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Building a Sustainable Clinical Nursing and Midwifery Research Network to Improve Health Outcomes in Southern and Eastern African Countries

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Disclosure

- Author names: Carolyn Sun, PhD candidate, MS, ANP-BC, Jennifer Dohrn, DNP, CNM, FAAN, Hester Klopper, PhD, MBA, FANSA , Address Malata, PhD, MSc, Grace Omoni, PhD, MSc, Elaine Larson, RN, PhD, CIC, FAAN
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Background

In African countries...

- Globally, highest rates of communicable diseases
- Amidst the global nursing shortage, nurses and midwives in African countries provide the majority of healthcare, but have the lowest proportion of nurses and midwives in any WHO region
- Much funding for research comes from US and Europe, creating a power differential, and making it difficult for African nurses and midwives conducting research to direct the topics of research



Objectives

Determine current state of nursing and midwifery clinical research in eastern and southern African countries

Identify priorities for clinical nursing and midwifery research

Strengthen and expand existing networks

Overall:

To support nurse and midwifery researchers in southern and eastern African countries in process of identification of research topics most critical in their region, disseminate findings broadly, provide evidence-base for practice and improve patient outcomes.



Parent Study

Office of Global Initiatives, Columbia University School of Nursing

Funded by the President's Global Innovation Fund.

Collaborators

- Sub-Saharan African nursing schools
 - University of Malawi Kamuzu College of Nursing
 - University of Nairobi School of Nursing
- Forum of University Nursing Deans of South Africa (FUNDISA)
www.fundisaforum.org
- Columbia Global Center | Africa



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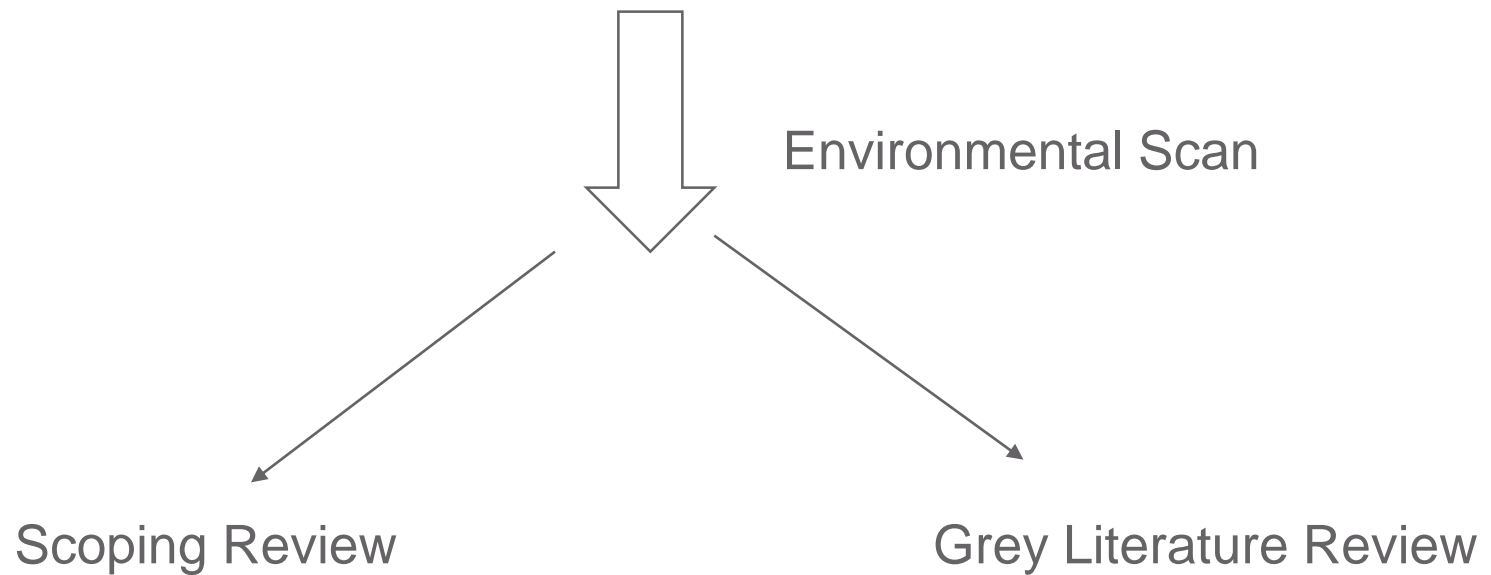
Methods

All research was done under the leadership of our core collaborators with the ultimate goal of translating problems in clinical practice to answers and benefits from research.



Environmental Scan

Assess the current state of clinical nursing and midwifery research in southern and eastern African countries.



Purpose

A scoping review of peer-reviewed published literature was conducted to describe clinical nursing and midwifery research being conducted across all 54 African countries.



Scoping Review Definitions

Clinical nursing and midwifery research

- Research conducted at the individual patient or client level, which includes at least one patient-related outcome.

Scoping review

- Allows for the mapping of a broad spectrum of research and can be used to inform future research.



Search Strategy

Searched OVID Medline, PubMed, CINAHL, and Embase for:

- Original research conducted in African countries
- By nurses and midwives (but not limited to nurses in African countries)
- Published in a peer-reviewed journal
- Between January 2004 and September 2014
- Included patient outcomes in the results

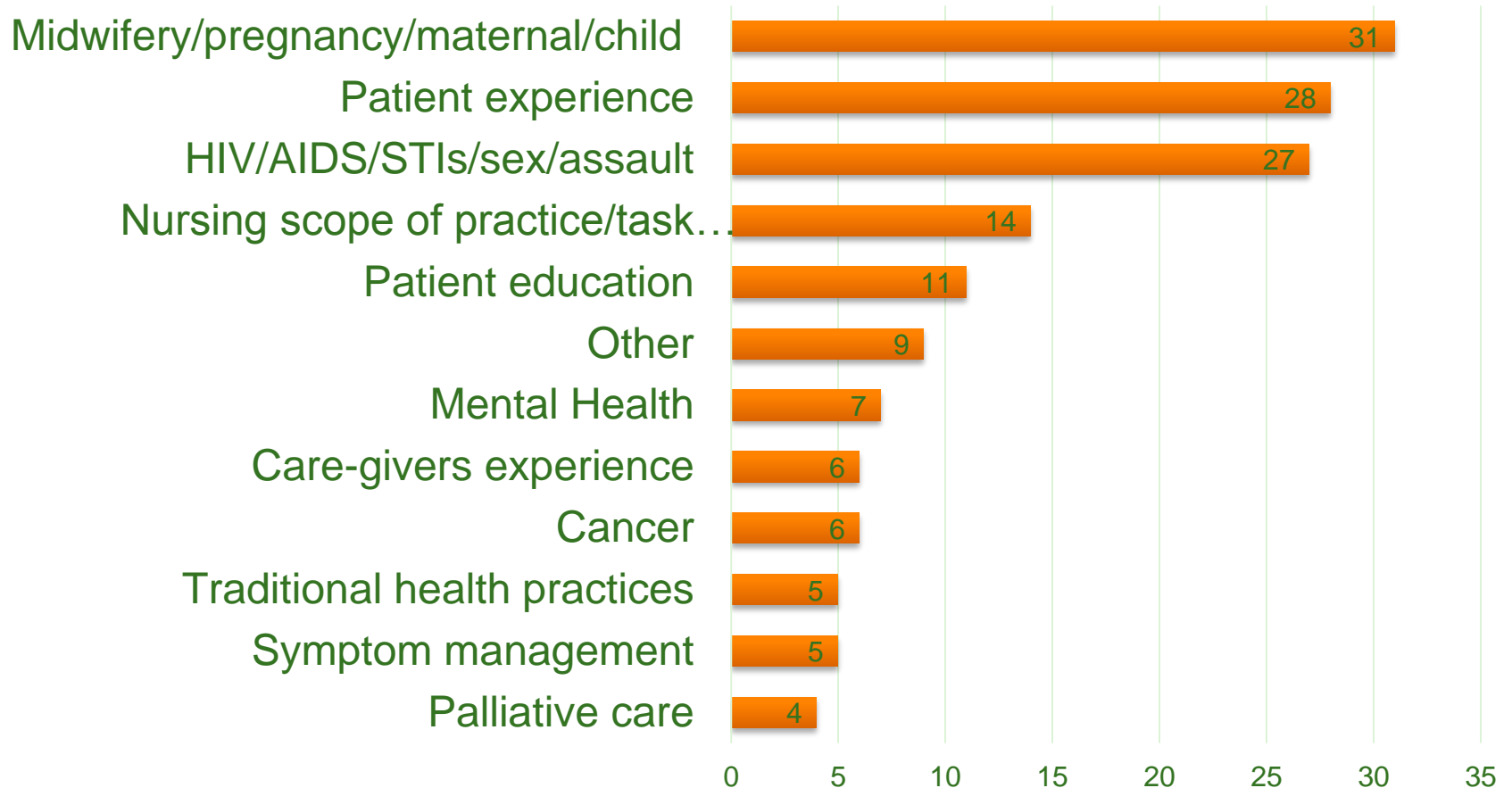


Countries with publications

Country Name	Number of Times Included in a Study
South Africa	58
Kenya, Tanzania	5
Malawi	4
Ghana, Lesotho, Nigeria, Swaziland, Uganda	3
Mozambique, Namibia	2
Botswana, Central Africa, Cote d'Ivoire, Egypt, Ethiopia, Liberia, Rwanda, Zambia, Zimbabwe	1
Total Number Of Countries Included in Publications	20



Topics



Discussion

- More than 1000 publications scanned for clinical nursing/midwifery research in African countries
- 20 countries with
- 72 indexed publications covering
- 12 topics
- 153 times
- 90 publications on nursing role, 30 on the “brain drain”



Conclusions from Scoping Review

- Important to review un-indexed literature to identify missing sources of information.



Grey Literature Review: Methods

Search Strategy

The search focused on the 25 southern and eastern countries in Africa.



Grey literature sources

- 1) Southern and eastern African university websites
- 2) Personal contact with African nursing and midwifery research leaders
- 3) Un-indexed nursing and midwifery journals
- 4) Referrals from major non-governmental organizations
- 5) Governmental organizations
- 6) International scholarly nursing and midwifery research organizations or
- 7) Top ranking nursing and midwifery schools



Countries with research studies (n=25)

<i>E= English is an official language S= English is a spoken language</i>	Number of times cited
South Africa <i>E</i>	119
Malawi <i>E</i>	33
Botswana <i>E</i>, Kenya <i>E</i>	24
United Republic of Tanzania <i>E</i>	12
Ethiopia <i>S</i>, Swaziland <i>E</i>	8
Zambia	7
Zimbabwe, Uganda <i>E</i>	6
Mozambique, Rwanda <i>E</i>	3
Namibia <i>E</i>, Lesotho <i>E</i>	2
Eritrea <i>E</i>, Mauritius <i>E</i>, Seychelles <i>E</i>	1
Burundi, Comoros, Djibouti, Madagascar, Mayotte, Réunion, Somalia <i>S</i>, South Sudan	0

Results

- 105 Unique sources
- Websites contained between 1 and 312 subpages
- Sources evaluated by category:
 - International scholarly nursing organizations (n=35)
 - Top ranking schools of nursing (n=30)
 - Sites suggested by experts (n=25)
 - Referral websites from other sources (n=25)
 - Universities with the highest funding rates (n=15)
 - Governmental organizations (n=5)
 - Major non-governmental organizations (n=3)



Results

In total

- 262 research projects
- 287 unique authors
- 25 southern and eastern African countries



Results

Subjects (n=11)	Grey literature n (%), N = 335	Scoping review n (%), N= 160	P-value*
Acute care	8 (2.4)	5 (3.1)	0.54
Assault/Abuse/Violence/ Substance abuse/High risk behaviors	22 (6.6)	6 (3.8)	0.52
Cancer	4 (1.2)	5 (3.1)	0.13
Chronic disease	16 (4.8)	1 (0.6)	0.03*
Disease prevention/health promotion/Diet/Exercise	38 (1.1)	12 (7.5)	0.52
Patient satisfaction/experience	26 (7.8)	36 (22.5)	<0.001*
Infectious disease	70 (20.9)	24 (15)	0.90
Mental Health	12 (3.6)	4 (2.5)	1.0
Midwifery/Maternal Health and Mortality/Women's health	100 (29.9)	36 (22.5)	0.50
Palliative Care	6 (1.8)	4 (2.5)	0.49
Pediatrics	33 (9.9)	4 (2.5)	0.01*
Traditional Health practices		9 (5.6)	n/a

Environmental Scan

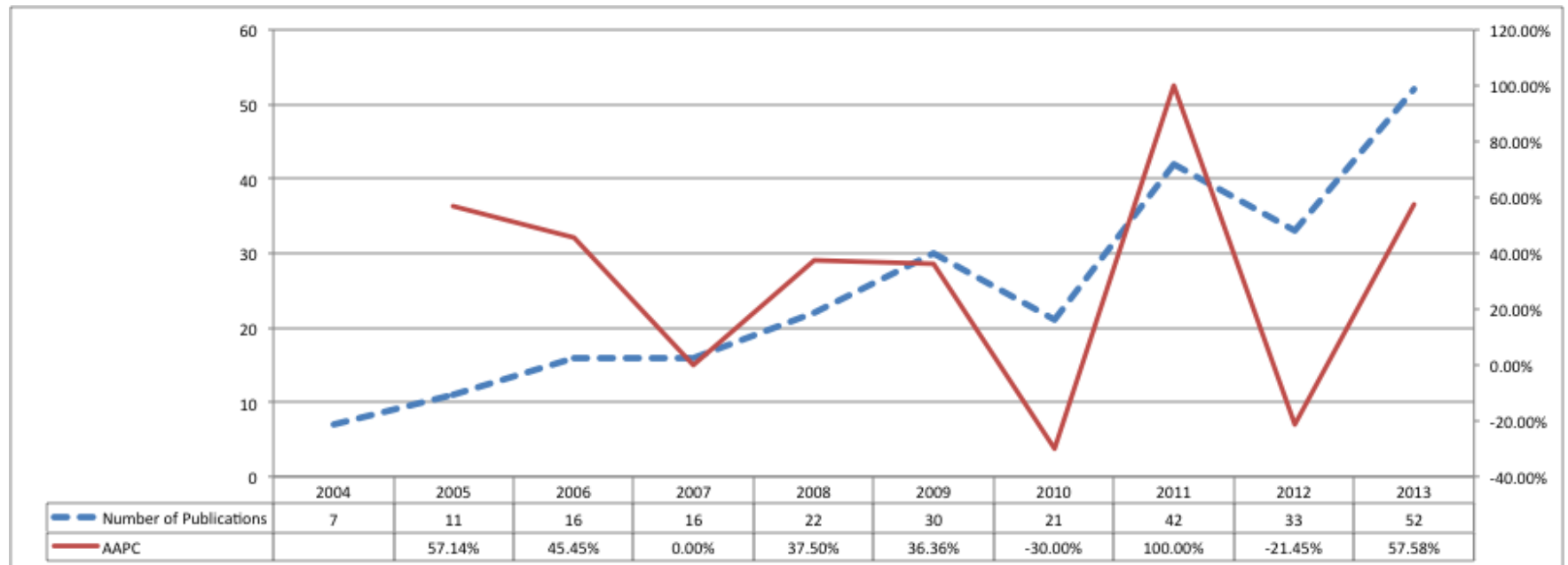
Provided a foundation for building a network of researchers for

- Delphi Survey
- Research summit
- Network for collaboration and mentoring clinical nurse and midwifery researchers in southern and eastern African countries



Time Trend of Clinical Nursing and Midwifery Literature between 2004 and 2013.

Time trend analysis of both grey and indexed literature with Annual Average Percentage Change (AAPC).



Delphi Survey

- We conducted a Delphi survey to assess what clinical nursing and midwifery experts in southern and eastern African countries identify as priorities for clinical research.
- A Delphi survey makes it possible to gain consensus about the priorities despite a broad geographic dispersion.



Methods

Results from round one were collated, categorized, and returned to participants.

Participants were asked to re-rank the priorities based on these results.

Categories were determined by percentage of agreement

Priority level	Required cumulative percentage of respondents rankings	Required mean of respondents rankings	Required mode of respondents rankings
Critical	Critical >70%	> 3.7	4
Important	Critical + Important >80%	3.0-3.7	3-4
Moderate	Critical + Important 50% > 80%	<3.0 and >2.5	3-4
Low	Critical + Important < 50%	<2.5	2-3



Characteristics of Delphi Rounds

	Round 1	Round 2
Participants Invited	71	48
Participants Responding	46	40
Number of Countries	14	14
Response rate	73%	85%



Results

<u>Critical Priority</u>	<u>Critical (Critical + Important) %</u>	<u>Mean</u>
Infectious Disease/Infection Control	74.4 (97.4)	3.72
· HIV/AIDS	82.8 (100)	3.83
· Co-treatment with TB	85.7 (100)	3.86
· HIV/AIDS and pregnancy	85.7 (100)	3.86
· Option B+	85.7 (100)	3.86
· PMTCT	100 (100)	4
· TB	93.1 (100)	3.93



Results

<u>Critical Priority</u>	<u>Critical (Critical Important) %</u>	<u>Mean</u>
Midwifery/Maternal Health and Mortality/Women's health/Neonatal care/Infant mortality	97.4(100)	3.97
· Maternal Health and Mortality	92.1(100)	3.92
· Neonatal care/infant mortality	86.8(100)	3.87
· Obstetrical emergencies/failure to rescue	89.5(100)	3.89



Research Summit, Nairobi Kenya July 2015

- Shared regional priorities in clinical research identified with examples of projects to address these priorities
- Regional action plan developed to address barriers to research priorities
- Country-specific action plans developed
- Resources for clinical research mentorship shared among participants for their potential use
- Periodic evaluation of network communication organized



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Questions/Discussion



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