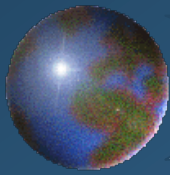


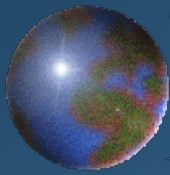
New Avenues to Increase the Quality of Antenatal Care in Ghana

Jody R. Lori, Henrietta Ofosu-Darkwah,
Michelle L. Munro, Carol J. Boyd, Tim
Johnson, Richard M.K. Adanu



Acknowledgements

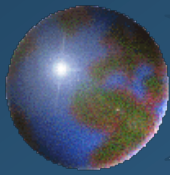
- ❖ Richard Adanu – University of Ghana
- ❖ Henrietta Ofosu-Darkwah, Jackie Ackah, Veronica Dzomeku – Kwame Nkrumah University of Science and Technology (KNUST)
- ❖ Tim Johnson, Carol Boyd, Antonia Villarruel, Michelle Munro, Meagan Chuey – University of Michigan
- ❖ American College of Nurse Midwives
- ❖ Midwives and Administrators – Manhyia District Hospital, Kumasi, Ghana
- ❖ Women attending ANC at Manhyia Clinic
- ❖ Fogarty Institute at the National Institutes of Health



Background

- ❖ Much of the focus over the past decade has been on BEmOC and CEmOC
- ❖ ANC has the potential to play a central role in ensuring positive pregnancy and newborn outcomes

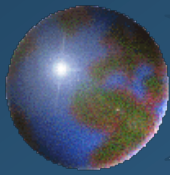




Background



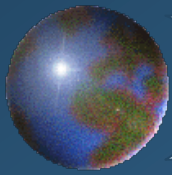
- ❖ Very little time is spent with women during ANC
- ❖ Quality is often low
- ❖ Lack of patient centeredness
- ❖ Relationships between provider & client are not fostered
- ❖ Efficiency is poor



Why Groups?

- ❖ Research has shown women's groups have led to substantial increases in neonatal survival
- ❖ Women's groups can catalyze action
- ❖ Provide solidarity & networks
- ❖ Educate and empower

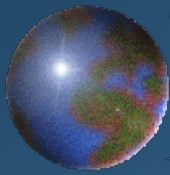




Development of Modules

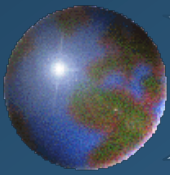
- ❖ Comprehensive review of the literature
- ❖ Focus groups with pregnant women (N=68) receiving ANC
- ❖ Focus groups and individual interviews with midwives and HEWs in Ghana
- ❖ Clinical observations





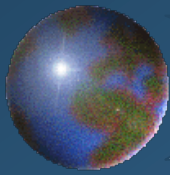
Development of Modules

- ❁ Findings from focus groups and observation revealed knowledge deficits in the following areas:
 - ❁ Identifying major complications
 - ❁ When to seek care for complications
 - ❁ Birth preparedness
 - ❁ Recognition of danger signs
 - ❁ Breastfeeding
 - ❁ Family planning options
 - ❁ Danger signs in the newborn



Development of Modules

- ✿ Areas identified for development included:
 - ❏ Self-care (common discomforts, diet and exercise, cultural beliefs)
 - ❏ Identification of danger signs (preterm labor, vaginal bleeding, etc.)
 - ❏ Developing a birth plan and preparation for labor
 - ❏ Breastfeeding, infant care, and family planning options

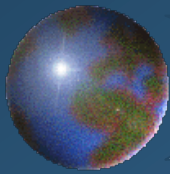


Methodology

Facilitators Guide for Group Antenatal Care



- ❖ Using the Home Based Life Saving Skills Methodology and Resources developed by American College of Nurse-Midwives
- ❖ Four ANC Modules initially developed to correspond to the WHO recommendations for ANC – expanded into 7 modules

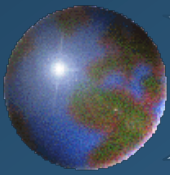


Methodology

- Targeted to low literacy populations
- Uses principles of facilitation, discussion, and role playing
- Picture cards to reinforce messages
- Negotiation
- Content is repeated multiple times



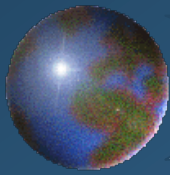
The methodology has been studied with non- or low literacy women in low resource settings and found to be acceptable to women and providers and to change behaviors that impact desired outcomes (Lori, 2008; Sibley, 2015).



*Manualized Intervention**

- **ANC Visit #1** – Introduction to group care, general discussion, expectations
- **ANC Visit #2** – Preventing problems during pregnancy
- **ANC Visit #3** – Danger signs
- **ANC Visit #4** – Birth preparedness & complication readiness
- **ANC Visit #5** – Preventing problems after baby is born/ breastfeeding
- **ANC Visit #6** – Family planning
- **ANC Visit #7** – Baby problems and care of the newborn

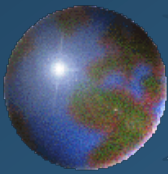
*Targeted at feedback, coaching & quality improvement



Testing the Intervention

- ❖ Quasi-experimental, two-group comparison design
- ❖ Peri-urban area outside Kumasi, Ghana
- ❖ Women randomized into group vs. standard individual care (N=240*)
- ❖ Grouped by gestational age and assigned group/midwife
- ❖ Women followed through pregnancy and post-partum (n=100, group care; n=83, standard individual care)
- ❖ Individual structured survey postpartum and chart review conducted
- ❖ Longitudinal follow-up one year postpartum

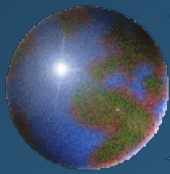
*two group continuity corrected chi-square test with 0.05 two-sided significance level and 80% power allowing for an attrition rate of ~30% to obtain a sample size of 73 per group



Results

Demographics

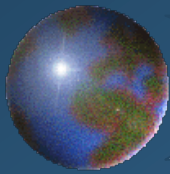
Characteristics	Group (n=100)	Individual (n=83)
Age at last birthday M (SD) Range	28.8 (5.8) (18.0-42.0)	26.7 (5.4) (17.0-41.0)
Gravida Range	3.2 (1-7)	2.9 (1-7)
Religion Christian Muslim	66 (67.3%) 30 (30.6%)	43 (53.1%) 38 (46.9%)
Marital Status Married Single	73 (73%) 27 (27%)	57 (68.7%) 26 (31.3%)
Highest level of school Primary Jr. High School Sr. High School Tertiary	21 (24.1%) 36 (41.4%) 18 (20.7%) 12 (13.8%)	13 (19.1%) 34 (50.0%) 11 (16.2%) 10 (14.7%)
Able to read	74 (74.7%)	54 (65.1%)
Able to write	76 (76%)	53 (64.6%)



Results

Demographics

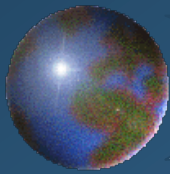
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Results

Prevent Problems Before Delivery

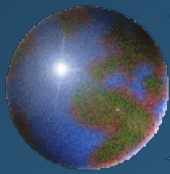
Topic	Group (n=100)	Individual (n=83)	p-value
Midwife talked about nutrition	100 (100%)	78 (94%)	0.0128
Midwife talked about warning signs	100 (100%)	82 (98.8%)	0.2710
Instructed to rest to prevent problems	62 (62%)	31 (37.3%)	0.0009
Instructed to sleep under a mosquito net	91 (91%)	78 (94%)	0.4508
Instructed to eat an extra meal daily	97 (97%)	72 (86.7%)	0.0094
Instructed to drink plenty of fluids	96 (96%)	60(72.3%)	<0.0001
Instructed to watch for problems & report to clinic	38 (38%)	15 (18.3%)	0.0036



Results

Birth Preparedness & Complication Readiness

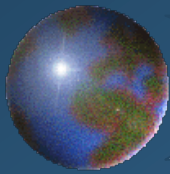
Topic	Group (n=100)	Individual (n=83)	p-value
Arranged emergency transport	98 (98%)	69 (83.1%)	0.0004
Arranged money to prepare for delivery	99 (99%)	67 (80.7%)	<0.0001
ANC care influenced place of delivery	62 (62%)	28 (33.7%)	0.0001
Danger Signs			
Vaginal bleeding	99 (99%)	81 (97.6%)	0.4547
Fever	24 (24.0%)	15 (18.1%)	0.3296
Pain in breast or abdomen	46 (46%)	24 (28.9%)	0.0179
Swollen face or hands	72 (72%)	61 (73.05%)	0.8214
Headache/blurred vision	91 (91%)	64 (77.1%)	0.0094



Results

Breastfeeding

Topic	Group (n=100)	Individual (n=83)	p-value
Start to breastfeed as soon as possible after delivery	90 (90%)	55 (66.3%)	0.0001
Breastfeed every 2-4 hours during day	79 (79%)	53 (63.9%)	0.0229
Breastfeed at least once a night	16 (16%)	1 (1.2%)	0.0006
Breastfeed until baby is at least 6 months old	90 (90%)	63 (75.9%)	0.0103
Do not give bottle	76 (76%)(63 (75.9%)	0.9879
Do not give water	94 (94%)	75 (90.4%)	0.3566
Do not give supplemental feedings	84 (84%)	72 (86.7%)	0.6019

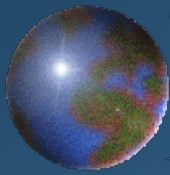


Results

Miscellaneous Topics

Topic	Group (n=100)	Individual (n=83)	p-value
Plans to use family planning *	58 (63.0%)	24 (31.6%)	<0.0001
Has appointment for postpartum check up	48 (98%)	27 (84.4%)	0.0225
During ANC midwife talked about newborn problems	81 (82.7%)	19 (23.5%)	<0.0001

*religion was NOT significantly associated with plans to use family planning (p-value=0.29)

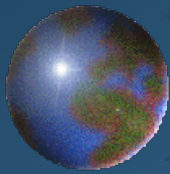


Qualitative Data

- ❖ Improved communication noted through the use of picture cards
- ❖ Enhanced information sharing and peer support
- ❖ Providers reported an improved understanding of patient concerns



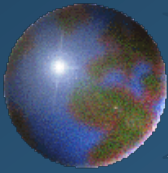
Lori, JR, Munro, ML & Chuey, MR. (2015) Use of a Facilitated Discussion Model for Antenatal Care to Improve Communication, *International Journal of Nursing Studies*, <http://dx.doi.org/10.1016/j.ijnurstu.2015.03.018>



Discussion

Women in Group Care Demonstrated:

- ❖ Improved birth preparedness & complication readiness
- ❖ Improved understanding of danger signs
- ❖ Increased intent for uptake of modern methods of family planning
- ❖ Greater understanding of the components of breastfeeding/lactational amenorrhea for birth spacing
- ❖ Improved health literacy: greater understanding of how to operationalize health education messages
- ❖ Increased intention for postpartum follow-up



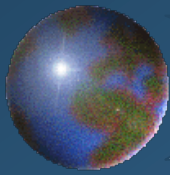
Discussion

❖ *There was a significant difference in women's understanding of :*

- ❑ *Preventing Problems Before Delivery*
- ❑ *Birth Preparedness & Complication Readiness*
- ❑ *Breastfeeding and LAM*
- ❑ *Newborn problems*

❖ *And intent to:*

- ❑ *Use family planning*
- ❑ *Follow-up with postpartum care*



Conclusion

*Group Antenatal Care offers an opportunity
to increase quality and improve maternal
and newborn outcomes*



Thank You