Medical English Training for Healthcare Personnel at Nipah Community Health Center, North Lombok District, to Overcome Language Barriers

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Abstract

Language barriers can pose a problem in communication between healthcare personnel and foreign patients. Improving English language skills is a must for healthcare personnel, especially those employed in community health centers in tourism areas. The community service team from the Faculty of Medicine, Universitas Islam Al-Azhar, provided Medical English training for healthcare personnel at the Nipah Community Health Center, North Lombok Regency. A total of four meetings were held from June-September 2023. The participants learned basic Medical English from the presentation slides, illustrated bilingual handbooks, and role-play. Analysis showed that there was a statistically significant difference between the pre-test and post-test scores (P-value < 0.001). In conclusion, this training had a positive impact in helping healthcare personnel learn Medical English to overcome language barriers. It was proposed that this training should be continued in the future. It is recommended that future training programs place greater emphasis on practical skills, with a particular focus on listening and speaking.

Keywords: Training; Medical English; Language Barriers; Health Communication; Nipah Community Health Center

1. INTRODUCTION

English is the most widely spoken language in the world. Data showed that English speakers reached around 1.5 billion people in 2023. It exceeded the number of users of other languages such as Mandarin, Hindi, Spanish, French, and Arabic (Dyvik, 2023).

Mastery of English is essential, especially in tourism areas in Indonesia. This is because tourism areas in Indonesia often receive visits from foreign tourists. Data from the Central Statistics Agency reported that foreign tourist arrivals in Indonesia in the January–May 2022 period were 397,770. The number of visits increased sharply by 616.40% from the same period in the previous year (Badan Pusat Statistik, 2022).

West Nusa Tenggara (*Nusa*

Tenggara Barat or NTB) is a province in Indonesia favored by foreign tourists, especially for its natural tourism (Athar, 2022; Kurniawan, Purnomo, Fathani, & Fadhlurrohman, 2023). Foreign tourist arrivals in January 2022 amounted to 1841. This visit continued to increase monthly until it rose dramatically to 14,612 in May 2022 (Dinas Pariwisata Provinsi NTB, 2022).

A lack of proficiency in the English language can result in communication difficulties when interacting with international visitors (Nomnian, Trupp, Niyomthong, Tangcharoensathaporn, & Charoenkongka, 2020). This will present a problem in various aspects of life, especially health or medical aspects (Al Shamsi, Almutairi, Al Mashrafi, & Al Kalbani, 2020; de Moissac & Bowen, 2019). It was documented that several times foreign tourists had accidents in the NTB region (Awaludin, 2022; NTB One, 2019). Fast and accurate medical assistance can be provided if healthcare personnel can communicate with foreign tourists who are patients. Improving English language skills is a must for healthcare personnel, especially those employed in community health centers (*Pusat Kesehatan Masyarakat* or *Puskesmas*) in tourism areas.

One of the community health centers that is located in the tourism area of NTB, precisely in North Lombok Regency, is the Nipah Community Health Center. A review of the literature reveals that healthcare personnel at the Nipah Community Health Center have encountered language barriers in the delivery of health services (Karmila, Utami, Anulus, & Mardiah, 2022). Therefore, the community service team from the Faculty of Medicine, Universitas Islam Al-Azhar, provided Medical English training for healthcare personnel at the Nipah Community Health Center.

2. LITERATURE REVIEW

Medical English is also known as English for Medical Purposes, a part of English for Specific Purposes. Hwang and Lin (2010), as cited in Hull (2016), stated that Medical English is a language necessary for doctors and healthcare personnel in their career to communicate and assess patients, as well as write records or reports (Hull, 2016).

Medical English is not to be confused with medical terminology. Medical terminology is defined as specialized words used in the medical field, health sciences, and others (Hull, 2013). Learning technical terms should not be the main focus in the Medical English courses. It is essential to build work-specific communication (Hull, 2016).

There is a considerable number of books used to learn Medical English. The books contain several topics that encompass taking patient history, making a diagnosis, and treatment. These topics are useful for doctors and healthcare personnel in their career environment although some books have doctor-centered communication activities (Franceschi, 2018). The topics become the basis for developing topics on receiving a patient; infection, diseases,

and other health conditions; vaccination, medical equipment, and allied health professionals.

3. IMPLEMENTATION METHOD

This community service activity involved the healthcare personnel at Nipah Community Health Center. It was carried out in several phases as shown in Figure 1.

Phase 1 was coordination where the community service team approached the representative of Nipah Community Health Center, the ad interim head, and reviewed significant points that should be included in the training. Phase 2 was scheduling the training. It was agreed that the training would be in four series and would take place in the community health centers' meeting room. Phase 3 was the preparation of the material for the training, Microsoft PowerPoint presentation slides, and handbooks for the participants. Phase 4 was the action that started with a pre-test and ended with a post-test. The training methods were presentation by the speaker and role-play.
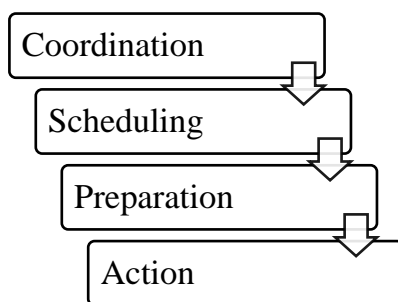

Figure 1. The Phases of the Community Service Activity

4. RESULTS AND DISCUSSION

The Medical English training was divided into several topics: Receiving a Patient; Infection, Diseases, and Other Health Conditions; Vaccination, Medical Equipment, and Allied Health Professionals; and Accidents and Disasters. Each topic was delivered at each meeting in the community health center's meeting room. The topics were covered in four handbooks created by the community service team as shown in Figure 2. The handbooks, which contained bilingual vocabulary and sentences used in medical settings, were given to the healthcare personnel who registered as participants in each meeting.

Figure 2. The Four Handbooks Created by the Community Service Team

A total of four meetings were held from June-September 2023. At the first meeting, the community service team conducted the pre-test for the participants using Google Forms to test their basic knowledge of Medical English, especially regarding the four topics. The test score was retrieved in the form of a Microsoft Excel worksheet. After the pre-test was performed, a speaker proceeded to deliver Topic 1: Receiving a Patient. Figure 3 shows the speaker explained the topic using Microsoft PowerPoint. The participants were encouraged to actively engage by repeating the English words or sentences mentioned by the speaker and asking questions in the discussion session. Topic 2: Infection, Diseases, and Other Health Conditions, and Topic 3: Vaccination, Medical Equipment, and Allied Health Professionals were delivered on the second and third meetings consecutively. The post-test was performed on the fourth meeting after the discussion session of Topic 4: Accidents and Disasters ended. Subsequently, the participants practiced their Medical English by doing role-play with two speakers acting as international patients (Figure 4).

Figure 3. The Speaker Explained the Topic Using Microsoft PowerPoint

Figure 4. Practicing Medical English by Doing Role-Play

The pre-test and post-test scores were used as the indicators to measure the success of this training. There were 24 participants and 21 participants who joined the pre-test and post-test, respectively. Out of those participants, there were only 14 participants who managed to join both. The rest of the healthcare personnel could not commit due to official activities. The sum of the scores of the 14 participants was 1053 for the pre-test and 1280 for the post-test. The scores were analyzed using the Wilcoxon Signed-Rank Test after they were tested for normality using the Shapiro-Wilk Test (Table 1). Table 2 shows that there was a statistically significant difference between the pre-test and post-test scores.

Table 1. Shapiro-Wilk Test Result for Pre-Test and Post-Test Scores

	Shapiro-Wilk Test Result
	P-value
Pre-Test	< 0.001
Post-Test	0.095

Table 2. Wilcoxon Signed-Rank Test Result for Pre-Test and Post-Test Scores

	Wilcoxon Signed-Rank Test Result
P-value	< 0.001

In the following weeks, the online certificates of completion were awarded to the participants after they filled out the certificate form and partnership satisfaction survey. The survey was answered by 20 respondents. The results of the survey are shown in Figures 5-8. Most respondents considered that the training quality, material, method, and handbooks were very good (Figure 5). The majority of the respondents also considered that the training was very

beneficial for their work (Figure 6). Most of the respondents were also very satisfied with the training (Figure 7). All of the respondents agreed that the training was able to upgrade their Medical English skills and build their confidence in speaking English; and that the training should be continued in the future (Figure 8).

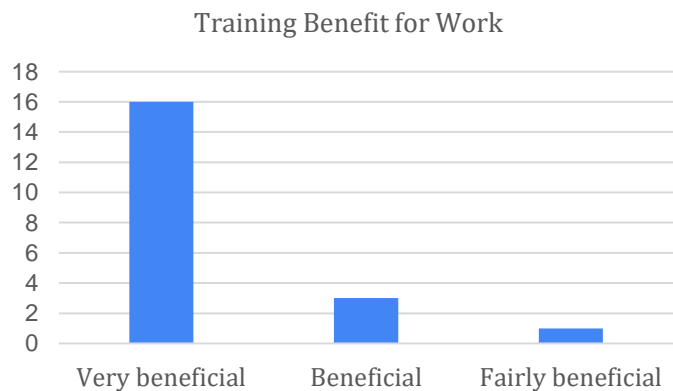**Figure 5**. Partnership Satisfaction Survey: Training Quality

Figure 6. Partnership Satisfaction Survey: Training Benefit for Work

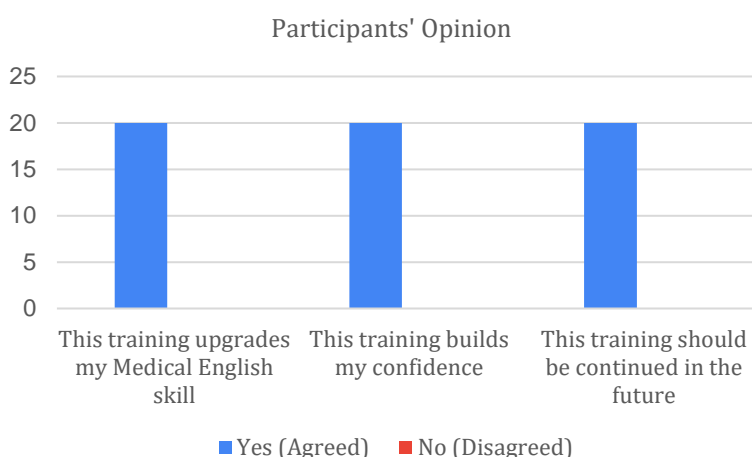**Figure 7**. Partnership Satisfaction Survey: Training Satisfaction

Figure 8. Partnership Satisfaction Survey: Participants' Opinion

The Medical English training was carried out to help the healthcare personnel overcome language barriers. It was found that the training increased the healthcare personnel's basic knowledge of Medical English. The result was in line with that of the previous community service activities. The post-test scores for nurses and midwives in Makassar who received English training were higher compared to the pre-test scores (Sukmawati & Syamsuriyati, 2020). Similar results were also obtained from the training for nurses and medical record officers in West Java (Setiatin, Trimastuti, & Christinawati, 2022).

The difference between our community service and the previous ones lies in the method. Compared to our method, the training for the nurses and midwives in Makassar focused on the conversational pocket and was done via Zoom. Online meetings were preferred due to the COVID-19 pandemic. The feedback was given by the participants through the WhatsApp group. The same method was also implemented in the community service in West Java. In

contrast, this community service was attended by a larger group of participants from all over the province.

Our training used handbooks and presentations that comprised different topics to accommodate the basic knowledge of Medical English. To strengthen this basic knowledge, the participants were asked to repeat the English words or sentences taken from the handbooks and mentioned by the speakers. Staehr (2008), as cited in Dakhi and Fitria (2019), stated that the size of vocabulary affects the language skills of the learners (Dakhi & Fitria, 2019). Other research also reported that vocabulary knowledge was correlated with speaking fluency (Uchihara & Saito, 2019). Therefore, we selected important words that are commonly used in the medical environment to expand the vocabulary of the participants. The English words or sentences in the handbooks were printed with their translation in the Indonesian language. It was reported that learning English using bilingual text yielded a better result compared to learning with non-bilingual text (Zhang & Webb, 2019).

The handbooks were designed in relatively small dimensions to make it easier for healthcare personnel to carry and read. Every page of the handbook was decorated with colorful illustrations. Mayer (2014), as cited in Peters (2019), indicated that deeper learning can be achieved from words and pictures than from words only (Peters, 2019).

Besides repeating the words and sentences, the participants also practiced listening and speaking through role-play. In role-play, participants learned by imitating the interaction that happens in real life (Irkinovich, 2022). Doing role-play encourages non-native speakers to speak English actively and properly according to a certain situation. For that reason, role-play can improve the English proficiency of the participants (Alghamdy, 2022; Nasihah, 2019; Neupane, 2019).

The limitations of our community service were: (1) Not every participant from the first meeting was able to commit to the training until the last meeting; (3) pre-test and post-test results were obtained only from 14 participants; and (4) the practice was only performed in the last meeting.

Mastering a language takes time. Therefore, more practice should be done by the healthcare personnel although the training was completed. As indicated by the partnership satisfaction survey, this training should be continued in the future.

5. CLOSING

This training had a positive impact in helping healthcare personnel learn Medical English to overcome language barriers. It was proposed that this training should be continued in the future. It is recommended that future training programs place greater emphasis on practical skills, with a particular focus on listening and speaking.

6. REFERENCES

Al Shamsi, H., Almutairi, A. G., Al Mashrafi, S., & Al Kalbani, T.

(2020). Implications of Language barriers for Healthcare: A Systematic Review. *Oman Medical Journal*, *35*(2), e122–e122. https://doi.org/10.5001/omj.2020.40

Alghamdy, R. (2022). How Do EFL Learners Interact and Learn English Communication Skills during a Role-Play Strategy? *World Journal of English Language*, *12*(1), 313. https://doi.org/10.5430/wjel.v12n1p313

Athar, L. M. I. (2022). Analysis of Foreign Tourists' Perception of the Quality of Tourism in West Nusa Tenggara. *Jurnal Pariwisata Nusantara*, *1*(2).

Awaludin. (2022). Wisatawan asal China kecelakaan saat mendaki Gunung Rinjani Lombok. Retrieved from Antara NTB website: https://mataram.antaranews.com/berita/210497/wisatawan-china-kecelakaan-saat-mendaki-gunung-rinjani-lombok

Badan Pusat Statistik. (2022). Jumlah kunjungan wisman ke Indonesia melalui pintu masuk utama pada Mei 2022 mencapai 212,33 ribu kunjungan, dan Jumlah penumpang angkutan udara domestik pada Mei 2022 naik 40,41 persen. Retrieved from bps.go.id website: https://www.bps.go.id/pressrelease/2022/07/01/1874/jumlah-kunjungan-wisman-ke-indonesia-melalui-pintu-masuk-utama-pada-mei-2022-mencapai-212-33-ribu-kunjungan--dan-jumlah-penumpang-angkutan-udara-domestik-pada-mei-2022-naik-40-41-persen.html

Dakhi, S., & Fitria, T. N. (2019). The Principles and the Teaching of English Vocabulary: A Review. *Journal of English Teaching*, *5*(1).

de Moissac, D., & Bowen, S. (2019). Impact of Language barriers on Quality of Care and Patient Safety for Official Language Minority Francophones in Canada. *Journal of Patient Experience*, *6*(1), 24–32. https://doi.org/10.1177/2374373518769008

Dinas Pariwisata Provinsi NTB. (2022). Jumlah Kunjungan Wisatawan Tahun 2022. Retrieved fromter NTB Satu Data website: https://data.ntbprov.go.id/dataset/jumlah-kunjungan-wisatawan-ke-provinsi-nusa-tenggara-barat-ntb/resource/3ccd0cd1-6b73-4e99

Dyvik, E. H. (2023, June). The Most Spoken Languages Worldwide 2023. Retrieved from Statista website: https://www.statista.com/statistics/266808/the-most-spoken-languages-worldwide

Franceschi, D. (2018). Physician-patient communication: An integrated multimodal approach for teaching medical English. *System*, *77*(2015), 91–102. https://doi.org/10.1016/j.system.2018.02.011

Hull, M. (2013). *Medical Language: Terminology in Context*. F. A. Davis Company.

Hull, M. (2016). Medical language proficiency: A discussion of interprofessional language competencies and potential for patient risk. *International Journal of Nursing Studies*, *54*, 158–172. https://doi.org/10.1016/j.ijnurstu.2015.02.015

Irkinovich, N. R. (2022). The Importance of Role-Playing Game in Teaching English in a Non-Linguistic University. *International Journal of Pedagogics*, *2*(9).

Karmila, D., Utami, S., Anulus, A., & Mardiah, A. (2022). Perspective of health workers on tourism health problem in the working area of Nipah health center North Lombok District. *International Journal of Health Sciences*, 2314–2326. https://doi.org/10.53730/ijhs.v6nS8.12309

Kurniawan, C., Purnomo, E. P., Fathani, A. T., & Fadhlurrohman, M. I. (2023). Sustainable tourism development strategy in West Nusa Tenggara province, Indonesia. *IOP Conference Series: Earth and Environmental Science*, *1129*(1), 012022. https://doi.org/10.1088/1755-1315/1129/1/012022

Nasihah, M. (2019). The Use of Role Play Technique to Improve Students' English Oral Communication. *Journal of English for Academic and Specific Purposes*, *2*(1), 10–17.

Neupane, B. (2019). Effectiveness of Role Play in Improving Speaking Skills. *Journal of NELTA Gandaki*, *1*.

Nomnian, S., Trupp, A., Niyomthong, W., Tangcharoensathaporn, P., & Charoenkongka, A. (2020). Language and community-based tourism: Use, needs, dependency, and limitations. *Austrian Journal of South-East Asian Studies*, *13*(1), 57–79. https://doi.org/10.14764/10.ASEAS-0029

NTB One. (2019). Turis Finlandia meninggal akibat kecelakaan di pantai Senggigi Lombok Barat. Retrieved from ntbone.com website: https://ntbone.com/turis-finlandia-meninggal-akibat-kecelakaan-di-pantai-senggigi-lombok-barat/

Peters, E. (2019). The Effect of Imagery and On-Screen Text on Foreign Language Vocabulary Learning from Audiovisual Input. *TESOL Quarterly*, *53*(4), 1008–1032. https://doi.org/10.1002/tesq.531

Setiatin, S., Trimastuti, W., & Christinawati, S. (2022). Communicative Competence Bahasa Inggris bagi Perekam Medis dan Informasi Kesehatan (PMIK). *Jurnal Pengabdian Masyarakat Intervensi Komunitas*, *3*(2). Retrieved from http://ojs.itb-ad.ac.id/index.php/IK/article/view/1545/345

Sukmawati, & Syamsuriyati. (2020). Conversational Pocket untuk Meningkatkan Keterampilan Bahasa Inggris bagi Perawat dan

Bidan di Puskesmas Cendrawasih. *Jurnal Pengabdian Kepada Masyarakat Membangun Negeri*, *4*(2). Retrieved from http://www.jurnal-umbuton.ac.id/index.php/ppm/article/view/748/590

Uchihara, T., & Saito, K. (2019). Exploring the relationship between productive vocabulary knowledge and second language oral ability. *The Language Learning Journal*, *47*(1), 64–75. https://doi.org/10.1080/09571736.2016.1191527

Zhang, Z., & Webb, S. (2019). The effects of reading bilingual books on vocabulary learning. *Reading in a Foreign Language*, *31*(1), 109–139. Retrieved from http://nflrc.hawaii.edu/rfl