



# EXPLORING HEALTH RESEARCH TRAINING IMPACT ON THE ADHERENCE, UTILIZATION, AND KNOWLEDGE OF EVIDENCE-BASED PRACTICE.

The case of the one-year training of trainers' program by Somalia-Swedish collaboration in research for health.

## Introduction

Health research has an important function for the development and sustainability of an effective healthcare system<sup>1</sup>. The outcomes from health researches are utilized in the formation of the best current evidence. This in turn provides key information on ways to improve upon the quality of health and reduces health inequalities<sup>2, 3</sup>.

Poor research culture has been described as being a barrier for the promotion of evidence-based practice<sup>4</sup>. Still, the research on the utilization and adherence to evidence-based practice in healthcare systems in low income countries is limited<sup>5</sup>.

## Background

Somalia is a nation that has been devastated by political instability and a prolonged civil war for more than two decades. As a consequence, the health research has been behind the rest of the research communities around the world. The need to enhance the internal research capacity and to promote the evidence-based practice in the Somali healthcare system is essential to ensure good quality of healthcare and reduce health inequalities.

The one-year training of trainers' program (ToT) is a Somali-Swedish collaboration in efforts to strengthening the research capacity and healing the Somali healthcare system. The partnership for the ToT consist of six Somali Universities, four Swedish universities, and the Somali-Swedish Researcher Association. The training program will educate participants' in Somalia on research methodology, both quantitative and qualitative methods. The course will start with an initial two-week face-to-face training in research methodology. Afterwards, the students will develop and produce their individual health research Project, with the support of both Swedish and Somali mentors<sup>6</sup>.

## Aims

The purpose of this case study is to:

1. To explore the participants' knowledge of evidence-based practice from pre-to post-training of the two-week face-to-face training in research methodology.
2. To understand the trainees' behavior and attitude towards evidence-based practice.
3. To describe the participants' self-reported comfort of conducting evidence-based practice in research, implementation of health policies and intervention programs after the completion of the two-week face-to-face training.

## Methods

The method of choice for the research project is a mix-method approach, both quantitative and qualitative methods. The quantitative data will be collection using surveys for paired t-tests from pre- to post-training. The appropriate instrument is the Evidence-based practice profile (EBP<sup>2</sup>) questionnaire<sup>7</sup>. EBP<sup>2</sup> evaluates 5 domains relevant in evidence-based practice. These domains include relevance, sympathy, terminology, confidence, and practice. The questionnaire has been evaluated and indicates high validity, reliability, and has been proven to have a high level of internal consistence for re-test<sup>8</sup>.

The participants' for the program was selected from the Somali universities and the Somali Ministry of Health. There was a total of 24 participants' in the two-week face-to-face training. The trainees' entering the course have different backgrounds within the healthcare sector, either as healthcare professionals working in academia or policymakers within the ministry of health. 21 out of 24 trainees' part took in the survey, all handed in the pre- and post-training surveys.

The qualitative data was collection by conducting focus group interviews with the ToT participants'. A Total of 3 focus group sessions with a total of 13 informants was conducted, until saturation was reached.

## Preliminary results

### Qualitative analysis

**The first major theme is "The participants' of the two-week course recognizes the relevance of evidence-based practice in their respective field and have gained useful skills in research practice".** This concept was represented by the category "Evidence fills the gap".

"So when we want to find solutions, changes, or to understand something you need to have evidence, you need to have proof." (Informant B)

**The second major concept "According to the participants' of the course, evidence based practice is not utilized within the majority of the fields within the healthcare system in Somalia",** was supported by two categories "Not utilized" and "Difficulties to use".

"So what I know is that the utilization of evidence in decision making is quite close to zero. People do not use evidence in order to make decisions." (Informant L)

"But for us to practice and find the truth is kind of difficult, due to the environment and the current situation that we are work in." (Informant J)

**The third major theme that emerged is "The lack of a forum for researchers within the country has been a barrier. In addition, this program provides an opportunity to establish a forum for researchers".** This theme was represented by the category "Lack of forum".

"I see this forum as very important, what was lacking in Somalia was not only the human resources, researchers, and the universities; it was the environment. Getting this kind of forum it is a chance; we have to not lose this forum, we have to utilize it to the maximum. We have to also try to use it as a forum for research motivation for building the countries research." (Informant L)

**The forth major concept was "This program provides moral support and hope for research within the country".** This theme was represented by the categories "Improve the research", "Moral support", "Gained confidence", and "Hope for change"

"But the research as a whole is important, every country has changed its future by improving its research. We are committed and we hope that we can change it in a good way." (Informant F)

"I feel now that I can plan and develop something." (Informant A)

"We hope a course like this can contribute a lot for us, on how to overcome the problems and challenges associated with evidence-based practice and implementation of our projects or programs." (Informant G)

### Quantitative analysis

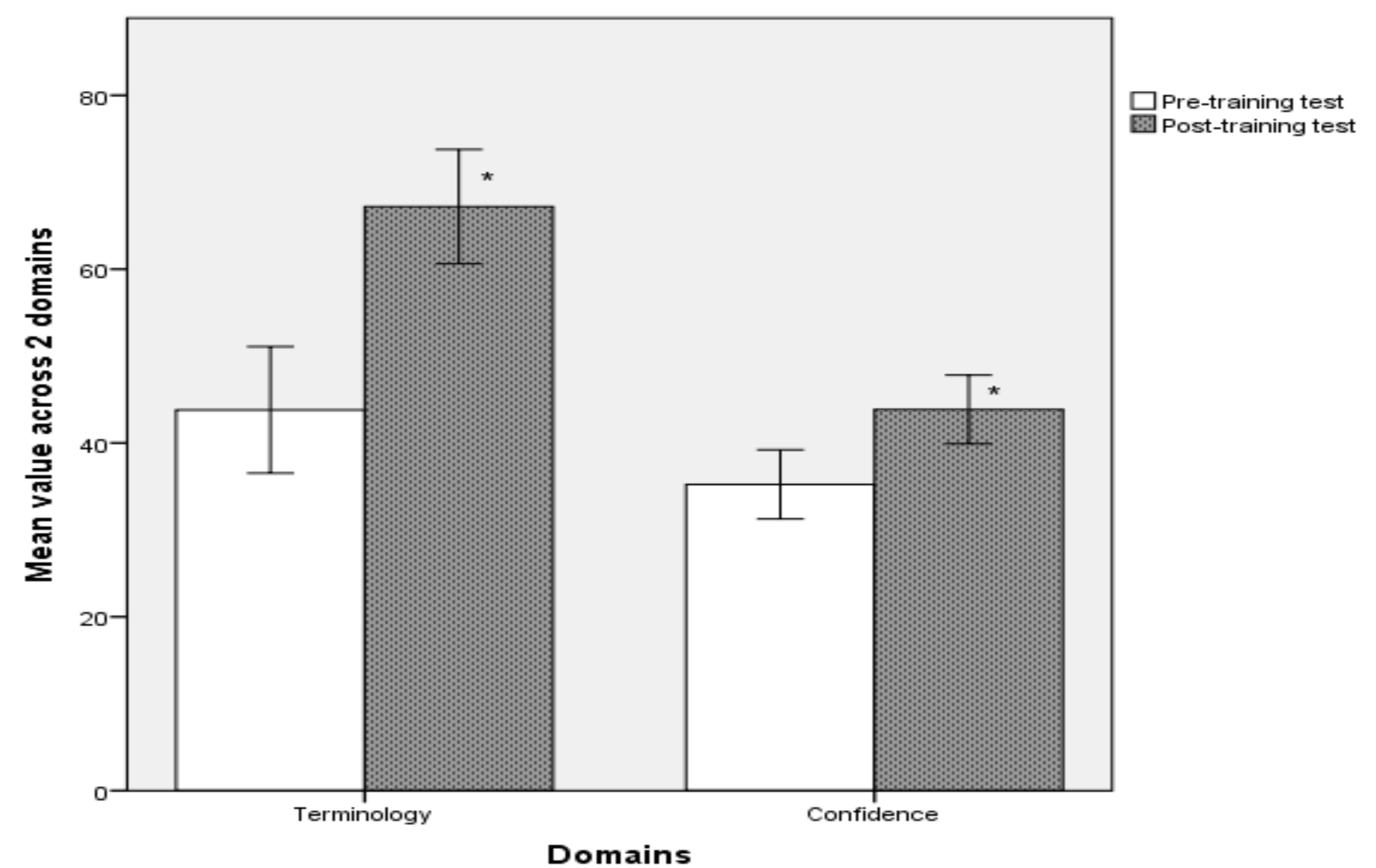


Figure 1. Paired t-test (dependent t-test) of the pre and post-training questionnaires focusing on the responses relating to the EBP<sup>2</sup> domains of Terminology and Confidence. Statistically significant results from the paired t-test ( $p < 0.05$ ; 95% CI) are denoted by a \*.

## Discussion

The reported gain in necessary research skills in combination with increased understanding of evidence-based practice is supported by the statistically significant increase in the domain assessing terminology. This suggest that the participants' gained knowledge as a result of the initial two-week face-to-face training.

However, the participants' reported that evidence-based practice is not fully utilized within the Somali healthcare system. Research regarding the utilization of evidence-based practice within the Somali healthcare system is warranted.

This research venture is seen by the participants' as the beginning of a forum for researchers', which brings hope, and motivation. The informants' reported that their confidence in conducting evidence-based practice has increased compared to before the training. This is supported by the statistically significant increase in the domain assessing confidence. However, it is not evident what specific measure caused this effect. Perhaps it is due to the sort of opportunity for a forum, hope, and motivation this program has brought or it might be a direct result of the teachings from the course. Also, it could be a combination of both mechanisms.

## Conclusions

Courses such as this could potentially give the researchers the tools, support, and hope for conducting research and begin healing the health system. Future studies are needed in order to assess the implementation gap for evidence-based practice and follow as the one-year training of trainers program progresses.

**References:** 1. Commission on Health Research for Development. Health research: essential link to equity in development. New York: Oxford University Press, 1990.  
2. Hooker RC. The rise and rise of evidence-based medicine. Lancet 1997; 349:1329-30.  
3. Mayberry R, Nicewander D, Qin H, Ballard D. Improving quality and reducing inequities: a challenge in achieving best care. Proc Bayl Univ Med Cent 2006;19:103-18.  
4. Sabri A, Qayyum M. The problem of evidence-based medicine in developing countries. Can Med Assoc J 2006;175:62-62-a.  
5. McMichael C, Waters E, Volmink J. Evidence-based public health: what does it offer developing countries? J Public Health-Uk 2005;27:215-21.  
6. Wall, S. et al. Healing the health system after civil unrest. Global Heal Action 2015;8:27381  
7. McEvoy M, Williams M, Olds T. Evidence based practice profiles: Differences among allied health professions. BMC Med Educ 2010;10:1-8.  
8. McEvoy M, Williams M, Olds T. Development and psychometric testing of a trans-professional evidence-based practice profile questionnaire. Med Teach 2010;32:e373-e380.