

An Innovative Strategy for Patient- Health Care Professional Effective Communication: Korean Multi-Linguist Doctor Speaker System Application

Arnelyn Manaluz-Torres

*Department of General Studies, Hanseo University,
Chungcheongnam-do Haemi-myeon 46 Hanseo, Seosan-si, Korea
lynnnetorres515@gmail.com*

Abstract

As patient populations in South Korea become increasingly diverse, health care professionals have to look for innovative ways to communicate effectively across cultures, languages, and health literacy levels. This study proposed the creation of a smart phone application content for use in healthcare setting for patients who cannot express themselves in Korean. The promising features of the smart phone application includes: medical translations in 13 languages; translations about immediate medical necessities, symptoms, medical history or ask questions regarding medical treatment. Hospitals, clinics and health care professionals can use this application to ensure an effective patient-healthcare professional communication.

1. Introduction

Foreigners in South Korea who can barely speak Korean have difficulties communicating in the healthcare setting lead to misdiagnoses, malpractice claims, and even death. The limited Korean proficiency population includes those who have sufficient difficulty in speaking, reading, writing or understanding the Korean language.

The importance of communication between medical staff and patient at a healthcare environment is crucial, and interpreters are often used to overcome language barriers. However, there can be trouble in locating an interpreter at the exact time the interpreter is needed, as well as difficulty finding a qualified interpreter in the patient's first language. Additionally, interpreters are not available at all hours of the day. In some cases, an interpreter also misinterprets the message between the health care provider and patient. So when the patient cannot communicate and understand Korean, how will the patient communicate with the healthcare provider?

The focus of this paper is to propose the creation of a smart phone application content for use in the healthcare setting for patients who cannot express themselves in Korean. The paper will begin by discussing the importance of patient-healthcare provider communication. Next, it will be followed by a review of literature. The review includes health communication status of South Korea, the demographic profile of foreigners living in South Korea and alternative communication methods. Finally, the paper will introduce the Korean multi-linguist doctor speaker application system. The features of the smart phone application will be enumerated. It is expected to facilitate the effective exchange of communication between healthcare provider and patient.

2. Review of Related Literature

2.1. Patient-Healthcare Provider Communication

When a patient sees a healthcare provider for consultation, the healthcare provider uses the available knowledge base (derived from his education and training, the literature, experience, decision-support systems, and protocols) to decide what data to collect and how to collect them. The healthcare provider collects these data through conversations with the patient, a physical and mental examination, laboratory testing, and imaging. The patient's diagnosis and prognosis are disseminated through oral communication.

Patient-healthcare provider communication in the hospital setting is essential to patients' understanding of diagnoses, treatment, and plan of recovery. Research has shown that patients who have a great interpersonal relationship with their healthcare provider have an increased rate of recovery and report a more satisfactory stay at the hospital. However, with an increase in immigration rates in South Korea, reports of language barriers negatively affecting the quality of healthcare are increasing as well. Communication is essential to both receiving and providing quality health care, and language barriers continue to present a challenge to health care providers.

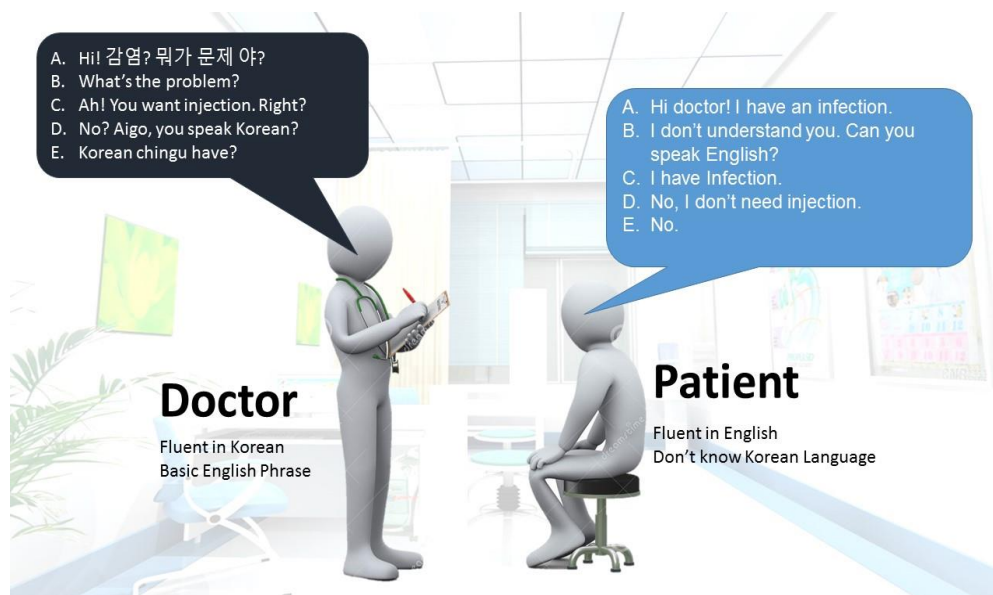


Figure 1. Physician and Patient Communication

Effective communication between patients and health care providers who are culturally and linguistically different implies the employment of strategies to provide competent, efficient and effective health care. The importance of effective communication in good patient care is indicated in the following quotes:

“Communication between physicians and patients is fundamental to medical care: (Joos, *et al.*, 1996) [1]

“The conversation between physician and patient has long been recognized to be of diagnostic import and therapeutic benefit” (Jacobs, *et al.*, 2001) [2]

“Effective communication between patient and doctor is critical to good medical outcomes” (Collins, *et al.*, 2002) [3]

Health communication has received significant attention from scholars in diverse disciplines, such as medicine, communication, sociology and psychology. However, because it is still an emerging area of research in South Korea, the quantity and scope of scholarly publications in this area are somewhat limited [4].

In medical education in Korean universities, there is no specific regulation on or guideline for courses concerning the relationship or communication between health care providers and patient. Nevertheless, most medical programs report they have designed and provided relevant trainings in doctor-patient communication as part of more general introduction-level courses such as Medical Interview, Medicine and Society, and Patients and Doctors. Many leading medical institutes and hospitals have aimed to improve the quality of patient services; successful doctor-patient communication has become an important agenda in the medical community in South Korea [5].

Several papers overseas describe the general problem of language barriers and communication in health care. Divi, *et al.*, (2007), explain that lack of effective communication between patients and providers creates a lack of trust and decreases the chances that a patient will receive correct follow-up care [6]. In addition, Suarez-Almazor, *et al.*, (2004) found that “the interaction dynamics during the medical encounter have a powerful influence on patients’ ability to recall doctors’ recommendations, satisfaction, adherence to treatment regimens, and even patients’ biomedical health outcomes such as blood pressure and diabetes control” [7]. Without a thorough explanation from a doctor, a patient cannot readily understand what is going on with their body, what the best decision for a treatment would be, and may consent to things that they do not fully understand. Traveline, *et al.*, (2005) in his study stated, “effective communication skills have been correlated to such positive outcomes as adherence to therapy, understanding of treatment risks, and even reduced risk of medical mishaps or malpractices claims [8]. These studies suggest that patients and healthcare providers should have adequate communication in order for patients to receive the best quality health care and understand the appropriate recommendations.

2.2. Demographic Profile of Foreigners in South Korea

Immigration to South Korea is rising quickly due to a recent multicultural policy, with over 220,000 accepted in 2014 (MOJ 2013). This was a 14.1 % increase over the previous year. Between 2009 and 2014, the number of immigrants have been rising 9.3% annually (MOJ, 2013).

There were a total of 1,797,618 immigrants in South Korea as of 2014. By nationality, the largest were Chinese at 898,654 (50%), American at 136,663 (7.6%), Vietnamese at 129,973 (7.2%), Thai at 94,314 (5.2%), Filipinos at 53,538 (5.2%) and Japanese at 49,152 (2.7%) (MOJ, 2013).

2.2.1 Migrant Workers

Korea has experience a large influx of foreign workers since 1991. Approximately 10,000 Asian workers came to Korea under a newly established trainee programs in 1992. In 2004, Korean government introduced the “Employment Permit System” for foreigners. There were an estimated 547,000 migrant workers legally in Korea in 2011, representing 92% of the entire foreign population in Korea (MOJ 2013). The migrants come from Vietnam, Thailand, Philippines, Indonesia, Sri Lanka, China, Bangladesh, Nepal, Cambodia, Mongolia, Pakistan, Myanmar, Kyrgyzstan, and Uzbekistan [10].

2.2.2. Interracial Marriages

Since the late 1990s, interracial marriages in South Korea have grown rapidly, especially in rural farming communities. Most brides come for China followed by Vietnam, Philippines, Indonesia and Thailand. A smaller number of South Korean women marry foreign husbands, with husbands from China and Japan.

2.2.3. Foreign Educators

The number of English teachers hailing from English-speaking nations like United States of America, United Kingdom, Canada, Australia, New Zealand and South Africa has increased from less than 1,000 in 1988 to over 20,000 in 2002 and stood at more than 22,000 in 2010[11]. Meanwhile, a number of foreign professors coming from Asian countries like India, China, Japan and Philippines teaching professional courses are rapidly increasing due to Korea's plan for internationalization.

2.3.4. International Students

Welcoming globalization, Korean universities are expanding their international cooperation and exchange as well as actively inviting foreign students so as to improve their international competitiveness. According to the statistics on foreign students, there were 83,842 foreign students studying in 328 universities as of 2010. Chinese students turned out to be the largest group among international students with 72.9%, followed by Mongolians with 5.25% (kostat.go.kr). Other international students come from countries in Asia namely: Indonesia, Vietnam, Cambodia, India, Pakistan and Philippines. Some students from countries in Africa like Kenya, Nigeria, and Malawi are also here to pursue their graduate programs.

3. Challenges and Limitations

3.1. Language Barrier

A study in the Journal of the American Medical Association revealed that limited English proficient (LEP) patients are unlikely to understand their diagnosis and treatment provided by their physician (MDH, 2015). Similarly, a lack of understanding between the patient and provider can result in life-threatening misdiagnoses. In one specific Florida case, the Spanish-speaking relatives of an 18-year-old LEP patient told health professionals that he was "intoxicado." They meant "nauseous," but were misinterpreted as meaning "intoxicated," thus leading to a misdiagnosis of a brain aneurysm as a drug overdose.

Over the past decades, South Korea has attracted migrants from all over the world, with the majority coming from Southeast Asia, East Asia, Central Asia and Africa. The resulting increase in ethnic, cultural and linguistic diversity has been accompanied by a great and growing need for language access services in the health care settings.

Language barrier pose significant challenges to providing effective and high-quality healthcare. In South Korea, there is no law that provides a framework to ensure healthcare access for individuals unable to speak Korean.

3.2. Foreigners' Limited Language Proficiency

Korean language proficiency provides foreigners with appropriate reading, writing, listening and speaking skills valuable in adapting to South Korea's culture and society. For those with a good command of Korean language, seeking medical attention and consultation is easy and fulfilling. However, those who are less proficient in Korean have greater difficulty accessing managed care systems and use few preventive services such as blood examination testing, immunization, eye and dental examinations and others. Inadequacy to speak Korean result in poor understanding of diagnosis, treatment, and medication instructions, poor understanding of an compliance with recommendation for treatment and follow-up, a significantly greater likelihood of a serious medical event and lower patient satisfaction.

3.3. Interpreting Services

To bridge the gap between patient and health care provider, translators can provide high-quality, culturally competent interpretation services. However, the presence of a translator can complicate the healthcare encounter as the interpreter may quite literally interpose between healthcare provider and patient. In addition, the physical presence of translator leads to even more complexities when the translator is not a professional interpreter like a friend or a colleague [13]. Several Korean healthcare professionals can speak more than one language. However, due to the diversity of foreign nationals in South Korea, still it is not enough.

3.4

Alternative Communication Methods and Limitations

Currently, there are options available for the communication needs of those who lack Korean language proficiency that could be used within the healthcare setting in addition to interpreters. These include telephone interpreting services, various smartphone applications and websites. However, all of these communication options have disadvantages to their use.

There are several websites that provides a directory of translating and interpreting services. AngloINFO, global expat network based in Seoul has provided a directory of professional translators and interpreters who can provide translating and interpreting services for a fee. You can send an appointment through their website or call the listed contact numbers for the translation time appointment. Another website that have a listing of interpretation and translation services is Busan Foundation for International Activities. In addition, some big hospitals based in Seoul provide free translation service to its patients. Lastly, Hi Korea, an e-government website offers free oral translation services for foreign laborers. However, these translating and interpreting services have limited time of service and may lack the knowledge for appropriate medical terminologies.

Smart phone applications like iTranslate, Google Translate, Naver translate and MediBabble Translator are a great step in the direction of being able to communicate with health care provider, but the issues of literacy weigh heavy on the practicality of using the communication devices in the medical setting. Additionally, there are no options available to include pictures to help clarify difficult medical terminology.

Finally, websites such as OmniMedicalSearch.com, MedNets, Hardin MD, Healthline, PubMed, Entrez, MedicalINDX, GeneralPediatrics.com, ObGyn.net etc. are available for helping individuals learn about various medical terminologies and allow for the understanding of various medical procedures. While these websites can be an effective way to translate the message, they are not accurate and useful for moment-to-moment conversational interaction.

4. Application as a Solution

This paper proposes a speaker application system that intends to provide an efficient and effective patient-health care provider communication. The Korean Multi-Linguist Doctor Speaker System Application Mobile is a medical translation application with 13 languages to help patients and health care provider communicate when they don't speak the same language. Chinese, Mongolian, English, Vietnamese, Thailand, Indonesian, Indian, Pakistan, Nepalese, Tagalog, Sri Lankan, and, Bangladeshi are the languages that will be built in in the system.

Korean Multi-linguist Doctor Speaker System Application Mobile will store over 1000 medical phrases with accompanying audios by native speakers in each language. The

mobile application content will be drawn from the database, which is used by hospitals, clinics, governments and healthcare professionals around the world.

The content will be organized into various medical chapters to help facilitate multilingual medical visits. Patients can use the systems application to describe: immediate medical necessities, symptoms, medical history or ask questions regarding medical treatment. On the other hand, the application will help the healthcare professional communicate their physical examination procedures, diagnosis, treatments and patient health advice.

5. Conclusion

This study was in part motivated by the need to provide a greater opportunity for communication between foreign residents in Korea who have limited Korean language proficiency and Korean healthcare providers who cannot speak other languages. Effective communication between the healthcare provider and foreign patients can have severe limitations related to the availability of interpreters and translators, absence of picture to clarify difficult medical terminology, and translated messages from medical websites which might be inaccurate for the moment-to-moment conversational interaction. The proposed Korean Multi-linguist doctor speaker application system is intended fill the communication gap due to language barrier between the patient and health care provider. Finally, this medical application system is expected to facilitate the effective exchange of communication between healthcare provider and patient in South Korea.

References

- [1] S. K. Joos, D. H. Hickam, G. H. Gordon and L. H. Baker, "Effects of a Physician Communication Intervention on Patient Care Outcomes", *Journal of General Internal Medicine*, vol. 11, no. 3, (1996).
- [2] E. A. Jacobs, D. S. Lauderdale, D. Meltzer, J. M. Shorey, W. Levinson and R. A. Thisted, "Impact of Interpreter Services on Delivery of Health Care to Limited-English-Proficient Patients", *Journal of General Internal Medicine*, vol. 16, (2001), pp. 468-474.
- [3] K. S. Collins, D. L. Hughes, M. M. Doty, B. L. Ives, J. N. Edwards and K. Tenney, "Diverse Communities, Common Concerns: Assessing Health Care Quality for Minority Americans. Findings from the Commonwealth Fund 2001 Health Care Quality Survey, New York: Commonwealth Fund, (2002).
- [4] T. L. Thompson, Editor, "Encyclopedia of Health Communication", Sage Publications Inc. Thousand Oaks, Ca, (2014).
- [5] C. Divi, R. G. Koss, S. P. Schmaltz and J. M. Loeb, "Language proficiency and adverse events in U.S. hospitals: A pilot study", *International Journal of Quality Health Care*, (2007).
- [6] M. E. Suarez-Almazor, "Patient-Physician Communication", *Current Opinion in Rheumatology*, (2004).
- [7] J. M. Travaline, R. Ruchinskas and G. E. D'Alonzo, "Patient-Physician Communication: Why and How", *Journal of the American Osteopathic Association*, vol. 105, no. 1, (2005), pp. 13-18.
- [8] Ministry of Justice.
- [9] K.-S. Yoo, "Evaluation after Seven Years of Korea's Employment Permit System", *Korea University of Technology and Education*, (2011).
- [10] J. Lee, "Animosity against English teachers in Seoul", *GlobalPost*, (2010) February 3, Retrieved December 2010.
- [11] M. M. Wolz, "Language barriers: challenges to quality healthcare", *International Journal of Dermatology*, (2015).
- [12] www.immigration.go.kr.