UTS UNIVERSITY OF TECHNOLOGY SYDNEY

Antenatal Care Counselling, Health Literacy and Place of birth: An Analysis of Ethiopia Service Provision Assessment Plus Survey 2014

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Certificate of Original Authorship

I, Tebikew Yeneabat Mengist, declare that this thesis is submitted in fulfilment of the requirements for the award of Philosophy of Doctor in the School of Public 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.

This document has not been submitted for qualifications at any other academic institution.

This research was supported by the Australian Government Research Training Program.

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Abbreviations and acronyms

ANC	Antenatal Care
AOR	Adjusted Odds Ratio
ATT	Average treatment in treated
BPCR	Birth Preparedness and Complication Readiness
CHWs	Community Health Workers
CI	Confidence Interval
COR	Crude Odds Ratio
COVID-19	Coronavirus disease
EPHI	Ethiopian Public Health Institute
ESPA+	Ethiopia Service Provision Assessment Plus
FP	Family Planning
GANC	Group Antenatal Care
GSEM	Generalised Structural Equation Modelling
HRH	Human Resources for Health
HIV/AIDS	Human Immunodeficiency Virus/ Acquired Immunodeficiency Syndrome
HMIS	Health Management Information System
HSTP	Health Sector Transformation Plan
IOM	Institute of Medicine
JBI	Joanna Briggs Institute
LLMICs	Low- and Lower-Middle-Income Countries
MDG	Millennium Development Goals
MeSH	Medical Subject Heading

MMR	Maternal Mortality Ratio
PICO	Patient, Intervention, Control and Outcome
PNC	Postnatal Care
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
PSM	Propensity score matching
RCT	Randomised Controlled Trial
SBA	Skilled Birth Attendant
SDGs	Sustainable Development Goals
SSA	sub-Saharan Africa
STIs	Sexually Transmitted Infections
TB	Tuberculosis
TBAs	Traditional Birth Attendants
UTS	University of Technology Sydney
WHO	World Health Organization

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Abstract

Maternal mortality is prevalent in low and lower-middle-income countries. Quality maternal healthcare, such as antenatal care (ANC) and facility-based birth, can prevent most maternal deaths. The World Health Organization recommends that every pregnant woman should receive all the recommended components of ANC, including counselling on obstetric danger signs and birth at a health facility assisted by skilled birth attendants. Studies demonstrate that ANC guidelines and trained ANC providers may improve the quality of ANC counselling and maternal health literacy leading to facility-based birth. A literature review identified knowledge gaps concerning the extent to which ANC counselling can increase health literacy and facility-based birth.

This research used the Ethiopian service provision assessment plus survey data (2014) to address this knowledge gap. Two related studies (Study 1 and 2) were conducted. Study 1 examined the availability of ANC guidelines at the facility level, ANC providers' uptake of in-service training in the last 24 months, and the effect of these on antenatal counselling on obstetric danger signs by applying propensity score matching method. Study 2 investigated the effect of ANC counselling on a woman's decision where to give birth, and if this is mediated by maternal health literacy by applying generalised structural equation modelling.

The results showed that national ANC guidelines at the facility level significantly increased the average number of obstetric danger signs counselled by 24%. Whereas providing refresher training for ANC providers increased the average number of obstetric danger signs counselled by 37%. The analysis identified that ANC counselling on obstetric danger signs indirectly increased women's decision to give birth at a health facility by 4%. This indirect influence was mediated by maternal health literacy. There was no evidence that ANC counselling directly influenced a woman's decision about where to give birth. However, ANC counselling significantly increased maternal health literacy. A woman's school attendance had a statistically significant direct, indirect, and total effect on her decision to give birth at a health facility.

This research suggests that improving the quality of ANC counselling in Ethiopia and other low-income countries requires health system strengthening efforts to ensure the ANC guidelines are in place and that the ANC providers are provided with continuous in-service training. This study also shows that increasing women's access to information about obstetric danger signs from ANC providers and school attendance can increase the rate of facility birth.