Psychology Staffing on the Neonatal Unit

Recommendations for Psychological Provision

Neonatal Consultant Clinical Psychologists, ODN Psychology Leads

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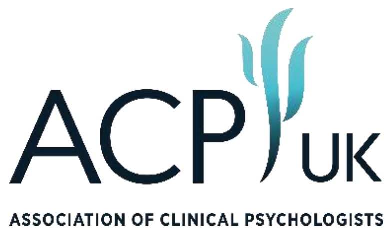
Endorsed by



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This document is written by the Lead Neonatal Clinical Psychologists who are funded to help implement the recommendations of the Neonatal Critical Care Review (NCCR) in each of the ten regional Neonatal Operational Delivery Networks (ODN's) across England. A priority of this work is to take a strategic lead in and facilitate the development of practice in line with the recommendations of the NCCR and the NHS long term plan (see appendix 7). The Lead Neonatal Clinical Psychologists will support the delivery of a service to all neonatal units within the network and support the strategic development of equitable access to and provision of psychological support for families and neonatal staff and the development of psychologically informed care.

This report discusses practitioner psychologists and other psychological professionals. The term practitioner psychologists refers to psychologists who have undergone certified training and are registered with the Health & Care Professions Council (HCPC) and who have legally protected titles (only those trained and registered appropriately can use those titles to describe themselves and their work). This group includes Clinical and Counselling Psychologists. The authors recognise that many psychological professionals work in neonatal units across England including (but not limited to) counsellors, family therapists, child and adolescent psychotherapists, adult psychotherapists, bereavement nurses and midwives and counselling psychologists. The psychological needs of neonatal babies, families and staff are multifaceted and complex and will be best met by a range of professionals with the right skill mix. The authors invite, and look forward to, collaboration with all other professionals and their professional bodies on further documents across a range of key areas including the shared development of a skills and competencies framework, recommendations for outpatient provision and follow up and models of care.

Executive Summary

There has never been a stronger argument for the integration of psychological practice within physical healthcare[1]. Given that strides have been made towards this provision existing for adult and paediatric acute care[2,3], and there is a critical additional vulnerability during an infant's first 1001 days[4], the need could not be clearer for babies, families and staff working in neonatal units. This is recognised in the Neonatal Critical Care Review[5], the Getting it Right First Time (GIRFT) Neonatology Workforce Report[6] and powerfully in the Ockenden report[7].

Admission to a Neonatal Unit (NNU) has many negative psychological consequences for the parents[i], the neonate, siblings and the parent-baby relationship[8, 9]. It is well documented that there are significantly higher rates of mental health difficulties in parents who have babies in neonatal care when compared to the general perinatal population[9 - 11]. Psychological interventions provided within the NNU have been shown to improve these difficulties for families during their admission, as well as following discharge from the unit[12,13].

Furthermore, the negative psychological impact of working in critical care for staff has also been demonstrated[14] with evidence that 40% of staff in paediatric settings experience one or more of burnout, moral injury or post-traumatic stress symptoms[15]. This has an understandable impact on staff retention, an increasingly pressing issue for neonatal nursing and medical staff[16]. Psychological interventions led by practitioner psychologists embedded within NNUs have demonstrated significant reductions in stress-related illness (40% reduction) for staff[14].

The current report details the benefits of increased practitioner psychology provision on NNUs to mitigate against the above. It also highlights the minimum recommended psychology staffing levels required in order to do this (Table E1). One father who has had two babies on an NNU, before and after a psychologist was in post, describes the difference:

"It is chalk and cheese to put it bluntly… My capacity to cope with the constant stress, anxiety and negative experiences associated with our son's neonatal journey has been greatly improved due to having access to a clinical psychologist. By seeing a qualified professional I have, to date, been able to get ahead of the curve of thoughts and behaviours experienced as a result of previous PTSD caused by our first-born's neonatal journey." (Dad, Birmingham)

Other parents have commented on the value of timely and embedded provision:[ii]

[i] The term 'parents' is used throughout this document to be as inclusive as possible. Where 'mother' or 'father' are used this is because the research cited refers specifically to people who identify in this way and we want to avoid assumptions of generalisability. It is of course essential that we recognise the impact of intersectional identities and respond to individual need.

[ii] All quotes come from parents who have had experience of one or more babies on a neonatal unit. The terms 'mum' and 'dad' are used to refer to parents in order to preserve anonymity and provide context to the quotations they have offered. We recognise that some parents welcome these terms being used and others prefer to be referred to by name when communicating with the rest of the care team on a unit.

"To be able to receive the help so quickly after he was born was invaluable really. I don't know where I'd be now without it; I'd be in a much worse place". (Mum, London)

"The help we received from the NICU psychologist was pivotal for us. I'm not sure how I would have got through it all without having them there to talk to. Having someone who understood NICU, rather than just perinatal was key. Things are tough on NICU but you're in fight-or-flight mode, when you get home it all hits you and you need someone who understands. I might not be here today without the support I received from the psychology team." (Mum, Oxford)

This document includes models for service delivery and the risks of not offering psychological support in this context. The report ends with a range of appendices designed to support the needs of commissioners and NHS service developers. As the NHS moves towards a commissioning context of Integrated Care Systems, this report makes an economical argument for investment in preventative services for longer term cost savings across health and social care[17]. It also supports a move towards seamless integration of psychological provision as families move through antenatal, neonatal and perinatal services. It is the first of a suite of planned documents outlining the psychological and psychosocial needs of babies, families and staff during, and after, NNU admission. This document is written to present staffing standards for practitioner psychologists, written by the Clinical Excellence Network of Lead Neonatal Clinical Psychologists. On many units across England other psychological professionals work to support families and staff. Further documents in the suite will include collaboration with these professions and their professional organisations.

Table E1. Proposed minimum practitioner psychology staffing levels

Level of Care	WTE per 20 cots	WTE per 3 units (hub)
Inpatient (minimum)	1 WTE (8a)	0.4 WTE (8b/c)[a]
Inpatient (higher)[b]	1.2 WTE (8a)	0.6 WTE (8b/c)[a]

Notes:

[a] This provision (shared across a number of units) enables clinical supervision and governance to be provided to psychologists embedded within individual units. See section 2 for more details

[b] This should be considered where there are a number of risk factors which heighten the likelihood of infant, parental or staff distress (including but not limited to: higher degree of English as an additional language; higher number of deaths, being a surgical unit; higher rates of social care issues; very large staff teams; specific challenges for staff).

1. Introduction

1.1 The psychological impact of neonatal care: babies and families

Admission to a Neonatal Unit (NNU) for any reason is likely to have negative psychological consequences for the parents, the neonate, siblings and the parent-baby relationship[8, 9, 18]. It is well documented that parents whose baby is born prematurely or looked after in neonatal care, experience significantly higher rates of mental health difficulties (anxiety, depression and post-traumatic stress) when compared to the general perinatal population[9, 10, 11]. The NNU environment itself (e.g. the risk of death or harm to their baby, receiving a devastating diagnosis or witnessing treatments that their baby has to undergo) can be traumatising[19] and isolating for parents as they feel disconnected from the experiences of their peers with babies who have not experienced a neonatal stay. The impact of parent-infant separation, response to the infant's appearance during admission, strain on the parental and wider family relationships, the loss of the anticipated pregnancy, birth and first weeks, and a lack of opportunity to provide direct care add to parent-reported difficulties with their own wellbeing and to concerns about bonding with their child both in the short- and long-term[20,21].

"People don't understand unless they've been there – they don't really understand what it all means. You think your baby's going to die. Every time the monitor beeps you think it might be now. You're expecting the worst all the time. "

(Dad, NFaST)[22]

"I developed attachment disorder with both my babies and fear being without them. It also impacted the relationship with my husband due to my anxiety and PTSD"

(Mum, NFaST)[22]

The experience of having a baby admitted to an NNU is one of high stress, exhaustion, sleep disruption and fatigue. Parents are often involved in complex conversations with multiple professionals about their baby's care and prognosis during a time of high stress and fluctuations in their wellbeing and sense of competence[23]. The recent Ockenden review highlighted the vital role of good communication and compassionate care towards babies and their families[7], but also noted that families often felt 'unheard' or 'overlooked'[24]. Psychological therapists are experts in building relationships, understanding, intervening and working with families, teams, staff groups and across systems where there are high levels of emotions, trauma, stress and/or interpersonal conflict. They are also trained to a high level to '*support the emotional and psychological needs of staff, at both an individual and team level, recognising that well supported staff teams are better able to consistently deliver kind and compassionate care'* (ibid; p. 175). The need for psychological support for parents has also been highlighted in a number of key documents[5,6,25-29] with reference to the specific psychological challenges posed in a NNU setting (e.g. parenting in hospital, decision making, adjustment and end-of-life care).

The challenges for the family do not end at discharge. Both parents and babies are more at risk of ongoing psychosocial difficulties and require support which is tailored to individual families and which, crucially, takes account of their journey to date. Some families will leave without their baby or babies if they did not survive the admission. Psychological interventions provided within the NNU have been shown to improve these difficulties for families during their admission, as well as following discharge[12,13,25] and high quality support after bereavement is also key.

Prematurity and/or neonatal admission are recognised as an Adverse Childhood Experience (ACE) for the infant, with associated risks for behavioural, neurobiological and physical health outcomes[30,31]. Graduates of NNUs are at higher risk of developing psychological sequelae, including neurodevelopmental, cognitive, emotional and behavioural difficulties; many require additional support in educational settings and safeguarding risk is also increased in this population[32-35]. Screening, triage, support and intervention from skilled psychological and mental health professionals are therefore required to identify and mediate the psychological risks associated with premature birth and/or neonatal admission, for the parents, infant and family system. The recent National Institute for Health and Care Research (NIHR) alert responds to the findings of a systematic review and meta-analysis[9] that, even after a year, post-traumatic stress amongst neonatal parents, remains significant. The alert raises the need for routine mental health screening of neonatal parents, with adequate health service resources to ensure early and appropriate interventions are offered [36].

> *"We were offered nothing emotionally and that's what I personally struggled with the most. I think our discharge is partly the reason we struggled to start with at home. It's all about how baby is and it's actually the parents who need more support after being on the unit, I think. 24/7 medical care to nothing is a huge jump and I think the staff underestimate that transition".*
>
> *(Mum, NFaST)*[22]

Given the recognised impact of neonatal care on parent-infant bonding and parenting behaviours[37], babies' longer term neurodevelopmental outcomes[29] and the additional challenges that this poses for families, access to interventions which support the parental-infant relationship and family relationships are vital and in keeping with the evidence base, economic argument and clinical need. Well-timed, dose specific interventions that include an infant metal health approach can buffer the impact of medical traumatic stress and separations and support the attachment relationship[38]. Trauma-focused cognitive behavioural therapy (TF-CBT) and eye movement desensitisation and reprocessing (EMDR) are also recommended as therapeutic interventions for adults experiencing post-traumatic stress disorder[39].

Practitioner psychologists are well placed as providers for psychological support to the NNU. Their training allows them to bring a unique and expert perspective to the neonatal MDT, rooted in a "scientist-practitioner" model to achieve best outcomes for the family and infant. Practitioner psychologists have advanced training and practice of psychological interventions to support parental mental health, family relationships and infant mental health. Practitioner psychologists are also experienced at working with both the unit MDT and with service user advocates, such as parent advisory group and parent advocate representatives and peer supporters. Additionally, practitioner psychologists have advanced skills in building relationships as well as an ability to work with trauma across complex systems and staff groups. The Ockenden review prioritised psychological support to

families and concludes that "*[t]he availability of dedicated expert support has meant families have not had to manage…alone, and have been empowered to have the opportunity to reflect on and understand what they have been through*" and "*…in the future, this model of family support should be used to inform good practice*"[7,p.28]

The Economic Impact: Families

An analysis from the Centre for Mental Health and LSE[40] indicated that the public sector cost of, for example, untreated maternal perinatal anxiety was £9682 per family.

Based on the rates of anxiety in neonatal mothers this would suggest an **annual cost of £193,736,820** across England and Wales.

Of this figure, **72% relates to the longer-term impact on the infant**.

These figures do not include: impact of depression or other mental health difficulties (which was estimated in the same analysis at closer to £8.1 billion annually, £1.7 billion of which is borne by the NHS and social care); the impact on the mental health of fathers, partners or of siblings; the direct impact of neonatal trauma on the infant themselves; or the cost to the family in terms of loss of productivity, quality of life, etc.

While additional support will not reduce these rates to zero, a preventative approach can have a profound impact on later costs to both family and society.

Further information and references in Appendix 1

1.2 The psychological impact of neonatal care: Staff

The negative psychological impact of working in critical care for staff has also been demonstrated[14] with evidence that 40% of staff in paediatric settings experience one or more of burnout, moral injury or post-traumatic stress symptoms[15,41]. Beck et al[42] found that 49% of nurses on NNUs reported moderate to high levels of secondary traumatic stress and Scott et al.[43] found that 55% of neonatal staff reported burnout. The resulting long-term health consequences and impact on retention and sickness are well documented[44,45], and recognised as a major and increasingly pressing issue for neonatal nursing and medical staff[16]. Reduced staff to patient ratios can result in longer working hours, which decreases patient safety[46]. Burnout is associated with medical errors, thus also decreasing patient safety[47], quality of care[48] and increasing complaints. Support for staff is recommended in the final report from the recent Ockenden review[7].

"Staff talked about emotional impact on them – questioning whether they could have done anything different, lose sleep, increase in anxiety, find themselves afraid to care for other babies." (Psychologist, NFaST)[22]

"Just like we say happy mum-happy baby, the same can be said for staff. Happy well supported staff-happy and well supported parents and in turn happy babies" (Mum, London)

The Economic Impact: Staff

The number of NHS staff lost to sickness absence is around 5% in any given month and approximately 25% relates to mental health difficulties[49].

A clinical psychology-led staff support service piloted at the Addenbrookes Neonatal Unit[14] led to a **40% reduction in stress-related sickness absence.** In one North West Unit, the NFaST project [22] demonstrated that a 40% reduction in sickness absence over 12 months would **equate to a financial saving of £30,966.**

Well-supported staff are more present, more productive and more able to be compassionate, therefore directly impacting the quality of care that babies and their families receive[50].

Braithwaite[48] recognises that:

"It is the responsibility of both individual nurses and administrative leaders to take the necessary steps to prevent nurse burnout. Preventing [burnout] in the NICU can lead to better retention and recruitment rates and delivery of safe neonatal care." p.343

Further information and references in Appendix 1

"Earlier warning signs that parents are struggling are not noticed/addressed and then a gulf develops between staff and parents (us against them) that is really hard to repair… if parents had more emotional support to explore some of their feelings around these difficult decisions, then this would reduce the risk of these situations escalating."

(Nurse, NFaST)[22]

The Economic Impact: Trust Level

A substantial proportion of **litigation costs** within the NHS relate to maternity and neonatal care [51].

The research literature indicates clearly that **good communication, patients or families feeling listened to, and strong working relationships** between patients and staff and within the staff team significantly reduce the likelihood, and therefore the costs, of litigation[52].

Supporting collaboration with families, effective communication in the context of heightened emotion and relationship-building intervention is well placed to have a significant effect.

Further information and references in Appendix 1

1.3 A model of neonatal psychosocial support

An overview in Figure 1. shows evidence-based interventions that can mitigate the multiple impacts of neonatal care described in Section 1.1 and 1.2. Essential to the implementation of truly psychologically informed care is the application of psychological thinking and activity across the system, underpinned by evidence-based practice and ongoing research and service development.

A psychologically informed environment operates at a number of levels (Figure 1. boxes 1a, 1b, 2a and 2b) for all who are cared for, and work in, an NNU to provide essential components such as: psychological safety, trustworthiness and transparency, peer support, collaboration and mutuality, empowerment, voice and choice for parents and staff, equality and culturally effective care[53]. There is also extensive evidence for trauma informed care for the infant in five key areas: protected sleep, managing pain and stress, developmental activities of daily living, family centred care and a healing environment[54]. All staff can benefit from the "culture of awareness" described by Steinberg and Kramer[55] and an environment of caring and compassion for all. Inevitably, some aspects of the experience will still be highly distressing and, therefore, a layer of psychological containment and individualised therapeutic support (Figure 1. boxes 3a and 3b) is crucial to mitigate the acute and longer-term impact of these adverse experiences and their consequences.

Evidence of the longer-term impact on a significant proportion of babies who receive neonatal care is considerable[56,57] and, with it, the recognition of a need for more integrative longer-term follow-up (Figure 1. box 4). Family Integrated Care (FiCare) acknowledges the role of the family and key relationships from the earliest moments in hospital. Recognition of the potential complexities in parenting a child who may have an uncertain prognosis and possibly multiple health or neurodevelopmental challenges and how this may interact with a parent's own mental health needs indicates the need for services that can address these factors cohesively in the community. The wider impact on the family (e.g. siblings) is well known[58,59] and continued support for the whole family system during and after admission is key.

Appendices 2 and 3 give a more detailed outline of what could be provided at each level.

Figure 1. A model of neonatal psychosocial care for different levels of psychological need

Case study 1: Mixing skills to support patients and staff

The admission of a term infant with Hypoxic Ischemic Encephalopathy (HIE) following a traumatic delivery had a significant impact on the family and neonatal team. Staff called to theatre were highly distressed at the events they had witnessed, particularly a junior doctor for whom this was the first time they had attended such an event. The mother spent an extended time on the postnatal ward physically recovering from birth and had limited time with her baby. Whilst she was in her own room, the sound of babies crying and separation from her infant left her overwhelmed and fearful whilst she also experienced frequent flashbacks and dissociation. The father was traumatised from witnessing the birth, having thought that both his baby and partner were going to die, and felt responsible for not calling for help sooner. Their young daughter had been apart from her parents for the first time and had started to become fearful and anxious at preschool, wetting at night and often tearful during the day. Grandparents caring for the sibling were unable to see their daughter and desperate for advice on how to help their granddaughter.

This family and the neonatal staff required a coordinated approach in the immediate aftermath of the delivery and longer-term. A psychologically informed environment ensured the team were aware of the impact of events on the family and the team and they were equipped through unit-wide training to deliver trauma-informed care. The psychology team were notified immediately and assisted in supporting the debriefs for staff following this event. Following assessment of need post-debrief, additional individual support was offered for the junior doctor in the form of two sessions to provide psychological first aid and monitoring of symptoms in the weeks following the events. A meeting with the neonatal team was convened to discuss how best to support this member of staff in the workplace. The team clinical psychologist and psychotherapist assessed the mother and father within a few days of referral. The clinical psychologist initially provided coping strategies to help them to cope with acute stress reactions, worked with postnatal and neonatal staff to plan for their care and facilitated the mother seeing her baby. The mother was very fearful of her baby in the first few weeks, so the psychotherapist worked with the neonatal nurses to help her to gradually become more confident in the intensive care environment and develop their relationship. This was also supported by the occupational therapist on the unit, and they reviewed progress weekly as a team.

Ongoing trauma intervention and specific work with both parents around the issues arising from the birth and events on the neonatal unit continued with the clinical psychologist throughout the baby's admission and plans were made for ongoing support with community services post-discharge. An assistant psychologist worked with the grandparents to support the sibling indirectly and provided additional support when she came to the unit, in addition to liaising with her preschool so they could support her appropriately.

Case Study 2: An integrated model of support
Cambridge University Hospitals Foundation Trust (Addenbrooke's)
Addenbrooke's Neonatal Unit has seen real benefits from using an appropriate skill mix for different psychological and pastoral support using a stepped care model[60] (see below) – including improved access to the right support for families, coordination of complex cases or end of life work, extra support for staff working with complex families and reduced staff stress / burnout.

The Family Support Service comprises:

- An assistant psychologist (Band 4 0.5 WTE) who coordinates referrals, follows up on staff referrals by meeting / phoning and triaging families, runs groups for parents alongside a qualified psychologist, sees (intervention level) individual parents for adjustment, anxiety and bereavement follow up under the close supervision of a qualified clinical psychologist;
- A counsellor practitioner (Band 6, 0.5 WTE) who has specialist training in CBT, systemic interventions and trauma, who works with (therapy or specialist levels) parents and couples for help with adjustment / coping, anxiety, low mood, trauma, bereavement and relationship difficulties and;
- A clinical psychologist (Band 8a, 0.5 WTE) who works with the more complex clinical cases and families (specialist level) including moderate levels of mental health difficulty, attachment / trauma histories in parents, concerns about bonding, trauma, complex bereavement, complex safeguarding and conflict with the medical and nursing team; and
- A consultant clinical psychologist (Band 8c, 0.2 WTE) who provides service oversight, development and supervision.

Working closely with chaplaincy and community services
The Family Support Service works closely with chaplaincy to provide seamless care for families with pastoral/religious needs and end-of-life care and similarly accepts referrals from chaplains when the needs/presentations of families they are working with escalate. They will also involve chaplaincy to jointly facilitate debriefs where the staff feel concerned about/need help to understand a family's cultural or religious beliefs or whether these are influencing decision-making.

Similarly, they work closely with community services, social care, children's centres and perinatal mental health services to facilitate the transition from hospital.

Staff Support
The Family Support Service also provides teaching and training to staff, for example on the management of mental health difficulties in parents, communication, managing conflict, trauma etc and runs debriefs and consultation to staff on complex cases.
They also coordinate a chair a weekly psychosocial meeting where families' emotional needs are discussed and oversee the psychological interventions delivered by other members of the MDT such as the breastfeeding specialist nurse, community nurses, family and baby worker, dietician, occupational therapist and physiotherapist working with complex or highly distressed families.
They also run regular reflective practice groups for consultants, junior doctors and senior nurses.

1.4 Understanding the role of neonatal practitioner psychologists within the wider psychosocial MDT

While numerous professions can make a valuable contribution to this work, practitioner psychologists are particularly well placed to bring the breadth of knowledge and skills needed to establish and support this model. Practitioner psychologists have a set of skills that enable them to work with a multitude of professionals providing psychologically informed input to neonatal families and neonatal teams.

Practitioner psychologists are Health and Care Professions Council (HCPC) registered and key providers of evidence-based psychological assessment and interventions for babies, families and staff on NNUs. They are trained to doctoral level to bring together a wealth of knowledge and skills in clinical and developmental psychology. Their training covers the whole lifespan (birth to death) enabling them to support babies, parents, wider family and staff. Their training (which takes, on average, 10 years) is also across-model, in that they train in all the key therapeutic models and are able to integrate evidence-based therapeutic approaches or select the most appropriate for the presenting problem (see Appendix 4 for a summary of the training route).

Practitioner psychologists within a neonatal setting integrate knowledge and expertise from several distinct domains of clinical practice. These are:

- Parent and family mental health
- Adult mental health
- Infant mental health
- Paediatric and clinical health psychology
- Systemic working (working with complex groups and systems including the family, the staff team and the hospital context)

These domains are also complemented by training, knowledge and experience in other aspects of practice including trauma-informed care, crisis and urgent mental health care, critical care environments, bereavement and loss, and staff wellbeing. In this regard, neonatal psychology overlaps many other services which also offer one or more of these areas of support. Figure 2 illustrates the overlap between services and the role of neonatal psychology, bringing all areas together, providing a central and vital function for families during and post- admission. Section 2.2 provides more detail on the unique role played by neonatal psychology. Appendix 7 gives more detail on the way in which neonatal psychology fits into the wider NHS context.

Other registered and appropriately accredited psychological professionals (such as family therapists, child and adolescent psychotherapists and others) may be trained in some or all of these domains of clinical practice and bring this expertise to the Neonatal unit.

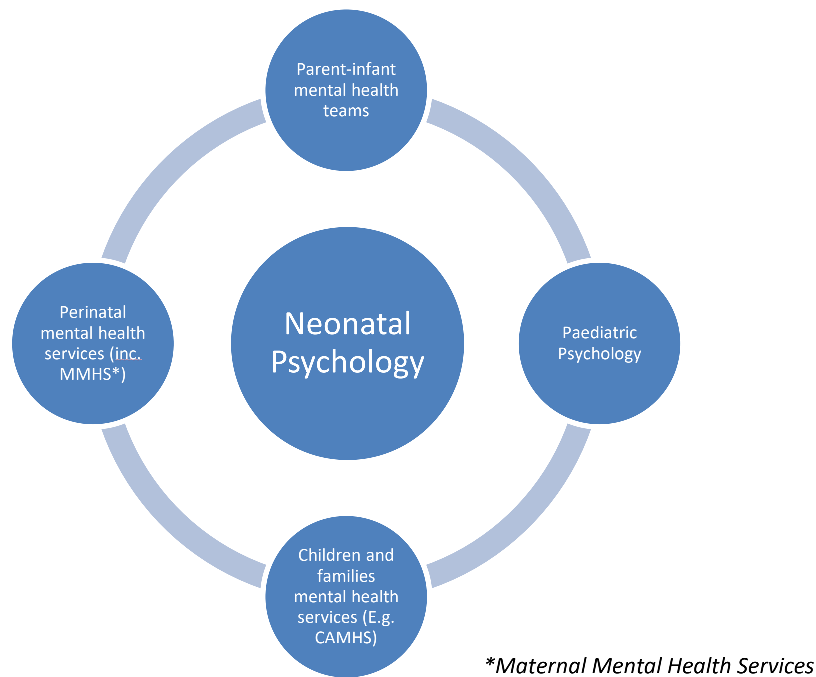

Figure 2. The interaction of neonatal psychology with other services for infants and families.

During and after an admission to neonatal care, practitioner psychologists can provide assessment, formulation and specialist evidence-based individual and group-based intervention in relation to parent and infant wellbeing, relationships and neurodevelopmental outcomes for babies and children.

Practitioner psychologists and other accredited psychological professionals also have a key role to play in supporting families at the end of their baby's life or after the death of a baby. They support with difficult conversations with medical staff, including discussing life limiting or devastating diagnoses, moving to comfort care and making decisions about what is best for their child. Often practitioner psychologists are able to support parents' understanding of the complex medical setting and language and to attend to parents' psychosocial needs at this difficult time. Good psychological support can help navigate the issues which are vital to families, and which can sustain them at a devastating time in their lives. This includes help with bonding with their baby, involving and caring for other siblings, memory making, sustaining them during palliative care and ongoing therapeutic care after the death of their baby. On neonatal units, supporting survivors of multiple births, and their families is also crucial as this group have unique needs, caring for their survivor whilst mourning the loss of another baby or babies. The bereavement support that can be provided by an embedded neonatal psychologist complements existing provision (e.g. bereavement midwives and counsellors, bereavement support within maternal mental health services). Finally, families witnessing a death is a risk factor for ongoing psychological distress[61] in other families so thoughtful psychological care must also be provided at the universal and targeted level for all those impacted. The ongoing needs of bereaved families will be discussed further in our next paper on Psychological follow up following a neonatal admission.

Practitioner psychologists are also trained to work as part of MDTs and can support the clinical team with developing care plans which are adapted to the specific psychological and relational needs of

the infant, parents and family[62,63]. They can provide training and consultation to medical teams on complex cases and supervise other professionals delivering psychological interventions.

The wellbeing of staff is also supported by practitioner psychologists and other psychological professionals working in neonatal settings, through individual assessment, formulation and intervention for staff impacted psychologically by their work. Supporting staff after a death or critical incident is a key part of the psychology role. They also have training and experience in facilitating collective responses to staff psychological need, such as debrief and reflective practice. Further providing training on topics like caring for a surviving twin or multiple or helping distressed parents enables better psychosocial care across the board.

The expertise that practitioner psychologists bring to a team in clinical leadership, research and audit allow them to play a proactive role in developing neonatal services to be informed by, and responsive to, the psychological needs of service users. For example, by contributing to the development of local policies, quality improvement projects and service-related research.

As described, practitioner psychologists are well placed to offer input across all tiers of intervention. Other members of the core medical, nursing and allied health professional (AHP) workforce also have a crucial role to play in supporting psychological outcomes. This contributes to the universal level of psychosocial care, the implementation of which practitioner psychologists can further enhance through training, supervision and consultation. As illustrated in Figure 3, however, the skills of the wider MDT are only a part of the skills and expertise a practitioner psychologist brings to the NNU. There are also a range of other psychosocial professionals who can play an important role in supporting different aspects of this work. Ideally, every NNU will have access to a skill mix that promotes optimal outcomes for families and staff at every level of the system.

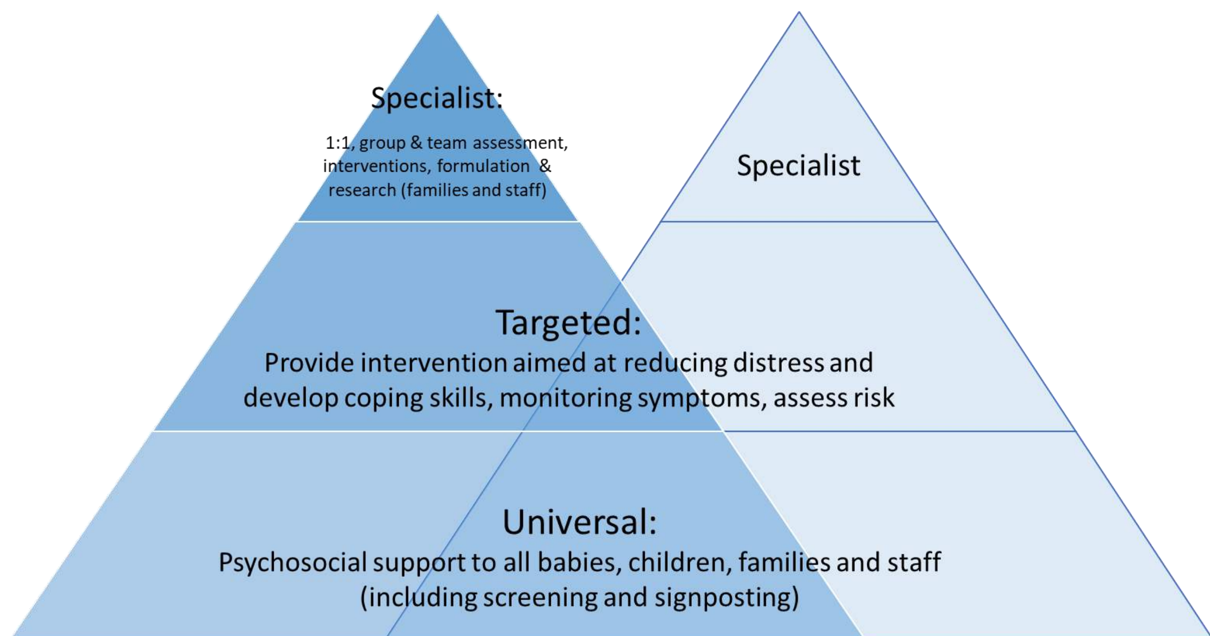

Figure 3. The relationship between the skills of a practitioner psychologist (left triangle) and those of the wider MDT (right triangle). While there is some overlap in the skills required to provide universal psychosocial support, each profession offers a unique contribution to the skill mix of the team.

Appendix 5 outlines the level of competence of clinical psychologists at different stages of career progression as an example to illustrate the need for a workforce model that incorporates skill mix and supervisory capacity. A further document on competencies for psychological staff working in NNUs is planned for publication next year.

2. Recommended service levels

2.1 The need for psychology staffing guidance

There is currently no specific neonatal psychology staffing guidance for England and the recent GIRFT report[6] identifies that developing such guidance is a priority. In line with recent proposals from other neonatal AHPs, and following a review of the psychology workforce on NNUs across England and reviewing the evidence base, staffing ratios have been developed (Table 1) to ensure a move towards more equitable services nationwide. These recommendations also offer an initial model for how this minimum staffing should look across units. A detailed rationale for the proposed recommendations is provided in Appendix 6.

As provision develops, a comprehensive model for evaluating the impact of increased staffing and any unmet need will be essential to continuous improvement.

In contrast to proposals from AHP colleagues, this paper recommends a staffing level per 20 cots rather than per cot. This is to underline that an important component of the activity of practitioner psychologists will not be conducted at the cot-side or even with individual families but across the tiers of intervention outlined in Figure 1. The number of staff on the unit and the complexity of the unit environment and population, therefore, have a significant impact on the levels of staffing needed.

Furthermore, in contrast to recommendations for staffing of AHPs in neonatal care, this paper does not recommend different levels of provision across different levels of care (e.g. intensive vs special care or transitional care). Although there is evidence to suggest that younger gestational age at delivery is a risk factor for poorer parental mental health[63], research does not consistently support the notion that parents are more likely to experience mental health difficulties if their baby has more severe medical needs[61,65]. Many babies occupying special care cots have previously received a more intensive level of care. Parent and infant experiences during pregnancy, birth, during an admission or during transfer between units may have been traumatic, regardless of an infant's current medical status, which does not necessarily represent a family's psychological needs. As articulated by the parent quoted below, it is a family's *lived experience* of their baby's admission that shapes their psychological response, rather than clinical indicators of a baby's medical acuity. Additionally, parents of babies cared for in areas usually associated with lower levels of nurse and AHP staffing (e.g. special and transitional care) often encounter experiences which *increase* their need for psychological support (e.g. managing anxiety in preparation for discharge).

As units develop and build their psychological workforce, there should be consideration of the sustainability and workability of the provision. Where small amounts of resource are available, efforts must be made to ensure safety and effectiveness, including provision of adequate clinical supervision.

Table 1 Proposed minimum practitioner psychology staffing levels

Level of Care	WTE per 20 cots	WTE per 3 units (hub)*
Inpatient (minimum)	1 WTE (8a)	0.4 WTE (8b/c)[a]
Inpatient (higher)[b]	1.2 WTE (8a)	0.6 WTE (8b/c)[a]

Notes:

[a] This provision (shared across a number of units) enables clinical supervision and governance to be provided to psychologists embedded within individual units.

[b] This should be considered where there are a number of risk factors which heighten the likelihood of infant, parental or staff distress (e.g. higher degree of English as an additional language, higher number of deaths, being a surgical unit, higher rates of social care issues, very large staff teams, specific challenges for staff etc).

Parent voice: The argument for giving equal provision across levels of unit

"When we were in the NICU, we saw so many come and go while we waited to see if our survivor would survive. I couldn't identify with people [who were] there so briefly, dealing with a temporary, resolvable problem concerning their baby(ies). I couldn't understand how someone could fall apart whilst dealing with premature babies (especially multiples) who were comparatively healthy, who would all go home soon. Truth be told, I felt a sort of contempt, not to mention raging envy, at their reactions to the less daunting challenges that they faced.

And then I saw people lose their only child, both their twins, all of their triplets. I saw tragic, beaten parents leave that godforsaken NICU with no one, with nothing to show for their suffering. And I realised that I was to them what the others were to me. ***I realised that suffering comes in degrees, yes, but whatever degree is thrust upon you seems unbearable because it is the worst you have known. I realised that any parent dreaming of a healthy pregnancy, a normal delivery, a beautiful child- the parent that each of us is at the beginning- any parent who ends up in a NICU, for whatever reason, for whatever period, has something to grieve. And our grief expands to fill whatever void marks it in our lives."***

Susan C. ([66, p251]; emphasis added)

2.2 Suggested model of provision

In Table 1 we suggest a 'hub and spoke' model, where units (spokes) have practitioner psychology staff being supervised by a more experienced practitioner psychologist working across the local area (hub).

To optimise recruitment, retention and wellbeing of staff, it is important to have a senior practitioner psychologist in post to provide specialist supervision and support to unit staff.

Supervision for psychologists has a number of purposes including discussing operational, professional and clinical aspects of the role[67]. Supervision is an HCPC registration requirement. The senior roles also ensure appropriate governance of the unit roles and bring knowledge of trusts and systems, commissioning requirements, audit and research and service development. This person should bring neonatal expertise to ensure that specific neonatal skills and supervision can be provided[5]. The hub practitioner psychologist should work across a local area in a footprint that is operationally coherent (such as mapping onto the Integrated Care board (ICBs) or Local Maternity and Neonatal System (LMNS) footprints).

The local unit psychologists may then supervise, support or lead other staff within the unit. The ideal model of care proposes that the primary clinician on a unit should be an agenda for change band 8A (or higher) practitioner psychologist. This is because they provide both the skills to work across the life span with babies, parents and beyond, have skills and expertise in audit and service improvement, training in supervision and a strong grounding in research. Job descriptions at this banding also enables scope for service development and the capacity to host trainee psychologists should this be appropriate to the setting thus providing the scope to increase clinical provision at no additional cost to the unit.

It is important to consider the potential roles of a range of psychosocial team members and how these can respond to the unique needs of the specific unit. A lone practitioner on a unit should be at least band 8a in order to reflect the level of training and experience needed to provide a full service (see Figure 1) as well as lead and supervise others. Any units with more than 20 cots will require a second practitioner who could be a practitioner psychologist or another accredited psychological professional such as a registered psychotherapist. Additional posts should represent a wider skill mix and therefore a broader range of grades. The optimum level of support would therefore be a hub and spoke model with:

- 8c or 8d Network Psychology Lead to offer supervision to hub leads and promote a psychological perspective in the network team
- 8b or 8c senior practitioner psychologist role shared across a small region (e.g. 1 NICU and 3 LNU/SC units)
- 8a practitioner psychologist role in each unit
- Skill-mix of Band 6/7 roles to supplement the 8a staffing level to total staffing as per Table 1
- Band 4/5 role to support clinical provision and audit/evaluation on each unit (not included in staffing numbers as these staff are not independent clinical practitioners)

The registration of practitioner psychologists (such as Clinical Psychologists) can be checked via the HCPC website (https://www.hcpc-uk.org/check-the-register/). This registration guarantees accredited training and professional checks. When appointing other psychological professionals their professional registration, accreditation and training should be reviewed (ideally by a senior psychological professional in the trust) as there is some variation in levels of training, expertise and in professional bodies they may be registered with.

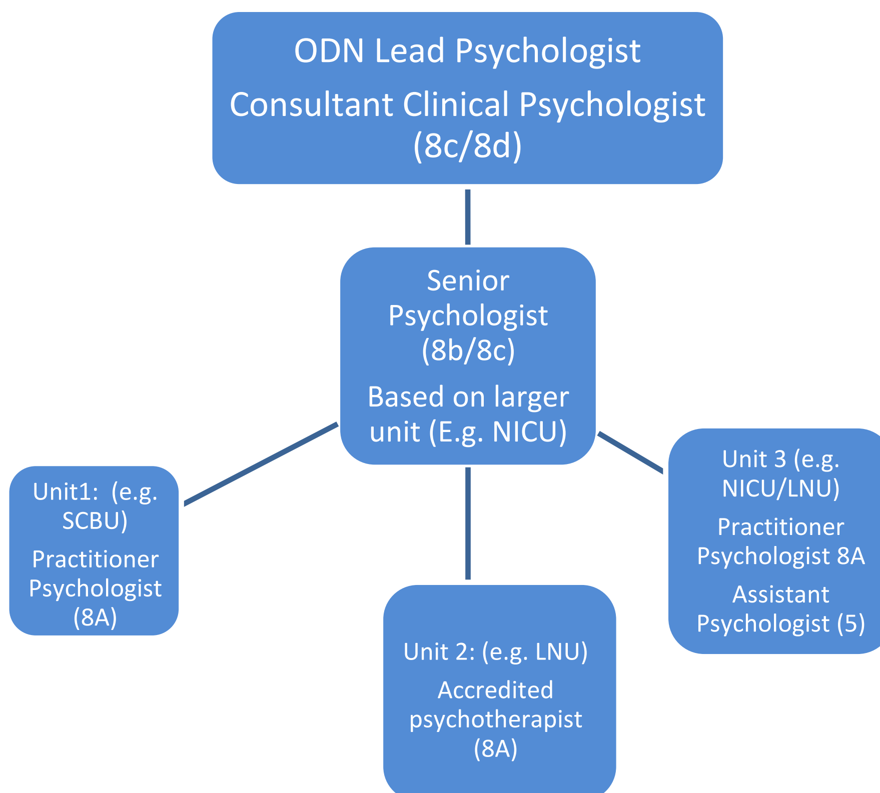

Figure 4. An illustration of the recommended hub and spoke model

This model allows for the most judicious use of resources, recognising that senior practitioner psychologists are more expensive, and allowing this cost to be shared between units. This will work well where a Trust comprises a number of hospitals. Where a single hospital Trust wants to use this model, they could set up Service Level Agreements (SLAs) with another Trust. A group of units from different Trusts could work with the regional ODN systems to arrange the employment of the senior clinician.

The psychologists should be embedded onto units, with a room to see families on or close to the unit. This is being advocated over an in-reach or referral model of provision with the psychologist based in another team elsewhere in the hospital (e.g. within the paediatric psychology team). This embedded status is widely recommended[68,-70] and minimises barriers to access for families and staff by validating, normalising and destigmatising psychological distress. This arrangement also enables a psychologist to truly be part of the neonatal team caring for these babies and families, aiding understanding and appreciation of the unique and complex neonatal environment, and to be responsive to this fast-paced, changeable and emotive setting.

There are clear links between the work of neonatal psychologists and the new MMHS and Start for Life funded programmes, as well as the wider perinatal and infant mental health workstreams. There is a need for these roles to be well integrated at a local and strategic level. However, it is important to recognise that an embedded neonatal psychology service is a unique and complementary offer. Embedded support offers primary prevention by promoting whole-system, psychologically responsive care and proactive support on the unit, rather than a referral service for support only at

the point that families are already struggling. It also allows those families with more complex needs who might be reluctant to seek mental health or parent-infant relationship support the opportunity to access care from someone who understands their circumstances and can see them in a non-stigmatising way as part of their baby's overall care. It is a service that is open to either or both of the parents, the parent-infant relationship and/or the couple or family as a whole rather than requiring different services for each individual need. In all of these ways it increases accessibility and reduces the risk of later harm to the infant and family alike.

"We were very fortunate to have access to a psychologist when our daughter was on NICU. We really appreciated that they could be flexible according to our needs. Some days I didn't want to leave my daughter so found it useful to have what felt like an informal chat at her cot-side. Other days, especially when I was feeling emotional, I preferred to talk away from my daughter in the quiet room provided. Sometimes I felt I was in a 'good place' and chose not to talk as the sessions would conjure up a range of emotions, and the psychologist was very understanding of this. This highlights the importance of having psychological support embedded on the NNU." (Mum, East of England)

Embedded support is also key for staff support, as we know that people in caring roles "*often wait until they are very unwell before raising their hand*"[71, p14]. Whilst most Trusts have a staff counselling or wellbeing service, this can be more difficult to access for ITU staff for practical reasons such as finding the details or the time on a busy shift, or emotional barriers such as feeling their particular work context will not be well understood or because they have concerns about talking to someone that they do not know. The embedded model allows staff direct access to someone with whom they have built a good working relationship and who is easily accessible and understands their specific context. It also allows the embedded psychologist to be available, talking regularly with senior staff to identify issues and support at crucial times (e.g. following a challenging incident or a death) and offering pre-emptive care, designed to help staff to manage the stresses they face and identify when they are not coping, before they become overwhelmed.

"The knowledge and exposure the psychologist has of the neonatal journey is a huge enabler to making good progress. Most people have no real understanding of what occurs at these units and… they do not witness first hand the environment people find themselves in for a several months etc… This is totally unique and invaluable compared to discussing such things with someone that does not have this understanding. " (Dad, Birmingham)

"To be able to receive the help so quickly after he was born was invaluable really. I don't know where I'd be now without it, I'd be in a much worse place." (Mum, Oxford)

Embedded practitioner psychologists and other psychological professionals bring unique skills and expertise to supporting babies, parents, families and staff. They understand the complex context of the NNU and have specialist expertise at supporting families at the start of their parenting journey, supporting siblings, working with mental health difficulties in acute hospital settings, coping with disruption, distress and trauma and the "rollercoaster" journey that families experience during their babies admissions. They recognise that appointments must be delivered flexibly, both at the cot-side and in bespoke therapy rooms. Embedded psychologists are available to fit in with families who may have disrupted routines, have to respond to emergencies depending on their child's medical condition, need to express breastmilk, recover from labour, sleep and meet the needs of their other children.

3. The risks of not offering psychological support

In light of the roles highlighted above, there are a range of risks of not incorporating psychology and wider psychosocial provision into the MDT.

The only people who bore the brunt of trying to salvage mine and other parents' state of mind were the nurses on shift at the various NICU wards…The additional access to a clinical psychologist has very much shifted that bigger picture mental health support to a qualified expert. The conversations we have has meant I am able to focus more on my child and supporting my wife and again trying to get ahead of the patterns of behaviour previously experienced." (Dad, Birmingham)

Risks to baby while on the unit:

- Without a psychologically supported, strategic and holistic approach to consistently hold in mind the psychological needs of the infant, there is additional trauma and associated neurodevelopmental impact.
- Parents' mental health difficulties can impair their engagement with FiCare, leaving babies to regulate emotional and physical states without the assistance of an attuned parent, impacting longer term developmental outcomes.

"Emotional support in that room in that moment would have helped me hugely, instead of feeling alone and useless" (Mum, London)

Risks to parents and family while on the unit:

- Parents are not able to access support to manage the difficult, distressing and traumatic experience of their newborn being admitted to NNU, resulting in more significant issues later on.
- Families whose child is very sick and may die are not provided with specialist qualified support to manage this difficult time. Families who have lost one or more of multiples will not get the specialist support they need.
- The potentially moderating effect of a psychologically- and trauma-informed environment are not enabled so leaving parents at higher risk of post-traumatic stress symptoms or PTSD, anxiety, and depression.
- Fathers or non-birthing partners are not able to access perinatal-specific psychological support.
- Couples and families (including siblings) are not able to access tailored psychosocial support that sees their needs as a whole, rather than as a series of individual disconnected referrals.
- Parents with mental health issues cannot see a trained professional without having to leave their sick baby.

Risks to staff workload:

- There is more pressure on staff to try and meet the psychosocial needs of families. Without staff support, this emotionally demanding task may result in burnout or moral injury.
- There is no trained professional to assess the extent of any presenting mental health problems and refer on, as necessary, with knowledge of mental health services available and ability to triage what will be an appropriate service.
- The psychological barriers for parents (and staff) to FiCare, minimise the effectiveness of FiCare practices.

Risks to staff wellbeing and unit culture

- Staff who are not experiencing compassionate and supportive systems themselves, will not feel the psychologically safety needed within these complex and threat-heavy environments to provide the compassionate care required for families[72].
- Poorly contained emotional distress can result in higher expressed emotion, which can be challenging or distressing (or both) for neonatal staff.
- Staff are at higher risk of burnout or empathetic distress, with higher rates of stress-related absence.
- Staff retention is poorer resulting in additional staffing pressures, which in turn impact staff wellbeing:
- Without plans to psychologically support, and thus retain, staff, the positive impact of Neonatal workforce planning projects are minimised.
- The quality of communication between staff and families, and between staff members is poorer, resulting in poorer clinical outcomes and risk of litigation.
- The unit is not psychologically- (or trauma-) informed and is, therefore, not doing the best for families despite good intentions.
- Unsupported, misunderstood and unprocessed understandable psychological distress leads to cycles of shame and/or blame:
- There is an increased blame culture, workplace conflict and moral distress amongst staff.
- Complaints and litigation and the associated reputational damage of a service, further depletes the morale of the workforce.

Risks post-discharge: baby

- Whilst mortality has reduced significantly over the last 10 years, ex-premature babies and their families experience disability and impairment in other ways, particularly in the cognitive and psychosocial domains[29]. Where there is no outpatient psychological support follow-up for babies as they become children, there is a risk of under-identification of presentations that are more common in ex-premature babies such as:
    - Mental health difficulties
    - Neurodiversity including autism or ADHD
    - Cognitive difficulties including verbal and non-verbal reasoning, memory, processing speed[74]
- Lack of coordination between community and universal services such as early years settings, schools and colleges and health
- Children are not able to receive support to navigate transitions (moving to nursery/school/secondary school)
- The additional challenges that parents face in caring responsively for their children with additional needs will be overlooked (further compounding mental health difficulties in both parents and children).
- There is no support to deal with any ongoing disabilities or visible differences that stem from their early experiences.
- Bullying and building relationships are more difficult for ex-premature children[75]. Babies born at very low birth weight have significantly more difficulty making friends and are more likely to be bullied[76]. Wolke and colleagues[75] found that mental health is the mediator and intervening to support mental health can, therefore, have a positive impact. However, these children will not usually meet the criteria for CAMHS or other tier three services and require bespoke services which are not currently available.
- Very pre-term babies have poorer health-related quality of life[77] and lack of provision means this will not be attended to.
- Children experience difficulties right through to adulthood in achieving life-course goals[78].
- Children who are born preterm and whose mothers have mental health problems are at increased risk of emotional and behavioural problems[29].

Risks post-discharge: Parents and families

- Trauma resulting from the admission is not processed.
- Unsupported, misunderstood and unprocessed understandable psychological distress leads to cycles of fear, shame and/or blame:
- Families' fear of talking about their trauma, or shame, are barriers to them seeking support at an early (most cost-effective) stage.
- Parents further internalise blame, leading to poor parenting efficacy.
- Mental health difficulties in parents are missed and parents do not know where to access help, meaning families do not get the right support either during admission of after discharge.
- Couples are not able to access support and process the impact on their parenting. Relationships may be more challenged as a couple and as parents, impacting upon their mental health and upon family functioning.
- The neonatal follow-up process and service is not psychologically informed and does not feel psychologically safe to families, potentially re-traumatising families.
- Lack of support for parents can have a direct negative impact on the developing baby. Sensitive parenting can be a significant mediator of the impairment caused by prematurity[76].
- Without psychoeducation for parents and community professionals about the impact of the of the neonatal experience on the baby and the family, parents may further engage in self-blame, affecting their emotional wellbeing, parenting relationships and wider relationships.
- Fathers, co-parents or partners are underserved as they are not offered direct support via maternal (MMHS) or perinatal mental health services.
- Parents are unable to access support which recognises the impact of their admission.
- Bereavement support tailored to the loss of a baby on NNU is not accessible for parents who have lost a baby/babies on the unit.
- Parents who have babies with additional needs due to prematurity can become isolated and disconnected from their peers and feel unable to access appropriate support (e.g. parent and baby groups, universal mental health services) thus reducing social support and opportunities to seek postnatal and parenting support.

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Appendices

Appendix 1: Economic impact with further detail

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Appendix 8: Contact details

Appendix 1: Economic Impact with futher detail

In addition to the moral and clinical rationale for psychology funding, there is also a compelling economic imperative. A recent analysis of the economic literature as part of the NFaST project[22] highlighted potential savings in 3 domains:

a) Clinical savings Analysis[40] indicates that the public sector cost of untreated maternal perinatal anxiety was £9682 per family. Given that research indicates that:

- at least 23% of mothers are diagnosed with anxiety following neonatal care[9]
- there are approximately 87,000 neonatal admissions per year in England and Wales
- this equates to approximately 20,000 mothers with significant anxiety

This would suggest an annual cost of £193,736,820.00. This does not include the cost to the family in terms of productivity loss, child outcomes requiring intervention, impact upon quality of life etc. It also misses the impact on fathers, partners or co-parents, on siblings and the direct impact of trauma on the infant themselves.

While additional support will certainly not reduce these rates to zero, a preventative approach to containing anxiety and supporting parent-infant relationships could have a profound impact on later costs to both family and society.

b) Sickness absence and recruitment / retention savings

The number of NHS staff lost to sickness absence is around 5% in any given month and approx 25% relates to mental health difficulties[49]. A clinical psychology led staff support service piloted at the Addenbrookes Neonatal Unit[14] (including reflective practice groups, team away days, staff drop-in sessions and teaching on managing difficult conversations) led to a 40% reduction in stress-related sickness absence.

In one North West Unit, the NFaST project[22] demonstrated that a 40% reduction in sickness absence over the last 12 months would equate to a financial saving of £30,966. This was equivalent to a 0.6wte Clinical Psychologist employed at Band 8a, who would be in a position to deliver this intervention as part of the wider model of care described in Figure 1.

c) Reduced risk of litigation

A substantial proportion of litigation costs within the NHS relate to maternity and neonatal care[51]. A significant cause of complaints in neonatal care relates to allegations of poor communication between staff and families[79]. The research literature indicates clearly that good communication, patients or families feeling listened to, and strong working relationships between patients and staff and within the staff team significantly reduce the likelihood and therefore the costs of litigation[52]. It is difficult to put a precise value on hypothetical litigation but there is clear evidence that supporting collaboration with families, effective communication in the context of heightened emotion and relationship building intervention is likely to have a significant effect.

Appendix 2: Expanded outline of the different aspects of care

The multifaceted role of practitioner psychologists and other psychosocial professionals can be hard to articulate. This section aims to describe some of the activities that practitioner psychologists might undertake (as Fig 1. illustrates, many of these are also provided by other psychosocial professionals).

Therapeutic offer

Psychological assessment and therapy for mum or birthing person, dad or partner, or individual siblings. This might include:

- Supportive counselling and containment / regulation at times of acute distress
- Support to make sense of the journey and address negative self-perceptions
- Evidence based therapies for trauma, anxiety, depression, etc

Psychological assessment and therapy to support couple, parent-infant and family relationships, e.g.:

- Brazelton NBO or NBAS
- Watch, Wait and Wonder
- Emotional Focused Couples Therapy
- Systemic family therapy

MDT offer

Comprehensive psychosocial assessment of a family's needs, in order to create packages of support to address:

- Financial, housing, employment or other social needs
- Complex mental health difficulties or substance misuse
- Domestic violence or other safeguarding concerns

Support to the MDT via consultation / psychosocial meetings to:

- Understand the needs of the infant in the context of the wider family (see above)
- Collaborate with parents to overcome barriers to FiCare / develop robust discharge plans
- Understand the behaviour of parents who might be aggressive / angry / withdrawn / absent and explore ways to build relationships in order to reduce stress and frustration and improve the infant's longer term outcomes.

Staff development / wellbeing offer

Provide and support a model of evidence-based embedded staff support to include access to:

- Supervision
- Psychological debriefs
- Wellbeing support
- Support for management teams to address issues of culture and communication

Training and support for staff to ensure that psychological wellbeing is embedded across the unit system / culture, e.g.:

- Training in communication skills, containing distress, understanding particular presentations, drawing on the available research evidence
- Admission and discharge processes to automatically include collating information relating to whole-family wellbeing and using this to inform care planning.

Post-discharge outpatient support*

There is evidence from other health-related conditions (e.g. diabetes) that regular psychological reviews and availability of psychological support improves outcomes[80].

Screening prior to discharge can help identify those families likely to struggle the most post-discharge, and the babies/children likely to be most impacted by their prematurity. Intervention can help to mediate or mitigate these factors. As a minimum screening should include:

- assessment of mental health of the child and of the parents
- quality of parent-infant relationships including parental sensitivity
- parental education and understanding of the child's needs.

Screening is recommended in early childhood (0-2) and could coincide with other checks as recommended by NICE[29]. This should assess:

- cognitive development
- social development
- parenting and attachment
- family functioning
- screening for parental mental health difficulties.

A second screening period should happen around the time of transition to school (4-7 years). This should cover:

- cognitive development,
- school readiness
- social/peer relationships
- parenting and
- mental health of parents and child.

At any of these stages, intervention might include:

- Offering evidence based psychological therapies to either or both parents to respond to the specific impacts of neonatal care
- Therapy to support the parent-infant relationship
- Therapy to support the couple relationship and family relationships as a whole
- Parenting support – making sense of and responding to any social, emotional, behavioural or developmental needs
- Developing (with MDT colleagues and community partners) a 'team around the child' to mitigate the impact of cognitive, social or neurodevelopmental difficulties.

**Please note that a further document will outline the roles of practitioner psychologists in outpatient and follow up care for neonate graduates and their families. This document will also address the need for support for families whose baby or babies die whilst on the NNU.*

Appendix 3: Psychosocial tasks and roles at universal/targeted/specialist levels

Specialist: Practitioner Psychologist/Psychotherapist:

Regular one to one, couple and/or family sessions

Specific interventions to develop infant-parent relationship (e.g. WWW, NBO, VIG)

Interventions to support coping and wellbeing (e.g. ACT, CFT, CBT)

Specific therapeutic interventions for parent(s) (e.g. for TF-CBT, EMDR, NET for trauma, low mood/PND) when clinically indicated (may be after discharge)

Staff support through work with management and trust, 1:1 spaces for staff, debriefs and pre-briefs to process psychological impact of work, reflective practice (including specific models such as heads and hearts) and training on burnout, moral injury and PTSD

Couple and family therapy to support family functioning and wellbeing

Working with risk, complex trauma and traumatic bereavement

Targeted: Practitioner Psychologist/Psychotherapist working with other staff

Screening/assessment of risk factors and needs

Regular reviews of parents at cotside or in private room; Group interventions

Developing formulations about family's needs and difficulties and sharing this with team and family as appropriate bringing psychological thinking to all

Advising staff and families on strategies and interventions for infant, parent and to develop infant-parent relationship

Supporting staff team through training and reflective practice groups

Providing regular follow up for families after discharge including formal wellbeing reviews

MDT working including supporting complex case discussions, giving diagnosis and end of life care

Bereavement support

Universal: All staff for all families

Delivery all cares to infant with Infant Mental health in mind, Delivery of procedures and interventions being mindful of pain and stress and intervening to prevent this including involving parents

Recognising distress (in all its forms) and acknowledging impact of the NNU environment to families through informal discussion, formal discussions , MDTs and ward rounds

Reviewing perinatal & maternity experiences (via colleagues and notes) and holding in mind experiences of parents through their maternity/perinatal journey,

Using a trauma informed lens when engaging with families

Formal/informal screening and referring/signposting families on to targeted psychological support

Supporting development of parent-infant relationship in everyday practice (E.g. through Ficare interventions)

Post discharge – screening of families for emotional health needs and referrals/signposting; liaison with Perinatal MH, Maternal MH services, IAPT, GPs and Peer support organisations

Note: All levels require training and support to fulfil their role. Whilst all staff carry out universal level tasks, they require training and ongoing support from qualified mental health professionals.

Appendix 4: Clinical psychology training route outline (adapted from Taylor)[81]

Years		Clinical Psychology	Paediatrics
1	Begin Undergraduate Study	Psychology degree – basis in psychological science	Medical degree – basis in human biology and start of education in clinical application
2			
3			
4		Assistant Psychologist (Band 4 – 5) Further education (MSc/PhD)	
5			
6			
7		Postgraduate study in clinical application (Band 6)	Qualified Doctor: Foundation Years
8			
9			CT 1 – 3: Paediatrics Training
10		Qualified Clinical Psychologist (Band 7, 8a, 8b)	
11			
12			ST 4-6:
13			
14			
15	Earliest possible qualification as a consultant	Consultant Clinical Psychologist (Band 8c, 8d, 9)	Consultant Paediatrician

Appendix 5: Breakdown of skills, knowledge and other attributes required by psychosocial staff at different levels of training and experience (adapted from Karatzias & Buxton[82])

Tier	Level/ Qualification	Role	Knowledge	Skills	Attitudes	Responses	Supervision
		each level builds on the level below					
One: Psychologically informed Typical band: 4/5 Typical profession: Assistant Psychologist *Similarly banded alternative:* *Family Support Worker*	Undergraduate/ BSc	Graduate psychologists who work at any setting and may be in limited contact with babies and families	Understanding of key areas of different psychological needs for NNU families (e.g. attachment, coping, psychoeducation) and its impacts on the individual and family	Able to understand and critically evaluate research on NNU admission and aftermath. Demonstrate appropriate responses to disclosures.	Being mindful of individual and cultural diversity. Being respectful the needs of families. Understanding the limitations of own role and competencies	Be able to respond appropriately to those in psychological distress. Appropriate signposting for further support.	Any role related contact with families closely supervised. Access to regular supervision. Being a reflexive practitioner

Two: Psychologically skilled Typical band: 6 Typical profession: Trainee Clinical Psychologist *Similarly banded alternative:* *Counsellor* *Trainee Psychotherapist* *Bereavement midwife*		Post-graduate / MSc	Psychological practitioners who provide a service to families on Neonatal units and subsequent to their admission (including support those who have lost a child)	Have sufficient understanding of appropriate assessments for psychological distress	Assessing impact of admission, baby's condition and trauma and the needs of families for treatment and support. Provide effective trauma informed case formulation and treatment planning.	Show an understanding of the ways in which patients and professional identities can interact. Respecting agency of the individual in decision making and the power dynamics in any interactions.	To carry out effective assessment of psychological distress and delivery of interventions as appropriate to their role and training.	Access to regular reflexive supervision
Three: Psychologically Specialist	3A Specialist Therapist Typical band: 7 Typical profession: NQ Clinical Psychologist *Similarly banded alternative:* *Counsellor or Psychotherapist*	Post-graduate / Professional Doctorate	Psychological practitioners who provide services to families who require specialised care because of admission, health needs of infant or health needs of parent/sibling. Provision of staff support including reflective practice, wellbeing offer	Being able to appreciate idiosyncratic responses to life events and develop appropriate care plans to meet individual and family needs. Specialist knowledge of trauma; neonatal / critical care environments; perinatal and infant mental health	Providing tailor made assessments and interventions to a range of different presenting issues and across populations Advanced formulations including those attending to issues of loss, trauma, complex mental health difficulties and past experiences/pre-existing challenges	Commitment to ongoing training and multidisciplinary work. Be open to challenge and scrutiny from and to patients and peers.	Delivery of tailor made assessments and interventions.	Clinical supervision with an appropriate qualified supervisor Supervising others who provide therapy or psychologically informed care

	3B Experienced Clinician and supervisor Typical band: 8a Typical Profession: Highly specialist Clinical Psychologist *Similarly banded alternative: Child & Adolescent or Adult Psychotherapist*	Post grad/ Professional Doctorate 2+ years of post doctoral qualification experience Supervisor training	Provision of Psychological framework to MDT thinking and provision of staff support including training, supervision, reflective practice, debriefs	Being able to work within a medical model to effect change, working with teams, awareness of evidence based framework	Sharing complex formulations with team and contributing to overall treatment planning Research, audit and service development skills	Able to maintain a position of within the team and separate from it, in order to provide containing presence for team and families Engaging with all levels and groups to, engage consult well and effect change	Design and delivery of bespoke interventions at a variety of levels (infant, parent-infant, parent, sibling, family group) and for staff as individuals, groups and units	Supervising at all levels (Psychologically informed to expert) Own supervision with a suitably qualified supervisor
Four: Psychological leadership	4a Experienced Clinician and Service Lead Typical band: 8b/8c Typical Profession: Principal / Consultant Clinical Psychologist	Post grad/ Professional Doctorate 5+ years of post doctoral qualification experience Leadership training	Provision of Psychological framework to leadership team Liaison with wider network of service providers	Understanding of the wider service and commissioning context	Identifying gaps in service provision, synthesising evidence to support overarching service developments	Able to form strong relationships with wider network of services and 'hold' the distress of the psychosocial and wider MDT.	Design, delivery and evaluation of effective, responsive service delivery models Design and delivery of intervention where family or staff needs are particularly complex	Supervising the senior clinicians within the psychosocial team (local and potentially regionally) Psychological supervision for unit leadership

	4b Network Psychology Lead Typical Band: 8c/d Typical Profession: Consultant Clinical Psychologist	Post grad/ Professional Doctorate 5+ years of post doctoral qualification experience Leadership experience	Provision of psychological perspective to Network business Liaison with commissioners and regional and national systems	Understanding of the wider NHSE and ICS context	Identifying patterns of service challenges across a wider footprint Leading a programme of research in collaboration with universities	Offering a reference point for the practice and governance of neonatal psychosocial care to leaders of other neonatal professionals	Design, delivery and evaluation of effective, responsive service delivery models Supporting the recruitment, retention and development of local staff teams	Supervision of regional leads Oversight of communities of practice across the network patch to support the evolution of practice

Appendix 6: Rationale for specific staffing recommendations, with example job plan for neonatal unit clinical psychologist

There is currently very little specific guidance for neonatal psychology staffing, reflecting the significant lack of investment relative to other paediatric and critical care specialisms. The figures proposed incorporates recommendations from the following sources:

- Recommendations for mental health professionals in the NICU[83]
- Perinatal Service Provision[84]
- Delivering effective services[85]
- Neonatal Families and Staff Together Report[22]
- Guidance on Activity for Clinical Psychologists[86]

In addition, the following estimates are made for the anticipated demand for direct psychological assessment and intervention in the neonatal setting:

In line with best practice guidance[87], identification of families requiring psychological support should be scaffolded by a universal screening initiative in which all parents are screened for psychological difficulties. Based on the findings of Shaw et al.[64] of the positive screening rate for anxiety, trauma *or* depression in parents of preterm babies, and backed up by similar rates reported separately for anxiety and trauma[9] and depression[88], such an initiative may to identify that up to 80% of families in neonatal care would benefit from psychological support[iii].

An estimated 60% of these families are likely to accept a referral for support from an embedded service[90], giving a predicted referral rate of 48%. This equates to provision of psychological support for between 9 and 10 families per 20 cots.

For every hour of direct therapeutic contact with a family (which may be required separately for both parents), there is an estimated hour of additional indirect activity[91] including referral screening, liaison with other services, letter and note writing. For the estimated 9-10 families accessing the psychology service per 20 cots, we therefore expect 1-3 hours per week of direct contact time and associated activity, equating to an average of 19 hours. In addition to this activity, we anticipate a further 3-4 hours of universally accessible group-based psychological support for families (including associated indirect activity), giving an overall total average of 22.5 hours (0.6WTE). Given the British Psychological Society (BPS) recommendations of a 60:40 ratio of clinical to non-clinical activity for an 8a Clinical Psychologist[86], this equates to a 1.0WTE per 20 cots, with the remaining 0.4WTE made up of indirect activity to contribute to the development of a psychologically informed environment on the NNU.

[iii] This estimate does not consider the prevalence of parent-infant relationship difficulties. Such difficulties are common in families of babies in neonatal care[89], and are most likely to occur when parents are experiencing difficulties with their mental health.

A hypothetical example of how this might be implemented into a job plan of a 1.0WTE 8a Clinical Psychologist embedded within an NNU is outlined in Table A2.1.

Table A6.1. Job plan for unit psychologist should avoid 100% utilisation, leaving time free (~1 – 2 hours) to ensure responsivity to urgent and timely referrals (including staff debrief and family bereavement)

Activity	Time allocation	Comments
Direct support for families, with associated activities	6 sessions	See calculations above for estimation of this required capacity.
Staff support	1 session	Activities to include staff reflective practice, clinical supervision (including for parents involved in peer-support or engagement work), teaching or training
Care planning	1 session	Activities to include attendance at psychosocial or discharge planning meeting or ward round
Audit & service development	1 session	Including initiatives to implement FiCare and Psychologically Informed Environment
CPD & supervision	1 session	CPD should be prioritised for staff with little prior experience of a neonatal setting.

Appendix 7: Fitting psychological needs into the wider NHS context

NHS England aims to increase the psychological processions in the NHS workforce[92] in order to meet the goals set out in the NHS Long Term Plan (LTP)[93]. This recognises the increasing evidence base that access to highly skilled psychological practitioners has a significant positive impact on quality of life and functioning.

The strategic priorities in developing the psychological workforce are to:

1) **Grow**: Expanding the psychological professions workforce to improve access to psychological healthcare
2) **Develop**: Establishing clear career paths and development opportunities for all psychological professionals
3) **Diversify**: Attracting and retaining people of talent from all backgrounds
4) **Lead**: Developing the right local, regional and national leadership
5) **Transform**: Embracing new ways of working

The NHS anticipates that to meet these strategic priorities, they will add nearly 1500 psychologists to the children and young people's workforce and more than 1000 to the adult workforce, both of which are relevant for NNU babies, siblings and families and for staff. Employers are tasked with 'ensuring the recruitment of the expanded workforce … and to manage the supervision requirements for this alongside wider service needs'[82]. This provides an impetus for Trust executive boards to recruit to gaps on NNUs to meet the requirements of the NHS Long Term Plan.

The Long Term Plan also provides a "*more concerted and systematic approach to reducing health inequalities*"[93, p.39], promising to act on inequalities in everything the NHS does. It is this aim, in particular, which supports the need to have an adequate level of psychological staffing as per the recommendations in this document, as without it many families with additional health vulnerabilities are unlikely to get the bespoke level of care they require. The Long Term Plan notes that women from the poorest or BAME backgrounds are most likely to die or to have babies early, and that with an increase in early births *"Neonatal care capacity needs to keep pace with these advances to improve short and long-term outcomes for these children"* [93, p.46] and their families including through access to evidence-based psychological therapies.

Additionally, in 2020 the NHS published the People Plan, which included a range of actions to deliver the workforce strategy set out in the Long Term Plan. The headline of this publication was '*More people, working differently, in a compassionate and inclusive culture'*[71]. The actions were organised around four pillars:

- **Looking after our people** - *with quality health and wellbeing support for everyone*
- **Belonging in the NHS** - *with a particular focus on tackling the discrimination that some people face*
- **New ways of working and delivering care** - *making effective use of the full range of our people's skills and experience*
- **Growing for the future** - *how we recruit and keep our people, and welcome back colleagues who want to return*

It is clear from this that good psychosocial care for staff is central to the NHS vision for development of services. The plan *"focuses on how we must all continue to look after each other and foster a culture of inclusion and belonging*"[71, p.5] and notes how important *"looking after our people, particularly the actions we must all take to keep our people safe, healthy and well - both physically and psychologically".* All staff have opportunities and responsibilities listed in the People Plan. Practitioner Psychologists form a key part of this, bringing their skills, expertise and experience in supporting and developing staff to enhance effective caregiving. Embedded psychology on units offers staff the opportunity to seek help early and prior to needing to take sick leave. It particularly upholds the vision of fostering '*a culture of inclusion and belonging'* highlighting that to be stressed and distressed is a normal reaction to the work and can be mitigated by good universal care.

The introduction of Integrated care systems (ICS) from July 2022 sets up partnerships between health and care organisations delivering joined up services which improve the health of people living and working in the ICS area[94]. The four aims of the ICS are:

- improve outcomes in population health and healthcare
- tackle inequalities in outcomes, experience and access
- enhance productivity and value for money
- help the NHS support broader social and economic development.

Further, the ICSs are set up to tackle complex challenges including:

- improving the health of children and young people
- supporting people to stay well and independent
- acting sooner to help those with preventable conditions
- supporting those with long-term conditions or mental health issues
- caring for those with multiple needs as populations age
- getting the best from collective resources so people get care as quickly as possible.

The development of neonatal psychology services embedded in units fits well with this agenda, in particular the investment at the beginning of a baby's life and a family's journey with the aim of preventing longer-term distress and helping babies, siblings and families stay well. As a preventative, as well as responsive, intervention the aim is that families are supported at a stressful time, and in the longer term, draw less from health and care systems.

Embedded psychology in neonatal units meets the needs of all parents on the units. Whilst there are adult mental health services in the community (e.g. perinatal mental health services, maternal mental health services, adult mental health teams) these do not meet the needs of many neonatal parents who do not fit a discrete pathway (e.g. maternal loss or trauma), have severe and enduring mental health difficulties and therefore do not meet the criteria for secondary care. Therefore, whilst these services exist, they are more likely to be helpful to some families post-discharge but there is a need for separate neonatal psychology based on units funded by or through acute trusts.

Finally, Trauma informed Care (TIC)[95] and Psychologically Informed Environments (PIE)[96] are recent drivers for development and change in many public sector services. These models aim to consider the impact of engaging with services and of a patient or clients' previous experiences and how that might impact on their ability to access and utilise care during any period of contact with services. Embedded psychology on neonatal units aims to address three key TIC/PIE principles – to be reparative to any difficult or traumatic experiences, such as challenges during pregnancy, birth or admission to the NNU, to reduce the impact of the NNU admission which is inevitably painful or traumatising for many families and to prevent distress and trauma through universal interventions at the unit, environment, staff and family levels and targeted and specialist interventions as indicated.

Appendix 8: Contact details

The authors would welcome collaboration with all those supporting staff and families in Neonatal units, with families themselves and with other stakeholders. Please do get in touch with us.

Lead Psychologist	Region/ODN	Contact
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Please note that all the Lead Neonatal Clinical Psychologists are employed part-time and have other roles and responsibilities, so may not be able to reply immediately.