Implementation realities of a digital antenatal care improvement intervention in Nepal

Sulata Karki[1], Seema Das[1], Emma Radovich[2], Abha Shrestha[1,5], Abha Shrestha[1,3] Rajani Shakya[1], Ona McCarthy[2], Oona Campbell[2], Biraj Karmacharya[1,4], Loveday Penn-Kekana[2]

[1] Dhulikhel Hospital Kathmandu University Hospital, Research and Development Division, Dhulikhel, Nepal
[2] London School of Hygiene & Tropical Medicine, Faculty of Epidemiology and Population Health, United Kingdom
[3] Kathmandu University School of Medical Sciences, Department of Obstetrics and Gynecology, Dhulikhel, Nepal
[4] Kathmandu University School of Medical Sciences, Department of Public Health and Community Programs, Dhulikhel, Nepal
[5] Kathmandu University School of Medical Sciences, Department of Community Medicine, Dhulikhel, Nepal

Introduction

- Nepal has made significant improvements in maternal health service coverage including antenatal care (ANC), with a growing emphasis on ensuring the quality of care
- Part of a process evaluation of the mobile Health Integrated Rural Antenatal care (mIRA) study
  - aimed to improve quality of ANC using electronic decision support system (EDSS) in the primary health care facilities
- Process evaluation understands the contextual factors, reasons behind the success/failure of the intervention and challenges faced during implementation

Objective

- To understand the antenatal care context and explore how Auxiliary Nurse Midwives (ANM) responded to the EDSS implementation

Methods

- Longitudinal qualitative case study in four primary health facilities
- Involved repeat ethnographic observations, informal conversations and formal in-depth interviews
- Data collected between December 2021 and January 2023, at multiple time points
- Validation workshops for participants to respond to and reflect on findings
- Field notes and transcripts were analyzed thematically using street-level bureaucracy theory

Outcome result of the mIRA study

- Generally, the EDSS implementation was not as successful as we hoped in improving the quality of antenatal care

How was ANC provided in the ground?

- Two or three ANMs worked together
- Prioritization of some vital measures such as blood pressure
- Sensible judgment to provide the treatment or information to whom and when
- Immediate referral to the doctors or higher centers in case of minor abnormalities

How did our EDSS conflict with the usual practice in the ground?

- Envisioned with one-to-one consultation
- Standardized care with detail history taking, vitals measurement and counseling in all visits
- Screening, detection and management of the cases as recommended by the guidelines

Findings

Why EDSS was not utilized as it meant to be?

Individual factors

- Need of formal EDSS training
- Interest and motivation

Organizational factors

- ANC specific days
- Presence of doctors
- ANM's duties and responsibilities

ANC clients related factors

- Personal problems
- Financial reasons

Geographical factor

- Transportation issues in rural areas
- Location of health facility

Socio-political factors

- Fear of violent behavior from the clients
- Local election result: staff cuts

Perceived beliefs and attitude

- Perceived they provide good care at their level
- View as seeing healthy women

Conclusion

- ANMs provided the antenatal care in facilities that deviated from the guidelines, including the EDSS
- Longitudinal qualitative case study contributed to unpacking the implementation reality
- For successful intervention, in-depth evaluation is really valuable to understand not just whether it works or not, but also why
- To improve the quality of care and enhance the performance of healthcare providers, it is essential to understand the context and ground realities

Corresponding author: Sulata Karki, HERD International Nepal; sulatakarki@gmail.com; +977 9841891568