HEALTH LITERACY FACTORS FOR COMMUNITY WELL-BEING IN THE ENDÉMIC ERA: YOUTH CONSUMER INSIGHT

Ahmad Zuhairi Zainuddin (a)*, Ibhrahim Zakaria (b), Rugayah Haji Hashim (c),
Noor Azlina Mohamed Yunus (d), Nor Lela Ahmad (e),
*Corresponding author

(a) Faculty of Business Management, Universiti Teknologi MARA, 40450 Shah Alam, Selangor, Malaysia,
ahmadzuhairi@uitm.ed.my
(b) Faculty of Business Management, Universiti Teknologi MARA, 40450 Shah Alam, Selangor, Malaysia,
ibrah2939@uitm.ed.my
(c) Faculty of Business Management, Universiti Teknologi MARA, 40450 Shah Alam, Selangor, Malaysia,
mazzinim@uitm.edu.my
(d) Faculty of Business Management, Universiti Teknologi MARA, 40450 Shah Alam, Selangor, Malaysia,
nooraz2939@uitm.edu.my
(e) Faculty of Business Management, Universiti Teknologi MARA, 40450 Shah Alam, Selangor, Malaysia

Abstract

The aftermath of the coronavirus pandemic revealed the imperative for health literacy and health awareness among the youth communities in Malaysia. The Ministry of Health's daily report on the escalating omicron variant cases is worrying from the public health standpoint. That said, it is important to gauge the awareness of the public on their health literacy knowledge to prepare them for the endemic phase. In doing so, the modelling of new health literacy factors will provide the guiding principle to life's adjustments in the new normal. Thus, the objectives of the fundamental study are to determine the new factors on health literacy for community wellbeing in rural Malaysia and to assess health literacy awareness towards youth community wellbeing in the endemic era. A quantitative, non-experimental research design will be the main method for the study with correlation relationship analyses to obtain the findings. A questionnaire will be the instrument used for primary data collection with a sampling frame of youth customer segment focus on undergraduates, thus fulfilling the convenience sampling technique criterion. The expected output will be the emergent factors that would achieve the third objective which is to propose a model for new health literacy. The significance of the new health literacy model will be the updates on public health awareness on the current pandemic situation in anticipation of the endemic phase. The model will contribute to the body of knowledge of health literacy and the perception of the youth customer segment among undergraduate students.

Keywords: Health literacy, health awareness, public health, well-being, youth insight

1. Introduction

Customers vary in different aspects. For healthcare services, healthcare clients are individuals with a range of developmental healthcare needs and perspectives (Rajati et al., 2011). Based on the National Health and Morbidity Survey 2019, the report covered health literacy in Malaysia's context taking into sample size of members of the household. In the report, health literacy is defined as the capacity to locate, comprehend, and use the health resources and services required for daily health decision-making (National Health and Morbidity Survey, 2019). The coronavirus impacted the global population leaving governments scrambling to contain the spread and at the same time to relook public health policies including health literacy knowledge. Vaccinating the population through herd immunity plans was one of the priority strategies for most governments including Malaysia (World Health Organization, 2020). Herd immunity or population immunity is the indirect protection from coronavirus infections that occurs when a population is immune through vaccinations. However, not everyone wants to be vaccinated, thus creating segments of societies that are anti-vaccine and those that are vaccine-hesitant (Hoare et al., 2022). But whatever the individual's preferences are, the government needs to ensure the remaining, large number of the population is protected from the deadly coronavirus and the ensuing variants such as delta and omicron (Layton & Sadria, 2022).

1.1. Literature Review

The aftermath of the coronavirus pandemic revealed the imperative for health literacy and health awareness among the vulnerable communities in Malaysia. The Ministry of Health's daily report on the escalating omicron variant cases is worrying from the public health standpoint. That said, it is important to gauge the awareness of the public on their health literacy knowledge to prepare them for the endemic phase (Della Salda et al., 2022). In doing so, the modelling of new health literacy factors will provide the guiding principle to life's adjustments in the new normal and endemic phase. In support of the necessity for a new health literacy model in Malaysia, it is important to emphasise that health literacy plays a significant role in influencing lifestyle choices, medication compliance, and the management of chronic illnesses, particularly the ongoing COVID-19 pandemic. Hence, a knowledge, attitude, and perception study on these variables is essential (Genovese et al., 2022) to our daily existence in the endemic phase. Health literacy and awareness are closely associated with various indicators and outcomes, and they play a crucial role in shaping individuals' views of health and their health-related behaviours. (Wang et al., 2021). The ability to access healthcare systems, engage in self-care, and manage chronic diseases is influenced by an individual's health literacy level and serves as a guide for healthcare providers on how to communicate with patients effectively (ibid). Moreover, learning more about one's health and engaging in a balanced lifestyle will result in a happy society which is priceless, thus, the value of health literacy should not be underestimated by all walks of life.

1.2. Health Literacy

Health literacy encompasses the cognitive and social abilities that dictate an individual's capacity to obtain, comprehend, retain, and uphold excellent health (Kickbusch et al., 2013; Osborne et al., 2013).

Responsiveness in this context pertains to the ability of health workers and the surrounding systems to acknowledge and adapt to the health literacy requirements of the community. This ensures that equal access to health information and services is maximised, and that individuals are actively involved in their healthcare (Debussche, 2021). It is important to recognise the diversity of individuals' health literacy profiles, not only the average profile of a population, group, or community. Embracing diversity is crucial to fully comprehend the complete contextual representation of a community or group (Batterham et al., 2016). While some individuals may exhibit strengths in most dimensions, others may struggle in all or nearly all dimensions. However, it is worth noting that many individuals have more nuanced profiles. For instance, they may face challenges in areas such as feeling supported and trusted by their healthcare providers and accessing good social support, particularly concerning health information (Debussche, 2021). For patients suffering from chronic diseases, the Internet and information technology are considered crucial tools for independently managing their ongoing ailments. Given the rapid spread of COVID-19, it is imperative to replace traditional healthcare practices with technological alternatives. (E-health methods) (Brørs et al., 2020) and patients must promptly and accurately assimilate the health information (Eysenbach, 2020). Consequently, the increasing reliance on Internet media has made it crucial to assess e-health literacy, which encompasses the ability to obtain health information and engage with it effectively. Therefore, online health information can be considered a primary source of health information for people with chronic conditions (McCray, 2004). Furthermore, given that chronic patients typically belong to the older demographic and have reduced opportunities to seek medical care, particularly in the aftermath of the COVID-19 pandemic (Chudasama et al., 2020; Paige et al., 2017), the demand for e-health among chronic patients has increased significantly. The idea of e-health literacy encompasses various abilities, including digital literacy and information literacy. (Norman & Skinner, 2006), it is influenced by various factors, including sociocultural and behavioural issues (Griebel et al., 2018). Moreover, the finding from Yoo-Lee et al. (2016) also indicated that the Internet comes at three when looking for a source of health information which is surpassed only by the doctor and family or friend variable. However, the variable came second after the internet when it comes to the amount of data retrieved will led to an adoption rate of 81 percent of the internet adoption rate among Hispanic members. Looking at this, the development of the internet as health information is a favourable option in adopting low health literacy which then suggests the use of the internet will help to give better access to related health information and improve health literacy in general. However, the advancements in social media have led to diverse improvements in information retrieval methods. This digitization has not only given rise to new learning styles but has also brought about changes in social attitudes. Additionally, it has posed challenges to e-health literacy abilities (Chang & Schulz, 2018). The Internet's significant impact on social interactions influences how individuals seek health information, leading patients to modify their online health information-seeking behaviours. According to Dadaczynski et al. (2022), research has discovered the importance of health literacy and showed a significant association between health literacy and mental health, which is essentially the requirement of evidence-based intervention in promoting health information among people. Looking into neighbourhood country, Indonesia, or more specifically Jakarta province is highly associated with a high-density urban area with a high predominance of NCD has identified that health literacy has become more important especially during quarantine as the access to

information to health is limited. With the internet usage in Jakarta at 80% population using mobile internet technology, internet access has contributed to the diffusion of information and advice by the medium of internet technology. The new normal has taken place to facilitate health governance information to the targeted population segment such as youngsters and retired people who are active online (MacVane Phipps, 2020).

1.3. Health Literacy Awareness

The lack of understanding of health information compromises an individual's ability to make informed health decisions and thus negatively affects their health outcomes (Singh & Aiken, 2017). Insufficient awareness of health literacy has been associated with negative health consequences, such as reduced utilisation of preventative healthcare services, worse outcomes for specific chronic illnesses, and heightened risks of hospitalisation and death (Singh & Aiken, 2017). The lack of healthcare literacy services in educating people in low- and middle-income nations has led to increasing chronic diseases such as the non-communicable disease (NCD) generally. Apart from that, public institutions often suffer from a deficiency of expertise, drive, and/or resources to effectively manage issues such as economic downturns, social unrest, military conflicts, and disease outbreaks. As a result, this exposes people to a variety of dangers, including poverty, instability, poor health, and economic inequalities (OECD, 2015). Encounters with these dangers often lead to a decrease in credibility in social interactions and a decline in trust between communities and public institutions, such as healthcare systems, which has significant consequences for people's willingness to seek medical help and their capacity to maintain good health and well-being (Witter et al., 2020). The World Health Organisation (WHO) is spearheading the initiative to mitigate the transmission of the 2019 coronavirus illness (COVID-19) outbreak. However, a worldwide outbreak of false information, disseminated swiftly via social media platforms and other channels, presents a significant challenge to public health Zarocostas (2020). Trust in the health system is required to commence health-seeking from public health organizations (Luhmann, 2000). Furthermore, the accumulating data indicates that higher levels of trust in health systems are linked to increased access to healthcare, improved behaviour in seeking health services, adherence to treatment, continuity of care, and self-reported health status (Law et al., 2019; TN & Kutty, 2015; Ward, 2017). While trust is an important driver of individuals' health-seeking behaviour, it is increasingly been argued that the dynamics underlying how trust is developed, maintained, and lost over time and its link to outcomes are poorly understood, requiring further theoretical engagement (Gille et al., 2015; Kittelsen & Keating, 2019). Accessibility, care quality and performance measures, and primary care facility and health professional licensing are all necessary factors for establishing and retaining confidence in healthcare literacy. The dynamic of the relationship between the health system and communities can be seen by how people receive public, private, or alternative care. It is a measure of how much they trust public institutions and choosing to access private healthcare at a greater cost indicates a level of mistrust in public health systems (Lyon et al., 2015). Individuals' perceptions of healthcare providers' communication style reliability and technical competencies are the indicators of trust in public health providers (TN & Kutty, 2015; Topp & Chipukuma, 2016). Therefore, all the societies in a nation must receive the same information whether informal or formal to identify the problem issue. Due to the COVID-19 epidemic necessitating social

isolation, in-person healthcare visits have been reduced. Amidst the COVID-19 pandemic, individuals were confined to their homes because of curfews and were unable to seek medical assistance from physicians and hospitals. This was particularly challenging when the number of infected individuals rose, leading governments to cancel all non-essential appointments. Today, there is a significant need for accessing health information through information technology, not only for society as a whole but also for individuals, especially in the context of the COVID-19 pandemic (Fagherazzi et al., 2020).

2.   Research Methods

This proposal is a fundamental, non-experimental research project. It is a correlational study that answers questions about the relationship among variables or events the researcher's objective of this study is to ascertain the level of health literacy knowledge and evaluate the awareness of health literacy among undergraduate students in Malaysia, specifically focusing on the millennial age. Correlational research indicates insights into the relationship between two or more variables, revealing their shared characteristics or the extent to which one or more pieces of information might predict a given outcome (Salkind & Frey, 2019). The sampling frame for this research consists of undergraduate students who attended public universities in Malaysia. The sampling frame is crucial as it will establish the roster of participants included in this investigation.

According to Sekaran and Bougie (2016), population refers to a collective assemblage of individuals or objects that the researcher desires to examine for their significance and relevance. Whereas Salkind and Frey (2019) said, the population is the entirety of some group. The undergraduate students who studied in a public university are the population for this research. The study will employ purposive sampling as the sampling technique. The sampling in this context is limited to individuals who possess the necessary information, either because they are the sole possessors of it or because they meet specified criteria established by the researcher (Sekaran & Bougie, 2016). Here, only the information from the undergraduates who studied in a public university will be collected and investigated. Therefore, the use of purposive sampling is considered the best sampling technique for this study because purposive sampling allows the researcher to collect information from the selected respondents particularly the undergraduates who studied in a public university.

3.   Discussion

Various studies have tried to determine if Malaysia's improved healthcare has affected enhanced health literacy among its citizens. These studies found that increased healthcare accessibility has had a positive effect on increased population health literacy. Increased dissemination of healthcare information has also had a positive impact on increased population health literacy. Furthermore, increased healthcare accessibility has had a positive effect on increased population healthcare utilization. Yao et al. (2015) stated that participation in health communities' benefits individuals because these communities are an important source of informational (advice, teaching, and referral), emotional (empathy, encouragement, and caring), and social support (companionship, chatting humour, or teasing). Furthermore, the creation and use of this content are affected by situational (stress and anxiety) and competence-related factors

(Rubenstein, 2015). In addition, social behaviour plays an important role in health literacy. Social learning is a crucial learning style that is fundamental to any learning process. Patients seeking health information are significantly influenced by their social environment. There was a correlation between the use of various social media platforms and the eHealth literacy scores of patients. Facebook and Twitter were found to be significant predictors of eHealth literacy scores. Nevertheless, eHealth literacy was significantly reliant on digital literacy (Yuce et al., 2022).

Health literacy is an essential indicator of health outcomes in Malaysia. It has been found that there are significant gaps in the understanding and utilization of healthcare services among different population groups in the country. This article will discuss the findings on health literacy in Malaysia, what factors that contribute to healthcare access and utilization, and how to address these gaps. It will also provide policymakers with recommendations on improving health literacy levels among Malaysians.

4. Conclusion

Factors for health literacy and community well-being in youth insight will be framed for current insights on public health institutions focusing on activities and initiatives to create awareness in health literate information to the youth segment focusing on undergraduates surrounding them. The papers published will add to further and new knowledge on the current situation with health literacy factors that will navigate the public sector especially related government agencies to tap into rural area communities in spreading information and improve health literacy delivery to the rural communities i.e. NCD type of health issues.

References

Batterham, R. W., Hawkins, M., Collins, P. A., Buchbinder, R., & Osborne, R. H. (2016). Health literacy: applying current concepts to improve health services and reduce health inequalities. *Public Health, 132*, 3-12. https://doi.org/10.1016/j.puhe.2016.01.001

Brørs, G., Norman, C. D., & Norekvål, T. M. (2020). Accelerated importance of eHealth literacy in the COVID-19 outbreak and beyond. *European Journal of Cardiovascular Nursing, 19*(6), 458-461. https://doi.org/10.1177/1474515120941307

Chang, A., & Schulz, P. (2018). The Measurements and an Elaborated Understanding of Chinese eHealth Literacy (C-eHEALS) in Chronic Patients in China. *International Journal of Environmental Research and Public Health, 15*(7), 1553. https://doi.org/10.3390/ijerph15071553

Chudasama, Y. V., Gillies, C. L., Zaccardi, F., Coles, B., Davies, M. J., Seidu, S., & Khunti, K. (2020). Impact of COVID-19 on routine care for chronic diseases: A global survey of views from healthcare professionals. *Diabetes & Metabolic Syndrome: Clinical Research & Reviews, 14*(5), 965-967. https://doi.org/10.1016/j.dsx.2020.06.042

Dadaczynski, K., Kotarski, C., Rathmann, K., & Okan, O. (2022). Health literacy and mental health of school principals. Results from a German cross-sectional survey. *Health Education, 122*(3), 350-363. https://doi.org/10.1108/he-10-2020-0094

Debussche, X. (2021). Addressing health literacy responsiveness in diabetes. *Diabetes Epidemiology and Management, 4*, 100033. https://doi.org/10.1016/j.deman.2021.100033

Della Salda, A., Musa, R., Mereu, A., Sardu, C., & Contu, P. (2022). Literacy in the time of Coronavirus: an Italian perspective: Value of literacy in the context of a pandemic. *Annali Di Igiene Medicina Preventiva E Di Comunita, 34*(2), 109-121. https://doi.org/10.7416/ai.2022.2473

Eysenbach, G. (2020). How to Fight an Infodemic: The Four Pillars of Infodemic Management. *Journal of Medical Internet Research, 22*(6), e21820. https://doi.org/10.2196/21820

Fagherazzi, G., Goetzinger, C., Rashid, M. A., Aguayo, G. A., & Huiart, L. (2020). Digital Health Strategies to Fight COVID-19 Worldwide: Challenges, Recommendations, and a Call for Papers. *Journal of Medical Internet Research, 22*(6), e19284. https://doi.org/10.2196/19284

Genovese, C., Costantino, C., Odone, A., Trimarchi, G., La Fauci, V., Mazzitelli, F., D'Amato, S., Squeri, R., & the COVID-19 Risk Perception Group. (2022). A Knowledge, Attitude, and Perception Study on Flu and COVID-19 Vaccination during the COVID-19 Pandemic: Multicentric Italian Survey Insights. *Vaccines, 10*(2), 142. https://doi.org/10.3390/vaccines10020142

Gille, F., Smith, S., & Mays, N. (2015). Why public trust in health care systems matters and deserves greater research attention. *Journal of Health Services Research & Policy, 20*(1), 62-64. https://doi.org/10.1177/1355819614543161

Griebel, L., Enwald, H., Gilstad, H., Pohl, A.-L., Moreland, J., & Sedlmayr, M. (2018). eHealth literacy research—Quo vadis? *Informatics for Health and Social Care, 43*(4), 427-442. https://doi.org/10.1080/17538157.2017.1364247

Hoare, J., Mendelson, M., & Frenkel, L. (2022). COVID-19 vaccine hesitancy and anti-vaxxers - supporting healthcare workers to navigate the unvaccinated: Reflections from clinical practice. *South African Medical Journal*, 11-13. https://doi.org/10.7196/samj.2022.v112i1.16208

Kickbusch, I., Pelikan, J. M., Apfel, F., & Tsouros, A. D. (2013). Health Literacy: The Solid Facts. *World Health Organisation, Europe. 2013* http://www.euro.who.int/en/publications/abstracts/health-literacy.-the-solid-facts.

Kittelsen, S. K., & Keating, V. C. (2019). Rational trust in resilient health systems. *Health Policy and Planning, 34*(7), 553-557. https://doi.org/10.1093/heapol/czz066

Law, S., Daftary, A., Mitnick, C. D., Dheda, K., & Menzies, D. (2019). Disrupting a cycle of mistrust: A constructivist grounded theory study on patient-provider trust in TB care. *Social Science & Medicine, 240*, 112578. https://doi.org/10.1016/j.socscimed.2019.112578

Layton, A. T., & Sadria, M. (2022). Understanding the dynamics of SARS-CoV-2 variants of concern in Ontario, Canada: a modeling study. *Scientific Reports, 12*(1). https://doi.org/10.1038/s41598-022-06159-x

Luhmann, N. (2000). Familiarity, Confidence, Trust: Problems and Alternatives. *Trust: Making And Breaking Cooperative Relations, 6*(1), 94-107.

Lyon, F., Möllering, G., & Saunders, M. N. K. (2015). Introduction. Researching trust: the ongoing challenge of matching objectives and methods. *Handbook of Research Methods on Trust*. https://doi.org/10.4337/9781782547419.00009

MacVane Phipps, F. (2020). Through the Lens of COVID-19. *International Journal of Health Governance, 25*(3), 271-278. https://doi.org/10.1108/ijhg-06-2020-0067

McCray, A. T. (2004). Promoting Health Literacy. *Journal of the American Medical Informatics Association, 12*(2), 152-163. https://doi.org/10.1197/jamia.m1687

National Health and Morbidity Survey. (2019). *National Review Health and Morbidity 2019*. https://iku.moh.gov.my/nhms_2019/

Norman, C. D., & Skinner, H. A. (2006). eHealth Literacy: Essential Skills for Consumer Health in a Networked World. *Journal of Medical Internet Research, 8*(2), e9. https://doi.org/10.2196/jmir.8.2.e9

OECD. (2015). States of Fragility 2015. *States of Fragility*. https://doi.org/10.1787/9789264227699-en

Osborne, R. H., Batterham, R. W., Elsworth, G. R., Hawkins, M., & Buchbinder, R. (2013). The grounded psychometric development and initial validation of the Health Literacy Questionnaire (HLQ). *BMC Public Health, 13*(1). https://doi.org/10.1186/1471-2458-13-658

Paige, S. R., Krieger, J. L., Stellefson, M., & Alber, J. M. (2017). eHealth literacy in chronic disease patients: An item response theory analysis of the eHealth literacy scale (eHEALS). *Patient Education and Counseling, 100*(2), 320-326. https://doi.org/10.1016/j.pec.2016.09.008

Rajati, F., Kamali, M., Parvizy, S., & Rajati, M. (2011). Public health customers' experiences of health accessibility: a phenomenological study. *Iranian Journal of Epidemiology*, 7(2), 17-24.

Rubenstein, E. L. (2015). They are always there for me: The convergence of social support and information in an online breast cancer community. *Journal of the Association for Information Science and Technology, 66*(7), 1418-1430. https://doi.org/10.1002/asi.23263

Salkind, N. J., & Frey, B. B. (2019). *Statistics for people who (think they) hate statistics*. Sage Publications.

Sekaran, U., & Bougie, R. (2016). Research methods for business: A skill building approach. john wiley & sons.

Singh, S. G., & Aiken, J. (2017). The effect of health literacy level on health outcomes in patients with diabetes at a type v health centre in Western Jamaica. *International Journal of Nursing Sciences, 4*(3), 266-270. https://doi.org/10.1016/j.ijnss.2017.06.004

TN, A., & Kutty, V. R. (2015). Development and testing of a scale to measure trust in the public healthcare system. *Indian Journal of Medical Ethics*. https://doi.org/10.20529/ijme.2015.044

Topp, S. M., & Chipukuma, J. M. (2016). A qualitative study of the role of workplace and interpersonal trust in shaping service quality and responsiveness in Zambian primary health centres. *Health Policy and Planning, 31*(2), 192-204. https://doi.org/10.1093/heapol/czv041

Wang, H., Cheong, P. L., Wu, J., & Van, I. K. (2021). Health Literacy Regarding Infectious Disease Predicts COVID-19 Preventive Behaviors: A Pathway Analysis. *Asia Pacific Journal of Public Health, 33*(5), 523-529. https://doi.org/10.1177/10105395211013923

Ward, P. R. (2017). Improving Access to, Use of, and Outcomes from Public Health Programs: The Importance of Building and Maintaining Trust with Patients/Clients. *Frontiers in Public Health, 5*. https://doi.org/10.3389/fpubh.2017.00022

Witter, S., Zou, G., Diaconu, K., Senesi, R. G. B., Idriss, A., Walley, J., & Wurie, H. R. (2020). Opportunities and challenges for delivering non-communicable disease management and services in fragile and post-conflict settings: perceptions of policy-makers and health providers in Sierra Leone. *Conflict and Health, 14*(1). https://doi.org/10.1186/s13031-019-0248-3

World Health Organization. (2020). *World Health Statistics 2020*. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://iris.who.int/bitstream/handle/10665/332070/9789240005105-eng.pdf

Yao, T., Zheng, Q., & Fan, X. (2015). The Impact of Online Social Support on Patients' Quality of Life and the Moderating Role of Social Exclusion. *Journal of Service Research, 18*(3), 369-383. https://doi.org/10.1177/1094670515583271

Yoo-Lee, E., Rhodes, T., & Peterson, G. M. (2016). Hispanics and public libraries: Assessing their health information seeking behaviors in the e-health environment. *Reference Services Review, 44*(2), 85-99. https://doi.org/10.1108/rsr-02-2016-0015

Yuce, A. E., Albayrak, A., Baran, B., & Kalafat, Ö. (2022). Role of factors in eHealth literacy in period of COVID-19: a study of Turkey. *Health Education, 122*(4), 469-489. https://doi.org/10.1108/he-07-2021-0105

Zarocostas, J. (2020). How to fight an infodemic. *The Lancet, 395*(10225), 676. https://doi.org/10.1016/s0140-6736(20)30461-x