

Exploring capacity development of evidence-based decision-making public health researchers: a mixed-methods study in Malawi, Nigeria and South Africa.

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Introduction

Production,
publication and
access to reliable
evidence is globally
important.

Experienced public
health researchers are
essential to producing
reliable evidence that
supports guideline
development.

There is a lack of such
capacity in Low-middle
income countries.

Chinnoch, P., N. Siegfried, and M. Clarke, Is Evidence-Based Medicine Relevant to the Developing World? PLoS medicine, 2005. 2(5): p. 0367-0369.

Rohwer, A., et al., Building capacity for network meta-analysis in Sub-Saharan Africa: reflections and future direction. Syst Rev, 2024. 13(1): p. 7.

Trepanier, L., et al., Can We Develop Evidence-Based Guidelines Without Research Expertise? Administration and Policy in Mental Health and Mental Health Services Research, 2021. 48: p. 937-941.

The Global Evidence, Local Adaptation (GELA) Project

- The GELA project aims to increase the capacity of decision-makers and researchers to use evidence to develop locally relevant guidelines for newborn and child health <https://africa.cochrane.org/projects/GELA>.
- It is implemented in South Africa (SA), Malawi and Nigeria.
- It has seven work packages (WPs).
- Training initiatives were initially aimed at the guideline development group and steering group members by the WP 5.
- The researchers too needed training support.



Aims and Objectives

- We aimed to assess the capacity development of the GELA researchers.
- The objectives of this research were:
 - Assess the researchers' skills before and during GELA.
 - Describe the mechanisms of capacity development within the project.
 - Identify lessons learned regarding capacity development.

Methods

- This mixed-method study comprised: Individual semi-structured interviews and an online survey.
- In the interviews, the researchers shared their experiences and perceptions of capacity development.
- The interview data was analysed using Framework analysis with ATLAS.ti.

Methods

- We adapted a validated tool to administer an online survey.
- We collected the researchers' self-perceived confidence in executing different technical skills and leadership skills.
- We collected their perceived capacity development.
- The survey data was analysed with Stata through descriptive statistics.

Results

- We conducted 28 interviews.
 - Nine leads, eight SA members, three Nigerian members, Malawian and Norwegian had four members each.
- We invited 35 researchers to complete the survey with a 57% (n=20) response rate.
 - Eleven SA members, Nigeria, Malawi and Norway each had three members.

Results - Participants Characteristics

Characteristics	Online survey (n=20)	Interviews (n=28)
Highest level of education, n (%)		
Masters	9 (45)	7 (25)
PhD	11 (55)	17 (61)
Years of work experience in their respective fields, n (%)		
5-10	9 (45)	
11-15	6 (30)	
>15	5 (25)	

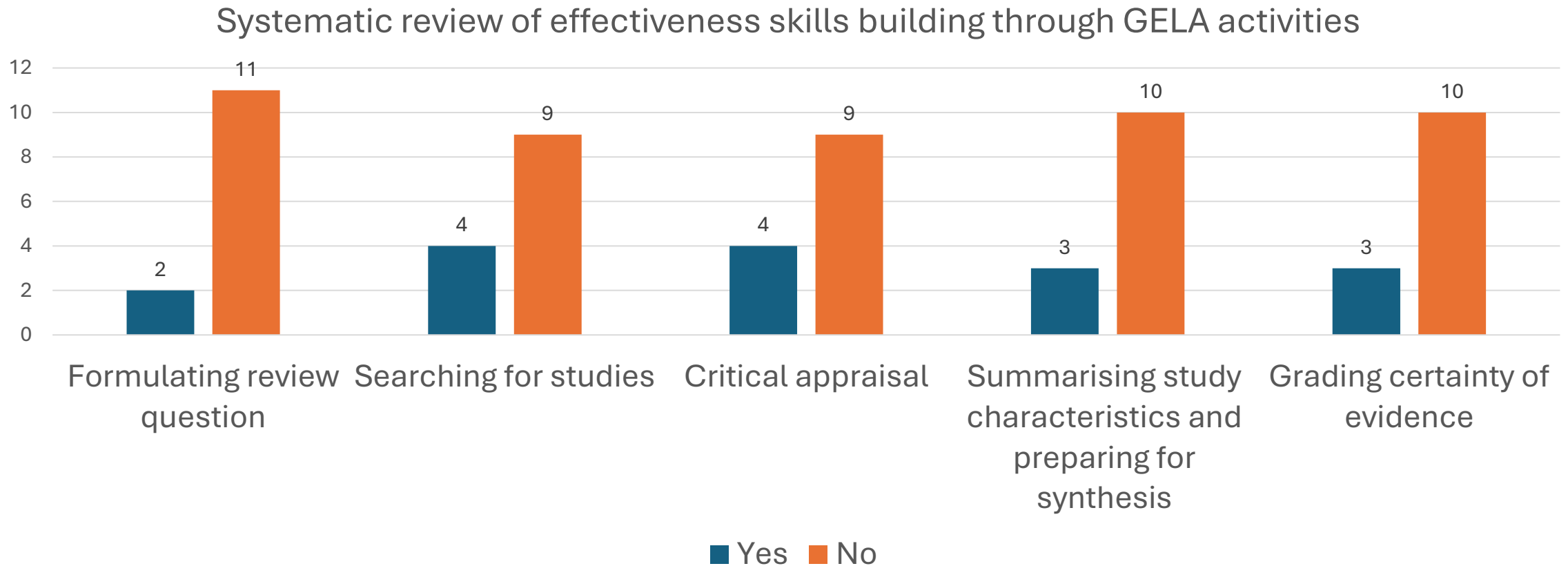
Results

- Four themes emerged.
 - Skills required to support guideline development in GELA,
 - Skills built through GELA activities,
 - Capacity development mechanisms,
 - Capacity development facilitators and barriers.

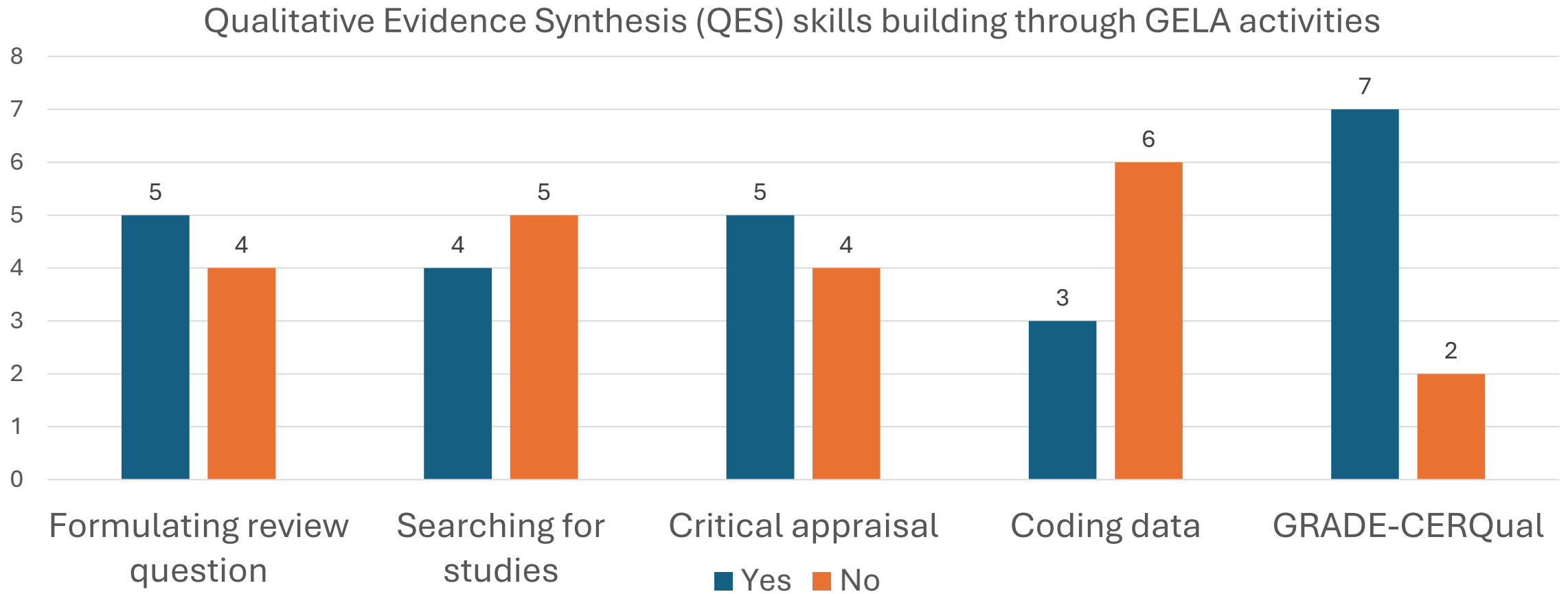
Results - Qualitative

- Capacity development took place through formal mechanisms (short courses) and informal mechanisms (learning by doing).
- Facilitators of capacity development were interpersonal relations, resources and intrinsic motivation.
 - “It was a thing of us bringing the resources that we knew were good to the members and, trusting on the members to take those resources” (WP Lead 5).
- Time availability was the main barrier to capacity development.
 - “But because the volume of output was so high ... it kind of left less time for dedicated capacity development.” (WP Lead 3).

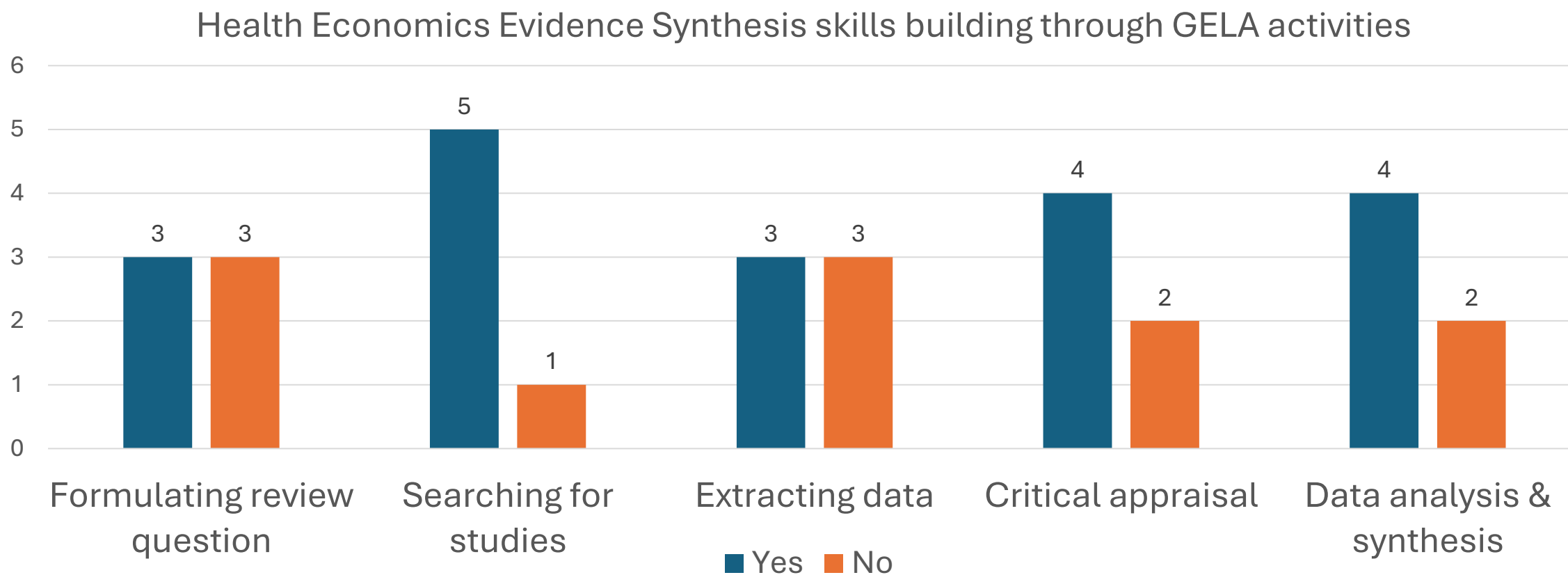
Results - Quantitative



Results - Quantitative



Results - Quantitative



Results - Confidence Levels

Health economic evidence synthesis (n=6)		
	Total number of respondents with level 4 confidence pre-GELA n (%)	Total number of respondents with level 4 confidence post-GELA n (%)
Searching for studies		
Using controlled vocabulary and text words (MeSH terms, Boolean operators) in a search strategy	1 (17)	4 (67)

Results - Leadership skills

- Fourteen (70%) researchers said they strengthened their leadership skills

	n (%) with level 4 confidence pre-GELA	n (%) with level 4 confidence after GELA
Project coordination and management	4 (20)	11 (55)
Chairing project meetings	6 (30)	14 (70)
Resourcefulness (Knowing options, finding solutions)	3 (15)	10 (50)
Networking	2 (10)	8 (40)
Mentorship and collaboration	3 (15)	13 (65)
Working in a multidisciplinary team	5 (25)	16 (80)

Conclusions

- Despite the participants' high skill level pre-GELA, capacity development took place.
- A planned blend of formal and informal learning activities can be implemented to support capacity development.
- We found that there is a lack of tools to evaluate the capacity development of researchers who produce evidence.

Advocacy Message

- Collaboration between academic institutions and projects can build the capacity of public health researchers.
- Facilitating skills sharing within a project can help build the capacity of public health researchers

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