Final report

January 2018

Innovating for Improvement

A Model for City-wide Implementation of Intensive Behavioural Intervention to Improve Sleep in Vulnerable Children.

"Sheffield Children and Young People Sleeping Well Project"

Sheffield Children's Hospital, Sheffield City Council, The Children's Sleep Charity.

The Health Foundation

About the project

Project title:

A Model for City-wide Implementation of Intensive Behavioural Intervention to Improve Sleep in Vulnerable Children.

"Sheffield Children and Young People Sleeping Well Project"

Lead organisation:

Sheffield Children's Hospital

Partner organisation(s):

Sheffield City Council; The Children's Sleep Charity

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Part 1: Abstract

Intervention
Sheffield Children's Hospital, Sheffield City Council and the Children's Sleep Charity evaluated a behavioural intervention to provide support to parent/carers and young people to improve sleep patterns. The intervention entailed basic education about sleep, a one-to-one session with a sleep practitioner to create an individual sleep programme and telephone support to empower the parent to carry out the sleep programme at home.

Results
39 children completed the intervention and evaluation (75% had ADHD; 25% were Looked After Children). Parents' ratings of their child's ability to self-settle to sleep improved from 1.13/10 to 6.73/10 after the intervention. Children gained on average an extra 2.4 hours sleep a night. The primary word used to describe the mood of the child on wakening changed from "grumpy" to "happy". The impact of sleep deprivation on the parents' wellbeing improved for all measures. 100% said they would recommend the programme to others.

Learning
The evaluation gave us confidence in the delivery model. "Regular telephone calls and support" and "Learning about sleep" were the main positive factors. Our partnership working brought together the individual strengths, drive and passion that were critical for delivery, planning, and influencing better provision for families.

Sustainability and Spread
We have established a strategic group to support local implementation and produced a draft delivery model which we believe is replicable for other areas. The Children's Sleep Charity is key to the spread of the model beyond Sheffield and has engaged stakeholders from politics and the media on a national level.

Part 2: Progress and outcomes

Background

Sleep is essential for physical and mental well-being and difficulties with a child settling to sleep or staying asleep results in sleep deprivation, not only for the child concerned but often for parents and other family members. The impact of sleep disturbance on children can range from irritability to challenging behaviour with decreased cognitive ability and learning difficulties (Simola et al., 2014). The prescription drug melatonin has increasingly been used to promote sleep in children with very little evidence of long-term efficacy. Parents can suffer high levels of stress and anxiety, decreased ability to work or to drive safely, relationship and financial problems (Wiggs, 2007; Doo and Wing, 2006; Teitze et al., 2014), leading to an increased demand on NHS primary care services and to prescriptions of drugs such as antidepressants.

In a local authority consultation in Sheffield (April 2014) parents of disabled children highlighted sleep and challenging behaviour as having significant impact on health and wellbeing. In a State of Sheffield survey (December 2014), 53% respondents said their child had problems with sleeping, 48% reported that siblings had disturbed sleep as a result and 74% parents reported that their own sleep was affected by caring for their disabled child. These figures reflect those of the "Tired All the Time" Family Fund report (2013) in which 93% of respondents' children had disturbed sleep.

Children with neurodevelopmental disorders such as Attention Deficit Hyperactivity Disorder (ADHD) are frequent users of the health service at all levels, including community health, primary care, inpatient and outpatient settings (NHS Commissioning Board, 2013). Sleep disturbances in these children are commonly reported (Tietze et al, 2012; Dorris et al, 2008).

A further group of vulnerable children frequently identified as having severe sleep disturbance are fostered and adopted "Looked After" children (LAC) and sleep deprivation is one factor that can affect placement stability. Self-esteem and confidence problems in the children may result in them feeling unworthy to receive rewards and contact with parents can change and affect sleep. Previous neglect, attachment problems and experiences of trauma in LAC may require extra support in terms of helping the child to sleep and for the relationship with adoptive parents.

Sheffield Children's Hospital and Sheffield City Council in collaboration with the Children's Sleep Charity carried out and evaluated a behavioural intervention to provide support to parent/carers and young people to improve sleep patterns. This approach has previously been implemented in the voluntary sector, but the collaboration between an NHS Trust and a Local Authority aimed to reliably embed the support within local services and to propose a model which would be generalisable to other regions in the UK.

The aim of the project was to improve sleep habits and to increase resilience by skilling parents/carers. Two groups of vulnerable children (children with ADHD and LAC) were chosen to look at the learning that could be gained from addressing the specific needs of these children.

The Partnership

The project team comprised a unique partnership between Sheffield Children's Hospital (SCH) Trust, Sheffield City Council (SCC) and The Children's Sleep Charity (TCSC). The charity has been implementing sleep behavioural support for many years in the voluntary sector, supported by Heather Elphick in terms of clinical validation. The project was conceived by all 3 partners following a number of surveys carried out at SCC which identified sleep as a major factor needing

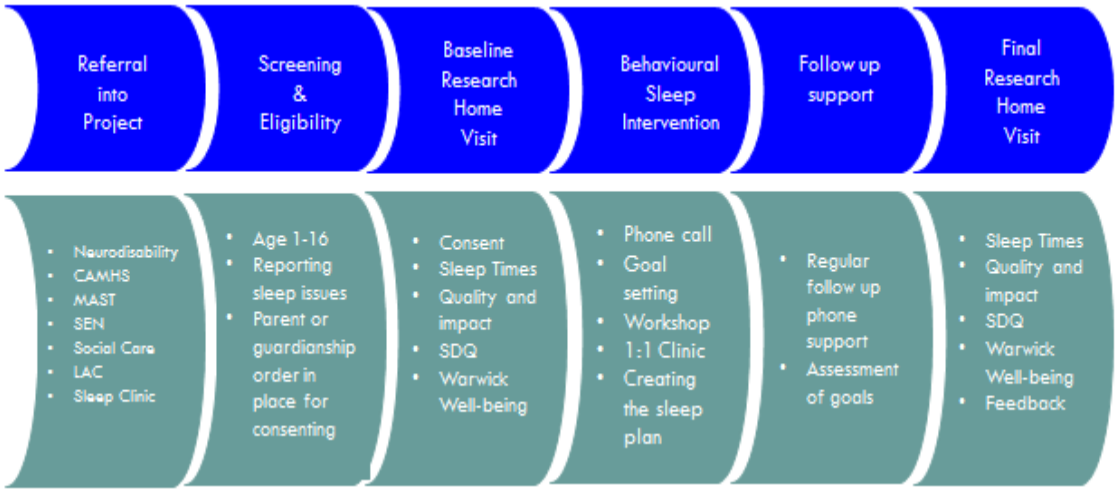
to be addressed in families of vulnerable children. The research team at SCH carried out the evaluations, two practitioners with parenting and mentoring skills from SCC MAST (multi-agency support team) delivered the intervention with peer support from TCSC. The project team met monthly to formulate project plans, materials and analysis. Sustainability plans for implementation of the programme beyond the end of project have been developed by both SCH and SCC.

The Intervention

The intervention entailed delivery of basic education about sleep, followed by a one-to-one session with a sleep practitioner to create an individual sleep programme. This was provided either in a workshop scenario with 4 families, or in a clinic setting for individual families. The sleep practitioners provided telephone support to help the parent (and child) to carry out the sleep programme at home. Two experienced Sleep Practitioners delivered the interventions within the Multi-Agency Support Teams (MAST) early intervention team. The practitioners have received accredited sleep practitioner training.

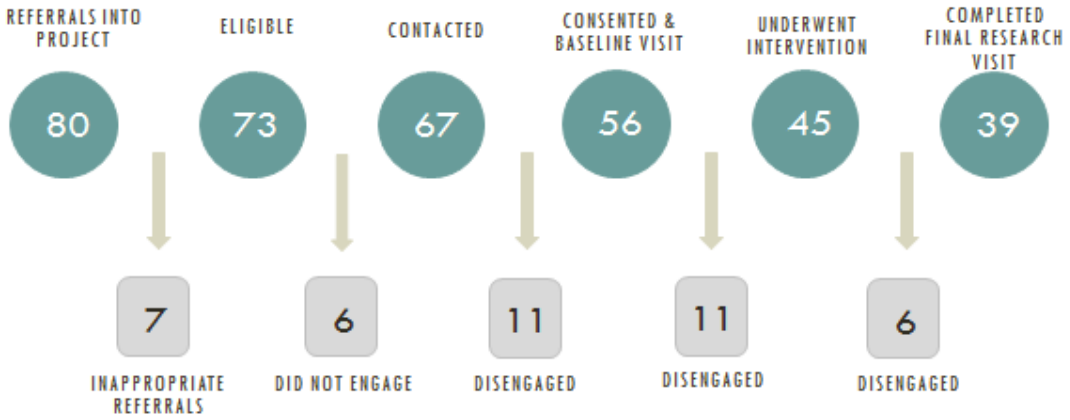
The research team visited the home before and after the programme to measure the efficacy and impact of the sleep programme.

Process flowchart



Results and Impact

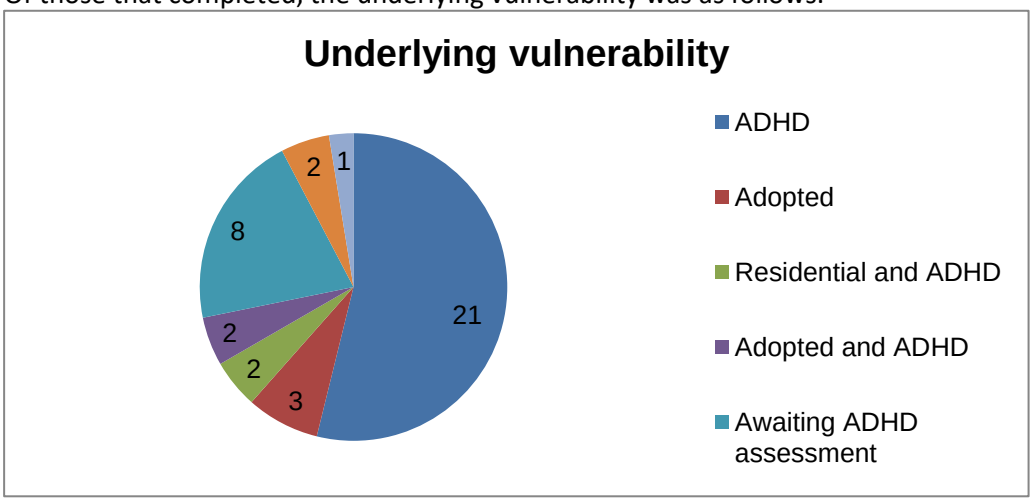
80 potential participants were identified by clinical or front-line staff and were referred into the project. The flowchart shows the dropouts from the study through the process, with 39 completing the intervention and final research visit.



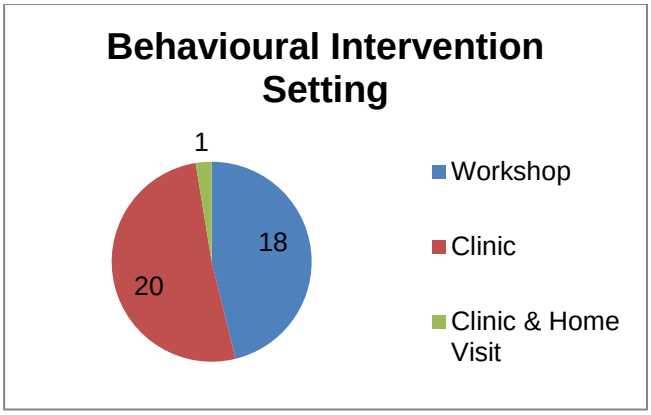
Reasons for not engaging or disengaging included: too busy to attend workshop, cancelled or failed to attend workshop, moved house, did not think they could carry out the advice, severe escalation of child's mental health problems. 39 participants completed the intervention and all of these completed the final evaluation.

Median age of the child at consent was 8.56 years (range 1.82-15.75 years). 79.5% were male.

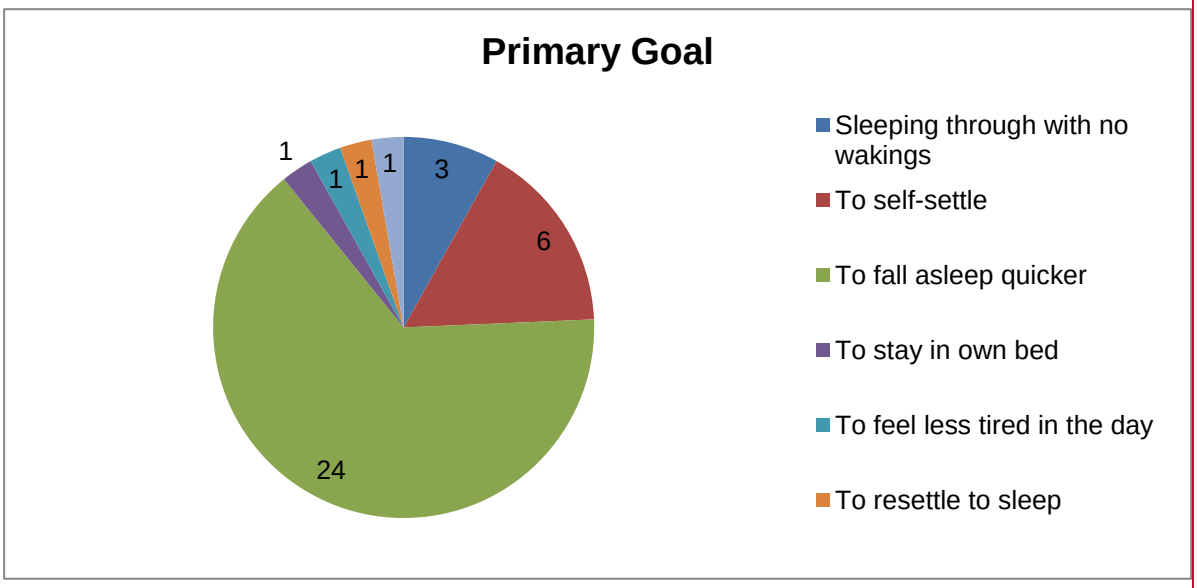
Of those that completed, the underlying vulnerability was as follows:



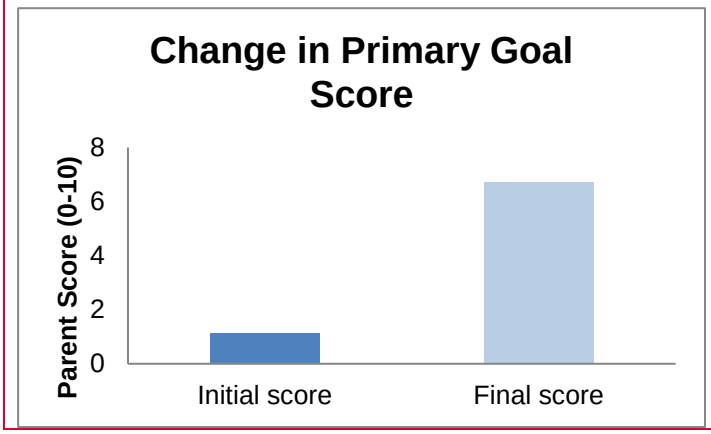
Of the 39 participants that completed the intervention, 20 attended a clinic, 1 attended a clinic with a home visit and 18 attended a workshop. Home visits were arranged in instances where the child or young person was not available at the initial consultation.



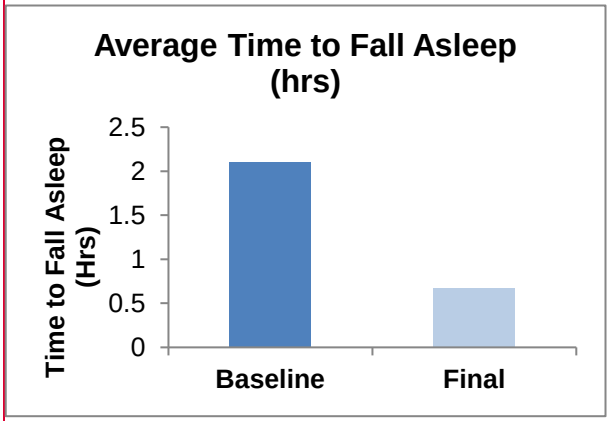
Parents were asked to set a goal for the intervention outcome. The goal for the majority of parents/carers was for the child to self-settle or to settle to sleep more quickly. Some parents had 2 or more goals.

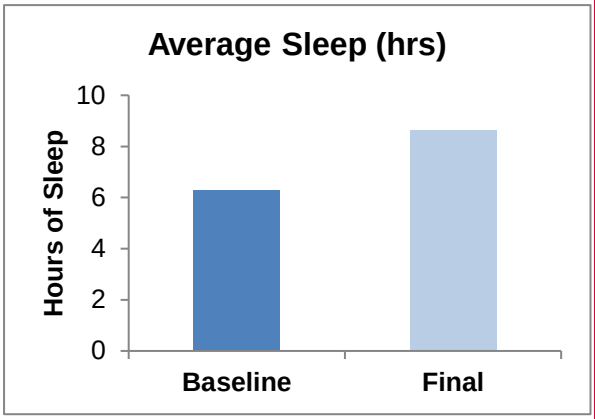


The median initial score for goal 1 was 0 (range 0-6); the median final score was 8 (range 0-10). The change in goal score was statistically significant (MD 5.62, 95% confidence intervals 4.56-6.69, $p<0.05$)



The average time to try to settle to sleep, ie the time from starting the bedtime routine to lights out was 1.76 hours and following the intervention was 0.81 hours (MD 57 (mins), 95% CI 30-83.9, p<0.05). Average time to fall asleep (time from trying to settle to sleep to falling asleep) in hours was 2.1 hours at baseline and 0.67 hours after the intervention (MD 0.79, 95%CI 0.6-0.98, p<0.05). The average number of hours of sleep that the child actually got was 6.27 hours at baseline and 8.62 after the intervention (2.4 hours more per night; range 0.5 hours less to 7.5 hours more) (MD





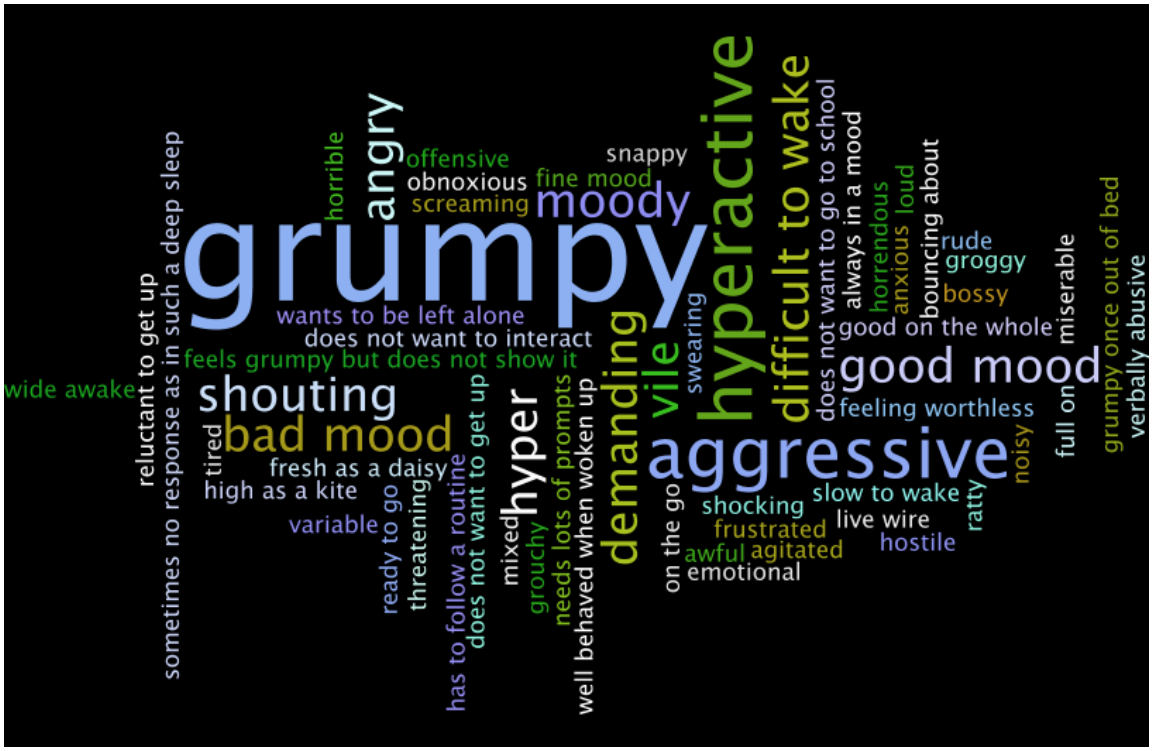
2.35, 95%CI 1.64-3.06, p<0.05).

Variable	Baseline (average)	Final (average)	Significance
Time to settle (hrs)	1.76	0.81	P<0.05
Time to fall asleep (hrs)	2.1	0.67	P<0.05
Number of nights wake per week	4.0	1.59	P<0.05
Number of wakenings per night	1.54	0.58	P<0.05
Duration of wakenings (mins)	33.59	10.55	P<0.05
Number of hours sleep (hrs)	6.27	8.62	P<0.05

All of the above changes from baseline to post-intervention were statistically significant (p<0.05).

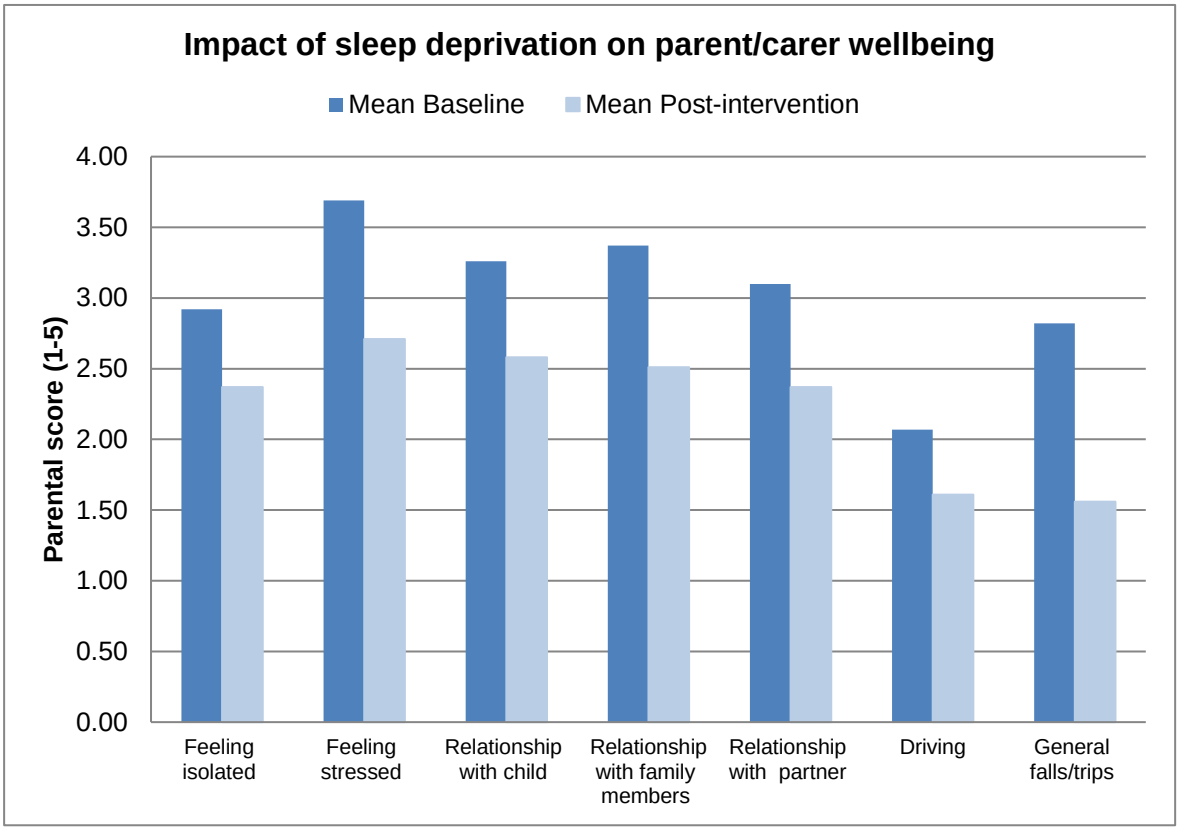
The parent/carer was asked to describe the mood of the child on wakening. We have presented the words used for the 39 participants that completed the study as a word cloud.

Baseline:



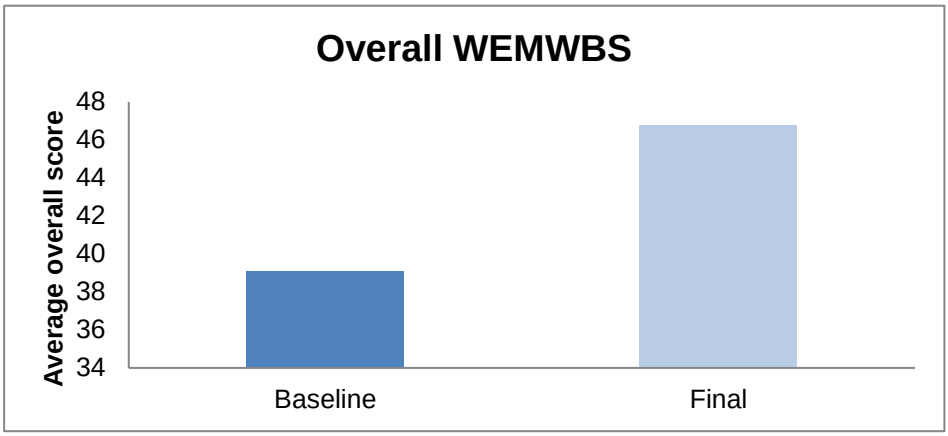
After the intervention:

The parent/carer was asked how they felt their child's sleep disturbance had impacted on their own quality of life over the past two weeks. A low score indicated good quality of life and a high score indicated poor quality of life. All of the scores improved following the intervention; all but two of the measures reached statistical significance.



Variable	Baseline (average)	Final (average)	Significance
Feeling isolated	2.92	2.37	P=0.05
Feeling stressed	3.69	2.71	P<0.05
Relationship with child	3.26	2.58	P<0.05
Relationship with family members	3.37	2.51	P<0.05
Relationship with partner	3.1	2.37	P<0.05
Driving	2.07	1.61	P=0.08
General falls/trips	2.82	1.56	P<0.05

The Warwick-Edinburgh Mental Well-being Scale (WEMWBS) was used to measure the change in parent/carer mental wellbeing pre- and post-intervention. The scale measures 14 aspects of positive mental health including feeling relaxed, thinking clearly, feeling confident and cheerful. The overall score improved significantly following the intervention (MD 8.84, 95%CI 5.32-12.36, $p<0.05$).



67% parent/carers reported illnesses at baseline (46 illnesses), which reduced to 51% parents/carers (34 illnesses) following the intervention. The majority of these were headaches, anxiety, depression and general tiredness. 46% parent/carers reported illnesses (21 illnesses) in their children at baseline, reducing to 35% (15 illnesses) following the intervention. The majority of these were viral illnesses and colds.

Some parents did not find the intervention helpful. The reasons given were mainly that the support was offered at a time that was not suitable, for example, during a house move, just after the child had started a new medication. Some parents felt that the ADHD behaviour was unchanged and that the child still could not switch off at bedtime. However, the majority of comments at the final visit were positive and 100% parents/carers said that they would recommend the programme, even if it had not been successful for their child.

Positive comments at final visit:

1. **Started new activities, Mum started going to the gym, family going on holiday,**
2. **The regular phone calls and the sleep plan really helped her especially at the beginning when she wanted to give up.**
3. **Improved confidence at setting rules and boundaries**
4. **Changed my relationship with my child, more pleasant in the mornings, more energy to handle my child, more patience with each other.**
5. **Learnt useful strategies to get the child upstairs to start the bedtime routine.**
6. **Thought they had tried everything until they did this programme - this helped you actually implement it**
7. **More conversation in the morning with child, less dark circles under his eyes.**
8. **It has been life changing for this couple, mum was radiant and step dad was chatting away about new business adventure. Spending quality time together.**
9. **Child was now excited about going to bed and happier to be in bed.**
10. **Empowered me to move things on and feel more confident as a parent**
11. **No more battles at bedtime**
12. **Improvements noted at school**

Summary of results

- 39 children completed the intervention and evaluation, median age 8.56 years (range 1.82-15.75 years). 79.5% were male. 75% had a diagnosis of ADHD or were awaiting assessment, the remaining 25% were Looked After Children (of whom 10% also had ADHD).
- The primary goal for the majority of parent/carers was for their child to self-settle to sleep or to fall asleep more quickly. The change in average goal score from 1.13/10 to 6.73/10 pre- to post-intervention was statistically significant (MD 5.62, 95% confidence intervals 4.56-6.69, $p<0.05$).
- Children gained on average an extra **2.4 hours** sleep a night. The average number of hours of sleep that the child actually got was 6.27 hours at baseline and 8.62 after the intervention (MD 2.35, 95%CI 1.64-3.06, $p<0.05$). There was a statistically significant improvement in time taken to settle, time to fall asleep, number and duration of night-time wakenings.
- The primary word used to describe the mood of the child on wakening before the intervention was “grumpy” and after the intervention was “happy”.
- The impact of sleep deprivation on the parents’ wellbeing improved for all measures. The overall WEMWBS score improved significantly following the intervention (MD 8.84, 95%CI 5.32-12.36, $p<0.05$).
- There was a reduction in the number of illnesses in both parent/carers and children following the intervention.
- Although some parents did not find the programme helpful, 100% said they would recommend it to others.

Part 3: Cost impact

Cost of Sleep Intervention
The cost of the core intervention delivered under the framework of the research has been calculated by the Commissioning Manager with support / guidance from the LA finance and Springfield Consultancy.

Core delivery:
Workshop / 1:1 clinic - fixed costs
Assessment / support = variable cost on the number of hours
Mean assessment = 0.44 hours
Mean follow-on support = 1.31 hours

- Simple baseline cost:
- Three-hour workshop (2 practitioners, 4 families) = £95:20 per family
- One hour 1:1 clinic (1 practitioner, 1 family) = £99.40 per family
- Assessment and Support-= £42.50 per hour
- Mean cost of assessment = £18.70
- Mean cost of support = £55.70

18 Families attended a Workshop, + assessment & follow up, average cost per family = £169.60

20 families received a 1:1 clinic + assessment & follow up, average cost = £173.80

1 family received a clinic, 3 hours home visit, + assessment & follow up = cost £254.80

Notes for delivery costs:

Home visits to engage families were not undertaken. In practice this is more likely and could increase engagement and effectiveness.

The costs exclude: Visits to team meetings, training residential homes staff, supervision, management, office-based costs, costs incurred by families for activities, blinds etc.

Anticipated total average cost per family = £300 to £400
Anticipated cost for one child in a residential home = £800 - £1,000, this would reduce with more children supported.

Cashable benefits
Visits to a health care professionals (HCP) or non- HCP (ie social care and education) dropped from 99 (during 2 weeks pre intervention) to 68 (post intervention). However, due to the limited study period we do not suggest this is evidence of a direct link.

12 families reported visiting a health care professional (HCP) in the 2 weeks pre-intervention (a total of 13 visits). Of these families 2 reported visiting a HCP post intervention. However, 6 families saw a HCP post intervention, who had not seen a HCP pre intervention.

No direct cost savings were made in terms of drug prescribing costs.

Non-cashable benefits
There is evidence of some general non-cashable benefits across the board, and some very specific benefits for some individuals.

- Parent carers reported notable improvement in their wellbeing (see Progress and Outcomes)

- 79% felt the intervention had helped their child

    - **Child has become themselves again, interested, talking, wants to be around family**
    - **Improved energy levels, improved diet**
    - **Improved mood and reduced meltdowns**
    - **More switched on at school**
    - **Can regulate emotions**

- 85% of parents reported that the intervention had helped their role as a parent or carer:

    - **more time with my child … has improved bond and communication. Now taking interest in homework and spending time with family**
    - **more energy, more patience to deal with issues, more resilience due to lesser level of exhaustion**

- Many parent reported confidence to address other issues:

    - **Stronger / more vocal**
    - **standing up for my child, listening to own instincts and doing best for him**
    - **Confidence to deal with 'other' mental health issues**
    - **mum had more energy and step dad had confidence to set up own business**

- 75% (21) of parent carers who responded, believed the intervention helped other children in the house:

    - Other children now getting sleep ...oldest daughter is now able to do homework
    - '**down time' has helped siblings open up more**

One parent carer commented:

- **more support than I ever expected. I have been asking for support since age 2 and have struggled for years unsupported and not listened to. This programme has been amazing, life changing and just loved being listened to and believed**

Conclusion

In conclusion, the cost of the sleep practitioner intervention, for set-up, implementation of the sleep programme and ongoing support until discharge from the programme was a one-off cost of £300-400 per family. The average (median) duration of intervention/support package was 7 weeks. Other potentially cashable benefits (outside the scope of this project to evaluate) were savings in visits to HCPs and non-HCPs, savings in terms of drug costs.

The cost of prescribing melatonin (Circadin® 2 mg prolonged release tablets) for one year is £309.36 (derived from Sheffield prescribing costs 2017-8). Anecdotally, the majority of children with ADHD are currently prescribed melatonin for sleep difficulties and continue to take it until discharged to adult services. Previous surveys in Sheffield have indicated that 35% can be weaned off melatonin and 30% can avoid melatonin prescriptions after receiving the behavioural intervention.

Implementing the sleep behavioural support prior to prescription of melatonin would therefore be cost-effective.

Non-cashable benefits included significant improvements in wellbeing for both child and parent/carer, including improvements in confidence to drive, relationships and occurrence of other illnesses.

Part 4: Learning from your project

Our research aimed to answer 4 questions:

1. **Would the sleep intervention model that works effectively in a community setting, be effective with children in more complex situations?**
2. **What factors help the intervention work effectively?**
3. **What factors hindered the effectiveness of the intervention?**
4. **What does this tell us - to inform implementation**

We found:

In general the model was very effective in delivering significant improvements in many children's sleep.

Children gained on average an extra **2.4 hours** sleep a night.

Tables 4.1, 4.2 and 4.3 show parent carers responses to how much the programme helped, the vast majority scored 8 or above.

Table 4.1

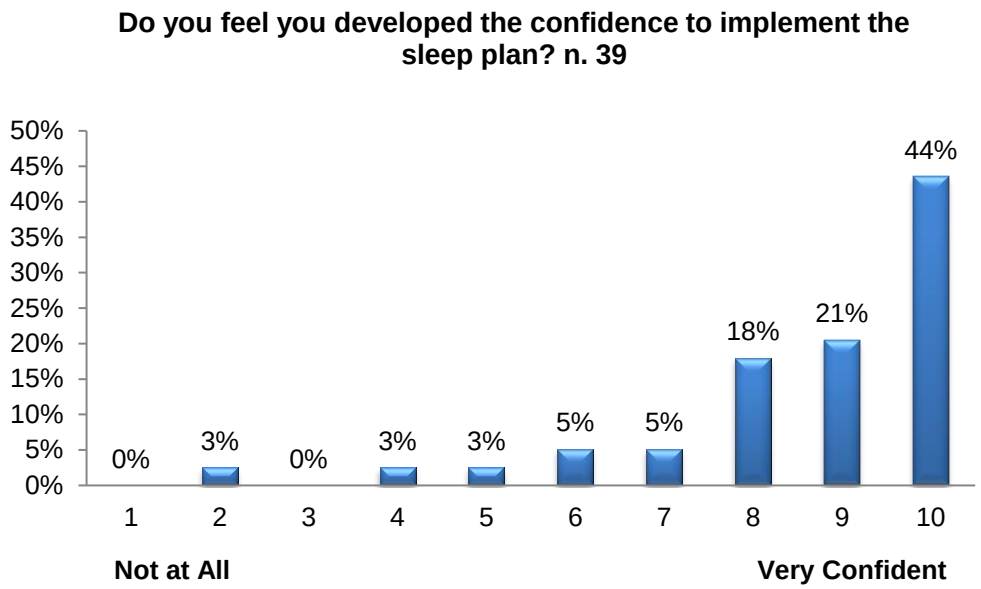
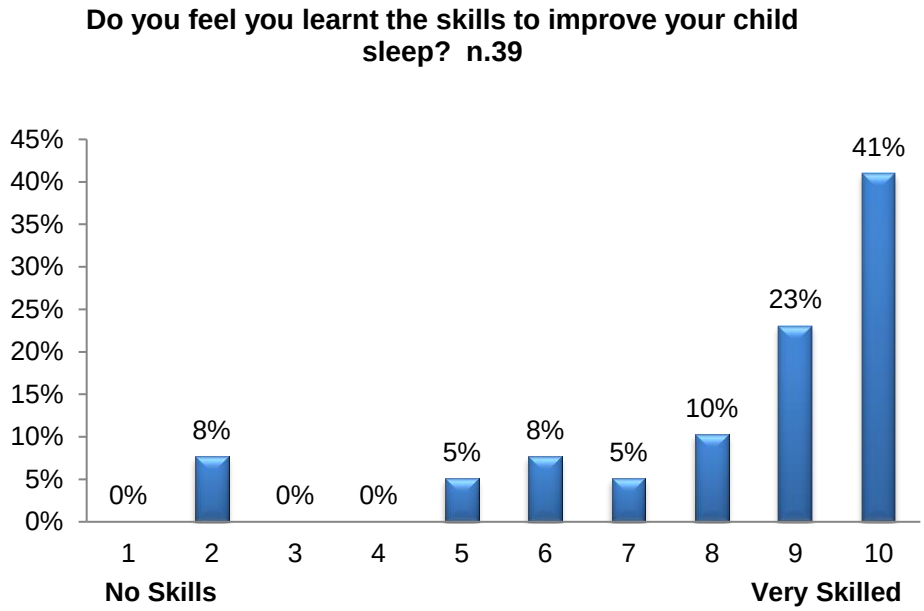


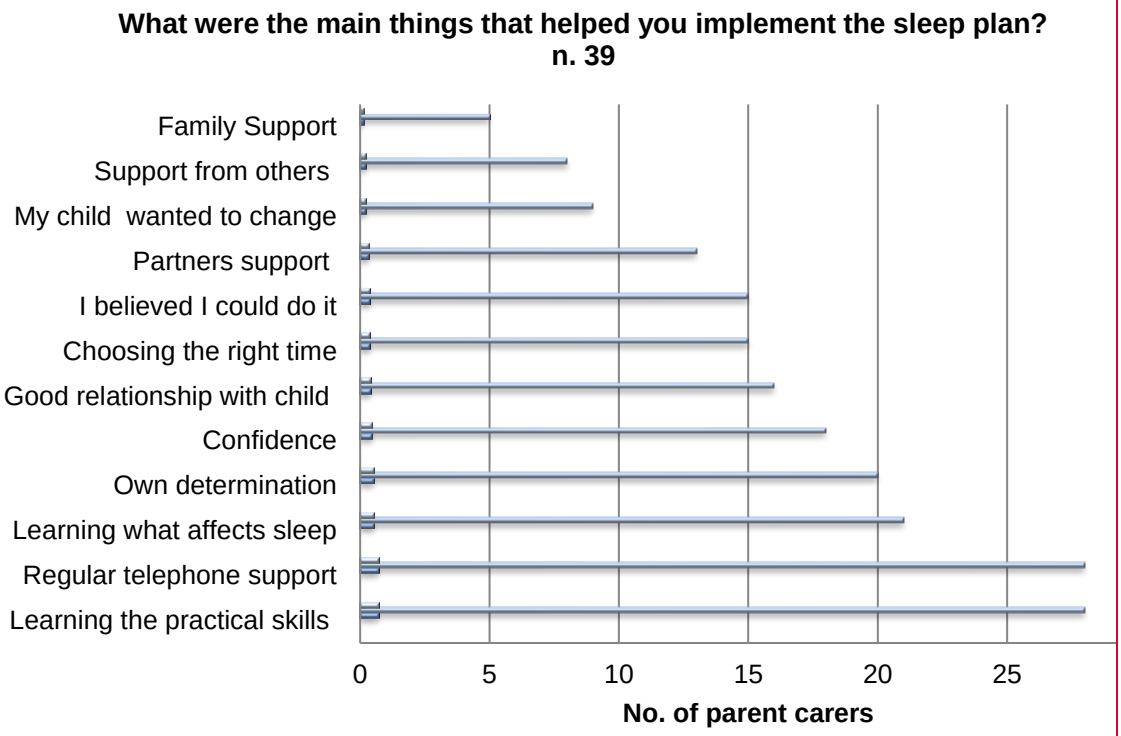
Table 4.2



What helped….

The final evaluation gave us confidence in the general delivery model. 'Regular telephone calls and support', 'Learning the practical skills and ideas to improve sleep' and 'Learning about what effects sleep' were the main factors.

Table 4.3



Some things parent carers told us about what helped:

- **Reassurance, phone calls, cheery person on the outside listening and supporting, practitioner Sue just listened and made me feel listened to and believed**
- **The phone calls every week as you know you are not on your own even after the meeting**
- **Breaking down the presleep routine into specific tasks**
- **I found the group session really helpful, learnt a lot from other parents and also staff, would definitely recommend to others**
- **Having the support was crucial, as the small changes gave a big impact and did not feel it would work as had a good routine**

We are currently analysing what helps specific settings, for example - in Children's Residential homes - an identified worker, good relationship with the child, and a whole home approach, is essential.

What hindered / challenged …….

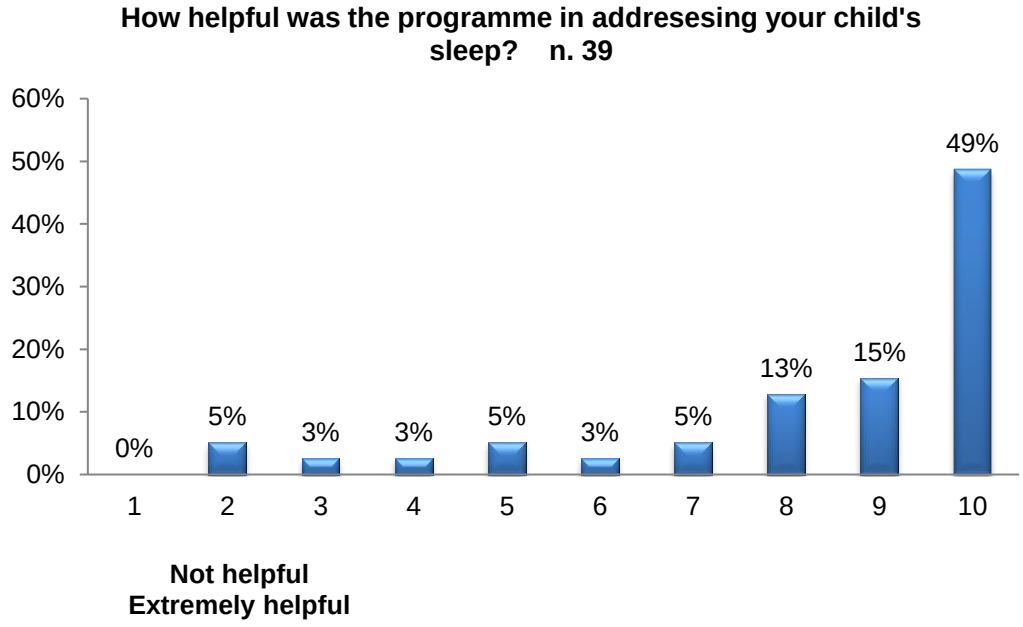
Table 4.4 shows the majority of parents found the programme helpful. However, 16% scored 5 or below. The reasons identified included - child's resistance, tiredness, the wrong time, events happening, other children in the home, and other individual factors.

Efficacy was important. Some parents had tried other sleep programmes and did not believe it could work. Some moved beyond this, for a small number this lingered.

Other challenges included:

- ADHD medication - being prescribed medication or a change to medication, had a detrimental impact on implementing the sleep plan, and was difficult for parents
- Parent carers can look to 'hide' behind the big issues, ADHD, trauma, attachment difficulties, as a reason for not doing it. This takes skill to motivate parent carers beyond this.
- Residential homes have specific challenges associated with being a home and caring for a looked after child, these are being explored.
- A consistent and whole home approaches both in families and residential homes is crucial, along with appropriate timing

Table 4.4



Non-engagement of participants

Of the 73 potentially eligible participants, 34 either did not engage with the project or dropped out. We believe that in many cases this was at least in part due to the nature of the research process.

5 parent/carers did not respond to initial contact made by sleep practitioners despite between 5 and 7 contacts made per participant using several methods (no answer to telephone calls, voicemail messages left, asked to call back, then no answer, text messages received but no response, phone numbers given not recognised, letter sent asking parent to contact).

Reasons given for non-attendance at workshops included illness, shift work, too busy. In other cases, although the parent/carer was keen to take part, their teenager refused to engage. It was noted that families in which children were on Special Guardianship Order, living with a relative other than a parent, had particular difficulties with engagement. Some families dropped out of the study because the child was prescribed medication (eg melatonin), following which the parents perceived that the sleep intervention was no longer needed. One family moved house and in another, there was an escalation of the child's mental health problems, preventing the sleep intervention from taking place at that time.

What we have learned and will take forward:

- In real practice, family home visits and/or involvement of other agencies would be undertaken to build family engagement more slowly, but due to consent and confidentiality processes this could not be applied within the project.

- We did attempt to provide workshops and clinics at locations convenient for families, including in the child's school, but there were restrictions due to time constraints. We will explore other locations, for example general practices and children's centres in future.

- Engagement of teenagers can be challenging and we plan to build on our learning from this project to work further with teenagers, for example in peer project work in schools and using teenage advocates and champions.

- We plan to carry out more work with staff working with LAC to develop engagement with carers. We have already trained staff on the sleep practitioner course and are developing specific materials.

- Further work with medical professionals to promote sleep support as a first line before medication prescribing is ongoing.

- One aspect of learning from the project is that the programme needs to be carried out at a time that is right for the individual families. Due to the time constraints within this research project, this meant that some families had to disengage because of individual circumstances. These families will be approached again by clinical/MAST services after completion of the project to ensure that they receive the support that they need.

Adapting the approach for engagement with teenagers

Initially when we started the project we offered workshops to parents of Primary aged children, it was then the parents responsibility to make the changes to the routine for their young children. We knew we would have to engage teens in the process in order for the intervention to be successful and felt that it would be more effective to work directly with the young person by offering a clinic type appointment for them to attend with their parent/carer.

The session was designed around talking to the young person, finding out from their perspective what the difficulties are around their sleep. Talking through their sleep needs, getting them to understand the sleep science and what gets in the way of them getting a good night's sleep.

It is empowering for the young person to be part of making their own sleep plan, supporting them to overcome problems and coming up with their own solutions to any pre-empted difficulties they may face making the new routine less likely to fail. The follow up support of texts or phone calls directly to the young person themselves was offered. We also produced a Young person's information pack for them to take away with them with all the information from the session for them to keep.

Informing implementation ….

Both general, and issues specific to situations, are feeding into our future modelling:

- The model works but predicated upon working with each situation as unique and bespoke
- The skills of the Sleep Practitioner (see below) are crucial
- Introducing user friendly information on psychological evidence of behaviour change models will help build efficacy
- Quality assurance on sleep practitioner training and future delivery is required, to remain true to our model, maintain reputation, and efficacy
- We have introduced clinic options into our current delivery in MAST

We are undertaking detailed case studies to learn the specifics for given situations, what works and what hinders

Enablers

Our steering group brought together - strengths across providers / commissioners, partnership working, strategic planning, research and sleep. We had drive, passion and belief – critical for delivery, planning, and influence.

The Sleep Practitioners experience in parenting and education, enabled them to use engagement and motivational skills, and understand complex situations up and above the sleep difficulties – fundamental with complex situations.

Senior support, Directors, Service Managers, etc. helped remove some barriers

We promoted the research to referrers through team meetings and written briefings, with varied success

Children's Residential Homes – were eager to start and with management support

Panorama – "Sleepless Britain" aired in March 2017 which featured Sheffield Children's Sleep Service. This triggered interest in a handful of parents.

What was tough / challenges …

The research set up - as a joint initiative:

- Required submitting to 2 rigorous/robust ethics / governance frameworks. Aligning this process and different organisational cultures / expectations was more challenging than anticipated
- We all learnt: - impressively organised health ethics process; local authority focus on participants wellbeing, safeguarding and language
- Also required very detailed data sharing agreement and data flow diagram which took time
    - - we mitigated through hard work, late hours, resubmissions, learning from each other

Elements that did not go as planned…

- Initial referrals were slower than anticipated
- Referrals from foster care were much lower than anticipated – probably due to overlap with another research programme
- Final evaluation form was not really designed towards residential homes
- We collected less quantifiable data for calculating potential savings than anticipated. Often too generalised answers and limited data collection period. We would build in cost consequence planning at the start to better inform research questions.
- We would ensure more information is available / reaches both staff and parents and carers about the initiative

What we would have valued knowing

Length of time for the set up

Aligning the 2 governance processes

What we take away ….

If you are up against a tight timeline to get your bid for funding in - do not give up - You don't know where it may lead!

Build in some project management support, if possible….

Learn from everything…

The effectiveness may be in the detail. We are drawing out very detailed case studies, where the intervention has been effective and not so effective. This is proving enlightening.

The timeliness of trying to drive forwards a rethinking of a simple but all-encompassing / challenging issue is crucial. A sleep strategy group was formed 2-3 years ago but engendering a shared response was almost impossible. The research has given us a platform for progression.

Pride to have been part of the project, in what we have delivered, and in that we have all learnt so much.

Integrated working across local authority, health, and third sector; brings strengths, added-value, peer influence; breaks down barriers; builds a skilled workforce and better provision for families. It opens doors and opportunities that otherwise would not be available. Its sum is far greater than the individual components.

Part 5: Sustainability and spread

We are currently refining and implementing a sustainability plan.

We continue to develop this though a number of steps, taking stock at our position at each gateway.

Strategic Planning: August – October 2017

Initially we established a strategic group (LA, health and third sector) and developed a draft model of delivery. Ranging from awareness raising/promotion, through universal settings, targeted support for complex situations to specialist support (i.e. in-patient sleep observations/clinic).

Where sleep interventions are delivered, the model is mainly based upon a hub and spoke model, with existing staff taking on sleep as part of their role and Sleep Practitioner leads (either geographically or within specific service areas) driving and supporting implementation. However, this also recognises some dedicated sleep staff, ie at the Sheffield Children's Hospital Clinic.

This group was energised, and input from different department, organisations and the 2 charities attending, encouraged engagement and developed momentum.

We recognise that this would be a 2 or 3 year plan.

On the basis of the draft model, and the emerging research findings we prioritised and secured the following:

- Health funding to train 6 Health Visitors / School Nurses
- Local Authority Funding to train 19 Residential Home staff, Foster Care Support workers, MAST staff
- Local authority funding to release the Sleep Practitioners (who delivered the intervention in the research project) for 2 days a week, for 6 months, to support implementation across children's residential homes.

Following on:

- Prof Elphick convened a health group and is exploring potential developments within the Children's Hospital Services. The CCG and Prof Elphick are exploring an Invest to Save submission to the CCG.
- Meetings with service managers in Social Care were set up to inform them of the emerging findings and realise the benefits of their interest.

How did we gain support….?

Amazing results were achieved with a young person in a Children's Residential Home. This created a buzz in the local authority, around the potential impact Sleep Interventions could deliver. Senior Managers to Directors became very interested.

Every small opportunity was taken mention the project and findings in conversations, meetings, peoples' ears, emails, particularly to Senior Managers/Directors etc.

Emerging findings on Children Looked After / Adopted were presented to the 'Evidence in Practice' Social Care Conference Sheffield, Nov. 2017 – which focuses on local evidence based practice. It was very well received

The overall key elements and learning were presented to the Children's Health and Wellbeing Transformation Board, January 24th. This was extremely well received including by Executive Director of People Services Portfolio (Children's & Adults), and the elected member for Children and Young People (who had heard from a mother 'how it had changed her life').

Spread Locally ….

Whilst the research focused upon specific groups of children, we have developed our understanding of delivering sleep interventions for all parent, carers and children and young people.

Clinic style appointments have now been introduced as a direct result of the project and rolled out already into MAST.

Investment into nurse-led sleep clinics within SCH Trust.

The learning will be:

- Shared across our local practitioners, with the development of a Sleep Practitioner Network
- Incorporated into training materials
- Detailed case studies are being written for different scenarios
- The Children's Health and Wellbeing Board has requested spread into Primary care, Disability, etc

Spread to other areas ….

This specific model of sleep intervention that was tested is, we believe without doubt, replicable for other areas, as has been delivered extensively in the third sector by The Children's Sleep Charity.

Our plan to spread the work includes the following:

- Milestone 1. Short film and infographic production
- Milestone 2. Production of strategic pack for dissemination event

- Milestone 3. Dissemination event and dissemination of film and infographic via social media
- Milestone 4. National conference.
- Milestone 5. Training materials and implementation pack ready for use

The Children's Sleep Charity is key to the spread of the model beyond Sheffield and has engaged stakeholders from politics and the media on a national level. Examples of routes to spread of the need for support include:

- Launch of the Charity's Children and Young People's Sleep Manifesto 2017 in Westminster October 2017 with support from Clive Betts, MP for Sheffield South East.

- Appearance on Panorama "Sleepless Britain" *https://www/youtube.com/watch?v* and Good Morning Britain

- Articles in the Guardian https://www.theguardian.com/lifestyle/2017/mar/04/go-school-two-half-hours-sleep-british-children-arent-sleeping Jenny Kleeman, *The Guardian*, Saturday 4 March 2017

- Invitation to respond to Transforming Children and Young People's Mental Health Provision: a green paper