended by Australian organisations	Brief description of settling practices mentioned by Australian organisations	Ages recommended by Australian organisations	Systematic review evidence for this age			
			Child sleep	Other child outcomes	Parent outcomes	Parent-child outcomes
Settling/soothing in arms	Cradle/rock in arms until calm/asleep, then transfer to cot	Very early weeks	A	A	A	A
		0–3 months +	A	A	A	A
		3–6 months	A	A	A	A
Hands-on settling	Gentle touching and comfort of child while in their cot, delivered as part of a bedtime routine	0–6 months +	A	A	A	A
Comfort settling	Gentle comfort for a few minutes and leaving the room when the child is calm	0–6 months +	A	A	A	A
		7–12 months	A	A	A	A
Feeding to sleep	Feeding child to sleep	0–3 months	A	A	A	A
Listen-wait-plan-respond*	Listen to and assess child cry and respond appropriately based on cues	0–12 months	A	A	A	A
Gradual withdrawal†	Increasing the distance between the child and parent in the room over time with minimal interactions	12 months+	A	A	A	A
		1–3 years	A	A	A	A

* Included behavioural elements but no exact match was found in the systematic reviews.

† Gradual withdrawal included elements of gradual extinction and camping out interventions.

Parental presence	Sleeping in the child's room for a few nights with minimal interactions	6 months +	U	A	A	A
		6–12 months	U	A	A	A
		1–3 years	U	A	A	A
Camping out/transition settling	Staying in the child's room and providing comfort until the child is asleep	6–12 months +	L	M	L	A
		1–3 years	L	A	A	A
Bedtime fading/fading out	Gradual change of the child's bedtime to earlier time	6 months – 2 years	L	A	A	A
		2–5 years	A	A	A	A
Reward charts*	Giving a reward (e.g. stamp) to encourage positive bedtime behaviours	3–5 years	U	A	A	A
Free passes	Giving a pass for one request at bedtime	3–5 years	A	A	A	A

Note. S = strong evidence; M = moderate evidence; L = limited evidence; I = inconclusive evidence; U = unsupported evidence; A = absence of evidence

* Only one study within a systematic review reported on using rewards-based interventions.

We found no systematic review evidence for the use of the following behavioural settling practices suggested by Australian organisations:

- Settling/soothing in arms 0–6 months
- Hands-on settling 0–6 months
- Comfort settling 0–12 months
- Feeding to sleep 0–3 months*
- Listen-wait-plan-respond 0–12 months
- Bedtime fading 2–5 years
- Free passes 3–5 years.

We note that several behavioural-based settling practices recommended by Australian organisations—settling in arms, hands-on settling and comfort settling—are delivered in the context of bedtime routines, which have been supported by the systematic review evidence. And the recommendations on the Australian websites typically included a combination of practices.

We found no systematic reviews reporting other child outcomes or parent–child relationship outcomes in relation to any of the behavioural-based settling practices named on websites.

Approaches and practices not identified by Australian organisations

Our search identified several systematic reviews of the use of pharmacological interventions for improving child sleep outcomes. Most of these systematic reviews were screened out because findings were not disaggregated by child age. We included two systematic reviews reporting on the use of antihistamines, benzodiazepines, trimeprazine and niaprazinine in children 0–5 years old, which demonstrated short-term efficacy, with effects on sleep disappearing after the treatment stopped (refer to Appendix 3 for systematic review findings). These reviews noted bedtime routines and behavioural-based approaches were preferable for longer term changes in sleep.[18, 19]

'Systematic extinction', a behavioural-based approach, involves ignoring the child's crying or requests typically until the next morning, while still ensuring that the child is well (e.g. not ill or injured). Systematic extinction was found to decrease the number and duration of child night waking[18, 19] and child bed resistance[18] in children over 12 months of age. No systematic reviews reported parental outcomes associated with systematic extinction. We note that studies testing this practice were quite old (typically published in the late 1990s, and one from 2007). No Australian organisation websites recommended the use of systematic extinction.

'Graduated extinction' (otherwise referred to as 'checking in' or 'controlled crying') refers to ignoring the child's cries or requests for a set, brief period of time (e.g. five minutes) based on child age and temperament.[17, 18] The period of ignoring either increases progressively over the night or over a few days. It is suggested that the waiting time before going to the child should not exceed 20 minutes.[18] Graduated extinction was reported to improve child sleep onset latency, night waking and total sleep time[16–18, 26] and to decrease child sleep resistance[18] and settling problems[19] among children six months to five years. There was inconsistent evidence for the use of graduated extinction on parent outcomes, such as depression.[18] The practice recommended by Australian organisations that most

* Related to this, during screening we excluded two systematic reviews reporting associations between type of milk feedback and child sleep; however, these were not about sleep and settling interventions. One included systematic review reported on the feeding to sleep intervention for children aged 13 months.

closely resembles ‘graduated extinction’ was ‘gradual withdrawal’ for children 12 months and older; however, while the suggestion in systematic reviews for gradual withdrawal was to avoid speaking with the child if they requested another story or a drink, the Australian organisational website recommendations focused on child cues and did not include ignoring crying.

‘Scheduled wakening’ is another type of extinction-based approach whereby the parent wakes up the child 15–60 minutes before the child’s usual waking time. This intervention led to a reduction in the duration of night-time awakenings and the number of night-time awakenings without crying in children six months to five years[17–19]; no other outcomes were reported, however. This practice was not found on the Australian websites.

‘Sleep remodelling’, described as an intervention where the child is not permitted to have naps at times that can impact child night-time sleep, was found to increase the duration of child sleep in one study.[17] No other outcomes were reported for sleep remodelling.

Question 2—Based on the findings from Question 1, are there any interventions/approaches that are not recommended?

We identified one systematic review that investigated the effects of swaddling (wrapping) on arousal states.[27] The review found **swaddling infants who were not used to being swaddled** resulted in a significant reduction in changes to sleep states and promoted quiet sleep and sleep efficiency. While this may appear to be a positive outcome for a sleep intervention, the authors of the systematic review cautioned that this **may present a risk for sudden unexpected infant death and sudden infant death syndrome** because of reduced/very low arousability from sleep in infants who have not previously been swaddled. The authors recommend promoting awareness of the potential negative safety effects of swaddling in infants and children who have not been habituated to it and suggest further research is needed into this practice (see Appendix 3 for systematic review findings). These authors also noted limitations in the descriptions provided of swaddling, as few studies provided details of swaddling techniques and no studies reported on degree of swaddling tightness. Where reported in the primary papers included in that review, swaddling was referred to as wrapping or constraining the infant’s arms, wrapping infants up to the neck, wrapping firmly, and wrapping in two or three layers.* Several Australian organisations recommend the use of wrapping with infants who are not yet rolling, in line with Red Nose Australia guidance.† The systematic review did not comment on rolling as the focus was on sleep states and arousal levels, although it noted that there may be risk when wrapping infants who are **not habituated to wrapping from birth**.

Systematic reviews suggest **extinction-based settling practices are not recommended in the first six months.**[17, 22, 26] Similarly, some Australian organisations also do not recommend using extinction-based approaches, particularly in the first six months. According to systematic reviews, parents reportedly find these approaches hard to implement.[17–20, 26] Further, one systematic review specifically cautioned that **no behavioural approaches are recommended for the first six months**, including extinction and graduated extinction and feed-play-sleep cycles.[22] The author of this systematic review stated that these behavioural-based approaches posed a risk for unintended outcomes such as

* The systematic review did not mention any studies testing the use of sleeping bags as a means of swaddling.

† https://rednose.org.au/article/is-it-safe-to-wrap-swaddle-my-baby

increased problem crying, stopping breastfeeding too early and increased maternal anxiety. The author further suggested behavioural-based approaches in the early months of a child's life may lead to a greater risk of sudden infant death syndrome in instances where the infant is sleeping in a separate room from the caregiver.

Contrary to the position of many systematic review authors, we note that one study within a systematic review[20] found no indication of long-term negative consequences or benefits associated with behavioural-based interventions—specifically controlled comforting and camping out—for infants with sleeping problems.

Our Evidence Check also found the use of rewards was linked in one study within a systematic review with negative sleep outcomes, including **more frequent night waking and greater parental perceptions of child sleep being a problem among three-year-old children.**(15

Parental presence in the child's room while the child is getting to sleep, which is recommended by some of the Australian organisations, **was found to result in poorer sleep outcomes for infants and children aged six months to three years**.[15, 16]

One review investigated the use of screen time as a part of the bedtime routine. These authors found **using screen time before and during the bedtime routine was linked with several negative outcomes**, such as later bedtime, reduced sleep duration, reduced sleep consolidation and an increase in parental reports of child sleep difficulties.[15] Using screen time as part of the bedtime routine is therefore not recommended, which aligns with the guidance provided on some Australian organisation websites we reviewed.

Question 3—Based on the findings from Question 1, are there common elements to settling interventions identified in Question 1 for which there is underpinning evidence?

There are several aspects of settling practices that were referred to across the systematic reviews reporting improved child sleep outcomes. Effects for these elements as discrete practices have not been confirmed but they can be considered common practices used within effective approaches.

- Systematic reviews report that **consistency in bedtime routines** contributes to the positive effect[15, 20]
- Systematic reviews describe **bedtime routines that consist of calming, peaceful and enjoyable activities**, including a bath, massage, singing and reading[15–18]
- **Bedtime routines that are no longer than 30 minutes** were suggested across systematic reviews[16, 18, 20]
- Using **language-based activities in the bedtime routine**, such as reading, singing and talking, increases sleep time according to the systematic reviews[15, 16, 18]
- Systematic reviews described being **responsive to infant and child cues** as part of settling practices.[22, 26]

Applicability and recommendations

In this Evidence Check, we have mapped systematic review evidence to Australian recommendations for broad approaches and some specific practices that aim to improve infant and child sleep. The evidence suggests establishing a bedtime routine is good practice for improving child sleep and may also lead to improved parent sleep. Australian organisations also recommend the benefits of implementing a bedtime routine. There was limited guidance in the systematic reviews about what specific aspects of bedtime routines might be more useful to consider as these are typically not reported individually in studies or systematic reviews; however, both the evidence and Australian organisations discuss the importance of consistency, calming and language-based activities, and short routines.

The sleep and settling research has focused more closely on behavioural approaches—that is strategies parents can use to change sleeping behaviours of infants and children—than on bedtime routines—structures parents put in place to prepare infants and children for bedtime. Behavioural approaches appear to have fallen out of favour in Australian recommendations over recent years, particularly ones that follow more rigid adherence to extinction practices, for example controlled crying. This trend was observed in the literature, with systematic extinction seen less in the more recent research. The evidence for behavioural approaches is not as clear-cut as the evidence for routine-based approaches as some of the specific behavioural practices have conflicting outcomes for sleep. We also found there is little evidence reported for effects of behavioural approaches on other child outcomes, parent outcomes and parent–child relationships. Behavioural approaches based on the principles of extinction are also not supported for use with infants under the age of six months, and some authors and Australian organisations do not support their use with any age group, largely because parents find them challenging to use.

Parent-reported reasons for difficulties using extinction-based practices include: concerns regarding child crying, practical issues within the home or family, concerns about negative impacts, misinformation, incongruence with personal or cultural beliefs and impacts on parent wellbeing.[9]

The absence of evidence for effects on non-sleep outcomes and the potential difficulties parents face using behavioural-based approaches may suggest these approaches should not be strongly advocated for with Australian families, particularly those approaches based on the principles of extinction. In general, the Australian organisations that recommend some form of extinction-based approach use a modified, gentler practice, often in combination with bedtime routines and coupled with suggestions that are designed to support child wellbeing and parent–child relationships (e.g. reassurance, comforting) and attunement to the child.

Many of the Australian organisations described sleep and settling suggestions framed as ‘responsive settling’. While the term ‘responsive settling’ was not referred to in the systematic reviews, a common thread was found in the reviews supporting the use of responding to the child’s sleep cues. Similar to the approach recommended by Australian organisations, there is literature beyond the systematic reviews reported here proposing the combined use of responsive and extinction-based approaches to

provide parents with more choice and less rigidity in settling practices.[28] It has been suggested that responsive methods may lead to outcomes that are as good as extinction-based practices but result in less stress for parents.[29] A responsive approach to settling aligns well with responsive parenting in general. While not focused on sleep, a systematic review of parenting interventions on development in 0–3-year-olds found programs using responsive parenting approaches* resulted in statistically significantly better outcomes than programs that did not use responsive parenting.[30]

While bedtime routines appear to have good evidence and a responsive approach makes sense from the perspective of comfort levels for parents and the parent–child relationship, consideration must be given to applicability of settling practices given individual child, parent and family circumstances and preferences. Both the systematic review evidence and most of the Australian organisation recommendations provided suggestions for families in general. We found no consideration given to the practices of different cultural or religious groups, the suitability of practices for children with disability, neurodivergent children or children with complex health needs, or the suitability of practices for parents/families with multiple and complex needs. Many studies exclude diverse populations such as people without English proficiency and those with low literacy, people with mental health diagnoses and disability, and the study samples in the systematic reviews consisted mainly of mothers. There may be some aspects of the findings of this Evidence Check that are not applicable to all families, or there may be relevant practices that were not considered here.

Recommendations

Considering the systematic review evidence for interventions demonstrating effect on child sleep and other outcomes, and interventions with poor evidence for effect on sleep and other outcomes and absence of evidence, and the applicability of the findings to the current Australian recommendations and context, we provide the following recommendations for the Ministry of Health and other organisations offering sleep and settling guidance to families:

Advice to parents regarding sleep and settling should continue to promote the use of bedtime routines.

Advice regarding bedtime routines should promote the use of consistent routines that are up to 30 minutes in duration, and the use of calming, language-based activities.

Advice to parents regarding sleep and settling should continue to promote practices that are responsive to infant and child cues.

Organisations providing sleep and settling advice to parents should consider limiting the use of behavioural-based approaches, particularly those applying extinction-based principles.

* See S1 Table by Jeong et al. (2021)[30] for detailed classification of interventions focusing on responsive and non-responsive caregiving. For example, interventions focusing on responsive caregiving aimed to improve parent attunement to child, responsiveness to child cues, following the child's lead, whereas interventions that did not focus on responsive caregiving taught skills on disciplining and awareness of child development.

Organisations providing settling advice to parents should review messaging regarding wrapping and limit recommendations to wrapping only if commenced from birth.

Organisations providing settling advice to parents should consider the applicability of practices for the individual differences in children, parents and families, including differences in development, health and neurobiology, different family compositions, and differences in family culture and circumstances.

Organisations providing settling advice to parents should engage with specific cultural groups, or with organisations or individuals with lived experiences, to gain insights into the applicability of sleep and settling practices for diverse groups.

To avoid perpetuating outdated sexuality and gender stereotypes and inequities, organisations should ensure sleep and settling policies, practices and supports are suited to a broad scope of family compositions and whole families.

Organisations providing sleep and settling advice to parents or delivering settling education interventions should engage in evaluation of approaches to ensure they are resulting in the desired outcomes for children and parents.

Limitations

This Evidence Check included only evidence from systematic reviews. While this prevented review replication given there were already existing relevant reviews, it may also have limited our exploration of specific settling practices, particularly of bedtime routine-based practices. It is possible further evidence is available for applicable interventions, but these may not yet have made it to primary study publication, let alone into a systematic review that has rigid selection criteria.

Our interest in evidence only for 0–5-year-old infants and children meant we had to exclude several mixed-age systematic reviews from consideration, including some on pharmacological interventions and interventions for autistic children. Additionally, some of the evidence in this Evidence Check comes from research involving children and families with problem sleep behaviour, which may not be applicable to the general population.

Our scoping review of Australian recommendations drew on information readily available on select organisational websites. These organisations, and others, likely have additional interventions they suggest for sleep and settling, including practices for diverse families and those engaged in sleep and settling programs.

The scope of our Evidence Check dated back to the year 2000 and included only English-language content.

Declaration of conflict of interest

The Parenting Research Centre, in particular authors Macvean, Avdagic and Sartore, has been contracted by the Ministry of Health to conduct an evaluation of the Virtual Residential Parenting Service, a parenting program run by Karitane and Tresillian that often supports families with child sleep concerns. We have declared this potential conflict of interest to the Ministry of Health and we note here that while we have examined settling recommendations on the Karitane and Tresillian websites, no aspects of the Virtual Residential Parenting Service have come under consideration in this Evidence Check.

The Parenting Research Centre, in particular author Wade, is also working with Karitane and Tresillian on the implementation of ForWhen, a program to support the mental health of new parents.

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Appendices

Appendix 1—Search strategy

Review of systematic reviews

Table 1—Criteria for inclusion in the review of systematic reviews

Included	Excluded
Population	
Children aged up to 5 years with or without identified sleep disturbance or sleeping patterns that are concerning for caregivers.	Studies exclusively targeting children or young people aged 6+ years. Interventions for adult sleep concerns.
Interventions of interest	
Interventions, programs, approaches or practices used by caregivers to promote better child sleeping. Includes parent training approaches and naturally occurring parenting practices. Includes all types of interventions, such as behavioural and pharmacological.	Surgical interventions or fitted apparatus. Nutritional supplement interventions. Interventions solely on safe sleeping practices.
Comparison	
Any comparator or criteria for inclusion in identified systematic reviews.	
Outcomes	
Child settling and sleep (initiation, duration etc). Child development, health, wellbeing.	Service provider outcomes. Service outcomes.

Parent-child relationships and attachment. Parenting outcomes such as confidence. Parent health and wellbeing.	
Study design	
Systematic review or meta-analyses with a systematic review reporting on interventions delivered by parents to promote infant and child sleep.	Primary studies. Meta-analyses without a systematic search and selection process. Non-systematic reviews.
Study language	
English	Non-English
Study country	
International systematic reviews. Systematic reviews in countries with comparable populations to Australia (NZ, Canada, US, UK, OECD, Europe).	Systematic reviews in countries that do not have populations comparable to Australia.
Study year	
2000 onwards	Older than 2000

Table 2—Database search terms

1. (newborn* or infant* or infancy or baby or toddler* or babies or child*).ab
2. (sleep* or settle* or settling or sleep-training or insomnia or unsettled or wake* or awaken* or waking or night-waking or bedtime or sleep-time or night-time or nap* or controlled crying or controlled comforting or responsive settling or infant massage or kangaroo care or kangaroo settling or co-sleep* or skin-to-skin or self-settling or self-sooth* or swaddl* or pick-up put-down or Ferber or check-and-console or cry-it-out or hands-on-settling or resettl* or chair-method or fading-method or sitback or shushing or feed-to-sleep or room-sharing or sleep hygiene or nocturnal crying or nocturnal cries or pepi-pod* or baby box* or portable sleep space* or possum* sleep* or possum* settl*).ti
3. (strategy or strategies or interven* or program* or technique* or approach* or train* or educat* or method* or practice* or teach* or therap*).ab
4. (meta-anal* OR meta anal* OR metaanal* OR systematic review* OR systematic synthesis or systematic syntheses or umbrella review* or review of reviews).ti

5. 1 and 2 and 3 and 4
6. Limit 5 to English
7. Limit 6 to 2000—current

Scoping review of settling interventions recommended in Australia

Table 3—Organisation websites searched for recommendations

Organisation	Website	Settling recommendations available?*
Australian Association for Infant Mental Health	https://www.aaimh.org.au	Y
Australian Breastfeeding Association	https://www.breastfeeding.asn.au	Y
Better Health Channel	https://www.betterhealth.vic.gov.au	Y
Central Coast Local Health District	https://www.cclhd.health.nsw.gov.au	N
Children's Health Queensland	https://www.childrens.health.qld.gov.au	Y
Department of Health and Aged Care	https://www.health.gov.au	Y
Department of Health Victoria	https://www.health.vic.gov.au	L

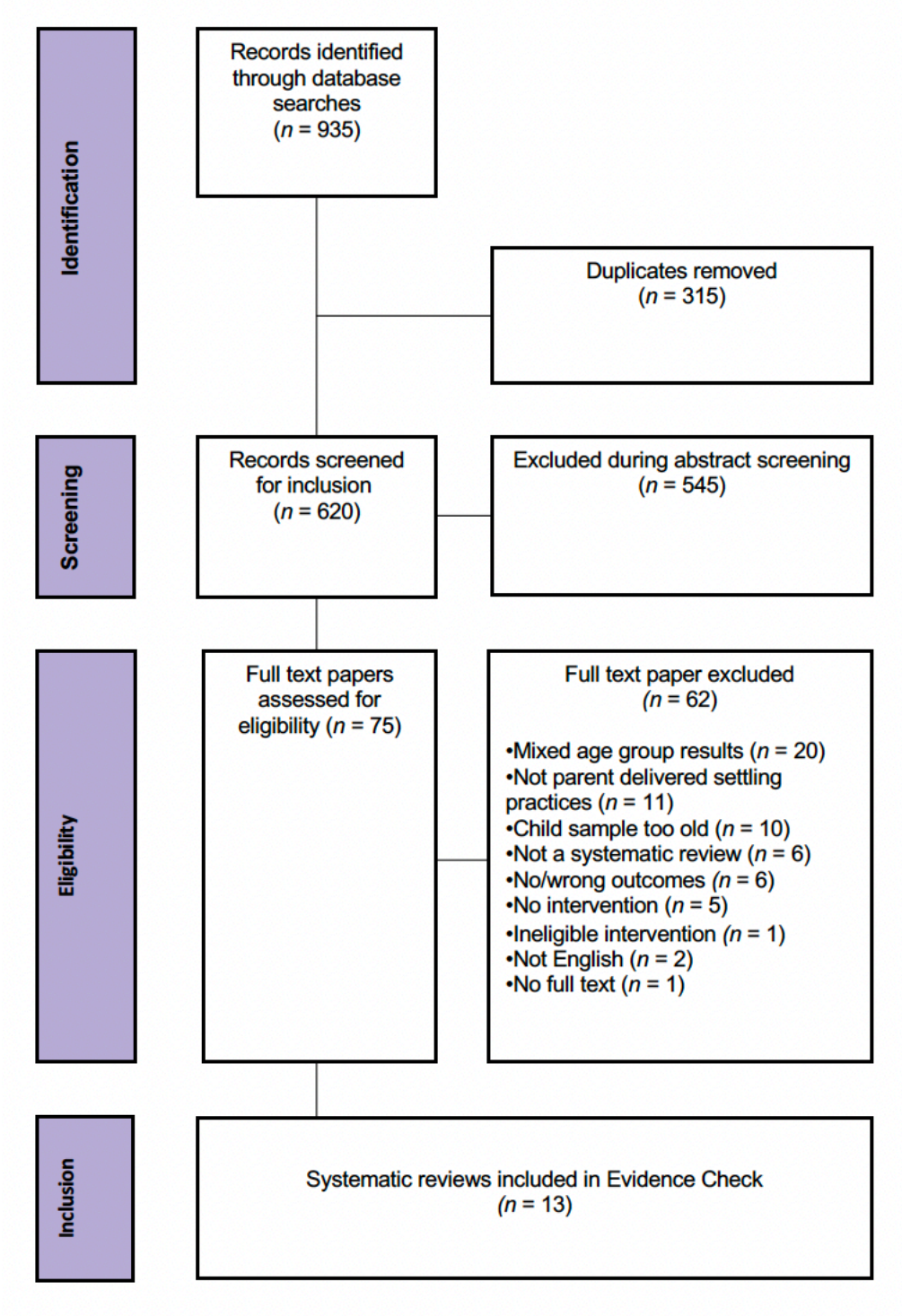
* Y—information provided; N—no information provided; L—links to other websites with information on sleeping and settling provided

Ellen Barron Centre	https://www.childrens.health.qld.gov.au/services/child-youth-and-family-health/child-youth-and-family-health-ellen-barron-family-centre	L
Far West Local Health District	https://www.nsw.gov.au/departments-and-agencies/fwlhd	L
Government of Western Australia Department of Health	https://www.healthywa.wa.gov.au	Y
Health Direct	https://www.healthdirect.gov.au	Y
Hunter New England Local Health District	https://www.hnehealth.nsw.gov.au/	N
Illawarra Shoalhaven Local Health District	https://www.islhd.health.nsw.gov.au/	N
Karitane	https://karitane.com.au	Y
Mid North Coast Local Health District	https://mnclhd.health.nsw.gov.au	L
Ministry of Health NSW	https://www.health.nsw.gov.au	N
Murdoch Children's Institute	https://www.mcri.edu.au	Y
Murrumbidgee Local Health District	https://www.nsw.gov.au/departments-and-agencies/mlhd	N
Nepean Blue Mountain Local Health District	https://www.nsw.gov.au/departments-and-agencies/nbmlhd	N

Northern NSW Local Health District	https://nnswlhd.health.nsw.gov.au	N
Northern Sydney Local Health District	https://www.nslhd.health.nsw.gov.au	Y
Northern Territory Government	https://nt.gov.au	Y
NSW Government	nsw.gov.au	Y
Ngala	https://www.ngala.com.au	Y
Parent Infant Research Institute	https://www.piri.org.au/	N
Parenting South Australia	https://parenting.sa.gov.au	Y
Parentline	https://parentline.com.au	Y
Pregnancy, Birth and Baby	https://www.pregnancybirthbaby.org.au	Y
Raising Children Network	https://raisingchildren.net.au	Y
Ramsay Health Care	https://www.ramsayhealth.com.au	N
Red Nose	https://rednose.org.au	Y
South Eastern Sydney Local Health District	https://www.seslhd.health.nsw.gov.au	N
South Western Sydney Local Health District	https://www.swslhd.health.nsw.gov.au	Y

Southern NSW Local Health District	(https://www.nsw.gov.au/departments-and-agencies/snswlhd	N
Sydney Local Health District	https://slhd.health.nsw.gov.au	N
Tasmanian Government Department of Health	https://www.health.tas.gov.au	Y
Tresillian	https://www.tresillian.org.au	Y
Tweddle	https://www.tweddle.org.au	Y
Western NSW Local Health District	https://www.nsw.gov.au/departments-and-agencies/wnswlhd	N

Appendix 2—PRISMA diagram



Appendix 3—Details of included systematic reviews

Systematic review	Study selection criteria	Included interventions and elements or practices	Review findings and conclusions	Reported review limitations
Chae SM, Yeo JY, Han SY, Chung NR, Hwang JH. Infant sleep interventions with sleep measurements using actigraphy: A systematic review. Int J Nurs Pract. 2024;30(1):e13196.	Infants < 24 months and their parents. Sleep interventions using actigraphy to measure infant sleep outcomes. Exclusion criteria: Infants with medical conditions, including developmental disabilities; non-behavioural-based approaches. Infant sleep outcomes: Total sleep time, number of night wakings, duration of night waking, sleep onset latency and sleep efficiency. Parent outcomes: Night sleep and sleep quality, psychosocial factors and parental cognitions about infant sleep. Systematic review included 11 studies: RCTs, non-RCTs or a single group pre-post design.	**Extinction-based behavioural interventions** (ignoring infant's crying for a period of time at night) for infants older than 6 months: • Graduated extinction including checking in • Parental presence, such as camping out • Co-sleeping.	**Extinction-based behavioural intervention** led to improved infant sleep: sleep onset latency and night waking. **No consistent results** were found in relation to **parental psychosocial outcomes**. Authors indicated that while the extinction-based behavioural interventions had positive effects on child sleep, parental concerns about using these strategies indicated alternative approaches that include recognising and responding to child sleep-related cues within the family environment or empowering parents to regulate their infant sleep rhythm should be considered.	Included studies were diverse with different measurement methods for different outcome variables. Infants with medical conditions were excluded.
Cook G, Carter B, Wiggs L, Southam S. Parental sleep-	Children 1–3 years.	**Settling behaviours:** • Parental presence	Increased **parental presence at sleep onset** was associated with poorer child	Inability to infer causality.

Systematic review	Study selection criteria	Included interventions and elements or practices	Review findings and conclusions	Reported review limitations
related practices and sleep in children aged 1-3 years: a systematic review. J Sleep Res. 2023:e14120.	Parental sleep-related practices and child sleep. Exclusion criteria: Children with comorbid medical, developmental or psychiatric conditions. Outcomes: Child sleep duration, sleep onset latency, night wakings, sleep problems, bedtime, wake after sleep onset, sleep efficiency, duration of stretches of time asleep, sleep consolidation and sleep variability. Systematic review included 16 longitudinal and cross-sectional studies.	• Parental involvement • Feeding to sleep • Use of non-parental aids.	sleep (short sleep duration and increased frequency of night waking). **Increased parental involvement** was related to poorer child sleep outcomes, such as longer sleep onset latency and parental perception of child sleep problems. **Feeding to sleep** (one study) was associated with poorer child sleep (shorter sleep duration, more sleep onset difficulties, more frequent night wakings). **Falling asleep with technology** was related to increased sleep onset latency.	Lack of diversity in the parent sample, which reduced generalisability (e.g. under-representation of fathers, over-representations of more educated parents, lack of racial or ethnic diversity). Problems with the measures used (e.g. subjectivity, not validated for the specific population).
		Bedtime routine: • Presence of routine • Consistency in using routine • Type of bedtime routine activities, routine length and consistency of routine length.	**Presence of routine** in one study was related to parental perception of a sleep problem. **More consistent use of bedtime routine** including suitable relaxing activities were related to better child sleep outcomes (increased sleep duration, reduced sleep onset latency and earlier bedtime). **Routine consistency** (one study) alone predicted better child sleep including, increased sleep duration, reduced sleep onset latency and earlier bedtime, longer sleep duration. **Longer routines** and **greater variabilities in routine lengths** were related to poorer child sleep (reduced duration of sleep and longer actigraphically assessed sleep onset latency. **Greater number of routine activities** were associated with longer child sleep.	

Systematic review	Study selection criteria	Included interventions and elements or practices	Review findings and conclusions	Reported review limitations
		Bedtime: Earlier and later bedtime practices.	In one study earlier **bedtime** was related to longer child sleep while later bedtime was linked with poorer child sleep outcomes (longer sleep onset latency, more sleep problems and more night waking).	
		Sleep location: • Sleeping in a bed or cot • Change in sleep location overnight • Sleeping in parental room • Sleeping independently.	**Sleeping in a cot** (one study) was related to better child sleep than sleeping in a bed. **Ending the night outside of their cot/bed** (one study) was related to reduced sleep duration. **Ending the night location in a parent's bed** (one study) was related to poorer child sleep outcomes, including sleep duration, sleep onset difficulties and night waking. **Not co-sleeping and the same caregiver putting the child to sleep** were related with parental perception of sleep problem (one study).	
		Screen time	**Screen time** close to or during bedtime was related to poorer child sleep outcomes (later bedtime, reduced sleep duration, increased sleep variability, reduced sleep onset latency, reduced sleep consolidation, and more parent-reported sleep difficulties).	
		Sleep-hygiene practices: • Sleep environment	**Sleep-hygiene practices** (only one study) that could be considered detrimental to child sleep were associated	

Systematic review	Study selection criteria	Included interventions and elements or practices	Review findings and conclusions	Reported review limitations
		• Sleep schedule • Sleep association.	with better sleep outcomes, such as maternal perception of child sleep not being a problem.	
Dixley A, Ball HL. The effect of swaddling on infant sleep and arousal: A systematic review and narrative synthesis. Front Pediatr. 2022;10:1000180.	Infants up to 12 months. Infant swaddling. Comparison: Not swaddling. Effects on sleep and arousal. Systematic review and narrative synthesis included 6 studies.	**Swaddling**	**Habituation**: Routine vs. non-routine swaddling: significant outcomes were found for non-routine swaddling (less spontaneous arousability). **Sleep states**: Significant reduction in the frequency of infant sleep change, promoting quiet sleep and sleep efficiency. **Sleep environment**: Two studies conducted in sleep laboratory found swaddling to have measurable outcomes (no specific results were reported). The included studies did not indicate whether bedsharing or co-sleeping were considered in analyses. **Swaddle tightness:** This was not measured or controlled for in the studies. Authors concluded that swaddling may increase SIDS risks in infants who are unaccustomed to the experience since it reduces the frequency of sleep state transitions and promotes quiet sleep.	Only six studies met the inclusion criteria. No consistent outcomes found. The integrity of the interventions varied (broad definitions) across all studies.
Fenton K, Marvicsin D, Danford CA. An Integrative Review of Sleep Interventions and Related Clinical Implications for Obesity Treatment in Children. J Pediatr Nurs. 2014;29(6):503–10.	Children 0–5 years. Sleep interventions to prevent obesity. Outcomes: Total sleep time, sleep onset latency, frequency/ duration of night wakings and sleep hygiene/habits.	**Bedtime routines** (bath, massage, or application of lotion, quiet activity) and environment.	Using a strict **bedtime routine** (one study) with infants and toddlers led to reduced sleep onset latency, decreased number and duration of night waking, increased sleep continuity and reduced parental perception of sleep as a problem compared with the control group. Bedtime routine reduced the number of times the toddler left their cot or bed and improved the toddler's mood on waking.	

Systematic review	Study selection criteria	Included interventions and elements or practices	Review findings and conclusions	Reported review limitations
	Integrative review included 9 studies.		Language-based bedtime routines (reading, singing, praying or talking) were related to longer sleep duration. Elements of the **home environment** can improve sleep in children in all age groups. In toddlers, the absence of a daily nap could be linked with longer sleep onset latency.	
		Parental presence and graduated extinction	In infants and toddlers parental presence (two studies) while falling asleep was related to later bedtimes, longer sleep onset latency, less total sleep time and more frequent night waking. Graduated extinction (one study) interventions for children 0–5 years led to decreased night waking per week.	
			Authors concluded that appropriate sleep interventions may help prevent obesity and its long-term consequences.	
Halal CSE, Nunes ML. Education in children's sleep hygiene: which approaches are effective? A systematic review. Jornal Pediatr. 2014;90(5):449–56.	Children 0–48 months. Sleep hygiene. Outcomes: Children's sleep quality and parents' quality of life. Systematic review included 10 studies.	**Sleep hygiene**: • Extinction (ignoring the child until a certain time on the following morning while monitoring for the possibility of injury) • Gradual extinction (ignoring the demands of the child for specific time period based on the child's age and temperament) • Minimal checking with systematic extinction (the child can be checked every 5–10	**Extinction**: The implementation of this method is difficult because of the parent's inconsistency and their anxiety. **Gradual extinction**: Led to a longer night sleep and reduced frequency of night wakings. In children with sleep disorders, gradual extinction resulted in children falling asleep faster and earlier, the number of nocturnal awakenings was reduced, and the probability of resuming sleep on their own increased. Comparison of gradual extinction and extinction methods indicated that families in the extinction group had more difficulty in adhering to the method compared with	Limited number of studies targeting sleep hygiene available in the literature.

Systematic review	Study selection criteria	Included interventions and elements or practices	Review findings and conclusions	Reported review limitations
		mins and the parent can comfort the child quickly when necessary) • Positive routines (having routine prior to bedtime that include peaceful and pleasurable activities, delaying the time to go to bed to instil a habit of falling asleep quickly) • Programmed waking (waking the child at night between 15 and 30 minutes before the usual time of spontaneous waking) • Sleep remodelling (not allowing naps to occur at times that can impact on night-time sleep onset).	the gradual extinction group in the second week. For the remaining time, the adherence was high and there were no differences between the groups. **Minimal checking with systematic extinction:** Greater reduction in the rates of behaviours labelled as 'inadequate' compared with the control group. In the other study **significant improvements were found in parents' quality of sleep, depressed mood and fatigue**. **Positive routines**: Reduction in sleep latency and the number and duration of night wakings. One study indicated a reduction in temper tantrums (18–48 months). **Mothers** of children 0–18 months: There was a **significant reduction in symptoms of stress, depression, anger, fatigue and lack of stamina and confusion**. **Mothers** of children 18 months and over: Significant improvements in **stress, anger, fatigue and confusion** were reported. **Programmed waking**: Children had fewer night wakings (one study). **Positive remodelling:** Positive results (one study) were found in relation to the duration of night sleep.	
Lecuelle F, Leslie W, Gustin M-P, Franco P, Putois B. Treatment for behavioral insomnia in young children with neurotypical development under 6 years of age: A systematic	Children under 6 years with behavioural insomnia. Therapeutic interventions/treatments for behavioural insomnia.	**Behavioural interventions:** • Complete extinction • Graduated extinction • Structured bedtime routines • Sleep education	**Behavioural interventions** demonstrated positive effects on children's sleep. Complete extinction, gradual extinction, positive rituals and sleep education were recommended strategies. More caution in using the following interventions was suggested: camping	Focus on neurotypical children. Relatively small number of children per group. Different sleep outcomes observed across RTCs using a wide range of methods.

Systematic review	Study selection criteria	Included interventions and elements or practices	Review findings and conclusions	Reported review limitations
review. Sleep Medicine Rev. 2024;74:101909.	Excluded studies: Children with neurodevelopmental disorders, chronic diseases, non-neurotypical children, children with psychological or psychiatric disorders. Outcomes: Sleep onset latency, wake after sleep onset, the number of night-time wakings, bedtime resistance, the duration of an interrupted sleep episode without crying, the total duration of sleep over 24h, total night and daytime sleep duration, insomnia rate, autonomous falling asleep, perception of the child's sleep as problematic.	• Bedtime fading • Scheduled waking • Camping out.	out, scheduled waking and bedtime fading (small number of RTCs and small sample sizes). Positive rituals and sleep education were recommended for children <12 months of age. For children ≥1 year of age, complete or gradual extinction is often needed. Positive rituals and sleep education are typically used before extinction to regulate the child's rhythms. **Complete extinction** (4 RCTs) decreased the number and duration of night-time wakings and bedtime resistance in children 6 months – 6 years. The improvements were maintained at 3-month follow-up. The dropout rate was 2%–13%, indicating parents' refusal to leave children to cry. **Graduated extinction** (7 RTCs) led to an increase in total sleep time and night-time sleep time (as a result of a reduction in the number and duration of night-time wakings), a reduction in sleep onset latency and a decrease in bedtime resistance. Effects were maintained at a 1-year follow-up. **Structured sleep routine** (4 RCTs) led to an increase in total sleep time and night-time sleep, a decrease in sleep onset latency and a reduction in bedtime resistance. The results were maintained at 1-year follow-up. Recommended for children from 3 months or from birth. In one study the reported dropout rate was 12% while other studies did not report any dropout rates.	Various diagnostic criteria used across studies.

Systematic review	Study selection criteria	Included interventions and elements or practices	Review findings and conclusions	Reported review limitations
			Bedtime fading (1 RCT) for children 6–16 months decreased sleep latency, the number and duration of night-time wakings and increased the duration of night-time sleep. It was helpful for children from 6 months with difficulties initiating sleep and late bedtime. **Scheduled waking** (1 RCT) for children 6–54 months led to a reduction in the duration of night-time wakings and the number of night-time wakings without crying. Could be helpful for children 6 months of age and older with difficulties in initiating and maintaining sleep. **Camping out** (1 RCT) for children 9–18 months led to a reduction in sleep onset latency and the number and duration of night-time waking. It could be helpful for children 9 months and older who have difficulty initiating sleep autonomously.	
		Pharmacological treatments: Antihistamines and benzodiazepines.	**Pharmacological treatments** demonstrated only short-term efficacy. The efficacy was not maintained after the treatment stopped.	
			Authors concluded that for neurotypical children > 6 months, extinction and graded extinctions were empirically supported interventions for the treatment of behavioural insomnia. Structured sleep routine and sleep education interventions were also recommended for prevention and regulation of child sleep difficulties for children 0–6 years. Bedtime fading, scheduled waking and camping out did not have enough RCTs to make clear	

Systematic review	Study selection criteria	Included interventions and elements or practices	Review findings and conclusions	Reported review limitations
			conclusions. Pharmacological treatments alone did not show efficacy.	
Liu J, Sun Y, Fan X, Zang T, Han L, Slack JE et al. Effects of psychosocial sleep interventions on improving infant sleep and maternal sleep and mood: A systematic review and meta-analysis. Sleep Health. 2023;9(5):662–71.	Pregnant women and Infants < 12 months. Effects of psychological sleep interventions on improving infant sleep. Exclusion criteria: Infants with congenital anomalies or admitted to the intensive care unit, mothers had postnatal complications needing hospitalisation or with psychological problems requiring medications. Outcomes: Nocturnal total sleep time, daytime total sleep, total sleep time, night wakings, and maternal sleep and mood problems. 14 RCTs were included.	**Psychosocial sleep interventions**: • Behavioural interventions: camping out and controlled crying.	Psychosocial sleep interventions significantly improved infant night-time sleep time and maternal depression. There were no consistent findings regarding maternal sleep quality and fatigue.	Heterogeneity for nocturnal sleep time and daytime sleep time and night wakings. A few articles focused on infants 0–6 months. No subgroup analysis based on baseline sleep problems or baseline sleep were performed. Most studies measured sleep by using sleep diaries. Most mothers were well-educated and from developed countries. Infants with health problems were not included.
Park J, Kim SY, Lee K. Effectiveness of behavioral sleep interventions on children's and mothers' sleep quality and maternal depression: a systematic review and meta-analysis. Sci Rep. 2022;12(1):4172.	Children 36 months and younger. Behavioural sleep interventions based on self-settling, self-regulation and bedtime routines. Comparison: Control group using usual care or no behavioural sleep interventions.	**Behavioural interventions**: • Settling interventions • Bedtime routine interventions.	Behavioural sleep interventions significantly reduced child sleep problems in the intervention compared with the control group. Behavioural sleep interventions had no significant effect on the number of child night wakings. Behavioural sleep interventions **significantly improved maternal sleep quality** in the intervention group compared with the control group.	Only 10 RCTs included so subgroup analyses according to the ages of the children and the duration of the interventions were not conducted. Data were not monitored using actigraphy, which could have provided more accurate and objective data. Children were not separated based on their developmental stages.

Systematic review	Study selection criteria	Included interventions and elements or practices	Review findings and conclusions	Reported review limitations
	Outcomes: The number of child night wakings, child sleep problems, maternal sleep quality and maternal depression. Review and meta-analysis of 10 RCTs.		Behavioural sleep interventions had **no significant effect on maternal depression**.	Duration of interventions and follow-up times were different in most studies. Caution was recommended so not to overestimate the result as the sample size of the control group in one study was considered twice.
Ramchandani P, Wiggs L, Webb V, Stores G. A systematic review of treatment of settling problems and night waking in young children. The West Journal Med. 2000;173(1):33–38.	Children 0–5 years with settling problems or night waking. Drugs and non-drug trials. Comparison: Placebo, waiting list or another intervention. Outcomes: Number of wakes at night, time to settle, number of nights in which these problems occurred. Systematic review of 9 RCTs.	**Pharmacological interventions** (trimeprazine and niaprazine).	**Pharmacological interventions** were effective in the short term (particularly trimeprazine).	Most trials have been small with methodological difficulties. There is a possibility of positive publication bias. The acceptability of different sleep interventions to parents was not fully explored.
		Positive routines: 20-minute winding down bedtime routine that was brought forward 5–10 minutes per week to an appropriate bedtime.	**Positive routine** had positive effect on settling problems compared with no treatment.	
		Graduated extinction: Tantrums were ignored for a certain time interval (duration increased each week).	**Graduated extinction** had positive effect on settling problems compared with no treatment.	
		Scheduled wakes: Waking up the child 15–60 minutes before the usual time.	**Scheduled waking** had positive effect on night waking compared with control groups.	
		Extinction or systematic ignoring: Checking first if the child is OK (e.g. not ill) and then if the child is not ill, parents leave the room and don't return for the duration of that episode.	**Extinction** had positive effect on night waking compared with control groups. Extinction led to faster results compared with scheduled waking but was unacceptable to some parents.	

Systematic review	Study selection criteria	Included interventions and elements or practices	Review findings and conclusions	Reported review limitations
		Modified extinction: Ignoring the child for 20 minutes, then checking that the child is not ill.	**Modified extinction** led to reductions in night waking but there was no control group. Authors indicated that behavioural interventions were more likely to have both short- and long-term effects (up to 6 weeks).	
Reuter A, Silfverdal S-A, Lindblom K, Hjern A. A systematic review of prevention and treatment of infant behavioural sleep problems. Acta Paediatr. 2020;109(9):1717–32.	Infants 0–24 months. Prevention and treatment interventions for behavioural sleep problems. Comparison: Control groups. Outcomes: Infant sleep problems and maternal depression. Systematic review of 12 studies (controlled trials and meta-analyses).	**Bedtime routine** and other interventions based on behavioural principles.	**Bedtime routine** led to reduced problematic sleep behaviours, latency to sleep onset and number of wakings (day and night).	Reliance of subjective reporting of outcomes. Lack of blinding. Selection bias.
		Behavioural interventions based on **extinction** ('cry it out' method, graduated extinction).	In one study using the **extinction-based** interventions (**controlled comforting and camping out**) for infants 8–10 months, parents reported their child had fewer sleeping problems at 10 and 12 months and a tendency to fewer sleeping problems at 2 years. **Lower depression rates in mothers** were reported. Many parents may have difficulties with **extinction** methods where parents are asked to ignore the child's crying for a certain period of time.	
		Massage	**Massage** studies had poor quality. Authors concluded that behavioural interventions may be helpful for infants above 6 months.	

Systematic review	Study selection criteria	Included interventions and elements or practices	Review findings and conclusions	Reported review limitations
			Behavioural interventions showed short-term effects on sleep problems.	
Douglas PS, Hill PS. Behavioral sleep interventions in the first six months of life do not improve outcomes for mothers or infants: A systematic review. J Dev Behav Pediatr. 2013;34(7):497–507.	Infants 0–6 months. Behavioural sleep intervention and infant sleep. Outcomes: Infant sleep and crying and parent outcomes (night sleep duration, number of night wakings, depression symptoms). Systematic review included 43 articles.	**Behavioural sleep interventions**: Delayed response to infant signals or cues (i.e. unmodified or gradual extinction, parental presence), regulation of feed times, algorithms for sleep durations and bedtimes, and other strategies that aim to condition the infant to fall asleep in the absence of feeding or bodily contact with the carer.	Behavioural interventions in the first 6 months were not found to decrease infant crying, prevent sleep and behavioural problems in later childhood or protect against maternal depression. Behavioural sleep interventions were suggested to risk unintended outcomes, such as increased problem crying, stopping breastfeeding prematurely, worsened maternal anxiety and, if the infant is required to sleep in a room separate from the caregiver, an increased risk of SIDS. Studies that reported a link between behavioural interventions and improved infant and maternal health had significant methodological constraints: not taking into account feeding difficulties, not differentiating between the first 6 months and second 6 months of the first years, where neurodevelopmental differences are large, and bias in interpreting results.	No findings regarding the effects of specific settling practices.
Kempler L, Sharpe L, Miller CB, Bartlett DJ. Do psychosocial sleep interventions improve infant sleep or maternal mood in the postnatal period? A systematic review and meta-analysis of randomised controlled trials. Sleep Med Rev. 2016;29:15–22.	Infants 0–12 months. Psychosocial sleep interventions. Comparison: Waitlist or information-only condition. Outcomes: Infant sleep including nocturnal total sleep and number of night-time wakes, and maternal mood.	**Psychosocial sleep interventions** included one or more of the following components: • Psychoeducation about infant sleep • Training parents in methods to help infant self-settle • Teaching infant day/time differentiation • Infant sleep architecture	Improvements in infant total night-time sleep. No evidence for reduced infant night-time wakes. **Some evidence for improvements in maternal mood** but could be due to the publication bias. Authors indicated the need to identify what would be the best time period (pregnancy vs. < 6 months vs. > 6 months) for the implementation of various sleep interventions.	Limited number of studies included. Insufficient number of studies to compare infants under and over 6 months. Heterogeneity of the included studies. Difficulties with reliability and objectivity of the sleep data.

Systematic review	Study selection criteria	Included interventions and elements or practices	Review findings and conclusions	Reported review limitations
	Systematic review and meta-analysis included 9 studies.	• Teaching parents to identify the sight of tiredness • Sleep hygiene for mothers.		
Meltzer LJ, Mindell JA. Systematic review and meta-analysis of behavioral interventions for pediatric insomnia. J Pediatr Psychol. 2014;39(8):932–48.	Children with paediatric insomnia 0–5 years. Behavioural interventions for paediatric insomnia. Outcomes: Sleep-onset latency, number of night wakings, duration of night waking and sleep efficiency. Meta-analysis of 16 controlled trials and qualitative analysis of 12 within-subject studies.	**Behavioural sleep interventions**	Behavioural treatments for young children led to significant improvements in sleep-onset latency, night waking frequency and night waking duration (small to moderate effects). There was a moderate effect of behavioural interventions for young children but questions about these interventions still remain—what the essential components of these interventions are and what the possible negative effects are. No conclusions could be made about long-term follow-up. No studies investigated sleep efficiency as an outcome.	Limited research in children with special needs.

Appendix 4—Details of settling practices recommended by Australian organisations

Table 1—Karitane (https://karitane.com.au/)

Intervention name	Child age	Settling practices	Elements
Responsive settling Responding to your baby's cues	Babies and toddlers		Steps: • Soothing words/quiet singing at the door • Sit beside their bed, soothing words/singing or slow rhythmical mattress pat or gentle touch • Slow rhythmical body part of very gentle body rock • Pick and cuddle, sooth, gentle rock • Try something different. General recommendations: • Use clear consistent messages and warm responding • Regularly question if you and your baby are coping • Keep baby safe and notice if you are getting frustrated • Try taking deep breaths, slow speech, lower your voice and gentle pats • Use positive self-talk or put your child in a safe place and take a break to calm yourself • Get support when you need to from family, friends or parent helpline.
	0–3 months and beyond	Settling in arms	1. Cradle your baby in your arms, with or without gentle rocking, until they're calm. In the early days, you may need to hold your baby until they fall asleep. 2. Gently place your baby in their cot, on their back. 3. If your baby stirs or becomes upset when placed in the cot, offer them comfort until they're calm. 4. If your baby becomes distressed, pick them up and return to the first step.

	0–6 months and beyond	Hands-on settling	1. After your regular sleep routine (e.g. wrap, story, cuddle) gently place your baby in their cot, on their back. 2. Watch and respond to the cues your baby offers. 3. If your baby remains calm, allow them to settle on their own. If they begin to cry, try any of the following to provide reassurance: • Gentle 'sshh' sounds • Gentle, rhythmic patting (thigh, shoulder, tummy or mattress) • Quiet talking with comforting tones (it's OK, time for sleep) • Gentle touching or stroking (head, arm or leg) • Gentle, rhythmic cot rocking.
	0–6 months and beyond	Comfort settling	1. Prepare for sleep with your regular routine (e.g. wrap, story, cuddle). 2. Gently place your baby in the cot, awake, on their back. 3. If this is a new strategy, stay in the room for a few minutes making soft 'sshh' sounds. 4. If your baby remains calm, leave the room. If they become unsettled, stay and provide reassurance until they're calm. 5. When you leave the room, remain close by in case further reassurance is needed. 6. If your baby starts making noises wait before intervening. Babbling, whinging, brief cries and movement are common when your baby tries to settle. 7. If your baby's cries go up and down in volume, wait a short time to see if they settle. 8. If the noise continues to increase, return to your baby and offer comfort while they're still in the cot. 9. If this doesn't work, use the hands-on or settling-in-arms techniques. 10. Try this method again on the next sleep cycle, as your baby will learn with consistent, predictable patterns.
	6 months and beyond	Parental presence	1. Have a calm, quiet, dimly lit room. 2. Ensure there's a bed or mattress for you to lie on. 3. Stay in your baby's view, remain calm, close your eyes and breathe slowly.

			4. If your baby wakes, make a small noise or movement to remind them you're there, without interacting directly. 5. If your baby cries and needs reassurance, offer comfort with 'shh' sounds or gentle phrases like 'it's time to sleep now'. Move onto other forms of comfort as needed. 6. Aim to keep your baby in their cot. Once they're calm, lie down, close your eyes, and breathe slowly again.
	12 months and beyond	Gradual withdrawal	1. Gently place your child in bed. Start by sitting beside or on the bed. Initially your child may prefer physical contact, like holding hands. 2. Reassure your child that if they stay in bed, you'll remain until they've fallen asleep (e.g. at the end of the bed, on a chair in the room). 3. Avoid discussion and responding to requests like 'I want a drink' or 'another story'. 4. If your child gets out of bed continually, calmly take them back. 5. Over the following days and/or weeks, gradually increase the distance between you two. Eventually, you'll be outside the room. 6. Once outside, reassure your child you're nearby. If your child leaves the bed, calmly take them back, reminding them 'it's time for bed'.
Bedtime routine	0–6 months		• A warm bath before night-time sleep. • Wrapping your baby (as long as they aren't rolling yet). • Telling a story before bed. • Having a quiet play before bed. • Playing gentle music.
	0–12 months		• A daily routine including feed, play, sleep, good nutrition, physical activity and being outdoors is beneficial for your baby. • You can develop a healthy routine by understanding your baby's cues. • Watch for signs of hunger from your baby and respond by offering a feed (this may include solids from 6 months of age). • Include play so your baby can develop and learn (when your baby is very young, playtime will be much shorter).

			• Watch for signs of tiredness after play (this is a great time for a nap). • It's important the routine is age appropriate for your baby. • Set realistic expectations for yourself and your baby and be patient.

Table 2—Tresillian (https://www.tresillian.org.au)

Intervention name	Child age	Settling practices	Elements
Responsive settling			Cues to signal when to implement responsive settling strategies: • Distress • Non-verbal cues • States of consciousness • Active and quiet sleep • Drowsiness • Wakefulness.
Responsive settling	Babies in the very early weeks; 3–6 months	Soothing in arms	• Wrap your baby or use a special sleeping bag with fitted arm holes and no hood (in accordance with Red Nose SUDI guidelines). • Hold your baby in your arms until they fall asleep. • Use gentle rhythmic patting, rocking, stroking, talking or softly singing before putting your baby into the cot asleep. These repetitions signal relaxation and sleep. • If your baby wakes after a sleep cycle, you may need to resettle using the strategies above.
Responsive settling	Birth to 6 months	Hands-on settling	• Wrap your baby in a light cotton fabric or use a sleeping bag with fitted arm holes and no hood. • Talk quietly and cuddle your baby to help calm and relax them. • Put your drowsy baby on their back in the cot. • Comfort your baby with gentle ‘sshh’ sounds and/or gentle rhythmic patting, rocking, stroking until they are calm or nearly asleep. • If your baby starts to fuss loudly, pick them up for a cuddle until they’re calm then put them back in the cot. • Stay with your baby until they’re nearly asleep.

			• If they become unsettled, return to the room. • Repeat comforting your baby in the cot until they are asleep. • If needed, pick them up and cuddle until calm and drowsy. • Leave the room when your baby is asleep or return to bed yourself.

Responsive settling	7–12 months	Comfort settling	If your baby can't fall asleep on their own, use this technique to help.
			1. Wrap your baby with their arms up on their chest so they can move them to their mouth if they need to. Or use a sleeping bag with fitted armholes and no hood (following Red Nose safe baby sleeping bag guidelines.
			2. Talk quietly and cuddle your baby to help them calm.
			3. Put your baby on their back in the cot, awake and in a calm and drowsy state.
			4. Comfort them with a gentle 'sshh' sound, rhythmic patting, rocking or stroking until they are calm or asleep.
			5. As your baby calms or falls asleep, move away from their cot or leave the room.
			6. If your baby starts to become distressed, return and comfort them using step 3 before moving away from their cot or leaving the room again.
			7. You may have to repeat this several times before your baby is able to settle to sleep.
			8. If your baby does not settle, pick them up and cuddle them until they're calm. Then either:
			  • Re-attempt comfort settling
			  • Use the soothing in arms settling method
			  • Get your baby up and try again later.
			9. As your baby learns to settle, it will take less time to calm them.

Responsive settling	Over 6 months	Parental presence self-settling	• Talk quietly and cuddle your baby to help them calm. • Put your baby on their back in the cot awake (calm/drowsy). Comfort your baby with gentle 'sshh' sounds, gentle rhythmic patting, rocking or stroking.

			• Once your baby is calm, lie down or sit beside the cot within sight of your baby and pretend to be asleep. • If your baby remains awake, give a little cough or quietly say ‘sshh time to sleep’ so your baby knows you’re still in the room. • If your child becomes distressed, do the least amount to calm them. Start with step 3 but you may need to go through steps 1–3 again. Then lie or sit beside the cot. • You may have to repeat this several times before your child is able to remain calm and become drowsy or fall asleep. • Stay in the room until your child is asleep during the day and sleep in the same room as your child during the night. • Continue this for at least 1 week or until your child has 3 nights in a row of relatively uninterrupted sleep. • You can now begin to leave the room before your child is asleep.
Responsive settling	1–3 years	Gradual withdrawal	**Step 1.** Sit close to the bed holding your toddler’s hand. Give them plenty of comforting touch. **Step 2.** Sit close to the bed and use your voice for comfort. **Step 3.** Start to move the chair away from the bed. Keep using your voice for comfort. **Step 4.** Sit quietly in the chair using your calming presence for comfort. **Step 5.** Move the chair to the doorway, continuing to use your comforting presence and voice. **Step 6.** Move the chair outside the door. Have a part of your body in sight and use your voice to reassure. **Step 7.** Leave for short times, telling your child you are doing something and will come back. Always come back and praise your child for staying in bed. This will build trust. If your toddler has some separation anxiety, you may need to sleep in the same room to reassure them. This is called Parental Presence. Tired signs for toddlers: • Clumsiness

			• Being easily frustrated • Not being able to concentrate • Irritable or restless • Glazed, dull eyes • Heavy eyelids • Yawning • Clinginess • Demands for constant attention • Sucking thumb or dummy • Searching for their comforter.
Responsive settling	1–3 years	Other strategies	If your toddler won't sleep and is distressed and crying, here are some responsive settling techniques to help you: • Talk gently and calmly to reassure them. You could play some calming music or quietly say 'it's time for sleep' to encourage a state of calm • Sit close to the bed and be a comforting presence • Touch, stroke or gently pat them • Allow your toddler to touch you or you could hold hands • Give them their dummy or a comforting toy to hold • Cuddle • Offer a drink of water. Parent emotions When you're feeling stressed, try to pause and take a few slow breaths. This will help you calm, then you'll find it easier to work out what your toddler needs. Your toddler relies on you to feel safe enough to separate for sleep.

Bedtime routine	Under 12 months		• Start with a relaxing bath. • Try a gentle massage but check they're enjoying it (some babies don't). • Change your baby into pyjamas. • Using a soft, low voice, read a story or sing some rhymes. • Finish with cuddles. • Say goodnight, and tell them you will see them in the morning. • Place your baby on their back, in their own cot. • Turn out the lights and leave the room or use one of the self-settling techniques.
Transition from cot to bed	1–3		1. Start by explaining to your toddler that they're moving into a big kid bed. 2. Make sure their comfort toy from their cot is in the bed so they feel more secure to climb in. 3. Praise your toddler for lying quietly and staying in their bed. 4. If they get out of bed, gently and firmly walk them back, tuck them in and say goodnight. You may have to do this many times!

Table 3—Tweddle (https://www.tweddle.org.au/)

Intervention Name	Child age	Settling practices	Elements
Responsive settling	0–3 months	Self-settling	A newborn's ability to settle themselves between sleep cycles is called self-settling. Different babies have different temperaments, personalities and self-settling abilities. You can help your newborn to settle by: • Putting them in their cot when they are tired, but still awake • Recognising and responding to tired signs • Using a gentle, positive and consistent routine, such as **feed, play, sleep** • Using different approaches to settle your baby. It is important to create positive sleep associations for your newborn. Some settling approaches may be hard to keep doing for the long term, such as holding your newborn until they fall asleep. These can create a negative sleep association for your newborn, resulting in them needing to be held to fall asleep. You need to decide what is right for you and your family.
Responsive settling	0–6 months		"Things you can do to help settle your baby include: • Gently touching your baby, such as patting or stroking your baby in their cot • Using gentle shushing noises, settling music or white noise • Check they do not need a nappy change • Check they are not too hot or too cold • Check it hasn't been longer than two to three hours since their last feed.
Responsive settling	0–6 months	Self-settling	Tired signs: • Jerky movement sleep

			• Frowning • Clenching of fists • Yawning • Staring • Poor eye contact • Fluttering of eyelids and rubbing eyes • Sucking on fingers • Back arching, grizzling and crying, which are late signs. When your baby learns to self-settle, they don't need to rely on you to settle them. They can get back to sleep by themselves if they wake overnight (except when they need to feed). Self-settling may help your baby to sleep for longer periods at night. To help your baby learn to self-settle you can: • Make sure the room is dark and quiet • Swaddle or wrap your baby (if they cannot yet roll over) • Put your baby into their cot when they are tired but still awake. This helps them learn to associate being in bed with settling and falling asleep. If your baby still does not settle, you can: • Try going for a walk in the pram • Give your baby a bath or massage cuddle or hold your baby in your arms.
Responsive settling	6–12 months 1–3 years	Parental presence	Parental presence aims to use your presence as a way of helping your baby to self-settle. How to use parental presence: • Decide on an appropriate bedtime

			• Start a positive bedtime routine, such as a warm bath and reading a book • Place your baby into their cot, preferably while still awake or drowsy • Gently pat your baby and say good night • Lie down on a bed or mattress in your baby's room with a night light on and pretend to sleep where your baby can see you • If your baby wakes during the night and is distressed, make slight noises or movement, such as coughing or turning over, so your baby knows you are there • If your baby becomes very distressed, soothe them with gentle words and by touching them—but try not to pick them up • After one to two minutes, lie down and pretend to sleep • Continue doing this every time your baby wakes and is distressed. Repeat the process for day sleeps and naps • Continue with the strategy for seven nights • After three nights in a row of minimal sleep disturbance, you can return to your own room • If your baby's sleep becomes disrupted again, you can re-introduce the strategy.
	6–12 months 1–3 years	Camping out	Camping out is similar to the parental presence strategy. It may be useful if you don't want to sleep in your baby's room, but find it hard to leave your baby to cry even for a few minutes. How use camping out: • Decide on an appropriate bedtime • Start a positive bedtime routine, such as a warm bath and reading • Place your baby in their cot when they are tired but still awake and say good night.

			Steps (in order): • Lie or sit next to your baby and gently pat or stroke them until they go to sleep, then leave the room • Place a chair beside the cot and sit without touching. Allow your baby to go to sleep before you leave the room • Sit at gradually increasing distances from the bed. Allow your baby to go to sleep before you leave the room • Eventually, place the chair outside the bedroom door. If your baby wakes, repeat the step you were using at bedtime to help them learn to self-settle.
	3–6 months	Self-settling	When your baby learns to self-settle, they don't need to rely on you to settle them. They can get back to sleep by themselves if they wake overnight (except when they need to feed). Self-settling may help your baby to sleep for longer periods at night. To help your baby learn to self-settle you can: • Make sure the room is dark and quiet • Swaddle or wrap your baby (if they cannot yet roll over) • Put your baby into their cot when they are tired but still awake. This helps them learn to associate being in bed with settling and falling asleep. If your baby still does not settle, you can: • Try going for a walk in the pram • Give your baby a bath or massage • Cuddle or hold your baby in your arms.

Responsive settling	2–3 years 3–5 years	Bedtime fading	• Record the time your toddler goes to bed every night for a week. • Identify the latest time and set this as bedtime. • Gradually push back the bedtime by 15 minutes every two days. • You can also move the bedtime earlier (if needed) using this approach, once your toddler gets used to falling asleep easily and quickly when put to bed. You can move the bedtime forward by 15 minutes every two days. • Continue until your toddler falls asleep quickly and has minimal night-time wakings, reaching a preferred bedtime.
	3–5 years	Rewards chart	Reward charts are tools for changing your child's behaviour and may include wall posters or apps. They demonstrate positive behaviour or goal that your child needs to achieve. Research shows that reward charts are effective in encouraging positive night-time behaviour. It is important that the reward is given after the good behaviour has been achieved, rather than before (which more resembles a bribe). It is also important not to punish your child if they do not receive a reward.
	3–5 years	Free passes	Free passes are another way to reinforce positive sleep behaviour. You will need to be consistent to use this strategy effectively. Give your preschooler a pass they can use for one acceptable request each night, for example, a drink of water or a kiss. Explain to your child that once they use the pass, they must settle without any more requests or calling out. If your child asks for something that is unacceptable (such as an ice cream or staying up later), or they begin protesting loudly and persistently, you must not respond as it will encourage difficult behaviour.
Sleep routine	0–6 months 6–12 months		Regular daytime and bedtime routines can help your baby to fall asleep and stay asleep. They let your baby know that sleep is coming. Bedtime routines are predictable and calming for your baby. Some things you can do include:

			• Keeping the routine short—no more than 15 to 30 minutes • Using the same relaxing activities before bed every day, such as a warm bath, a massage, reading stories or singing lullabies • Creating a calm, quiet, dark and warm environment, with no television. Use regular bedtimes, nap times and wake times to help your baby develop a good sleep–wake rhythm.

Sleep routine	0–6 months
	
	6–12 months
		Feed, play, sleep	Feed, play, sleep is a daytime routine you can use for babies, toddlers and preschoolers to establish a positive sleep pattern and behaviour.
			
			• Feed your child as appropriate for their age.
			• Encourage read time during the day. Examples of play time for babies include:
			  ○ singing
			  ○ gently talking to your baby
			  ○ reading
			  ○ floor time
			  ○ sitting in a pram outside.
			• Watch for the first tired signs and then put your baby to bed.
			
			Feed, play, sleep is most effective if done throughout the day. You should reduce play at night and provide a quiet and dim environment so that your baby understands the difference between day and night.
			
			Feeding is a very important part of the routine. With a healthy and adequate diet, your baby will have energy for play, which in turn encourages positive sleep behaviours.

Sleep routine	1–3 years		Tired signs for this age group can include: • Clumsiness

	3–5 years		• Clinginess • Being grumpy • Grizzling or crying • Demands for attention • Boredom with toys • Rubbing eyes • Fussiness with food.

Sleep routine	1–3 years
	
	3–5 years
		Flexible daily patterns	Flexible daily patterns are a daytime routine you can use for toddlers and preschoolers to encourage positive sleep patterns and behaviour early on.
			
			• Encourage play time during the day. Examples of play time for toddlers include:
			  ○ Drawing
			  ○ Reading, singing
			  ○ Dancing
			  ○ Playing, such as kicking a ball
			  ○ Running or walking
			  ○ Going to the park
			  ○ Climbing and jumping.
			• Watch for the first tired signs and then put your toddler to bed, when they are tired but still awake.
			
			Flexible daily patterns are most effective if done throughout the day. You should reduce play at night and provide a quiet and dim environment so that your child understands the difference between day and night. Mealtime is a very important part of the routine. With a healthy and adequate diet, your toddler will have energy for play, which in turn encourages positive sleep behaviours.

Table 4—Ngala (https://www.ngala.com.au/)

Intervention name	Child age	Settling practices	Elements
Responsive settling	0–12 months	Listen-wait-plan-respond	• Listen to the cry: What are they trying to tell you? • Wait and watch: Wait outside the room or in the room for enough time to assess the cry and plan your response. Does the body language and cry match their behaviour? • Plan: Make sure you display calm, firm, kind body language, so your baby knows you are confident and that it's sleep time. • Respond: Appropriately based on the cry, reassure them it's OK, you're here and it's sleep time. Avoid prolonged eye contact as this can be as engaging as touch or talking. Wiping your baby's face with a damp flannel can sometimes help to calm and refocus their emotions if they are upset.
Sleep routine	0–6 months	Day and night rhythm	• Offer regular milk feeds through the day. • Use a dim light but not a dark environment for day sleeps. • Expose your baby to indirect sunlight—particularly in the late afternoon to enhance the secretion of melatonin. • Create a bedtime routine. • Provide a quiet, calming time before bedtime.

Table 5—Raising Children Network (https://raisingchildren.net.au)

Intervention name	Child age	Settling practices	Elements
Responsive settling	0–6 months	Settling in arms	Settling in arms means holding and soothing your baby when they're ready for sleep. When your baby is asleep, you can gently put them on their back into their cot or onto another safe sleep surface. Try these ideas for helping baby fall asleep in your arms: • Gently rock your baby or sway from side to side • Walk around in slow circles • Pat your baby's bottom rhythmically • Sing softly to your baby, or make gentle 'sh, sh' sounds.
	0–6 months	Hands-on settling	Hands-on settling often involves **rhythmic, gentle patting** with your baby in their cot: 1. Face your baby away from you, lying on their side 2. Place your hand gently on your baby's shoulder 3. Cup your other hand, and pat your baby gently and slowly on the bottom or thigh 4. Make the patting as rhythmic as possible—for example, about the same rate as your heartbeat 5. Sing a quiet, soothing song to help you find a rhythm. If you think singing might disturb your baby, sing or count in your head to keep your patting steady. Or try saying 'shhh' on each pat. 6. As you feel your baby relax, roll them onto their back and leave the room.

			If patting doesn't seem to work with your baby, there are **other hands-on settling options** that you can try. These options all start with your baby in their cot: • Put one hand firmly but gently on your baby's hip and the other on their shoulder. As you feel your baby relax, roll them onto their back and leave the room • Hold your baby firmly at shoulder and hip, and gently rock them back and forth • Gently stroke your baby's forehead • Pat the mattress beside your baby • Jiggle the cot slightly.
		Verbal reassurance	If your baby grizzles when you first put them to bed or after waking in the night, you could gently say 'I'm here. Time to sleep' or make 'sh, sh' sounds. You could even sing or hum a few words of a favourite song. But if your baby starts crying, you need to help them settle—for example, in your arms or with hands-on settling.
Responsive settling	6–18 months	Reducing settling help	You can reduce the responsive settling help you give your child by moving from your current method of settling to gradually less intensive methods. This **gentle approach** helps your child more easily learn new ways to settle. **1. Work out how your child likes to sleep now** Think about how your child likes to go to sleep now. For example, if your child likes to be fed to sleep, you could start by using settling in arms, hands-on settling or verbal reassurance. These settling options are explained in Responsive settling at 0-6 months.

			2. Reduce the help you give When you're ready, you can gradually and gently reduce the amount of help you give your child to settle. This means waiting until your child falls asleep easily one way before you move to a less intensive way. For example: • If you're feeding your child to sleep, feed them until they're drowsy but not asleep. Move from this to rocking your child to sleep in your arms • If you're rocking your child to sleep in your arms, rock them until they're drowsy. Move from this to using hands-on settling • If you use hands-on settling until your child is asleep, slow or stop the patting or rocking when they're drowsy. Move to leaving the room while your child is drowsy but awake. **3. Leave the room while your child is still awake** Once your child is used to falling asleep without feeding, rocking or hands-on settling, you can try leaving the room while they're still awake. If your child gets upset when you leave, you might need to gradually get them used to falling asleep without you in the room.
	6 months – 3 years	Bedtime fading	Bedtime fading is **gradually making your child's bedtime earlier**. **Step 1: Choose a bedtime** Bedtimes between 7pm and 8pm often work for young children. **Step 2: Introduce a positive bedtime routine** A bedtime routine involves doing similar things in the same order each night before bed. It can include: • Pre-bed tasks like having a bath and brushing teeth

			• Quiet, enjoyable activities with you, like reading or listening to a story. **Step 3: Put your child to bed at their actual bedtime** Bedtime fading starts with putting your child to bed at the time they're naturally falling asleep now. This helps your child learn to associate being in bed with feeling sleepy. **Step 4: Start moving your child's actual bedtime towards the ideal bedtime** When your child is falling asleep well at the later time, you can **start gradually making your child's bedtime earlier**. This might be about a week after you start bedtime fading. This involves making bedtime about 15 minutes earlier every few days.
	Over 3 years	Free pass	• At bedtime, give your child a 'pass' that's good for one acceptable request, like a drink of water or a kiss from mum or dad. • Agree with your child that after they use the pass once, they must give it to you. It's time for your child to settle without any calling out or getting out of bed. • If your child doesn't use the pass, they can use it the next day or in exchange for a special activity you've agreed to beforehand. • If your child asks for something that's not acceptable—for example, an ice-cream or staying up later—your child must hand in the pass and can't use it later.
	3 years and over	Reward chart	If your child is 3 years or older, you could try a reward chart to encourage positive bedtime behaviour. Younger children often like a special stamp on their hand to remind them during the day what a good job they did overnight.

Bedtime routine	1–5		A bedtime routine is the most important part of helping young children go to bed and settle. It helps babies and children know that it's time to settle for sleep. It also helps them calm down. A basic routine involves: • Doing the same soothing things at the same time each night before bed • Avoiding loud or boisterous play before bedtime • Avoiding screen-based activity in the hour before bedtime—that is, avoiding TV, video games and so on.

Table 6—Pregnancy, Birth and Baby—Australian Government (https://www.pregnancybirthbaby.org.au)

Intervention name	Child age	Settling practices	Elements
Responsive settling	0–3 months	Settling in arms	• Hold your baby in your arms, you can gently rock them until they're calm. • Place your baby in their cot, on their back. • You may need to keep holding your baby until they fall asleep. • If your baby gets upset when placed in the cot, comfort them until they're calm. • If your baby becomes distressed, pick them up and go back to the first step.
	3–6 months	Hands-on settling	• Gently place your baby in their cot, on their back, awake. • Watch and respond to cues from your baby. • If your baby remains calm, allow them to settle on their own. • If they start to cry, try placing your hands on your baby to reassure them. • Leave your hands on your baby until they have gone to sleep. To help them settle, you can also: • Make 'shh' sounds • Talk to them quietly with comforting tones • Gently tell them 'it's OK', 'time for sleep' • Do gentle rhythmic patting of their thigh, shoulder, tummy or the mattress • Gently stroke their head, arm or leg • Rock the cot in a gentle rhythm. You may want to sit on a chair beside their cot and pat through the cot rails. If you have had enough or your baby is not getting calmer, it's OK to stop and try something else.

	6 months and older	Comfort settling	The idea is for your baby to learn how to fall asleep on their own: • Start with your usual sleep routine, such as nappy change, story, a cuddle • Gently place your baby in their cot, on their back and tell them it's sleep time • Pat or shh for a few minutes if needed to calm them, then leave the room • Stay close by and listen to the noises that your baby makes. Babbling, whinging, brief cries and movement are common when your baby tries to settle. If your baby's cries go up and down, wait a short time to see if they settle. If your baby's cries get louder, go back and comfort them in the cot. If this doesn't work, try comfort settling again another time and instead use hands on settling, or the in arms method."
	6 months and older	Camping out/transition settling	1. Place a mattress or chair next to your baby's cot. 2. When it's bedtime, put your baby in the cot and stroke or pat them until they fall asleep. 3. When they are asleep, leave the room. 4. Repeat this step every time they wake up through the night. It usually takes 3 nights for your baby to learn to fall asleep like this. Once your baby can fall asleep like this, start to gradually reduce the time you pat or stroke them. The idea is for your baby to learn to fall asleep as you sit or lie quietly next to them, without touching them. When your baby can fall asleep without you touching them, move the mattress or chair about 50cm away from the cot. Stay there quietly until your baby falls asleep. Return to the mattress or chair if they wake up during the night, and stay there until they go back to sleep.

			Over the next few weeks, gradually move the mattress or chair further away from the cot and out of the door.
	All ages		• Try to learn your baby's tired signs. • Younger babies need more sleep than older babies and can get overtired easily. • Your baby will probably sleep best when it is darker and quiet. • Try to be patient, flexible and realistic when helping your baby learn sleep skills. • Listen to your baby's cry and what they are trying to tell you. • Respond in a calm and confident way to help your baby relax. • You will need to do the same thing consistently to help your baby practise a new way of settling. • Create a sleep routine that works for your family.

Table 7—Parenting SA—Government of South Australia (https://parenting.sa.gov.au)

Intervention name	Child age	Settling practices	Elements
Bedtime routine	0–1 year		A bedtime routine to help your baby sleep can be started at any age and usually includes 3–4 calming activities. Doing these in the same order gives your baby a sense of safety and predictability. It can increase their sleep and create a solid foundation for healthy sleep. Typical calming activities include: • Feeding • Bathing or dressing for bed • Reading a book • Singing a lullaby or song • Massaging, cuddling or rocking. What matters most is that bedtimes are calm and relaxed and babies feel comforted. Lots of cuddles before bed can also help. Having a bedtime routine is an opportunity to connect with your baby and help them go off to sleep feeling loved and secure.
	1 year and older	Positive strategies	• Bedtime routine • Sleep environment • Feeling safe and loved.
Bedtime routine	1 year and older		Having a consistent bedtime routine will help your child sleep better and fall asleep more quickly. A bedtime routine can be started at any age and usually includes 3–4 calming activities. These can include:

			• Bathing or dressing for bed • Brushing teeth • Reading together • Cuddling with a favourite toy or blanket. When you do these calming activities in the same order every night it makes your child feel safe and they know what to expect.
	1–3 years		Prepare your toddler for going to bed. Talk about what will happen next, e.g. having a bath, putting on pyjamas, cleaning teeth, reading a story, going to sleep. This reinforces the predictable bedtime pattern. • Use the positive strategies (bedtime routine, sleep environment, feeling safe and loved). • Patting and rocking may still work at this age. • If your child stands up in their cot sit on the floor or a low chair. This can encourage them to lie down. • Try giving them a safe toy to cuddle. • Some children need you to stay near while they go to sleep. It is important not to try and leave the room without telling them. • If your child calls out you can call back so they know you are close. • Make a special bedtime book. Write a short story (4–5 sentences) that explains what to do at bedtime. Draw or find pictures of each stage of their bedtime routine. Read the story every night and then do the things in the story. This helps your child learn the routine.
Bedtime routine	3 years and older		Prepare your child for going to bed. Let them know in advance that bedtime is coming, e.g. ‘Just one more game and then it’s time to get ready for bed’ and follow through with your plan.

			• Use the positive strategies (bedtime routine, sleep environment, feeling safe and loved). • If your child gets out of bed gently lead them back and resettle them. • If they wake at night go to them, comfort and quietly reassure them, e.g. ‘Sleep time now, I love you’. You may need to return and repeat this. • Offer to check on your child. If they know you will come back in five minutes, and then again in five more minutes, they are much more likely to be able to settle into sleep. • Some parents allow their child into their bed in the early hours. Consider setting up a small bed next to yours for better sleep. • If your child is scared at night ask them to draw what they’re afraid of. You can help them talk to the monster, or whatever they draw, e.g. “No monsters allowed in my room. You have to sleep outside our house!” Ask your child what would help them sleep. Some children can tell you, others may not be able to.

Table 8—Department of Health and Aged Care (https://www.health.gov.au)

Approach	Child age	Settling practices	Elements
Bedtime and sleep habits	0–5 years		• Having a calming bedtime routine • Setting consistent sleep and wake-up times • Avoiding screen time before sleep • Keeping screens out of the bedroom.

Table 9—Northern Territory Government (https://nt.gov.au)

Approach	Child age	Settling practices	Elements
	0–3 months	Recognising sleep signs	• Yawning • Random jerky movements • Crying • Rubbing their eyes • When they are relaxed after a feed.
Sleep routine	0–3 months	Settling ideas	• If your baby is more wakeful at night than during the day, settle them at night in a quiet, dark place and don't play or do anything that makes them more wakeful. • Put your baby on their back for sleep. • Work out how your baby likes to settle—some new babies settle best in a quiet, dark place, others settle more easily in noisier, lighter places. • Have some background noise such as humming, relaxing music or household noise. • Wrap your baby in a thin cotton sheet or use a safe sleeping bag that has no hood or arms. • Pat them gently with a cupped hand—at about the pace of your heartbeat. • Rock them in a pram or your arms for a while and then settle them into bed—always stay with them if they are in a pram. • Push them in a pram back and forth over a bumpy surface— e.g. the edge between your carpet and tiles, or over footpath bumps. • Check that they are not too hot or cold, and that clothing is not too tight. • Give them a warm bath. • Give them a massage if they like it.

			• Offer another feed. • Allow them to suck on a thumb or dummy—only offer a dummy once breastfeeding is working well, around four to six weeks. • Carry them on your body in a baby sling.
Sleep routine	3–6 months	Settling ideas	• Continue any bedtime pattern you have started from birth—but be flexible to meet the changing needs of your baby. • Try some of the settling suggestions for babies zero to three months. • Use the same settling pattern each time you put your baby to sleep, day or night—it helps them to learn about sleep more quickly. • Talk calmly to your baby as you put them to bed—tell them what is happening. • Read a book with a soothing voice. • Darken the room to make a difference between wake time and sleep time. • Make a recording of household sounds and play it in your baby's room.
Sleep routine	6 months – 3 years	Encouraging sleep time	Settling ideas: • Stick to regular mealtimes during the day with some snacks and one or two sleeps • Give them plenty of activity when they are awake—visit the park or playground, or go for a walk • Make the hour or so before sleep a relaxing time • Keep to the regular settling pattern that you have established, such as a bath, quiet play, story, cuddles and/or song • Put your child into their cot awake and let them drift off to sleep • Sing a song, read a story or put on some relaxing music • Pat or rock them for a while

			• Wrap them in a thin cotton sheet or sleeping bag—if they like it and depending on the temperature.
	6 months – 3 years	Settling ideas	• Leave a soft light on. • Give them something to cuddle like a soft toy or something of yours, such as a t-shirt. • If they still like a dummy, try putting several in the cot—if the child wakes, move their hand so they can find one and settle again. Your child may need you to stay near while they go to sleep. If you decide to do this, don't sneak out without telling them—it can make them tense in case you do it again. You can whisper that you are going to another room and will be back soon. Make sure you do return soon.
	6 months – 3 years		If your child has separation anxiety, you can: • Put a day bed or mattress in their room and lie down near them so you both get to sleep • Put their bed in your room near you • Make sure they get plenty to eat during the day.
Sleep routine	3–5 years	Encourage sleep time	• Work out a night-time pattern that is special for you and your child—e.g. a bath, drink, brush teeth, cuddle, story, song and kiss goodnight. • Let them know in advance that bedtime is coming —e.g. 'just one more game and then it's time to get ready for bed', and mean what you say. • No excitement such as tickles, wrestles or TV for the half-hour before bed. • Allow time to sit and talk about the events of the day.

			• If your child has had a stressful day or something is worrying them, they may need some extra time and quiet attention—e.g. reassuring words, a longer cuddle or relaxing music.
	3–5 years	Settling ideas	If your child remains unsettled, you could try some of the ideas below: • If they come into your room, lead them back to bed and resettle them there • Put a spare bed in their room so you can be comfortable and rest while your child needs you close by • Allow them to come into your bed if they wake early in the morning, or have a small mattress or sleeping bag for them next to your bed • Be comforting, but boring—don't respond to any games • Ask your child what would help them go to sleep—they may be able to tell you • Think about any changes happening in your child's life that can cause stress—they might seem minor to you, but can be big for your child.

Table 10—Government of Western Australia Department of Health (https://www.healthywa.wa.gov.au)

Intervention name	Child age	Settling practices	Elements
Sleep routine	3–6 months		• Place your baby on her back in the bassinet or cot. • Pat your baby, or jiggle the cot in a regular rhythm. You may need to pat or rock quickly at first, then slow down as your baby calms down. Stop before your baby goes to sleep. • Sing to your baby, or put on the radio. Other regular noises such as the washing machine or dryer can help. • You could darken the room for night sleeps. Day sleep could be in a brighter, noisier place—but if this does not work try the darker, quieter place. • Some babies settle better if wrapped fairly firmly in a thin cotton sheet with the arms wrapped in too, while others do not like this, and settle better if they can use their hands to soothe themselves. The wrap should not be too tight and must allow chest wall, hip and leg movement. • If your baby has reached the rolling over milestone, wrapping is not recommended as it may lead to suffocation. • Your baby will learn about going to sleep more quickly if you try to use the same settling ideas each time, day or night.

Table 11—NSW Government (nsw.gov.au)

Intervention name	Child age	Settling practices	Elements
Sleep routine	Babies		Most babies need help learning how to go to sleep. This is called **settling**. It can help to try different techniques to learn what works best for you and your baby. Your baby's sleep routine will change as they reach different stages of development and can be affected by: • Growth spurts • Teething • Sickness.

Table 12—Children's Health Queensland—Queensland Government (https://www.childrens.health.qld.gov.au/)

Intervention name	Child age	Settling practices	Elements
Responsive settling	0–3 years	Settling in arms	This video features an approach to settling that is suitable for all babies, but is best for younger babies, or where parents may be experiencing difficulties separating from their baby. As with every responsive settling technique, the first step is to look for your baby's tired cues.
		Hands-on settling	This video shows a settling method that encourages your baby to become familiar with settling to sleep in their cot. It is suitable for babies of all ages, but younger babies may be more responsive to this, as with every responsive settling technique.
		Transition settling	This video describes a responsive settling method called transition settling. This method encourages your baby to become familiar with going to sleep in their cot. It is suitable for babies of all ages.
		Comfort settling	This video shows the steps for using the comfort settling approach. This strategy promotes a baby's ability to settle to sleep independently. It allows babies to discover their own way of settling to sleep. This method is suitable for babies of all ages.

Table 13—Tasmanian Government Department of Health (https://www.health.tas.gov.au)

Intervention name	Child age	Settling practices	Elements
Recognising baby's cues	Babies	Recognising tired signals	Babies jerking arms or legs; closing fists; fluttering eyelids; frowning; arching back; staring; stiffness; sucking on fingers; difficulty focusing (even appearing cross-eyed); rubbing their eyes (for babies over four months); grasping at their own body or clothes. Older children: Clumsiness; demands for constant attention; clinginess; boredom with toys; fussiness with food.
Sleep routine			• Establishing a bedtime routine. This might be a bath and massage, a story and cuddle before bed. • Putting your baby to bed awake can help them learn to settle themselves to sleep. • Rhythmic gentle patting can be calming for babies and help them settle. • Swaddling your baby with a muslin wrap (loosely around the legs).

Table 14—Better Health Channel (https://www.betterhealth.vic.gov.au/)

Intervention name	Child age	Settling practices	Elements
Responsive settling	0–3 months	Recognising baby's tired signs	Tired signs for these age groups can include: • Jerky movement • Frowning • Clenching of fists • Yawning • Staring • Poor eye contact • Fluttering of eyelids • Rubbing eyes • Sucking on fingers • Back arching, grizzling and crying, which are late signs.
	0–6 months	Sleep routine	Some things you can do include: • Keeping the routine short—no more than 15 to 30 minutes • Using the same relaxing activities before bed every day (such as a warm bath, a massage, reading stories or singing lullabies) • Creating a calm, quiet, dark and warm environment, with no television. Use regular bedtimes, nap times and wake times to help your baby develop a good sleep–wake rhythm.
	0–6 months	Feed, play, sleep	Feed, play, sleep is a daytime routine you can use for babies, toddlers and preschoolers to encourage positive sleep patterns and behaviour early on.

			Feed your child as appropriate for their age. Encourage play time during the day. Examples of play time for babies include: • Singing • Gently talking to your baby • Reading • Floor time • Sitting in a pram outside. Watch for the first tired signs and then put your baby to bed.
Responsive settling	6–12 months	Parental presence	• Decide on an appropriate bedtime. • Start a positive bedtime routine (such as a warm bath and reading a book). • Place your baby into their cot, preferably while still awake or drowsy. • Gently pat your baby and say good night. • Lie down on a bed or mattress in your baby's room with a night light on and pretend to sleep where your baby can see you. • If your baby wakes during the night and is distressed, make slight noises or movement (such as coughing or turning over), so your baby knows you are there. • If your baby becomes very distressed, soothe them with gentle words and by touching them—but try not to pick them up. • After one to two minutes, lie down and pretend to sleep. • Continue doing this every time your baby wakes and is distressed. Repeat the process for day sleeps and naps. • Continue with the strategy for seven nights. • After three nights in a row of minimal sleep disturbance, you can return to your own room. If your baby's sleep becomes disrupted again, you can re-introduce the strategy.
	6–12 months	Camping out	You will be more successful if you plan ahead and take time to progress through each camping out step: • Decide on an appropriate bedtime

			• Start a positive bedtime routine (such as a warm bath and reading a book) • Place your baby in their cot when they are tired but still awake and say good night. Camping out steps Try each of these following steps in order. Be patient, your baby may need some time to adjust to settling in this way. Each step may take 2 to 3 nights—it's important that you and your baby feel comfortable before progressing to the next step: • Lie or sit next to your baby and gently pat or stroke them until they go to sleep, then leave the room • Place a chair beside the cot and sit without touching. Allow your baby to go to sleep before you leave the room • Sit at gradually increasing distances from the bed. Allow your baby to go to sleep before you leave the room • Eventually, place the chair outside the bedroom door • If your baby wakes, repeat the step you used at bedtime, to help them learn to self-settle.
Betime routine	1–3 years		Some things you can do include: • Keeping the routine short—no more than 30 to 45 minutes • Using the same relaxing activities before bed every day (such as a warm bath, a massage, reading stories or singing lullabies) • Creating a calm, quiet, dark and warm environment, with no television or mobile devices. Use regular bedtimes, nap times and wake times to help your toddler develop a good sleep–wake rhythm. Having a consistent bedtime routine also means parents and caregivers are less likely to be stressed trying to get children to sleep.

		Moving from cot to bed	Once you notice your toddler is attempting to climb out of their cot, it is **time to move them to a bed**. This is usually between 2 and 3½ years of age but can be as early as 18 months.
Responsive settling	2–3 years	Fading out	• Record the time your toddler goes to bed every night for a week. • Identify the latest time and set this as bedtime. • Gradually push back the bedtime by 15 minutes every 2 days. • You can also make bedtime earlier (if needed) using this approach. Once your toddler gets used to falling asleep easily and quickly when put to bed, move their bedtime forward by 15 minutes every 2 days. • Continue until your toddler falls asleep quickly and has minimal night-time waking, reaching a preferred bedtime.
Responsive settling	3–5 years	Bedtime fading	• Record the time your preschooler goes to bed every night for a week. • Identify the latest time and set this as bedtime. • Gradually push back the bedtime by 15 minutes every 2 days. • You can also make bedtime earlier (if needed) using this approach. Once your child gets used to falling asleep easily and quickly when put to bed, move their bedtime forward by 15 minutes every 2 days. • Continue until your preschooler falls asleep quickly and has minimal night-time wakings, reaching a preferred bedtime.”
	3–5 years	Reward charts	Reward charts are tools for changing your child’s behaviour and may include wall posters or apps. They demonstrate a positive behaviour or goal that your child needs to achieve. Research shows that reward charts are effective in encouraging positive night-time behaviour. It is important that the reward is given after the good behaviour has been achieved, rather than before (which more resembles a bribe). It is also important not to punish your child if they do not receive a reward. An example you could try is rewarding your child with a sticker in the morning if they do not call out

			overnight. Once they receive 5 stickers, they may then receive a reward (such as a family bike ride, a movie night, or special time with parents or caregivers).
	3–5 years	Free passes	Free passes are another way to reinforce positive sleep behaviour. You will need to be consistent to use this strategy effectively. Give your preschooler a pass they can use for one acceptable request each night—for example, a drink of water or a kiss. Explain to your child that once they use the pass, they must give it to you and settle without any more requests or calling out. If your child asks for something that is unacceptable (such as an ice cream or staying up later), or they begin protesting loudly and persistently, you must not respond as it will encourage difficult behaviour.

Table 15—Parentline (https://parentline.com.au)

Intervention name	Child age	Settling practices	Elements
Bedtime routine	0–5 years		Routines help your child to 'wind down' and become sleepy and ready for bed. It signals that the day is ending and helps the body release hormones that help with sleep: • Have a bath • Clean teeth • Play soft music • Read books or tell stories • Dim the lights • Say the final goodnight.

Table 16—Health Direct (https://www.healthdirect.gov.au)

Approach	Child age	Settling practices	Elements
Sleep routine		General tips to help child sleep well	**Establish a sleep schedule:** Make sure your child goes to bed early enough to get the sleep they need. Once you have set an appropriate bed time, stick to it—even on the weekend. **Establish a bedtime routine:** Follow the same routine every day: bath or shower, change into pyjamas, brush teeth, read or spend quiet time in their bedroom, lights out and go to sleep. **Help your child wind down:** Busy children need some time to relax. Consider playing soft music or reading to them. **Make sure the bedroom is suitable for sleep:** Ensure the bedroom is dark and quiet. If your child is anxious or afraid at night, use a night light. **Avoid stimulants:** Make sure your child avoids tea, coffee, chocolate and sports drinks, especially in the afternoon. **Turn off technology:** Try turning off computers, tablets and television one hour before bedtime to help your child sleep better.

Table 17—Australian Breastfeeding Association (https://www.breastfeeding.asn.au)

Approach	Child age	Settling practices	Elements
	0–3 months	Feeding to sleep	Feeding baby to sleep: • Most babies naturally feed to sleep, even older babies • Breastfeeding your baby to sleep gives them food, comfort and helps them to relax. Other ways: • The motion, warmth and comfort of your (or another adult's) body is a common way to help babies get to sleep • Breastfeed while standing up and rocking • It may help to hold your baby until they are in a deeper sleep. When babies fall asleep, they are in what is called 'active sleep'. Their breathing is faster and uneven and you'll still notice movements of their body or face. After about 20 minutes, they fall into a quiet, deeper sleep and are easier to transfer into their sleeping place • Many babies don't like being put down into a cot for sleeps. You could try feeding your baby to sleep on a mattress on the floor. When baby has finished, you can easily roll away without having to move them.

Table 18—Red Nose (https://rednose.org.au)

Approach	Child age	Settling practices	Elements
Responsive settling	0–6 months	Settling in arms	• Hold and sooth infant. • Try helping the infant to fall asleep in arms with gently rocking or swaying from side to side. • When the infant is ready for sleep, gently put them into their cot.
	0–6 months	Hands-on settling	Prior to age six months, 'hands-on settling' is currently considered the standard approach. Several types of hands-on settling techniques include: • Gentle and gradual—gentle patting or holding the infant in the cot • Verbal reassurance—intermittent check-in with the infant remaining in the cot, quiet singing, talking or using 'sshhh' • Pick up, reassure, but put down if the infant is becoming more agitated.
Responsive settling	6 months and older	Parental presence	Parental presence involves lying down on a bed or mattress in baby's room with a night light on and pretending to sleep where your baby can see you. Parental presence aims to use parent/carer presence as a way of helping baby to self-settle and requires a seven to 10 day commitment.
	6 months and older	Camping out	Camping out is similar to the parental presence strategy. It may be useful for parents/carers who don't want to sleep in their baby's room but find it hard to leave baby to cry even for a few minutes. This involves sitting or lying beside the cot and gradually moving this position closer to the door over a one to three week period, until baby can go to sleep by themselves.

Table 19—Murdoch Children's Institute (https://www.mcri.edu.au)

Intervention name	Child age	Settling practices	Elements
	Not specified	Healthy sleep habits	• Having a regular bedtime. • Waking up at the same time every day. • Avoiding caffeine after 3pm. • Making sure the bedroom is cool, quiet and relatively dark. • Having a bedtime routine that is calm and sleep inducing. • Avoiding all stimulating activities in the hour before bedtime, including devices with screens. • Avoiding intense exercise in the hour before bedtime.

Table 20—Australian Association for Infant Mental Health (https://www.aaimh.org.au)

Intervention name	Child age	Settling practices	Elements
Extinction-based behavioural sleep interventions (not recommended)	Infants	**Not recommended practices:** Unmodified extinction—'cry it out'	Child is put to bed and ignored until a set wake time. AAIMH is concerned that extinction-based behavioural sleep interventions are not consistent with the infant's needs for optimal emotional and psychological health and may have unintended negative consequences. Extinction-based behavioural sleep interventions have not been rigorously assessed in terms of the impact on the infant's emotional development. While arguably there is evidence to suggest these techniques do not harm infants, this does not mean there is evidence of no harm. Culture: Extinction-based behavioural sleep interventions have their origins in neoliberal Western childrearing practices that place a greater value on individualist parenting approaches that promote independence from a young age (Etherton et al. 2016[9]; Maute & Perren, 2018[31]). These practices and beliefs suggest that an infant's ability to self-settle is central to their progress towards self-regulation and independence (Mesman et al. 2018[32]). This is supported by the fact that the large majority of research into behavioural based sleep interventions has been conducted in urban Western populations (Mesman et al. 2018[32]). Across different cultures, beliefs vary about how, why and where infants should sleep, as well as what defines normal sleep or a sleep problem. Sleep behaviour is problematic only in relation to the caregivers' and community's expectations, rather than a clearly defined evidence-based definition of a sleep problem (Etherton et al. 2016[9]).

		Not recommended practices: Graduated extinction—controlled comforting, controlled crying, sleep training	Caregivers ignore the child's crying for set periods of time before returning to settle (using limited techniques) and repeating until the infant sleeps. May use a fixed scale (e.g. every 5 min) or an incremental scale (e.g. 2, 4, 6 min).
		Not recommended practices: Extinction with caregiver presence—caregiver presence, camping out	Caregiver ignores the child's crying but remains near the child in the room until they fall asleep offering limited settling techniques. The caregiver gradually increases the physical distance from the child.
Responsive sleep intervention	Infants		Responding to an infant's cues at sleep time. AAIMH supports the use of 'responsive' based approaches to addressing infant sleep concerns. Such approaches should be attachment informed and tailored to the developmental needs of the individual infant. These approaches should be based on understanding, recognising and responding to the infant's communication cues in a sensitive and consistent manner that supports their emotional needs and development. Culturally appropriate and SIDS-informed approaches to co-sleeping need to be discussed with caregivers as potential options to support infant sleep.

Table 21—South Western Sydney Local Health District (https://www.swslhd.health.nsw.gov.au)

Intervention name	Child age	Settling practices	Elements
	0–12 months	Feed-play-sleep	After the baby has been fed, spend a brief period of quiet play, talking and getting to know each other. When you recognise the signs of tiredness, e.g. fist clenching, jerky movement, facial grimaces, grizzling, then: • Pick your baby up, talking gently to him and remove your baby from the activity area • Create a quiet sleeping environment, away from the general household activities. To reduce stimulation close the blinds and/or curtains. Next change baby's nappy if needed • Wrap the baby, keeping the clothing and wrap away from baby's face to avoid stimulating the rooting/ sucking reflex. Babies benefit by being wrapped when being put to bed to prevent the startling reflex from further disturbing baby. It may appear that your baby does not like their arms being wrapped in, but this will make them feel secure and contained, which will help them to settle. The more baby moves and thrashes in bed, the more difficult it is to get them to sleep. Wrapping is helpful until about 4 months when baby loses the startle reflex and gains conscious hand movement. After this baby will enjoy having their hands free and will be learning to self-settle • After wrapping, give them a cuddle • Watch for signs of settling such as eyelids closing, and the body relaxing, then • Put baby in their cot even though they may not be asleep. Remember to put baby on to their back to sleep. Sometimes, babies may grizzle while unwinding, before relaxing and going off to sleep. Listen to your baby. If they become distressed, attend and comfort

			them and resettle in the room using your settling techniques. Continue this process until your baby settles to sleep. Settling can be assisted by: • Wrapping snugly • Cuddling and rocking gently • Talking, singing softly and gently • Gentle rhythmical patting (slowing down gradually) • Playing relaxing music.

Table 22—Northern Sydney Local Health District (https://www.nslhd.health.nsw.gov.au/Pages/default.aspx)

Intervention name	Child age	Settling practices	Elements
Sleep routine	0–12 months		• Pick your baby up, talking gently to him and remove your baby from the activity area. • Create a quiet sleeping environment, away from the general household activities. To reduce stimulation close the blinds and/or curtains. Next change baby's nappy if needed. • Wrap the baby, keeping the clothing and wrap away from baby's face to avoid stimulating the rooting/ sucking reflex. • After wrapping, give them a cuddle. • Watch for signs of settling such as eyelids closing, and the body relaxing. then • Put baby in their cot even though they may not be asleep. Remember to put baby on their back to sleep. Settling can be assisted by: • Wrapping snugly • Cuddling and rocking gently • Talking, singing softly and gently • Gentle rhythmical patting (slowing down gradually) • Playing relaxing music. If your baby is still unsettled, it may be helpful to try one or more of the following: • Carrying baby in a pouch • A walk in the pram, outdoors if possible • Extra sucking, e.g. dummy

			• A warm bath and/or a relaxing massage.