



Reading Comprehension in the Medical Education Curriculum during the covid 19: A Global Perspective

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Abstract

The coronavirus caused the COVID-19 pandemic's global effect, which began in early 2020. Due to the emergence of various infectious illnesses, medical students need to possess the skills to investigate and treat them. Therefore, medical students need to peruse the materials provided by the World Health Organisation to get a comprehensive understanding of the many symptoms associated with the recently emerged illness, as well as the need for early detection and prevention. This study aimed to examine information about reading comprehension and competency among medical students and healthcare professionals during COVID-19 medical students and how they faced issues with reading and studying college materials throughout the COVID-19 era. Many medical students worldwide lack a sufficient understanding of the recommended infection control practices. Their reading impairments also hindered their comprehension of their medical condition, resulting in delayed diagnosis and inadequate use of preventive medications. This study was conducted using the library method and it has two main types Primary and secondary data. So, this review paper focused on secondary data to obtain accurate information about this topic. According to the research, planning and preparation are important in terms of supplies, techniques, and media. The study's findings show that, due to the limited scope of medical education programs, the curriculum for medical colleges did not provide comprehensive instruction on reading comprehension techniques. Currently, there is a lack of comprehensive academic literacy training for medical research in these curricula. Thus, anyone pursuing a medical education should acquire knowledge by studying the resources provided by the World Health Organisation.

Keywords: Medical students, Reading skills, COVID-19, programs, WHO

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Introduction

The global COVID-19 epidemic affects all countries worldwide. The World Health Organisation (WHO) has designated COVID-19 as a serious global public health emergency due to its rapid and widespread transmission (WHO, 2020). To prevent its possible worldwide transmission, many nations implemented temporary closures of their educational institutions, schools, and even international air travel. Gaining a comprehensive understanding of the ramifications of this disease has become essential for the entire population, especially for medical students. Public individuals can expand upon the existing pool of knowledge by engaging in reading, therefore making literacy a crucial factor in the spread of information (Alfaki & Siddiek, 2013). Both reading and experience add to our existing knowledge. The research was authored by Alfaki and Siddiek in 2013. According to Brown (2001), reading involves conveying information, culture, emotion, and knowledge via written material. A significant number of individuals employed in healthcare environments, particularly medical students, lack the requisite knowledge of infection prevention (Al Mohaissen, 2017). Since the discovery of the Middle East respiratory syndrome coronavirus in Saudi Arabia in 2012 (Zaki et al., 2012), there has been an urgent need to enhance public knowledge about infectious illnesses to manage the transmission of the virus.

Mohaissen, (2017). Thus, it was essential to cultivate the curiosity, ability to understand written text, and reactions of medical students towards the epidemic (Al-Mohrej & Agha, 2017). In early 2020, there was an urgent requirement to enhance public and healthcare provider understanding of COVID-19 once more. Primarily, medical students must possess the ability to comprehend the WHO materials to effectively grasp the novel sickness and discern the language that addresses the symptoms of a certain ailment and underscores the need to implement preventive measures. The references provided are Al-Mohrej and Agha (2017) and the World Health Organisation (2015). To improve professional skills in English, it is crucial to promote the growth of English language proficiency. Developing proficiency in both verbal and written communication, particularly by acquiring effective communication skills, accomplishes this goal. This skill is shown via several speech tasks, including speaking, writing, listening, and reading. The reference is from Tlebalidin et al. (2012). Conversely, Al-Jamal (2018) has particularly analyzed reading as an ongoing process of drawing informed inferences, suggesting that irrespective of the student's skill level, they would often come across several difficult concepts in the book. Practicing the skill of deducing and understanding the meanings of unfamiliar words via guessing and inference might be seen as a worthwhile strategy worth developing. This study aimed to examine information about reading comprehension and competency among medical students and healthcare professionals during COVID-19 medical students and how they faced issues with reading and studying college materials throughout the COVID-19 era.

REVIEW OF THE LITERATURE

Medical students must improve their reading skills to successfully interact with their colleagues and professors (Al-Jamal, 2018), which may positively impact their future achievements (Kern & Friedman, 2008). According to Kling et al. (2017), medical students need to have effective reading strategies to understand medical research publications. A substantial proportion of reading material consumed by students in Saudi Arabia is published in English rather than Arabic. Generally, students enrolling in medical degree courses have a high level of competency in English

language skills. However, their previous courses primarily emphasized the enhancement of English language skills via activities such as speaking, writing, and reading, especially about fictitious topics (Kling et al., 2017). In the first stage of this curriculum, medical students need to emphasize reading to augment their fundamental comprehension and to gain novel knowledge by establishing connections with current information. Trites and McGroarty (2005) contended that readers need to amalgamate the stylistic and historical background present in various texts to construct their understanding of the interconnection between them (p. 176). As a result of their limited comprehension of research reading abilities, several medical students have difficulties in critically analyzing the subject matter, particularly in empirical research. Hence, it is important for medical students to first acquire a solid understanding of the basic principles of medical practice, which include the ability to analyze and interpret research papers. Medical students are required to actively participate in the task of perusing and understanding scientific studies. Mastery of this talent is essential since medical practice relies heavily on meticulous scientific inquiry (Kelly & Shanley, 2010). Regrettably, medical schools make false assertions about the adequacy of medical students' knowledge and their ability to interpret scientific research (Roberts & Klamen, 2010).

Bitran et al. (2012) conducted a study to investigate the strategies used by medical students from non-English-speaking nations in comprehending scientific medical research. Nevertheless, their study did not explicitly evaluate the reading comprehension abilities associated with the medical student's curriculum. Alsuliman et al. (2019) conducted a comprehensive analysis of previous studies and argued that the use of instructional language is essential in medical training courses. English as a Foreign Language (EFL) medical students in their courses mostly employed Arabic, their mother language, for discussions. English, on the other hand, was used for handling written materials related to medical education. The authors stated that integrating simplified Arabic language with English terminology will likely serve as an efficacious alternative approach for Arabic-speaking medical students to grasp English literature on medical education.

From its inception, the literature has raised significant issues about students' understanding of scientific articles. Medical students must diligently analyze and evaluate crucial scientific articles to comprehend the methodology used by physicians in scientific research. Proficiency in reading and understanding text is essential since medical treatment is mainly dependent on scientific research (Kelly & Shanley, 2010). Unfortunately, medical schools have made the false assumption that students possess a solid understanding of research literature and are capable of comprehending scientific texts at a satisfactory level (McNamara, 2010; Roberts & Klamen, 2010). Consequently, medical students lack an adequate knowledge base to effectively understand the research literature. Moreover, they cannot connect this knowledge to the most recent comprehension of research materials in their entirety.

Students often struggle to comprehend scientific articles due to their lack of familiarity with technical terminology and the structural components of scientific writing (Phillips & Norris, 2009). Another contributing issue is that younger children lack reading comprehension strategies (McNamara, 2010). The prominence of English as the language of scientific research papers poses a considerable impediment for many non-native English speakers, known as the language barrier (Bitran et al., 2012). Furthermore, as a result of the disparity in cultural norms between the two languages, medical students who lack comprehension of the English language have challenges in grasping medical terminology and suffer obstacles in applying their knowledge in practice (Frank, 2000).

Consequently, the large number of scientific publications published in English poses a major challenge in countries where English is not widely spoken, often known as the language barrier.

Medical students often struggle to understand scientific publications related to medicine since their university instructors often lack understanding of their students' actions (Bitran et al., 2012). Unfortunately, several medical institutions fail to provide structured education specifically designed to cultivate fundamental skills, despite the need to comprehend crucial scientific studies (Roberts & Klamen, 2010). According to McNamara (2010), certain reading strategies should be used in medical schools to instruct students on how to comprehend scientific medical literature.

Several scholarly articles have been published to provide more understanding of reading techniques. Bitran et al. (2012) proposed effective reading comprehension strategies, including post-reading activities and remedial interventions. Furthermore, they suggested focusing on the difficulties encountered by medical students while trying to grasp the content of a scientific research report. Furthermore, a considerable proportion of medical students used alternative strategies such as activating prior knowledge, adopting a slower reading pace, and revisiting difficult sections. One of the essential strategies for understanding text is the activation of prior information. Over 95% of medical students use this strategy. Consequently, most of them used remedial strategies to address difficult words and passages (Bitran et al., 2012).

Bitran et al. (2012) found that a notable percentage of medical students employed effective reading techniques, including identifying main ideas, reading the entire article, looking up unfamiliar terms online, taking notes, discussing concepts with peers, and reviewing the article promptly after reading. The researchers suggested that medical students use a range of general and particular reading comprehension techniques, such as post-reading activities and remedial measures, to overcome early challenges in understanding scientific biomedical material. It is important to recognize that many students choose for remedial tactics as an efficient method for dealing with challenging vocabulary and text parts, such as post-reading activities and corrective measures when they first have difficulty comprehending scientific biological research. When confronted with difficult phrases and passages, it is crucial to acknowledge that many students choose remedial strategies as an effective approach to managing problematic vocabulary and textual excerpts.

Hence, it is crucial to assess both severe and prevalent infectious diseases, together with the understanding, beliefs, and conduct of healthcare practitioners and the general population (Al Mohaissen, 2017). Healthcare experts may use their expertise and conduct an assessment of the government's past preventative initiatives to gather information and develop strategies for managing and preventing certain diseases. Healthcare providers may also offer advisory services to those requiring further interventions for the prevention of infectious diseases (Liu et al., 2013). In 2012, scientists detected the Middle East respiratory illness coronavirus in Saudi Arabia. The citation is from Zaki et al. (2012). The dearth of studies on Saudi Arabian public attitudes and comprehension of infectious diseases is significant since public awareness of such illnesses plays a pivotal role in mitigating their transmission. Moreover, as shown by the studies conducted by Al Mohaissen (2017) and Liu et al. (2013), insufficient and inadequate information leads to low rates of detection, discrimination, and a delay in the administration of therapy. Therefore, it is essential to tackle the lack of knowledge among the general population and healthcare professionals about infectious diseases such as COVID-19.

Al Mohaissen (2017) researched to determine the degree of knowledge regarding the Middle East respiratory syndrome coronavirus among instructors, staff, and female students at a Saudi Arabian university for women, intending to provide more information on the problem in Saudi Arabia. The health college supplied volunteers for the research. She used a self-administered questionnaire that included inquiries about familiarity among other variables. The researcher's findings were disheartening since there was less knowledge on the condition's gravity, mortality

rate, therapeutic alternatives, or epidemiology. Moreover, the investigation revealed that patients had a deficiency in their understanding of the essential measures required to avert this illness. She determined that there was no dialogue on this contagious ailment among Saudi Arabian medical students or the general populace. Al-Mohrej and Agha (2017) administered an online survey to evaluate medical students during their clinical years of medical school. The participants demonstrated a clear understanding of the clinical aspects of MERS, including its diagnosis, prevention, causes, and treatment. However, the investigation revealed that just a fundamental comprehension of the fundamental sciences was necessary.

Method

This study was conducted in a library. The library research technique involves doing research by looking through a variety of relevant material that poses research questions and might take the shape of books, articles, or other written works. A range of activities about library data gathering techniques make up library research. Nearly all studies are constructed on earlier research. Typically, researchers begin by reading relevant literature to gather ideas. According to Zed (2008), library research may be defined as a set of tasks including the processing of research resources, reading and taking notes, and using data-gathering techniques. There are two categories of libraries: primary libraries and secondary libraries. The main library consists of a compilation of reading materials derived from research findings or literary studies published in research publications or scientific periodicals.

Result and Discussion

Based on the literature review and to improve understanding, communication, and awareness among healthcare consumers and medical professionals, a group of highly respected faculty members has suggested that medical students use their native language throughout their medical education. Sebai (1982) observed that many learners consistently use their native Arabic language throughout their whole medical training, a practice that has received endorsement from prestigious universities in Arab countries. Telmesani et al. (2011) have recognized the possible advantages and disadvantages of using a non-native language for teaching and learning medicine. However, they have not extensively investigated the precise effects of using Arabic as the language of instruction in Saudi Arabia. Hence, in the context of medical education, discussions have arisen in several non-English-speaking nations over the choice of a language to serve as the predominant medium of teaching inside medical classrooms. This prompts the question as to whether medical students would get more advantages from using their mother tongue as opposed to English. Advocates of English-based education argue that English is the prevailing and universally recognized language in the fields of medicine and research. They assert that it is an excellent instrument for anyone seeking to pursue education and engage in hands-on experiences in other countries. Furthermore, it plays a crucial role in the ongoing provision of medical education (Alsuliman et al., 2019). Therefore, medical institutions must prioritize the integration of medical education in a foreign language, namely English, to effectively enhance medical students' understanding of communicable illnesses, such as COVID-19.

Recent research conducted in Jordan by Al-Jamal (2018) investigated the relationship between medical students' reading comprehension and their use of linguistic contextual cues. Al-Jamal noted that medical students use several strategies to learn both explicit and implicit terminology to enhance their reading comprehension. The proficient use and guidance of both

implied and stated vocabulary greatly enhanced the understanding of difficult words and phrases. Medical students have challenges in comprehending and acquiring technical language while engaging with medical literature (Abdullah, 2013). Medical students often come across a multitude of complex terms while reading medical literature. An effective method for comprehending literature involves formulating well-informed hypotheses on new languages (Wulandari, 2016). Hence, we highly advocate for medical students to get information via the use of reading comprehension tactics (Al-Jamal, 2018). For instance, they did not need more exertion to comprehend medical content while using these tactics. Al-Jamal (2018) concluded that language intervention courses are essential for enhancing the reading comprehension skills of medical students.

Examining the grasp of the general population is especially illuminating, given that medical students' understanding is still in the process of maturing. Moreover, the difficulties in understanding written texts become more pronounced when patients and medical students engage in reading activities in a language that is not their first language, in addition to reading in their mother tongue. In their 2018 research, Manchanayake et al. performed a cross-sectional investigation of the reading comprehension skills of both patients and medical students. The study included evaluating patients' capacity to comprehend the dosage instructions for their respective medications. The researchers directed the subjects to thoroughly examine the recommended dose instructions and thereafter fill out a detailed questionnaire. The researchers did this study to evaluate the cognitive abilities of the volunteers. Based on the same research, patients' degree of education had an impact on their understanding of the recommended dosage, although it did not reach a complete level of 100%. This suggests that some individuals have difficulties when it comes to comprehending and following dosage directions.

Raynor and Knapp (2000) conducted a distinct investigation where they documented the total count of patients who kept, observed and examined the booklets. A total of 215 patients who obtained their prescribed prescriptions from three distinct pharmacies were contacted and interviewed by researchers via telephone follow-ups as part of the study. Their inquiry revealed that among the 120 participants, including 74% of the patients, they retained the leaflet. Furthermore, a total of 134 patients, accounting for 83% of the participants, said that they had seen it. Furthermore, the researchers selected a particular brochure and reported that 64 individuals, constituting 40% of the sample, perused it. In addition, of the 64 participants, 34 individuals, which accounts for 21% of the sample, read the brochure completely. The researchers determined that the anticipated proportion of patients who peruse the brochures is discouraging. Concerning the sufferers who were provided with the same booklet every month, the researchers discovered that sixty individuals who did not peruse it said that they had previously done so. Because cautions and warnings may be altered and memories can be easily forgotten, it is necessary to give more thought to this issue as a possible worry.

Conclusion

Knowing how to read improves one's capacity for critical and analytical reading comprehension, which benefits medical students, healthcare workers, and the general public. As an example of a reading exercise, Aksan and Kisac (2009) suggest that reading abilities are a crucial part of education and help people learn and improve their comprehension of written content. Reading helps people become more cognitively capable and improves their comprehension, application, and expression of knowledge from written materials (Aksan & Kisac, 2009). Medical schools mistakenly believe that college students have the necessary skills and knowledge to

understand scientific subjects (Roberts & Klamen, 2010). McNamara (2010) states that two approaches are suggested to address problematic reading habits. First and foremost, pupils need specific, focused instruction in reading. Selecting reading materials that are appropriate for the reader's level of ability and comprehension is also crucial. These two strategies provide medical school teachers assistance in raising student performance and helping those who struggle with reading (McNamara, 2010). Throughout their stay in college, medical students often do not have enough opportunities to practice and develop their reading comprehension abilities (Al-Jamal, 2018; Bitran et al., 2012). Students must thus improve their ability to comprehend written materials in the context of English as a Foreign Language. Many students use techniques including going back to difficult sections, reading more slowly, and using previous knowledge to improve comprehension to improve their reading abilities (Bitran et al., 2012). Students who can understand and communicate about academic topics in a language other than their home tongue are better prepared to deal with language and content difficulties in academic settings, claim Kling et al. (2017). Essential components of research papers are given priority in medical education courses, with an emphasis on problem-solving reading skills development. It's possible that these courses don't provide rigorous academic literacy education, which includes teaching students how to understand texts that support curriculum development and medical research.

Conflict of Interest

No conflict of interest

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