PROJECT DESCRIPTION

PROJECT DETAILS

Project Title

Home phototherapy for the early term infant with neonatal jaundice: an in-depth study to explore the experiences of women, their families and healthcare staff involved with phototherapy in the home.

Project Summary

Neonatal jaundice is a yellow discoloration of the skin and/or whites of the eyes that is seen in approximately 60% of term newborn infants (1, 2). Increased yellow discoloration known as hyperbilirubinaemia can have serious debilitating consequences and requires early interventions such as feeding support, phototherapy or in extreme situations exchange transfusion (1).

Over the last 40 years the length of postnatal hospital stay has declined (3) with 32% of women being discharged within 3 days of giving birth in 1975, compared to 91% of women in 2013–2014 (3), and in some instances within 4-6 hours. This decrease in postnatal stay in UK hospitals is in line with the USA, Australia and Canada (3). However, critics argue that early discharge may increase delay in the identification and treatment of maternal and infant morbidity, such as timely recognition and treatment of neonatal jaundice, which may only appear after day three of life (3). Treatment would usually require readmission to hospital for the baby, and in some cases this may not be the postnatal ward but a children’s ward, which can lead to added stress for the family.

A counter argument suggests that early discharge from hospital creates opportunities for family-centred care, creates greater opportunities for families to bond in their home environment and is a safe and cost-effective way to provide postnatal care (3). The problem is not early discharge in itself but inadequate, late or improper follow up after discharge.

University Southampton Hospital NHS Foundation Trust (UHS) actively facilitates discharge home between 12-48 hours (4) and is keen to explore ways in which to enable timely detection and treatment of neonatal jaundice of early term infants (37-38 weeks gestation) whilst the baby remains in the home environment. By exploring this approach, UHS wish to safely reduce the length of stay on the postnatal ward and facilitate a smooth transition of midwifery and neonatal care in the community (5). It is possible with current fibre-optic technology to enable babies to be treated and cared for in the home, with evidence suggesting that it is as effective as hospital treatment (6). In addition it appears preferable to families, reduces the length of hospital stay and is cost effective (6). A recent systematic review highlighted that parents have been reported to be highly motivated to carry out phototherapy in the home and follow protocol (7). Additionally, according to Chowdhury et al (6) who undertook a survey of neonatal units in the UK, only 13% offer a home phototherapy service.

Aim: understand the experiences of women, their families and healthcare staff when using home phototherapy in treating uncomplicated neonatal jaundice in early term infants (37-38 weeks gestation).

Objectives: a systematic review of the midwifery and neonatal literature to identify current evidence of home phototherapy; ii) an in-depth understanding of the opportunities and barriers for healthcare staff providing this type of care in the home, and iii) an in-depth understanding of the experiences of women and their families involved in this type of care in their home.

Methods: women will be recruited through existing services. Semi-structured interviews will be conducted to explore in detail, the perceptions and experiences of i) women and their family, and ii) healthcare staff involved in using home phototherapy in treating uncomplicated neonatal jaundice in early term infants (37-38 weeks gestation).

Outcomes: experience of home phototherapy from the family and healthcare professional staff perspective, feasibility and acceptability of offering home phototherapy for both the women and their family as well as from the perspective of healthcare staff.

### Academic Impact

The project is part of a programme of work between the UHS and Bournemouth University that builds research expertise in the clinical area. Bournemouth University currently has two match-funded PhD studentships with two further applications (including this one) being proposed. The intention is to develop a critical mass of research proficient midwives, who are able to support the growth of research and implementation of findings in Southampton.

The student will benefit from existing collaborations with Dr Jaqui Hewitt Taylor, Senior Lecturer in Child Health whose key interests include research into caring for critically ill children in the home. Dr Cescutti-Butler is an experienced midwife and neonatal practitioner with research interests in the late pre-term infant and newborn infant physical examination. Dr Taylor is an experienced midwife academic with research expertise in infant feeding, particularly breastfeeding.

We anticipate a minimum of two academic papers for submission to leading health professional journals, such as BMC Pregnancy & Childbirth (IF 2.83) and Journal of Pediatric Nursing (IF 1.158).

BU Match-funded clinical academic doctorates have been accepted by the Department of Health as being eligible to join the NIHR Clinical Research Network (NIHR CRN) Portfolio. This portfolio consists of high-quality clinical research studies that are eligible for support from the CRN in England. The Portfolio database captures research activity data and provides analysis tools to facilitate active management of studies; activity data inform the allocation of NHS infrastructure for research (including NHS Support Costs).

### Societal Impact

The proposed project was developed in response to an identified clinical need by UHS. The project will address an area of national concern regarding unsatisfactory postnatal care (1,2) by improving i) quality and safety of care for women and their babies when transferred to the home; ii) enabling women to feel confident about returning home after the birth of their baby, and iii) potential cost savings to the NHS.


### Training Opportunities

The training programme, directed by the primary applicant Dr Hewitt-Taylor and co-supervisors Drs Cescutti-Butler and Taylor will have the following objectives:

**Formal training in:** i) undertaking a systematic review of the literature by attending the two-day Masterclass run by FHSS ii) qualitative interviewing provided through BU’s Centre for Qualitative Research (CQR). CQR is internationally recognised in the field of qualitative health and social care research. In addition, Dr Hewitt-Taylor has have substantial experience in conducting qualitative interviews; iii) analysis of data will be provided through Bournemouth University Doctoral College research development programme. **Transferable skills in:** i) networking and communication – developed through the process of establishing an advisory group and working to draw up a strategy in response to study findings. Guidance and support from PhD supervisors will ensure that the student is able to develop in these areas; ii) communication and presentation. The student will develop these skills through seminars and conference presentations, and in preparing and submitting peer reviewed publications.

### Supervisory Team

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<tr>
<th>First Supervisor</th>
<th>Dr Jaqui Hewitt-Taylor</th>
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<tr>
<td>Additional Supervisors</td>
<td>Dr Luisa Cescutti-Butler, Dr Alison Taylor</td>
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<tr>
<td>Recent publications by</td>
<td>Hewitt-Taylor J (2017) <em>The Essential guide to doing a literature review in health and...</em></td>
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supervisors relevant to this project


Ireland J., Khashu M., Cascutti-Butler L., Van Teijlingen E Hewitt.-Taylor J (2016)
Experiences of fathers with babies admitted to neonatal care units: A review of the literature. Journal of Neonatal Nursing 22, 171e-176


INFORMAL ENQUIRIES

To discuss this opportunity further, please contact Jaqui Hewitt-Taylor via email: jhtaylor@bournemouth.ac.uk

ELIGIBILITY CRITERIA

The PhD Studentships are open to UK, EU and International students. Candidates for a PhD Studentship should demonstrate outstanding qualities and be motivated to complete a PhD in 4 years and must demonstrate:

• outstanding academic potential as measured by either a 1st class honours degree or a Master’s degree with distinction or equivalent Grade Point Average (GPA)
• an IELTS (Academic) score of 6.5 minimum (with a minimum 6.0 in each component) for candidates for whom English is not their first language

In addition to satisfying minimum entry criteria, BU will look closely at the qualities, skills and background of each candidate and what they can bring to their chosen research project in order to ensure successful completion.

Applicants will be asked to submit an online application form and a proposal (c. 1500 words) outlining their understanding of the project for which they are applying, the approach they would envisage taking and what qualities they will bring to the research community.

Please note:

• Current BU Doctoral students are not eligible to apply for a Studentship
• Current MRes/MPhil students can apply, subject to satisfactory completion of their Research Degree prior to being able to take up the award
• PhD Studentships cannot be used to support BU staff to complete doctoral programmes

Additional Eligibility

To apply for this Studentship you MUST be a nurse or midwife registered with the Nursing and Midwifery Council (UK) https://www.nmc.org.uk/ . Please note interviews will be held at the University Hospitals Southampton NHS Foundation Trust in May.

HOW TO APPLY

Please complete the online application form by 30th April 2018. Further information on the application process can be found at: www.bournemouth.ac.uk/studentships