

Impact case study (REF3)

Institution: Sheffield Hallam University		
Unit of Assessment: UOA03 - Allied Health Professions, Dentistry, Nursing and Pharmacy		
Title of case study: Improving Maternity Care Outcomes - Driving the Global Adoption of Midwife-Led Continuity of Care and Engaging Marginalised Women		
Period when the underpinning research was undertaken: 2004 – 2016		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Hora Soltani MBE	Professor of Maternal and Infant Health	2006 - current
Catherine Burke	Senior Lecturer	2013 - current
Frankie Fair	Researcher	2014 - current
Helen Watson	Researcher	2017 - 2019
Period when the claimed impact occurred: 2016 – 2020		
Is this case study continued from a case study submitted in 2014? No		

1. Summary of the impact

Research from Sheffield Hallam University provided evidence that Midwife-Led Continuity of Care (MLCC) models improve maternal and neo-natal outcomes. This informed **WHO guidance** and **UNICEF recommendations**, receiving personal endorsement from the **UN Secretary-General**. It also directly influenced **national policy** in the UK and Ireland, leading to significant additional **investment in midwifery training**, a **17% expansion of the midwifery workforce** in England, and a national roll-out of the MLCC model. Follow-on EU-funded research demonstrated that maternity peer supporters (MPS) can deliver important benefits for BAME, and migrant, asylum-seeking and refugee (MAR) women. The integration of MPSs into the roll-out of MLCC has brought further individual and community benefits and has **improved outcomes for at-risk and marginalised perinatal women**.

2. Underpinning research

Midwives are primary care providers for childbearing women around the world. However, there has been a lack of information to establish whether there are differences - in morbidity and mortality, effectiveness, and psychosocial outcomes - between midwife-led and other models of care. This lack of knowledge has led to disputes around best practice, both within and between countries, affecting major decisions about the roles and responsibilities of midwives, relations with other healthcare professions and investment in the midwifery workforce.

MLCC models provide a woman with care from the same midwife, or a small team of midwives, during the pregnancy, birth and early parenting period, with referral to obstetric care as needed. An MLCC Cochrane review (**R1**, **R2**) synthesised international evidence from trials evaluating models of maternity care, and relevant outcomes for childbearing women and their babies. This was the most extensive review ever undertaken of MLCC models compared with standard care, encompassing 15 randomised controlled trials, with 17,674 mothers and babies from Australia, Canada, Ireland and the UK. It was a Cochrane collaboration between Sheffield Hallam University (Soltani), Warwick University, National University of Ireland in Galway and King's College London. Soltani was a key collaborator in formulating and designing the original review protocol in 2004, first published in 2008 (**R1**) and updated in 2016 (**R2**). With expertise in maternal and infant health systematic reviews, she has continued her role in all aspects of the Cochrane reviewing processes since then.

The research found clear benefits of MLCC compared to conventional care models for childbearing women. These women were: 24% less likely to experience pre-term birth, 19% less likely to lose their baby before 24 weeks' gestation, and 16% less likely to lose their baby at any gestation. They were also more likely to have a vaginal birth, fewer interventions (instrumental birth, amniotomy, epidural and episiotomy), with a higher likelihood of having a more positive labour and birth experience.

In 2017 Soltani's expertise was sought locally by the Sheffield Health and Social Care NHS Foundation Trust, to carry out research on the experiences of pregnant ethnic minority women, including migrant women, who are considered particularly vulnerable and with a higher likelihood of complications. Sheffield has attracted large groups of migrants, asylum-seekers and refugees (MAR) for decades and it is the UK's first 'City of Sanctuary'. Soltani - with Watson, Harrop and Young from Sheffield Hallam, and Walton from University of Sheffield - conducted a systematic review of the evidence, and an exploratory survey about ethnic minority and migrant women's experiences of perinatal mental health services in the region (**R3**, **R4**). This revealed that migrant women need 'trauma aware care' and culturally-competent, compassionate healthcare providers who listen to them. They also need respectful, dignified and equitable perinatal care, undergirded by interdisciplinary team-working and continuity of care, aligned with cultural peer supporters.

This led to a multi-centre EUR596,000 EU-funded feasibility study titled 'Operational Refugee and Migrant Mothers Approach' (ORAMMA), in partnership with collaborators in Greece and the Netherlands. Pregnant MAR women are considered high risk; newly arrived in strange environments where local people do not speak their native languages, without support to link them to local services, and with traumas associated with conflicts in their native countries and their passage to Europe. The aim was to develop and test a model of perinatal care comprising continuity of care pathways, integrated with specially recruited maternity peer supporters (MPS) for the pregnant mothers and their babies, in the three participating countries. The study (**R5**) recruited 43 MPSs (17 in Sheffield), working alongside 17 midwives (5 in Sheffield) and 72 mothers (20 in Sheffield). The findings of the study, along with the team's systematic review of migrant women's experiences of perinatal care services in Europe (**R6**), reinforced the validity of MLCC principles and demonstrated the crucial roles played by MPSs in maintaining engagement with MARs - the route to securing positive birthing outcomes for them. The findings from MLCC and the ORAMMA project were used to inform the design of 'culturally sensitive and trauma aware' training packages for MPSs and midwives. The training package was tested with 35 midwives and showed significant improvements in knowledge, skills and self-perceived cultural competence domains (**R5**), preparing them for working with MARs.

3. References to the research

All articles underwent rigorous peer-review and are published in leading journals in the field. **R1** and **R2** are Cochrane reviews. The ORAMMA project was funded by the European Commission's 3rd Health Programme, January 2017-December 2018; UK PI: Soltani, Study Coordinator: Vivilaki; [Total fund: EUR596,269.27].

- R1.** Hatem M, Sandall J, Devane D, **Soltani H**, Gates S (2008). Midwife-Led versus other Models of Care for Childbearing Women. *Cochrane Database of Systematic Reviews*. Issue 4. <https://doi.org/10.1002/14651858.CD004667.pub2>
- R2.** Sandall J, **Soltani H**, Gates S, Shennan A, Devane D (2016). Midwife-Led Continuity Models versus other Models of Care for Childbearing Women. *Cochrane Database of Systematic Reviews*. Issue 4. <https://doi.org/10.1002/14651858.CD004667.pub5>
- R3.** **Watson H, Harrop D**, Walton E, **Young A, Soltani H** (2019). A Systematic Review of Ethnic Minority Women's Experiences of Perinatal Mental Health Conditions and Services in Europe. *PLOS ONE*. 14(1). <https://doi.org/10.1371/journal.pone.0210587>

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- R4.** **Watson H** and **Soltani H.** (2019). Perinatal Mental Ill Health - The Experiences of Women from Ethnic Minority Groups. *British Journal of Midwifery*. 27(10):642-48.
<https://doi.org/10.12968/bjom.2019.27.10.642>
- R5.** ORAMMA Report: Pilot Implementation & Assessment Report (D6.1.) (2019). Available from: http://oramma.eu/wp-content/uploads/2019/07/D6.1_pilot-report_FINAL.pdf
- R6.** **Fair F**, Raben L, Watson H, Vivilaki V, Van den Muijsenbergh, **Soltani H** and ORAMMA Team (2020). Migrant Women's Experiences of Pregnancy, Childbirth and Maternity Care in European Countries: A Systematic Review. *PLOS ONE*. 15(2).
<https://doi.org/10.1371/journal.pone.0228378>

4. Details of the impact

The research has generated significant demonstrable international, national and local impact for different beneficiary groups. This has spanned **global guidance**, **national policy** and **ministerial decision-making**, and resulted in midwifery **workforce expansion** and a national MLCC model roll-out. The MLCC research has featured in the 'Cochrane Making a Difference' series, which highlight examples of impact on real world health decision-making and outcomes (**E1**). Additionally, among migrant, asylum-seeking and refugee (MAR) women, the recruitment of maternity peer supporters (MPS), who themselves are from migrant/minority backgrounds and share their heritage and experiences, has been directly connected to the generation of individual, social and community capital. In 2020 Soltani was awarded an **MBE in recognition of her impact on and services to maternal and infant health**.

Informing International Guidance and National Policy

In 2016 the **World Health Organisation** (WHO) recommended the MLCC model for all women worldwide, through a series of documents. The MLCC review (**R2**) was among 41 Cochrane reviews which informed WHO's *Recommendations on Antenatal Care for a Positive Pregnancy Experience* (**E2**). These evidence-informed recommendations "relevant to all pregnant women", with the purpose of informing health policies and clinical protocols globally, stated that: "Midwife-led continuity-of-care models... are recommended for pregnant women". (**E2**).

The importance of this guidance was emphasised by **United Nations Secretary-General, Ban Ki-moon** in the document foreword: "To achieve the Every Woman Every Child vision and the Global Strategy for Women's, Children's and Adolescents' Health... I welcome these guidelines, which aim to put women at the centre of care, enhancing their experience of pregnancy and ensuring that babies have the best possible start in life." (**E2**).

In 2019 both the WHO report *Strengthening Quality Midwifery Education for Universal Health Coverage* (**E2**) and the WHO/**UNICEF** report *Survive and Thrive* (**E2**) cited **R2** and recommended universal implementation of MLCC to improve mother and baby outcomes.

The MLCC review was also cited as key evidence to inform models of care in Ireland's first *National Maternity Strategy - Creating A Better Future Together 2016-2026*, in 2016, with continuity of care(r) described as "fundamental to the strategy" (**E3**). In Scotland, **R2** informed the *Continuity of Carer and Local Delivery of Care: Implementation Framework* for *The Best Start* maternity care policy in 2019, which aimed to enable continuity of care support in every health board (**E4**).

Investment in Midwifery Training and Workforce Expansion

The incorporation of the MLCC research into key national reviews of midwifery practice since 2016 has led directly to investment in midwifery training and workforce expansion in England. Launching the National Maternity Review, *Better Births - Improving Outcomes of Maternity Services in England* (**E5**), Parliamentary Under-Secretary of State (PUSOS) for Health, Baroness Cumberlege, stated that: "[R2] provided... evidence of the benefits of continuity of midwife care for women and their families in terms of lower perinatal mortality and preterm birth, as well as a

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better experience for women. This new evidence directly influenced our work in the NHS England... and resulted in continuity of care becoming one of our seven key priorities” (E5).

Citing the MLCC evidence and describing it as “**the largest ever investment in midwifery training**”, the **Minister of Health, Jeremy Hunt**, announced in March 2018 that, to achieve MLCC, the NHS would train 3,650 extra midwives over 4 years, with 650 more the following year, and further increases of 1,000 in subsequent years (E5). In January 2020 PUSOS, Baroness Blackwood, confirmed significant progress towards these goals, citing that UCAS admissions to midwifery courses had increased by 425 in the academic year 2019-20 (E5).

Overall, in response to these policy changes, there has been a steady expansion of midwifery workforce, with a total **increase of 16.9% in the number of midwives** from March 2016 (33,246) to September 2020 (38,855), according to NMC register database (E5).

National Roll-Out of The MLCC Model

Several national documents have reported progress in implementing MLCC, such as *Safer Maternity Care* (Department of Health, 2017) and *Better Births Four Years On: A Review of Progress* (NHS England and NHS Improvement, 2020) (E5). The latter of these confirmed that “*continuity of carer pathways have now been implemented across nearly all provider Trusts*”, while also identifying where the gaps were and where progress needed to accelerate to deliver the Maternity Transformation Programme’s aims. The roll-out was also bolstered by the *NHS Long Term Plan’s* 2019 commitment to ensure services implement continuity of carer models for at least 75% of women of BAME backgrounds and those in deprived areas by 2024, as a means to reduce health inequalities (E5).

Benefits for Marginalised Groups of Women

BAME groups: The *NHS Planning Guidance 2019/20* (E6) set out an expectation that services should implement continuity of carer models for women of BAME backgrounds and those in deprived areas. There have been seven early adopters of this, paving the way for a national roll-out. Provisional analysis of MLCC implementation in North-West London, an area of high diversity and deprivation, identified positive outcomes, including increased control of gestational diabetes and rates of breastfeeding at 6 weeks (E7).

Migrants, asylum seekers and refugees (MAR): Additionally, by integrating MPS and MLCC through the ORAMMA project, the continued impact showed that MAR women have overcome a sense of isolation and loneliness, whilst being empowered to articulate their needs and to make informed decisions essential to their safety and wellbeing during their pregnancies (E8, E9): “*It was good because sometimes you can’t go with a husband for different reasons and [I] loved it.*” (MAR Participant 6) (E9)

Maternity peer supporters (MPS): their video narratives (E9) demonstrate a sustained social impact after the life of the project - incorporating skills development, boosts to self-esteem, career-building and satisfaction from having helped vulnerable women (E8, E9): “*[It was good for me too, to] get a job, have training in level 1 interpreting and I am doing level 2... I gained experience, expanded knowledge... I applied for a Nursing course [and] joined a refugee council as a volunteer, helping migrant women with breastfeeding.*” (MPS Participant 4) (E9)

The social capital generated through the bonding between MPSs and MARs enhanced communication with midwives (E9): “*Once the lady gave birth she was so happy... like her sister was there, the relationship was so friendly... With her midwife sometimes she was shy to ask, [so] this was very important for her communication.*” (MPS Participant 4) (E9)

These connections have also grown and widened post-project to the point where, in Sheffield, they are strengthening community networks and generating new forms of organisation (E8). Sheffield MPSs have remained active in liaison with local perinatal charities and organisations, such as the Red Cross, Forging Families, Sheffield Maternity Cooperative and Light-Sheffield. Originally a loose network of volunteers, the MPSs have evolved to a volunteer group called

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'Friendly Mothers' who share information about lifestyle and reproductive health matters (doubling in numbers to 40 members), demonstrating adaptation, growth and sustainability. The group set up its own WhatsApp group to aid communication and knowledge sharing among its members during the Covid-19 pandemic (E8). Following a presentation of the ORAMMA project at the online Migration Matters Festival (migrationmattersfestival.co.uk/2020/maternity-peer-support), several charities expressed interest in the MPS scheme and are seeking funding to set up their own projects. One of these, perinatal support charity Light-Sheffield (lightpeersupport.org.uk), successfully obtained GBP10,000 National Lottery Community Fund funding to adapt the ORAMMA training and continue the work with MPSs in the city to support the marginalised MAR pregnant women (E10).

5. Sources to corroborate the impact

- E1. Cochrane Making a Difference series: <https://www.cochrane.org/news/cochrane-making-difference-midwifery>
- E2. World Health Organisation and UNICEF - compiled reports and citations
- E3. National Maternity Strategy - Creating a Better Future Together 2016-2026 (2016): <https://www.gov.uk/en/publication/0ac5a8-national-maternity-strategy-creating-a-better-future-together-2016-2/> (p.129)
- E4. Continuity of Carer and Local Delivery of Care: Implementation Framework (2019): <https://www.gov.scot/publications/continuity-carer-local-delivery-care-implementation-framework/> (p.23)
- E5. Department of Health and Social Care and UK parliament - compiled reports and citations
- E6. NHS Operational Planning and Contracting Guidance - 2019/20 (2019) <https://www.england.nhs.uk/wp-content/uploads/2018/12/nhs-operational-planning-and-contracting-guidance.pdf> (Appendix 1, p.35)
- E7. Better Births - resource pack and early findings
- E8. Soltani H, Watson H, Fair F, Burke C, Oshaghi G, Vivilaki V and ORAMMA Team (2020). Improving Pregnancy and Birth Experiences of Migrant Mothers: A Report from ORAMMA and Continued Local Impact. *European Journal of Midwifery*, 4:1-4. <https://doi.org/10.18332/ejm/130796>
- E9. Maternity Peer Supporters – link to participant videos [text removed for publication].
- E10. National Lottery Community Fund award to Light-Sheffield [Sept 2020, total fund: £9.938]. <https://www.tnlcommunityfund.org.uk/funding/grants/recipients/GB-CHC-1149125>