Overcoming patient-provider language barrier: Impact of a tailored language training on health professionals' language proficiency

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Abstract

Background Provider-patient miscommunication in the health care setting can have fatal consequences. Our quality improvement project aims to evaluate an intervention deployed to overcome patient provider language barrier at Saint Paul's Hospital Millennium Medical College (SPHMMC).

Method A baseline assessment was conducted to assess the language mix of patients presenting to the hospital. Medical Afaan Oromoo (MAO) project was then designed to teach Afaan Oromoo to health care professionals in a 3-month period. The effectiveness of the project was evaluated with standardized pre and post training assessment tools.

Results Most patients seeking care at the hospital speak Afaan Oromoo (56%), while only 8.9% of health care providers were able to communicate in Afaan Oromoo. The language training project was able to improve language proficiency from a baseline of Interagency Language Roundtable (ILR) scale Level 0 to Level 2 in 96% of trainees.

Conclusions The tailored language training project was able to bring about a significant change in health professionals Afaan Oromo language proficiency. However, further research is needed to ascertain its impact in actual Afaan Oromoo language incongruous clinical settings.

Background

Barriers to effective and equitable healthcare can result from linguistic differences between patients and clinicians (1, 2). While language barriers between providers and patients are a global phenomenon, the nature of these barriers is regionally varied (3). In the West, the language used by healthcare providers is typically the country's official language, such as English, French, or German. Patients with migration backgrounds who are not communicative in a given language may rely on an ad hoc interpreter, such as a family member, staff member at the hospital, or an appointed interpreter, to which they are legally entitled in many countries (4, 5). In the Global South, interpretation is typically not a legal right and often done on a case-by-case basis, such as through a staff member who can translate (6, 7).

Language discrepancies have been shown to increase psychological stress and medically significant communication errors for already anxious patients, something to which language-matched patients are less vulnerable (8). Moreover, it is not just language that can cause barriers to equitable healthcare: inequities inherent in the social dynamic of the patient-practitioner encounter are well documented, and these inequities occur independent of whether the language is shared (9); although this issue is not the focus of this article. Understanding language in the context of a medical encounter is thus critical for understanding the problems that might result when patients and healthcare practitioners speak a different language (10).

Project description

The second most populous country in Africa, Ethiopia is a multi-ethnic nation of over 100 million people and 70 distinct languages (8). Among these ethnicities, the Oromo people, who mainly speak Afaan Oromo, are the ethnic majority and comprise 34.5% of the Ethiopian population (9).

Saint Paul's Hospital Millennium Medical College (SPHMMC) is a specialized teaching hospital located in the north-western part of Addis Ababa. Its catchment population is well over 7 million making it one of the largest referral centers in the country. As a tertiary center, it receives patients from every corner of the country; however, most of them come from Oromia region where a large segment of the population speaks Afaan Oromo language. The working language of SPHMMC is Amharic and it was perceived that there might be a language barrier for Afaan Oromo speaking patients. A survey was conducted at SPHMMC on randomly selected health care providers and patients seeking care at the hospital to evaluate the presence and extent of patient-provider language barrier. Data was collected over the course of 5 working days using a structured questionnaire. A total of 463 health professionals from different background were involved in baseline assessment (See Table 1).

Table 1
Health professionals involved profile included in the baseline assessment

No	Profession	Number (%)
1	Physician	171 (37.2%)
2	Nurse	123 (26.8%)
3	Midwife	57 (12.4%)
4	Health Officer	15 (3.2%)
5	Medical students	22 (4.2%)
6	Laboratory	10 (2.1%)
7	Supporting staff	65 (14.1%)
	Total	463 (100%)

In this preliminary survey done on 463 hospital staff and 1466 patients,31% of patients coming to SPHMMC speak only Afaan Oromoo. In addition, 25% of the clients speak both Afaan Oromo and Amharic. This coupled with the fact that only 8.9% of the hospital staff can communicate with both Amharic and Afaan Oromoo is indirect evidence for potentially harmful miscommunication at the hospital. The subjective assessment of both health care professionals and patients also correlates with the magnitude of the problem; when asked, 81% of professionals and 91% of clients were in support of an organized intervention targeting the language barrier (See Table 2).

Table 2
Self reported rates of language spoken by health care providers and by patients at SPHMMC

Language spoken by health care provider		Number (%)
1	Amharic only	422 (91.1%)
2	Afaan Oromo and Amharic	41 (8.9%)
Total		463 (100%)
Language spoken by patients		Number (%)
1	Amharic	553 (37.7%)
	Afaan Oromo	462 (31.5%)
	Both Amharic and Afaan Oromo	373 (25.4%)
	Other languages	78 (5.3%)
	Total	1466 (100%)

Medical Afaan Oromoo (MAO) project was designed to overcome this patient-provider communication barrier by providing tailored Afaan Oromoo training to health professionals. The project was funded by SPHMMC and officially launched in January 2018. A training module was prepared in collaboration with Addis Ababa University Department of Afaan Oromoo Language, Literature and Folklore (AOLLF) and endorsed by the SPHMMC. The module was designed to be used as template for a 3-month course training in both basic and medical Afaan Oromoo. The course was divided into two parts: Part 1 – Basic Afaan Oromoo training and part 2 – Medical Afaan Oromoo training. Part 1 deals with very basic elements of the language but with more attention to the medical environment. While part 2 builds upon part1 to dive in-depth about patient interviewing using different clinical scenarios. The training was then organized and conducted inside the hospital in four venues. Each venue had no more than 20 trainees. A committee consisting of 5 senior physicians from the major clinical departments of the college was organized to manage the activities of the project.

For selection of trainees, the project was announced at staff meetings and disseminated through brochures. The trainees were enlisted on a voluntary basis. A standard set of criteria were devised by the MAO project committee to prioritize the candidates for training. The candidate must be working at SPHMMC and have plans to work as such for at least the coming 5 years, should not be able to speak Afaan Oromo language, and must be able to dedicate 3 credit hours a week for three consecutive months to attend the training. Moreover, apart from the mandatory criteria mentioned above, candidates with more client/patient contact were more likely to be enrolled into the program. Five trainers were selected from the department of Afaan Oromoo Language, Literature and Folklore (AOLLF), Addis Ababa University (AAU) based on their credentials and experience in teaching the language to a beginner

audience. The aim of the current study is therefore to determine the impact MAO project on health professional's language proficiency. To our knowledge, there are no prior studies done on the effectiveness of language training for health care providers in the work setting.

Methods

Study area, period and design.

The pre-and post-intervention study was conducted between January 2018 to December 2018 at Saint Paul's Hospital Millennium Medical college (SPHMMC) to determine the impact of a tailored health professional's language training project to overcome a patient-provider language barrier. All health professionals who took the training were included in the study.

Data collection, processing and analysis

Pre and post training language proficiency of participants was assessed using the Interagency Language Roundtable scale (ILR scale). The data was collected at the beginning of training and again upon completion. Data was collected by language professionals not involved in the provision of the training. For both the pre and post training assessment, we calculated the percentage of participants score at each level of the ILR scale. The impact of the project on medical professional's language proficiency was assessed by comparing the pre and post training percentages for each ILR scale. One ILR scale shift of medical professional's language proficiency was considered as considered to be a meaningful impact.

Language Roundtable scale (ILR scale)

0 – No Proficiency

At this lowest level, there is basically no knowledge of the language. The person may know a few words but can't form sentences or carry on any type of conversation.

1 – Elementary Proficiency

At this language proficiency level, a person can form basic sentences, including asking and answering simple questions. This is essentially the starting point of the language proficiency levels. This level reflects someone who is traveling to a new country and who has just begun to study a language.

2 – Limited Working Proficiency

Someone at this level can handle basic work commands and social phrases. They can carry on limited casual conversations at the office and discuss their personal life. Someone at this level still needs help with more extensive conversations in the language. They can only operate independently in basic conversations.

3 – Professional Working Proficiency

Someone at this language proficiency level can make contributions to office meetings, have conversations with clients, and carry out most work functions requested of them. A person at level 3 can speak at a normal speed in the language and has an extensive vocabulary. They likely still have an accent at this level and probably require help understanding subtle and nuanced phrasing. Some employers consider this level or above as basically acceptable, depending on the specific job.

4 – Full Professional Proficiency

Full professional fluency is desired by most employers. Someone at this level can have advanced discussions on a wide range of topics about personal life, current events, and technical topics such as business and finance. People at this level may still have a minor accent and may occasionally misspeak or make minor mistakes. Their vocabulary is extensive, and they can carry on conversations with ease. Most employers consider level 4 or above acceptable.

5 – Native / Bilingual Proficiency

Someone at this language proficiency level was either raised speaking the language as their native tongue or has been speaking it so long that they are completely fluent. They have little or no accent.

Results

From 483 health care providers enlisted for the training, 150 were selected for the first rounds of training based on the selection criteria outlined in the Methods section. The 3-month course was conducted in two rounds during a 6-month period. All candidates in the program took a pre-test questionnaire at the beginning of the course (See Table 3)

Table 3
Health professionals involved in the training.

No	Profession	Number (%)
1	Physician	60 (40%)
2	Nurse	35 (23.3%)
3	Midwife	25 (16.7%)
4	Health Officer	8 (5.3%)
6	Laboratory	12(8%)
7	Supporting staff	10 (6.7%)
	Total	150 (100%)

Almost all candidates (96%) were found to have ILR level 0 proficiency at baseline. The remaining candidates were at ILR level 1. In the post training assessment, more than 85% tested at ILR level 2 proficiency and 11% tested at ILR level 3 proficiency (See Table 4).

Table 4
Interagency Language Roundtable scale pre- and post-training

No	ILR scale	Pre-training rate	Post-training rate
1	Level 0	144 (96%)	0 %
2	Level 1	6 (4%)	2 (3.6%)
3	Level 2	0 %	48 (85.7%)
4	Level 3	0 %	6 (10.7%)
5	Level 4	0 %	0 %
6	Level 5	0 %	0 %
Total		150	56

Only 56 of the initially enrolled 150 health professionals were able to complete the full course; making the training attrition rate (62.7%). The most commonly cited reason for discontinuation being the inconvenient timing of the course (See Fig. 1).

Discussion

Even though 31% of patients speaking only Afaan Oromo speakers, most health care workers cannot speak basic Afaan Oromo for communication (8.9%). This usually results in unnecessary time spent looking for an untrained translator and sometimes even in substandard clinical care.

Communicating the details of a diagnosis or treatment, is crucial for appropriate patient care and management by conveying message accurately (5, 11). Communication gaps between patient and provider can have negative consequences: patients may fail to comply with instructions or reject to have important life-saving treatment. Most researches published on impact of communication barrier between patients and healthcare practitioners in healthcare situations have focused predominantly on language-congruent situations. Besides, clinicians lack of the linguistic and cultural skills needed (12, 13), might force patients to rely on medically inexperienced, bilingual relatives or non-medical staff, compromising quality of care (14). Furthermore, there is evidence that miscommunication is more likely to occur when clinicians use an inadequately mastered language and cannot correctly convey certain nuances of risk and certainty (10, 16).

The MOA project and language training has shown a significant improvement in the language proficiency of health care providers, achieving ILR scale level 2 and 3 in 85.7% and 10.7% of professionals respectively from a majority baseline of ILR level 0 (96%). Although this is a significant achievement, whether it translates in the workspace properly is debatable. Linguistic literatures often described that level 3 or above proficiency level is needed for communication in the professional environment (4, 15). However, culturally specific terms, expressions, or metaphors can be difficult to navigate even when language competence is high (4, 17).

It is our belief however that the training has conferred the necessary basic platform to encourage practitioners to improve their Afaan Oromo language proficiency. It has also been elucidated in numerous studies that language proficiencies above Level 3 can only be achieved by continuous utilization of the language on a regular basis.

Even with the high acceptability rate of the project, only 56 of the 150 enrolled health care providers were able to finish the full course. The majority attributed the lack of attendance for inconvenient timing (78%) and a busy work schedule (11.1%). The high attrition rate was expected due to the unpredictable nature of the medical field that makes consistent attendance difficult, as well as the ensuing lack of interest it likely provokes when a trainee perceives language incompetence due to missed sessions. We recommend multiple sessions a day in such settings to ascertain attendance. Although limited access to internet is a major drawback in our setting, designing online courses is another convenient approach.

Another solution for overcoming language barriers in the medical environment is acquiring well-trained translators. Interpreting in the medical field involves a unique type of contextually bound communication in two languages, which normally takes place under pressure. Linguistic and interpreting abilities both contribute to the success of the communication. Many agree that language proficiency and interpreting skills must be assessed separately in order to gain a more complete picture of a person's ability to work as an interpreter or language mediator in a multicultural and multilingual healthcare environment (18, 19). However, patient satisfaction is highly associated with having a language concordant provider. Furthermore, such association still remains regardless of the fluency of the health care provider (20, 21).

Language competence can be isolated and measured in order to establish whether interpreters have or do not have enough language skills to benefit from interpreter training, or even to perform interpreting tasks at all. Testing language proficiency and interpreting skills separately can contribute to a more informed selection of candidates wishing to work as interpreters. In our setting however, there are no medical interpreter training programs which would be a more pragmatic and tested approach for addressing language barriers in the medical setting (12). We therefore recommend for the promotion and advancement of the medical interpreting profession as an alternate approach.

In closing, although the study setting is limited to one tertiary hospital, the problem of language discordance is widespread in a multilingual country such as ours. It is high time we give due emphasis to this problem and devise a strategy to tackle language barriers in the medical setting. This quality improvement project was able to bring about a significant change in Afaan Oromo language proficiency.

However, further study is needed to evaluate the impact and effectiveness of the training in patient-provider communication in the practical context. We hope this novel project aids medical service providers to become more language-sensitive. Furthermore, we recommend the use of properly trained medical interpreters as a less complicated but more costly solution.

List Of Abbreviations

AAU: Ababa University

AOLLF: Afaan Oromoo Language, Literature and Folklore

ILR: Language Roundtable scale

SPHMMC: St. Paul's Hospital Millennium Medical College

MAO: Medical Afaan Oromoo

Declarations

Ethics approval, and consent to participate

Ethical clearance & permission letter to conduct the study was obtained from the Institutional Review Board (IRB) of SPHMMC. Informed consent was taken from participants for data collection and all methods were performed in accordance with Helsinki ethical declaration

Consent to publish

Consent to publish the result of the study was obtained from each participant and Institutional Review Board (IRB) of SPHMMC.

Availability of data and materials

Not applicable. All the data used were included in the manuscript

Competing interests

The authors declare no competing interests.

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Authors' contributions

Conceptualization: T.M and T.U

Data curation: T.M, T.U, L.B.T, T.T, F.A and B.G

Formal analysis: T.M, T.U, L.B.T, T.T, F.A, and B.G

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Methodology: T.M, T.U, L.B.T, T.T, F.A, and B.G

Project administration: T.M, T.U, L.B.T, T.T, F.A and B.G

Resources: T.M, T.U, L.B.T, T.T, F.A, and B.G

Software: T.M, T.U, L.B.T, T.T, F.A, and B.G

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All authors have read and approved the manuscript and ensured their contribution

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Figures

Figure 1

Reasons for discontinuation of training, constructed from 81 dropouts