

Conference Paper

English Reading Proficiency: A Study of Public Health Students in Indonesia

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ORCID:Tri Bayu Purnama: <https://orcid.org/0000-0002-5901-3274>**Abstract**

This study aimed to determine the English-language public health literacy of public health students. Literacy of public health constitutes proficiency and application of complex skills such as reading, critical and analytical thinking, listening and decision-making skills about emerging health situations. We used a quantitative approach with cross-sectional research to investigate the extent of English-language public health literacy among first year public health students. There were 110 participants in this study, all of whom were first year students of the Faculty of Public Health/ Public Health Study Program in North Sumatra Province and more than half were 18 years old with the sex dominated by women. The English-language public health literacy was quite high while students had limitations in understanding the content and main ideas of the articles they read. Students tended to hesitate to disseminate and explain information because they were not confident in their literacy skills. These findings can be used as material for English language curriculum evaluation and competency adjustment of public health students at college level.

Keywords: Cross-sectional study, public health literacy, public health students, reading skill, undergraduate student

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Published: 11 March 2021

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Selection and Peer-review under

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Conference Committee.

1. Introduction

Reading is still one of the basic methods of health education and promotion from sources of health literacy (Nutbeam, 2008). The reading method is used to increase readers' awareness and have an impact on improving the health status of the community through various kinds of health literacy media in the form of print and electronic media (Nutbeam, 2008). Besides being used as a media for health education, reading is also a learning method for health and medical students.

Limited reading material in the field of medicine and public health requires students to be able to seek literacy appropriately. In certain conditions, students are forced to read literacy sources in certain languages and one of them is English (Netten, Droop,

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& Verhoeven, 2011). The rapidly developing medical and public health sciences make students have to have global competence, including being able to read and understand the contents of foreign literacy.

Several studies have shown that limitations in reading and understanding foreign languages can affect the interpretation and misperception of health behavior. This is also exacerbated by the large number of literacy sources on the internet which require students to be able to choose information from sources that are legally recognized. This misconception of reading sources of literacy has an impact on misdiagnosis and understanding of disease conditions and health problems in medical and health students (Safeer & Keenan, 2005). Therefore, this study aims to determine the ability to read public health literacy in public health students. This research can be used as material for curriculum evaluation and competency adjustment of public health graduates at college level English learning.

2. Literature Review

A report coined by the Institute of Medicine in 2004 defined health literacy as capacity of an individual to have access to, process, and understand basic level of health information and services required to make an appropriate decision in terms of health. Moreover, health literacy could assist to execute a thoughtful and considerable measure to obtain the best treatment to tackle health issues faced by an individual (Chiang & Jackson, 2013; Figg, 2014). The degree of capability may determine an individual level of literacy to decide properly what is suitable handling and which information and services are compatible to resolve issues related to health situation (Levy et al., 2016; Nielsen-Bohlman, Panzer, & Kindig, 2004). This skill appropriately benefits to propose an extensive understanding to take over a reasonable measure among a situation toward health information and services offered.

Literacy of health constitutes proficiency and application of complex skills such as reading, critical and analytical thinking, listening, and decision-making skills to emerging health situations (Kim, Khatiwoda, Park, & Lee, 2016; Storey et al., 2020). The application of those complex skills includes purchasing drugs in drugstore and its dosage of consumption, understanding health brochures and advertisement, making an appointment to see doctor or consult pharmacist, understanding liable direction, suggestion, and prescription written by them, signing health consent form, or the ability to search and negotiate services and facilities provided by health care providers (Chiang & Jackson,

2013; Figg, 2014; Weiss, 2015). The developing matters made by evolving health care system urges individual's stake of health literacy to move into the next level.

The development of healthcare system through years has also change the way people source and improve their level of health literacy. In the past time, people sought health information and services by visiting nearest health facilities, seeing directly the doctors and medical personnel, or obtain it through TV or radio ads in one-way degree (Oh & Lee, 2019). In contrast, Harnett (2017) added that such development has made possible less interaction between people and health providers and facilities. People do not always need to see their GPs in the hospital to line in by making preliminary appointment. They likely seem to check the availability of doctors online or make a more interactive and feasible query to the practitioners via mobile phone apps (Figg, 2014; Weiss, 2015). Individuals could also easily navigate drug in stores based on the prescription and let them delivery it in a seamless single touch. More advance, people can directly consult their health issues to a computer screen through apps and let these apps find them solution to tackle it. More importantly, however, among those tremendous evolution of healthcare system, a clear communication between the health providers and people as the patients enables those feasibilities. Despite the media has changed, but the clear information made by the providers improves the literacy level of people in understanding complex health information and service facilities (Kim et al., 2016).

On the other hand, language barrier may challenge the improvement of health literacy of people. To many of Indonesians, the major use of English in many aspects of healthcare facilities and services means quite much in practicing effective way to understand and access those facilities as well their services such as handbooks and tools. This also specifies a challenge to medical students to expand their knowledge to the wider world of health that sometimes inaccessible in Indonesian. As a result, public health or medical students who prepare themselves to serve the community have low ability and limited insight in undertaking and handling social health issues as they had no access to more extending sources of knowledge. This also gives an impact on their proficiency in accessing more learning materials written in foreign languages. Eventually, their knowledge is not sufficiently comprehensive, affecting their way to respond and show an attitude regarding certain health situation.

3. Research Method

We used quantitative approach with cross sectional study to investigate of what extent of reading skill on english public health literacy among first year public health student. We digged information on students capacity to understand reading skill on foreign literature, understanding English vocabulary and sentences, disseminating information in reading materials to influence reading material in students' daily activities. This study focused on reading variables on the ability to understand English-speaking public health literacy in the form of articles, opinions, books and print media related to public health.

Respondents in this study were first year students of the Faculty of Public Health/ Public Health Study Program in North Sumatra Province. The numbers of respondents who were recruited and fulfilled the requirements in this study were 110 respondents from 120 data recorded in the researcher questionnaire database. The research questionnaire was distributed using an online questionnaire platform to first-year public health students. The research questionnaire consisted of 8 questions covering the frequency of reading public health literature in English, the use of tools, belief in the information read, and changes in behavior towards the information read. After the data was collected by means of a questionnaire and cleaned of missing data and errors, then data analysis was carried out. Data analysis used proportion and frequency for each question. Demographic characteristics are presented using proportions to see the tendency for answers based on gender.

4. Result and Discussion

A total of 120 respondents filled out an online questionnaire distributed through first-year public health students and 110 respondents were selected by eliminating 10 respondents as double-filling questionnaires, unfilled identities and incomplete answers in the existing database. More than half of the total respondents (62.51%) were 18 years old with the sex dominated by women (77.06%) first year public health students in North Sumatra (Table 1).

Furthermore, the data presented in table 2 shows that the frequency of students reading English speaking public health literacy is quite high (73%). Based on these data, it shows that the needs of students in public health literacy in foreign languages are very dominant. The dependence of language literacy is very dominant in the health science in Indonesia. This is associated with books and literacy sources written are dominated by English and are widely studied in foreign languages so that students

TABLE 1: Characteristic demography of respondents (N=110)

Variable	N (%)
Age (y.o)	
17	7,70%
18	62,51%
19	26,77%
20	3,02%
Sex	
Male	22,94%
Female	77,06%

are required to read these literacy sources. In addition, high technological capacity in laboratories and universities abroad is a dominant factor in updating public health literacy. To be able to adjust to these needs, the process of translating foreign language books can help understand students' understanding in understanding the context of public health literacy (Nandi, Chan, Chan, Chan, & Chan, 2000).

The results of this study highlights that students have limitations in understanding the content and main ideas of the articles they read (15.66%). The use of foreign literacy translation can help improve students' understanding of public health. The use of translated books, using tools can be an option in understanding the article. In this study, it was found that students were not too dominant in using translation aids. There are several perspectives that may arise from the results of this study, namely that students do not know about the existence of aids or have given up on existing reading material so that the proportion of using tools does not become a solution in solving the problem of reading ability in students. This is consistent with research which shown that students' self-confidence tends to decrease with the translation results for them to understand themselves and do not have the confidence to explain to others the articles they have read (Mullan et al., 2017; Peterson, Cooper, & Laird, 2001). This is in line with the results of research which show that students tend to hesitate to disseminate and explain information on health literacy because they are not confident in their literacy skills.

This has an impact on the potential for the spread of misinformation among student groups in understanding the context on the sources of public health literacy. The results of this study indicate that students tend to assess the benefit aspects of reading public health literacy sources. This is also contrary to the findings which show that students will behave after reading material from foreign public health literacy. The results of this study can illustrate that information from public health literacy sources will become a source

TABLE 2: English reading public health literacy skill

Questions	Never.	Rarely;	Occasionally;	Very Frequently;	Always;
Have read about public health literacy in English	7,04%	19,72%	44,37%	18,31%	10,56%
Understand the content / main idea of the articles you read	15,66%	19,88%	41,57%	15,36%	7,53%
Use of tools to translate the article	18,37%	23,62%	39,36%	11,66%	7,00%
Feel confident with the results of the translation	18,52%	25,93%	37,96%	12,04%	5,56%
Willing to forward / distribute the article to other people	17,10%	20,87%	40,58%	14,49%	6,96%
Confident to explain the contents of the article to others	15,59%	20,29%	41,18%	16,18%	6,76%
This information is useful for you	19,17%	21,60%	38,83%	14,08%	6,31%
This information can influence you in making decisions on preventive-promotive action	16,62%	22,25%	40,48%	13,67%	6,97%

of misinterpretation of student information sources so that it can affect the wrong health behavior of students. This is because students tend not to know the truth of information which is well-known in public health literacy sources due to their limited reading ability.

5. Conclusion

Limited understanding in reading public health literacy among students is a crucial issue in increasing the competence of public health experts. Education by learning to read gradually and a variety of learning methods can increase student capacity in understanding sources of public health literacy. This research also has highlighted possibility of misinformation and misinterpretation occurred among student due to lack of capacity to translating english content. Developing and integrating a comprehensive curriculum on public health course particularly in english course and public health course might be considered to improve english reading proficiency among student. It would increase student awareness on health literacy in order to promoting public health content and information to community. Integrating public health sentence and vocabulary in public health course could be an option to prevent misinformation in public health literacy among public health student.

References

- [1] Chiang, K. P. and Jackson, A. (2013). Health Literacy and its Outcomes: Application and Extension of Elaboration Likelihood Model. *International Journal of Healthcare Management*, vol. 6, issue 3, pp. 152–157.
- [2] Figg, B. (2014). Health Literacy Out Loud. *Journal of Consumer Health on the Internet*, vol. 18, issue 3, pp. 279–283.
- [3] Kim, Y. S., et al. (2016). Health Literacy and its Link to Healthcare Service Utilization Among Older Adults in Korea. *Social Work in Public Health*, vol. 31, issue 6, pp. 467–473.
- [4] Levy, H., et al. (2016). *Health Literacy and Access to Care Health Literacy and Access to Care*. Retrieved from <https://doi.org/10.1080/10810730.2015.1131776>.
- [5] Mullan, J., et al. (2017). Health Literacy amongst Health Professional University Students: A Study Using the Health Literacy Questionnaire. *Education Sciences*, vol. 7, issue 2, p. 54.
- [6] Nandi, P. L., et al. (2000). Undergraduate Medical Education: Comparison of Problem-Based Learning and Conventional Teaching. *Hong Kong Medical Journal*, vol. 6, issue 3, pp. 301-6.
- [7] Netten, A., Droop, M. and Verhoeven, L. (2011). Predictors of Reading Literacy for First and Second Language Learners. *Reading and Writing*, vol. 24, pp. 413–425.
- [8] Nielsen-Bohlman, L., Panzer, A. M. and Kindig, D. A. (Eds.) (2004). *Health Literacy: A Prescription to End Confusion*. Washington D. C.: National Academies Press.
- [9] Nutbeam, D. (2008). The Evolving Concept of Health Literacy. *Social Science and Medicine*, vol. 67, issue 12, pp. 2072-8.
- [10] Oh, H. J. and Lee, H. (2019). When Do People Verify and Share Health Rumors on Social Media? The Effects of Message Importance, Health Anxiety, and Health Literacy. *Journal of Health Communication*, vol. 24, issue 11, pp. 837–847.
- [11] Peterson, F. L., Cooper, R. J. and Laird, J. M. (2001). Enhancing Teacher Health Literacy in School Health Promotion: A Vision for the New Millennium. *Journal of School Health*, vol. 71, issue 4, pp. 138-44.
- [12] Sadri, I., et al. (2019). Suggesting Critical-Thinking and Problem-Solving Method into Teaching English Reading to EFL Students in Indonesia. *KnE Social Sciences*, vol. 3, issue 19, pp. 294–304.
- [13] Safer, R. S. and Keenan, J. (2005). Health Literacy: The Gap between Physicians and Patients. *American Family Physician*, vol. 72, issue 3, pp. 463-8.

- [14] Storey, A., *et al.* (2020). The Association between Health Literacy and Self-Rated Health Amongst Australian University Students. *Journal of Health Communication*, issue 00, pp. 1–11.
- [15] Weiss, B. D. (2015). Health Literacy Research: isn't there Something Better We Could be Doing? *Health Communication*, vol. 30, issue 12, pp. 1173–1175.