

Health literacy strategies: a Caribbean approach

Abstract

Low health literacy is linked to poor health outcomes. Adequate health literacy depends on effective communication between patients and their healthcare providers, so it is important that physicians use health literacy strategies. This review article provides a brief account of the evolution of health literacy which shows a clear need to improve rates worldwide. It also addresses the relationship between the use of health literacy strategies and health outcomes; the physician's role in health literacy including their implicit biases, training, gender, and region of training; and recommendations to improve policy-making, practice, and education in a Caribbean context. The implications for positive social change include the potential for health literacy training and inclusion in medical school curricula. The provision of health literacy training at all levels of education and practice aid in ensuring physicians are knowledgeable about the health literacy process, able to use strategies that can improve patients' health literacy, and able to improve patient health outcomes. Recommendations on improving community literacy by engagement and empowerment are also discussed.

Keywords: health literacy, physicians, Caribbean, implicit bias, health outcomes

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Introduction

"Health literacy is the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions" (Institute of Medicine [IOM]).¹ However, the definition of health literacy has undergone some significant changes, and has not been consistent in the literature. The earlier definitions were unclear, not operationally defined, and guided by the priorities of the researchers. The earlier focus was primarily on the "ability to apply basic reading and math skills in a health care context".² In fact, a systematic review of the literature from 1999 to 2010 by Berkman et al.² yielded 13 different definitions of the construct. It is important to note that the definition is still evolving as researchers seek to include the role that systems, such as education and society as a whole, play in health literacy (World Health Organization [WHO]).^{3,4} For the purpose of this article, the IOM's definition will be used. This review will examine the evolution of health literacy, its impact on health outcomes, the physician's role in health literacy, and recommendations in a Caribbean context, specifically Grenada.

In the United States, the issue of literacy was re-emphasized by the National Literacy Act of 1991 when the National Adult Literacy Survey (NALS) revealed that approximately 90 million Americans were functionally illiterate, and unable to understand complex information (National Center for Education Statistics, n.d.). Further, in 2003 the results of the National Assessment of Adult Literacy (NAAL) showed that only about 12% of adults had proficient health literacy (NAAL, 2003). This national assessment was the first of its kind to measure health literacy in all adults in the United States, and provided the catalyst for research on health literacy. As a result, in 2004 the IOM convened a committee on health literacy to not only define the concept but to also set goals and implement strategies to improve its impact on health. Furthermore, the statistics on health literacy in other parts of the world show similar deficits in various populations. The results from the European Health Literacy survey showed that 47% of the adult population had poor health literacy (Sorensen et al., 2015), and the Canadian Council on Learning (CCL, 2008) reported that 60% of Canadians have less than adequate health literacy levels. Similarly, the Australia Institute of Health and Welfare⁵ reported having about 59% of their population having less than adequate health literacy,

and similar results were reported in 14 sub-Saharan African countries where researchers found that approximately 6 out of 10 adults had poor health literacy.⁶

Recognition of the impact of proficient health literacy is not limited to the United States. The United Nations (UN) and the World Health Organization (WHO) issued a mandate in 2009 to raise the level of health literacy worldwide. Furthermore, the 2030 Agenda for Sustainable Development in the Shanghai Declaration included efforts to increase levels of health literacy in order to reduce health disparities and improve health outcomes (WHO, 2016). A policy analysis by Trezona et al.⁷ included health literacy policies from six countries in three WHO regional groupings: Australia, Austria, China, New Zealand, Scotland, and the United States. The common thread among these countries was the recognition of the need for national health literacy policies and strategies that ranged from the governmental to the individual level. There is limited research on health literacy in the Caribbean, and the studies that have been conducted specifically investigated the influence of health literacy on health outcomes.⁸⁻¹² As a region, we have not yet explored measurements of population health literacy, which in itself presents a significant challenge.

Burgeoning research on this phenomenon has shown significant correlations to health outcomes, especially in older adults,¹³⁻¹⁵ and researchers are beginning to explore the role of the physician in the health literacy process (van der Heidi et al., 2018).^{16,17} The role of physicians is especially critical in the health literacy process because patients depend on physicians for clear communication to guide their treatment protocol, but the literature has shown that physicians are either unaware of their role or overestimate their patients' understanding of conditions and treatment.¹⁸⁻²³

Health outcomes

Researchers have established clear correlations between health literacy and health outcomes, specifically that low health literacy is strongly associated with poor health outcomes.^{13,24-28} McDonald and Schenkman²⁶ found that low health literacy was linked to increased hospitalizations, lower use of preventative measures such as vaccines and screenings, and higher mortality rates. May et al.²⁹ also reported that low parental health literacy influenced child health by inaccurate medication dosing and increased use of the emergency room for

acute, non-urgent care. Furthermore, research has shown that the relationship between low health literacy and poor health is stronger for more vulnerable groups, such as the elderly, poor, less-educated, and minorities, in general. Many members of these populations are unable to read or understand their prescriptions properly which leads to poor medical compliance and ineffective treatment that contributes to high mortality rates.^{27,29} In particular, given the increased life expectancy there are more individuals living longer while managing two or more chronic illnesses, such as diabetes, hypertension, and cardiovascular diseases. In fact, the CDC (2017) reported that approximately 50% of the older population have multiple chronic conditions of which they have little understanding about their symptoms and treatment. This lack of understanding is strongly associated with poor health literacy which the NAAL (2003) reported as below basic level for over 70% of the older adult population in the United States. Based on a systematic review of prospective cohort studies between 2014 and 2018, Oliveira et al.³⁰ reported a statistically significant relationship between poor health literacy and higher dementia risk. They emphasized the need for health care professionals to consider patients' health literacy when planning dementia risk reduction. Given the strong observed relationship between low health literacy and poor health outcomes, it is not surprising that researchers have suggested that poor health literacy can be a death sentence for an older adult because those with "low health literacy are twice as likely to die within five years as compared to adults with no health literacy limitations".^{2,14}

Research conducted in the Caribbean in Jamaica, Guyana, and Barbados, though limited, showed comparable results to other parts of the world. Researchers reported that elderly men with chronic illnesses and limited health literacy had poor health-seeking behaviors, and there was a significant relationship between patients with low health literacy and undiagnosed diabetes.⁸⁻¹⁰ Additionally, a case study in Barbados that looked at the implications of health literacy and type 2 diabetes showed that diabetic patients with low health literacy scores found it difficult to understand instructions for managing the disease thus affecting their overall health.¹¹

Singh and Aiken¹² conducted a quantitative study with diabetic patients in a health clinic in Jamaica that served a population of approximately 50,000, and presented contrasting results to what has been reported in the previously mentioned studies. They found that although there was a significant relationship between limited health literacy, older adulthood, and lower educational status, which is consistent with the literature, there was no significant association between health literacy level and health outcomes of this group. Al-Syah et al. (2015) observed similar results in a low-income African-American population with Type 2 diabetes, and reported that there was no association between health literacy and the cardiometabolic indicators of diabetes (A1c, blood pressure, or body mass index). The authors suggested that a possible reason may be higher levels of social support from family and friends among this demographic.

Physicians' role in health literacy

The IOM published ten clear attributes of health literate organizations to guide the physicians' roles in improving health literacy and the recognition of the importance of changes in every aspect of the health care system.¹⁶ These attributes covered every aspect of health literacy from training providers, using strategies in the clinical setting, and advocating for awareness throughout every level of health organizations. Researchers caution that not only should health literacy be explored at the individual level but also at the policy, education, and health systems level. This multi-pronged approach is vital in order to facilitate changes in all aspects of health literacy (van

der Heidi et al., 2018).^{17,3} In addition, because poor health literacy is considered a barrier to help-seeking behaviors in the health care system, it is important that health professionals are aware of the role that they play in this process. The importance of health professionals having adequate health literacy awareness, knowledge, and skills has been emphasized in the literature (van der Heidi et al., 2018).^{16,31,32} Research shows that one of the main deficiencies in health literacy is the lack of awareness among physicians about their role in improving health literacy in their patients.^{33,34,20}

In recent years, the role of the physician in improving health literacy among patients has received some attention in the literature. Ousseine et al.³⁵ explored the necessary factors in order to achieve shared decision-making between physicians and patients. They found that the main factor was physicians' support in patients attaining high levels of health literacy. Coleman³¹ and Mackert et al. (2011) reported that many health professionals lack the requisite health literacy awareness, knowledge, or skills, and McCleary-Jones³⁶ found a marked disparity in the health literacy knowledge base among nurses because of the inconsistencies in training protocols. The results of a survey conducted by Seurer and Vogt³⁷ showed that 77% of physicians thought that their patients had at least a moderate level of health literacy, but none of them formally tested their patients to ascertain their health literacy level. In addition, only 21% of the respondents ensured that the education materials that they provided were at the recommended 6th grade level. Another common misconception that is noted throughout the literature is that physicians report that they can observe the health literacy level of their patients during an office visit.³⁷ This mistake typically leads to physicians over-estimating the health literacy level of their patients especially that of minority patients, and as such either do not use health literacy strategies with them or provide patients' education that is incongruent with their needs.^{38,39,34} In an effort to eliminate this mistake, Hedelund-Lausen et al.³⁹ suggested that practitioners should not only identify patients with low health literacy skills but help to build their levels of health literacy in recognition of the consequences of having poor health literacy.

Health literacy and implicit bias

One of the individual attributes of the physician in the health literacy process is their implicit biases. Implicit bias is defined as "unconscious, mental processes that lead to associations and reactions that are automatic and without intention".⁴⁰ There are a plethora of studies that show how implicit bias affects health care provision but what is even more concerning is how health literacy is implicated in that process. For example, a physician may assume (due to implicit bias) that a person with lower socioeconomic status would not understand different treatment options and opt not to discuss them but 'make the decision for the patient'.⁴¹ Anti-obesity implicit bias tends to label obese people as 'stupid' or 'lazy' and physicians may neglect to provide salient information to these patients thus affecting their ability to make appropriate health decisions.⁴² This relationship between health literacy and implicit bias suggests that in addition to health literacy training, physicians should also be exposed to implicit bias awareness training (see Recommendations).

Health literacy training

An important consideration in health literacy knowledge of physicians is training and whether they are exposed to the health literacy concepts during medical school, residency, or as continuing medical education (CME). Researchers suggested that physicians, medical students and residents lack the requisite health literacy training.^{19,39,43} Further, based on the results of a systematic review Saunders et al.⁴⁴

found that health literacy training was under-developed in the health professions education arena. They suggested not only the need for a health literacy definition specific to the health professions education field but also targeted curricula and on-the-job opportunities. Different standards seem to be applied across specialties as Ali⁴⁵ reported that health literacy was not offered consistently as a part of the curricula of community-based internal medicine residency programs. To this end, Brann and Bute⁴⁶ asserted that the inclusion of informed decision-making practices should be included in the training of medical residents. This assertion was based on their study using 40 patient encounters with residents and standardized patients (SPs) regarding early pregnancy loss. The results showed that although some residents used minimal informed decision-making, most of them did not give patients information on pain management or addressed their concerns.

Researchers agree that clear communication between the physician and patient is one of the ways to ameliorate poor health literacy.^{31,47,48} Several methods have been found to improve this communication and are strongly recommended as a part of medical school curricula and CME. These methods include didactic teaching, small group exercises, role plays, video review, SPs, direct observation, and feedback.³¹ In addition, Schmidt et al.⁴⁹ advocated for the use of focus groups that included patient advocates to share their health care provider experiences, as well as patient testimonials. Although some of these methods have not been adequately evaluated, the schools that do include health literacy in the curricula typically include a combination of didactic and experiential methods.^{31,47} Further, Coleman et al.⁴⁷ suggested that health literacy training with medical students should be done in an integrated or extended format as opposed to a one-time lecture. Additionally, Pagels et al.⁴⁸ found that the use of didactic lectures and SPs as part of health literacy training with family-medicine residents resulted in a significant increase in health literacy knowledge. In fact, when this group was surveyed three months later, 77% were still using the teach-back method.

Physicians' gender and health literacy

Although there is a fair amount of research on how physician-patient gender influences medical adherence and satisfaction with medical care,⁶⁶⁻⁷¹ there is a paucity of research on whether physicians' gender relates to health literacy. Garcia-Retamero et al.⁷² found gender to be one of the factors that limited physicians' willingness to have a more collaborative relationship with their patients. They reported that although female surgeons said that they preferred to share the decision-making with their patients, in actuality they involved patients less often. A mixed study by Noro et al.⁷¹ in Japan showed that female patients were more satisfied with female physicians' communication. The researchers found that female physicians were more patient-centered. Although female patients got more medical information from male physicians, the consultation was not interactive. Additionally, Mast and Kadji⁷⁰ reported that gender stereotypes may play a role in how physicians' communication is perceived by patients. They found that patients seem to expect patient-centered communication from female physicians, but rated male physicians higher when they did engage in that type of communication.

Physicians' years in practice

Studies show that the number of years in practice influences physicians' performance, but some of the research presented is paradoxical. For example, there may be an assumption that given the historical paternalistic view of the physician-patient interaction, more experienced (older) physicians may not be open to shared decision-making.⁷³ In fact, a systematic review by Choudhry et al.⁷⁴ revealed an association between longer years of practice and provision of lower

quality care. On the other hand, Garcia-Retamero et al.⁷² found that the more experienced surgeons utilized a collaborative approach more often and were satisfied with their role. They surmised that more experienced physicians had more opportunities for feedback and used it as a way to improve. Regarding years of practice and health literacy, the literature is limited in its coverage. After a health literacy training intervention, Coleman and Fromer¹⁹ compared physicians who had more than three and a half years of experience with those who had less than three and a half years of experience. Post-assessment, they found that those with more experience reported increased knowledge and improved intentions to use health literacy strategies.

Physicians' region of training

There was no specific research on whether the region in which a physician is trained impacts intentions to use health literacy strategies. There was some literature on how different regions of the world provide communication skills training for the physicians, and as was noted these skills are an important part of health literacy improvement of patients.^{75,76,68} The common thread among all regions of the world is the recognition of the importance of effective communication skills in the physician-patient relationship. Bylund et al.⁷⁵ asserted that due to the diverse cultures in the Arabian Gulf countries, there is a strong need for health care communication skills training. Further, they stated that this type of training is not typically included in medical education. Similarly, physicians trained in the Caribbean region have been exposed to communication skills but not necessarily health literacy strategies.

Health literacy strategies

Health literacy best practices include the use of plain language, avoidance of medical jargon, availability of medical forms and information at a 6th grade level, and most importantly, use of the 'teach-back' method. The use of plain language and avoidance of medical jargon are the cornerstones of clear communication techniques. They allow for patients' greater understanding of what is being communicated and these techniques also help to build rapport between the physician and patient.⁵⁰ DeWalt⁵¹ also suggested that physicians should attempt to limit the number of salient points to be discussed to no more than three, in order to help patients remember the information. If there are more important items, supplementary methods, such as written materials can be used to reinforce the information. Pushparajah et al.⁵² emphasized the value of using plain language summaries of clinical information to promote shared decision-making between physicians and patients. There are also suggested guidelines for written materials, such as informational brochures or medical forms for completion. Some of these guidelines include the use of simple language without medical terminology and acronyms, use of bullet points instead of paragraphs, inclusion of white space, use of 12 point font or higher depending on the population, and the use of images to reinforce the written information.⁵³ In addition, Pratt and Searles⁵⁴ suggested that the use of visual aids can mitigate the challenges presented by language and numeracy, therefore improving the effectiveness of the physician-patient communication.

The teach-back method has been touted as one of the most effective strategies for physician-patient communication and improvement of health literacy. This method involves the physician seeking confirmation of understanding from patients by asking them to explain what they understood about what they were told regarding their condition and treatment. This strategy not only allows the physician to assess patients' understanding but also to ascertain whether the use of a translator is warranted.^{39,55} It has been shown to be effective with different populations and conditions, such as postmenopausal

women,⁵⁶ older adults with chronic illnesses,^{57,58} and for patients with diabetes (National Institute of Health, n.d.). A systematic review by Oh et al.⁵⁹ showed a 45% decrease in readmissions after hospital discharge when the teach-back method was used; however, the researchers cited selection bias as a limitation and recommended more well-designed, randomized future studies. Notably, Yukawa et al.,⁶⁰ found that there was a significant relationship between the physician-patient communication and patients with high health literacy. These patients were more likely to disclose their use of complementary and alternative medicines (CAM) to manage their chronic illnesses because physicians took the time to explain their conditions and alternative treatment options.

Given the health informatics technology that now exists and the impact it has made in health care delivery, it would be negligent not to look at health literacy strategies from an eHealth perspective. Karnoe and Kayser⁶¹ asserted that information-technology (IT) based interventions in the promotion of health literacy are poised to make significant changes in the dissemination of information and measurement of outcomes. However, they noted that there was not enough information about individuals' eHealth literacy and its association with health outcomes.⁶¹ Neter and Brainin⁶² supported this assertion based on the results of a systematic review that showed few studies on eHealth literacy and inconclusive results. Further, Kim and Xie⁶³ noted barriers to use, such as readability above 6th grade level, limited access to health literacy measurement tools, and limited language options. Additionally, Jacobs et al.,⁶⁴ conducted a systematic review of 16 scientific databases for eHealth intervention research over a 10 year period. They reported that overall these interventions showed significant outcomes with regard to health literacy in a diverse settings, diseases, and populations, but acknowledged areas for future investigation, such as cultural adaptation of tools and information. For example, many older adults are at an increased risk for poor health literacy and computer illiteracy, which makes it challenging for them to navigate some of the technology that is being used in the health care system.⁶⁵

Recommendations

Although there are no formal statistics about the levels of health literacy in Grenada, it can be assumed that they are no different from the global statistics that show that the prevalence of low health literacy in any given society is high.⁷⁷ The healthcare system in Grenada is socialized medicine, where healthcare is offered free of charge to its citizens across the 36 public health care facilities (WHO, 2017). The Ministry of Health (MoH) is primarily responsible for policy and financial decisions that govern the healthcare system. As such, there are implications for all stakeholders in the healthcare system in Grenada in the areas of policymaking, practice, and education.

Policymaking

Previous researchers have cautioned that for health literacy levels to be improved, it should be addressed at all levels of society: individual, policy, education, and health systems (der Heidi et al., 2018).^{16,17,2} For instance, Briglia et al.⁷⁸ posited that health literacy also includes the importance of health professionals and institutions to communicate in an effective manner so that individuals can make informed decisions. The acknowledgment of the challenges faced by health care professionals must also be addressed such as time constraints, and lack of the requisite training and resources. A major barrier may also be the needed culture shift for a more collaborative approach to patient care.⁷⁸ This would suggest that the MoH, and particularly the Chief Medical Officer (CMO), have to play a critical

role in ensuring that the clinical staff use health literacy strategies with every patient encounter. However, before this change can be implemented, health literacy training with all levels of the clinical staff is necessary. This is an opportunity to provide them with the necessary health literacy knowledge and experience, which will further drive their intentions and subsequent behavior. Wenger's professional educational learning design framework (engagement, imagination, alignment, participation, emergent, local/global, identification) can be used to ensure that health professionals receive evidence-based health literacy education.⁷⁹

The theory of planned behavior's (TPB) premise that intentions are the strongest determinant of behavior supports the assumption that if these physicians are given the necessary tools and support, they will use health literacy strategies with their patients.⁸⁰ This recommendation is made with the recognition that the government of Grenada has limited resources and may not have the budgetary allocations to provide this training. As a result, partnering with St. George's University to provide this training may be a reasonable and realistic solution. The MoH has requested the expertise of the Department of Psychology for other initiatives for their staff such as stress management and conflict resolution workshops, and health literacy training can also be added to the agenda. A working committee comprising of the CMO, physicians, nurses, and psychologists can create the timelines, objectives, and curriculum for this initiative. This committee can also conduct an audit of current PEM to ensure that they meet the standard for health literacy best practices (see recommendations under Practice). This collaborative approach will ensure limited cost to the government and create opportunities for service to the community for psychologists at St. George's University.

Another component of a robust health literacy policy should include community engagement. A major objective of healthcare systems is to improve both the accessibility of healthcare services and the overall health outcomes of the population as a whole.^{81,82} Promoting community literacy among healthcare professionals aligns with the goal of addressing health inequities and catering to the diverse needs of communities. Jones et al.⁸² further asserted that community engagement should be an integral part of health literacy initiatives as it takes undue pressure of individuals and boosts collective efficacy. The authors proposed six underlying principles of community literacy as a means of achieving community engagement:

- I. The recognition that the complexity of communities underscores the need for customized responses that will adapt as communities and healthcare landscapes evolve;
- II. An understanding of community contexts, including the norms, values, traditions, and healthcare expectations to guide healthcare policy, strategy, and service decision-making;
- III. An attention to intangibles such as building trusting relationships that are consistent and credible;
- IV. A delivery of community literacy and engagement education that is focused on building capacity among healthcare providers to be more responsive to community needs, priorities, and expectations;
- V. A willingness to adapt healthcare approaches to achieve improved health outcomes. This may require a shift toward primary health care, population health, and public health; and
- VI. A focus on community solidarity and mobilization and the establishment and maintenance of structures and processes that promote these efforts in identifying and addressing health inequities. (p. 4).

Practice

The TPB also emphasizes perceived behavioral control as the most important factor in influencing intentions, which is the major determinant of behavior.⁸⁰ As such, if physicians are given an adequate amount of actual control over the behavior, they will be more likely to follow through on their intentions.⁸⁰ Given this premise, the MoH should include physicians in the health literacy planning initiative, which will give them ownership and control of the use of health literacy strategies in their practice.

Although physicians in Grenada display strong intentions to use health literacy strategies with their patients, they are lacking in the requisite health literacy knowledge and experience.⁸³ However, there are opportunities to address these deficits; most physicians (53%) in Grenada fall within the 25 to 44 age range and were in practice for approximately 11 years (Wildman, 2020). This suggests that Grenada has a relatively young physician pool, which allows for ample time to present CMEs on health literacy strategies, and track patient health outcomes. As effective communication between physician and patient is one of the ways to improve poor health literacy, CME sessions can include the use of patient advocates to share their experiences as well as simulated exercises with SPs.⁴⁹

Another effective strategy to improve patients' health literacy is providing appropriate patient education materials (PEM) as "written health education materials can only be effective if they can be read, understood, and remembered by patients".⁸⁴ However, most PEM are written above the literacy levels of most adults with older and low-income adults being most at risk.⁸⁵ The Health Literacy Universal Precautions Toolkit (HLUPT) was developed to ameliorate these issues and provide guidance to physicians on how to communicate with patients of all health literacy levels. This Toolkit has 20 Tools with Tool 11 ("Design Easy-to-Read Material) being specific to PEM and includes recommendations such as "(a) training staff in the evaluation and development of easy-to-read materials; (b) assessing the reading level of written documents; (c) ensuring that materials are written at or below the sixth-grade level; (d) following guidelines for clear communication (e.g., avoiding medical terms, including ample white space); and (e) obtaining patient feedback".⁸⁵ Furthermore, the Tools can be culturally adapted for use with reliable and valid results.⁸⁶

In addition, getting feedback from patients is also helpful to understand public perception of the healthcare system. These narratives can be used in the design of interventions to create a health literate organization.⁸⁷ The inclusion of didactic lectures along with hands-on practice with SPs may result in a significant increase in health literacy knowledge as suggested by Pagels et al.⁴⁸ In addition, Saunders et al.⁴⁴ proposed that health literacy on-the-job opportunities can provide not only health literacy knowledge and experience but also bolster physicians' self-efficacy regarding intentions to use health literacy strategies. For example, strategic placement of posters of teach-back and "Ask Me" can serve as reminders to stimulate conversation with patients. Ask Me 3[®] is a program designed to elicit answers to three questions: "1) What is my problem?; 2) What do I need to do?; and 3) Why is it important for me to do this?".⁸⁷ Physicians can use "Ask Me 3[®]" as a guide to ensure that they provide the information that answers those questions.

Education

Seventy percent of physicians in Grenada were trained the Caribbean region,⁸³ and although the specific medical schools were not documented, St. George's University is one of the largest in the region. As such, the curriculum that serves approximately 6,300

students can be modified to include health literacy training throughout the basic and clinical sciences (St. George's University, 2019).⁸⁸ Currently, health literacy is taught as a part of the communication skills in a clinical setting in the last term of basic sciences. However, health literacy training with medical students is more effective when integrated throughout their training.³³ Here again the HLUPT can be included in the curriculum by scaffolding Tools throughout the terms with appropriate case studies for application. The design of the curriculum at St. George's University is conducive to this format as it already includes didactic lectures, small group sessions, and the use of SPs. The use of SPs as a part of health literacy training has not only resulted in a significant increase in health literacy knowledge but also contributed to the continued use of the teach-back method in a clinical setting.⁴⁸ In addition, online and in-person educational opportunities for practicing physicians can validate their perceived behavioral control over intentions to use health literacy strategies with their patients. The increase in health literacy knowledge and opportunities to practice in a simulated environment can improve their health literacy experience and self-efficacy.⁸⁹

The salience of implicit bias training also needs to be addressed from medical school curricula to CMEs for practicing physicians. Healthcare professionals need to be aware of and manage their implicit biases so as not to adversely affect the health outcomes of their patients. Locally curated implicit bias awareness trainings (St. George's University offers these trainings) will provide participants the opportunity for open dialogue and reflective practice with tools to mitigate the negative impact of implicit bias on perpetuating health disparities and inequities.⁴¹

Opportunities for research

This can be the beginning of the movement to improve health literacy of the people of Grenada and the Caribbean region. Further research is needed in this region with other health professionals such as nurses and pharmacists because the improvement of health literacy stems from a collaborative approach. Researchers in other parts of the world have found that nursing professionals were also lacking in health literacy knowledge and experience and will benefit from training and support to enhance their health literacy skills (Guner & Elmekci 2016).³⁶ Additionally, health literacy knowledge should be assessed in medical students in the region throughout their training, which will help to ensure that they begin their medical practice with the requisite knowledge.

Finally, research on the health literacy of the adult population in the Caribbean region is also needed to establish a baseline and track outcomes. However, before that can happen, the traditional health literacy assessment tools, such as S-TOFHLA, NVS, and REALMS, need to be piloted in the region to ascertain whether they are valid for use with the different ethnic groups.⁹¹⁻¹⁰⁰

Conclusion

Globally, researchers have reported that health literacy in the general population is less than adequate and certain groups such as the elderly, poor, less educated, and minorities who are more vulnerable (Mayo-Gamble & Mouton, 2018).⁹⁰ Health literacy is an important influence in the health outcomes of individuals and depends largely on communication and interaction with the healthcare system.¹⁹ This review of health literacy with recommendations to improve its impact in a Caribbean context can be used as a rationale to develop health literacy interventions for physicians and effect changes to the local medical school's basic and clinical sciences curriculum. It can also guide policies geared toward community engagement and capacity

building. However, it is crucial to recognize that the development of a health literate organization needs adequate time and can take up to a year, so it is essential to keep expectations realistic and achievable.⁸⁷

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Conflicts of interest

The author reports there are no competing interests to declare.

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