MIDWIFE-LED CARE

IN LOW- AND MIDDLE-INCOME COUNTRIES WITH A FOCUS ON IMPLEMENTATION IN BANGLADESH

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Thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy

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March 2021

CERTIFICATE OF ORIGINAL AUTHORSHIP

I, Michaela Michel-Schuldt declare that this thesis, is submitted in fulfilment of the requirements for the award of Doctor of Philosophy, in the Faculty of Health at the University of Technology Sydney.

This thesis is wholly my own work unless otherwise referenced or acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of the requirements for a degree at any other academic institution except as fully acknowledged within the text. This research is supported by the Australian Government Research Training Program. This thesis is the result of a Collaborative Doctoral Research Degree program with the School of Health Sciences at the University of Dundee

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Date: 20.03.2021

ACKNOWLEDGEMENTS

The journey for this research started while I was working for the United Nations Population Fund as an advisor for midwifery and sexual and reproductive health and rights in low-income countries. The evidence I used for policy advocacy to improve reproductive, maternal and newborn health and wellbeing was mostly generated in high-income countries.

While working on generating evidence on the availability and projections for a midwifery workforce in low- and middle-income countries, I met my supervisor Caroline Homer. Together with my supervisor at UNFPA, Dr. Luc de Bernis, she encouraged me to start a PhD and invited me to visit the Centre for Midwifery, Child and Family Health at the University of Technology Sydney to clarify my initial outline for this thesis. Without Caroline, I would not have started, continued and finished this dissertation. My greatest gratitude goes to her. She is the best supervisor I could wish for, a role model, a leader, an outstanding researcher and a friend. Thank you.

At the Centre for Midwifery, Child and Family Health, I met a group of enthusiastic and lovely midwifery researchers and graduate students. Together with the Director at that time, Caroline Homer, they formed the “home base” for my PhD journey. While I was not based in Sydney, I always could relate to them and felt supported by this group in so many ways.

After I met Caroline, I also got to know my co-supervisor Alison McFadden. On a rare occasion, Alison, Caroline and I were together in one place (Geneva) and worked on a piece of research as part of the Lancet Series on Midwifery, *asking different questions in research to improve the quality of care for every woman, every child*. Alison become my co-supervisor and I am thankful for her continuous support and her guidance in the research process. Alison and the researchers and fellow graduate students at the School of Health Sciences at the University

of Dundee provided me with a second home. From this group, special thanks go to Mary Renfrew, who provided her guidance at the beginning of the journey.

Without all the great people in Bangladesh, this piece of research would not have become “real”. Thanks to my colleagues at UNPFA Bangladesh, James P. Grant School of Public Health at BRAC University, Save the Children, Hope Foundation and the Ministry of Health and Welfare Bangladesh who helped me to access the field. Thanks to Papu for your support, for organising things on the ground and for the great work you have done in transcribing and translating the data. Thanks to Kerstin, Malin and Rondi, who not only opened their homes but shared their thoughts and more. The biggest thanks go to all people who provided me with their time, insights and knowledge in the interviews and focus group discussions on midwife-led care in Bangladesh.

There are two more groups I would like to acknowledge. First, the virtual working group of the Institute for Qualitative Research in Berlin. My peers in this group provided me with valuable insights into their qualitative research process and helped me to reflect on my own data. Thank you to Manuel Peters who stayed until the end. Second, the group of graduate midwifery students in Germany, who gathered once a year and provided peer review on the current status of our research. Thanks to Gertrud Ayerle for hosting this group.

I would also like to acknowledge the professional editor of this dissertation, Geoffrey Miller.

Last, but not least thank you to my family, especially my mother Beate and my partner Marc, who supported me with everything that is necessary in a research process aside from research support.

FUNDING SOURCES

The following sources are gratefully acknowledged:

10/2016-03/2019 International Research Scholarship, University of Technology Sydney

07/2017 Research Award 2017, International Confederation of Midwives

03/2018 Higher degree research student development award, Faculty of Health, University of Technology Sydney

08/2018 Vice Chancellor's Conference Fund, University of Technology Sydney

10/2019 Scholarship, Centre for Midwifery, Child and Family Health, University of Technology Sydney

12/2019 PhD Scholarship, Midwifery Community Support Organisation (Hebammengemeinschaftshilfe e.V.)

11/2020 Research grant (professional editing), Centre for Midwifery Child and Family Health, University of Technology Sydney

LIST OF PUBLICATIONS INCLUDED AS PART OF THE THESIS

Journals (peer-reviewed)

In Chapter 3, the following publication is included. Below is a description of the contributions made to the papers by the co-authors. I take full responsibility for the accuracy of the findings presented in these publications and this thesis. All authors have given permission for the publications to be incorporated into this PhD.

Michel-Schuldt, M., McFadden, A., Renfrew, M. & Homer, C. 2020, 'The provision of midwife-led care in low-and middle-income countries: An integrative review', *Midwifery*, vol. 84, p. 102659.

Statement of contribution	Percentage of contribution
Concept and design of the study	MMS 75%, CH 10%, AMF 10%, MR 5%
Supervision and conduct of the study	MMS 75%, CH 10%, AMF 10%, MR 5%
Data analysis and interpretation	MMS 70%, CH 15%, AMF 15%
Writing of initial manuscript	MMS 80%, CH 10%, AMF 10%
Manuscript revision and editing	MMS 80%, CH 10%, AMF 10%

Michel-Schuldt, M., Homer, C., McFadden, A. (2020) Transitioning to a midwife-led model of care, *Zeitschrift für Hebammenwissenschaft – Journal of Midwifery Science*, Supplement of the 5th International Conference of the German Society of Midwifery Science (DGHWI), Volume 8 https://www.egms.de/static/de/meetings/dghwi2020/20dghwi05.shtml

National and international conference presentations related to the PhD

Michel-Schuldt, M., Amin, S., Rahman, Mortensen, B. Atieh, K., Suba, M. (2020) Midwife-led care in low-and middle-income countries (accepted for symposium), 32nd ICM Triennial Congress, Bali, Indonesia, 21-25 June 2020 postponed to 30 May – 3 June 2021 (peer-reviewed).

Michel-Schuldt, M., McFadden, A., Homer, C. (2020) Transitioning to a midwife-led model of care – a case study from Bangladesh (oral presentation), 5th International Conference of the German Society of Midwifery, 13 & 14 February 2020 (peer-reviewed)

Michel-Schuldt, M., McFadden, A., Renfrew, M., Homer, C. (2019) Midwife-led-care in low and middle-income countries (oral presentation), Hebammenwissenschaftliches Kolloquium für Doktorandinnen (doctoral midwifery research student forum), Institut für Gesundheits- und Pflegewissenschaft, Martin-Luther-Universität Halle-Wittenberg, Germany, 31 July 2019.

Michel-Schuldt, M., Homer, C., Renfrew, A., McFadden, A. (2018) Do women who access midwife-led care in low-and middle-income countries receive quality services? (oral presentation) International Confederation of Midwives Combined Regional Conference, Dubai, 6-8 September 2018 (peer-reviewed).

Michel-Schuldt, M., McFadden, A., Renfrew, M., Homer, C. (2017) Midwife-led care in low-and middle-income countries, (poster presentation), 31st ICM Triennial Congress, Toronto, Canada.

Michel-Schuldt, M., McFadden, A., Renfrew, M., Homer, C. (2017) Midwife-led-care in low and middle-income countries (oral presentation), Hebammenwissenschaftliches Kolloquium für Doktorandinnen (doctoral midwifery research student forum), Institut für Gesundheits- und Pflegewissenschaft, Martin-Luther-Universität Halle-Wittenberg, Germany, 25 July 2017.

ABBREVIATIONS

ADP	Annual Development Programme
AMTSL	Active management of third stage of labour
AMU	Alongside midwifery unit
ANC	Antenatal care
BDHS	Bangladesh Demographic Health Survey
BEmONC	Basic Emergency Obstetric and Newborn Care
BMI	Body Mass Index
BMS	Bangladesh Midwifery Society
BNMC	Bangladesh Nursing and Midwifery Council
BRAC	Bangladesh Rehabilitation Assistance Committee, then Bangladesh Rural Advancement Committee, and later Building Resources Across Communities
CAS	Complex adaptive systems
CEmONC	Comprehensive Emergency Obstetric and Newborn Care
CHE	Current Health Expenditure
CSBA	Community Skilled Birth Attendant
DGFP	Directorate General of Family Planning
DGHS	Directorate General of Health Services
DHS	Demographic & Health Survey
DGNM	Directorate General Nursing and Midwifery
EmONC	Emergency Obstetric and Newborn Care
EWEC	Every Woman Every Child
FWV	Family Welfare Visitor
GDI	Gender Development Index
GDP	Gross Domestic Product
GO	Government order
HDI	Human Development Index
HNPSDP	Health Population and Nutrition Sector Development Programme
HP	Health professional

ICM	International Confederation of Midwives
ILO	International Labour Organization
IMPAC	Integrated Management of Pregnancy and Childbirth
ISCO	International Standard Classification of Occupations
LDC	Least developed countries
LMICs	Low- and middle-income countries
MDG	Millennium Development Goal
MICS	Multiple Indicator Cluster Surveys
MLC	Midwife-led care
MMR	Maternal Mortality Rate
MoHFW	Ministry of Health and Family Welfare
MR	Menstrual regulation
MSS	Midwives Service Scheme
NGO	Non-governmental organisation
NMR	Newborn Mortality Ratio
NVD	Normal vaginal delivery
ODA	Official Development Assistance
OOP	Out-of-pocket
OT	Operation theatre
PHC	Primary Healthcare
PNC	Postnatal care
PPP	Purchasing power parity
QMNC	Quality Maternal and Newborn Care
PRISMA-P	Preferred Reporting Items for Systematic review and Meta-Analysis Protocols
RCT	Randomised Controlled Trial
RMNCAH	Reproductive, maternal, newborn, child and adolescent health
SBA	Skilled Birth Attendant
SDG	Sustainable Development Goal
SPDs	Standard Delivery Posts
TBA	Traditional Birth Attendant

UN	United Nations
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UP	Union Parishads
VIA	Visual Inspection with Acetic Acid
WHO	World Health Organization

TABLE OF CONTENTS

ABSTRACT

Background: Rigorous research on midwife-led models of care in high-income countries show that they are effective and should be offered to most women, as they provide benefits for childbearing women and their newborns. There are few studies on midwife-led models of care in low- and middle-income countries (LMIC). A better understanding of midwife-led care (MLC) in LMICs is needed.

Aim: The overall aim was to explore how MLC is being implemented in LMICs. The three objectives were to systematically review the current evidence on midwife-led care in low- and middle-income countries, to assess the policies and health system efforts related to midwife-led care in a LMIC (Phase 1) and then to explore how midwife-led care was implemented in this country (Phase 2).

Method: First, two reviews were conducted. In Phase 1, a policy and health systems analysis in Bangladesh, was undertaken. Finally, Phase 2 was a case study in Bangladesh using an explanatory mixed methods design. In this primary study, a multistage purposeful sampling technique was used and face to face interviews and focus groups were conducted. Data analysis used a framework approach. A synthesis of all phases identified the essential elements of MLC in these contexts.

Findings: The reviews showed that midwife-led care may be cost-effective, is likely to improve maternal mortality and morbidity, reduce interventions and improves quality of care, although more research is needed. MLC is provided in a variety of settings: urban and rural; in primary, secondary or tertiary facilities; in the private and public sector; in free-standing or alongside midwife-led units; and midwives work alone or in teams. Workforce shortages exist and negatively impact on the provision of MLC. Standards of education, regulation and training influence the quality of care and supportive environments are important. The policy and health systems analysis highlighted the need for leadership and resource mobilisation. The case study identified four themes in relation to the implementation of MLC in Bangladesh. These were addressing the heart and soul

of MLC, empowering midwives to become leaders, structuring midwife-led care and providing care across the continuum.

Conclusion: Midwife-led care in low- and middle-income countries has potential to improve outcomes in maternal and newborn health and might be cost-effective. The implementation of midwife-led care varies and supportive systems and workforce planning are key to its success. The essential elements of MLC that were identified could be applied to similar contexts.