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Editorial

Transforming research in Ethiopia: The case of health and medicine research

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Editorial

Research is crucial for holistic development through solving the problem. It uses systematic, orderly, and objective methods of seeking information to answer the research question, develop/test the hypothesis and achieve its objective. The researchers may conduct empirical research, in which data are gathered through the sense organs or a review of published articles. The research could be observational or analytical studies based on study design, qualitative or quantitative based on the type of data utilized or basic or applied based on the study objective. In all types of research, conducting a study that solves the problem, establishing a plan, collecting data, and evaluating the data are also needed (1). Given that health research primarily addresses poverty, conflict, diseases, formulation of drugs and health literacy, this editorial focused on health research.

The studies conducted in Ethiopia and Ghana reported that health research should consider the country's health policy and the policy process, but there needs to be more support for evidence-based decision-making. Furthermore, they recommended strengthening the capacity of researchers, delivering policy-oriented research findings, and mobilizing donors for better research. Relying on the donors for health research was one of the challenges to conduct the relevant studies (2).

The evidence hierarchy model, the evidence rating system, matters when formulating a research question, hypothesis or objective. Level 1 evidence is obtained from a meta-analysis of RCTs, level 2 from RCTs, and the lowest evidence is the opinion of experts and authorities, expert committee reports and organizations (3). Most studies were observational, like cross-sectional studies, and provided level IV evidence.

The editorial appraised by Kaba and Kitaw (4) pointed out that the use of randomized controlled trials (RCTs), as well as longitudinal, case, and

control studies, is rare due to low priority in Ethiopia. The coordination between universities, research centers and policy-makers needs to be stronger despite talks and agreements. Conducting studies with low reliability may make the usage of the findings harsh. Improving the quality and considering the influence of the research are considerable (4). Quality research can be achieved by establishing health research priorities that consider the population of interest, cost, and feasibility (5), but there is no Ethiopian national health research priority.

Health and Medicine research is the most applied scientific inquiry. Health research broadly consumes research knowledge in broader disciplines and field areas. Research with relevance and impact is crucial (6). Given the research's relevance and impact, giving attention to health and medicine research is pivotal. Thus, this editorial focused on health and medicine research. Although an editorial on public health research was published in Ethiopia and only focused on challenges in the area, it only addresses some health and medicine research. Moreover, the editorial failed to address the research done by postgraduate students. Thus, this editorial addressed some arguments on transforming research in health and medicine and set some recommendations for future directions.

Here, if we believe research is being conducted to solve the existing problem, let us see the types of studies undertaken in Ethiopia. The editorial opinion cannot address research being conducted in all disciplines; thus, we focused on studies conducted in health and medicine.

Empirical research utilizes primary data, which academicians can conduct, researchers of the field, or students for partial fulfilment of master's or Ph.D. studies. Whether for academia or not, it should be able to answer research questions or solve problems. While we (researchers) answer the research questions through basic or applied research, it should be able to solve the existing public health problems locally and give input to international communities. Thus, our studies should have an impact on the global community. Based on our observation, most studies were conducted to solve the existing problems in some parts of Ethiopia; hence, international readability may be decreased. Beyond its readability, an interface between the research-practice-policy should be considered as an embrace opportunity for trainees (7).

The authors have searched for articles published in different national and international journals on PubMed (a database most journals authors from Ethiopia assumed publish indexed) using ((health) OR (medicine)) AND (Ethiopia) search terms. The search resulted in 32,206 articles. Among these, 3,393 articles were reviews (systematic reviews and meta-analyses). Only 576 articles were clinical trials; this number needs to be improved in low-income countries. Given the relevance and high level of evidence from RCTs, it is deemed necessary to shift from observational to analytical, especially in RCTs.

Evidence is also generated from academic institutions. However, claiming the cost and feasibility of the study, students opt for simple study designs. Another area for improvement in academics is the student research projects and postgraduate programs. It is the assimilation of similar research titles, methods, and materials. From our intuition, we observed that most students focused on prevalence, magnitude,

knowledge, attitude, practice and associated factors or predictors or determinants as dependent variables. Beyond this, it is visible in assimilating methods. For example, most studies applied logistic regression to identify associated factors. The authors are not saying that using logistic regression is wrong; however, it should be selected based on merit. For instance, a linear regression is most appropriate if the dependent variable is continuous. Hence, students/graduates should consider the study's purpose when formulating the title and methods.

Another important thing is the use of appropriate tools to measure outcomes. Most of the studies used scales that developed from different literature. Self-developed scales should be developed through the Delphi method to achieve adequate psychometric properties. Thus, this practice should be avoided. Another important but neglected aspect is cultural adaptation. Cross-cultural adaptation is used to encompass "a process that looks at both language (translation) and cultural adaptation issues in the process of preparing a questionnaire for use in another setting" (8). According to Bullinger and Alonso (9), translation and cultural adaptation are required if the language of the self-report measure developed differs. Cultural adaptation should also be done if the culture of the target population is different from that of participants involved in scale development. Of course, outcome measures should bear adequate reliability and validity. The studies should use appropriate validated tools from an original developer or modified version. While you do this, you need to verify the permission to use. The best tool will measure what we intended to measure. Researchers claim more money is needed to translate and psychometrically test the tools. Their claim is acceptable; funders or grant providers should consider the budget.

The authors recommend that researchers consider the scientific translation approach, cultural adaptation and psychometric properties evaluation. As most research was observation studies, it is necessary to transform from lower to higher levels of evidence and formulate analytical and experimental study designs. Hence, the facilities that foster RCTs should be arranged, and shifting the advisory strategies in introducing close supervision related to research is warranted in research for academia and research projects funded by universities or others. It can be concluded that purpose-driven, relevant and impactful studies are necessary to support healthcare transformation in Ethiopia.

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DECLARATION

The authors declare no competing interests.

DATA AVAILABILITY

Not applicable.

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