

Factors Related To Media And Information With Digital Literacy Of Qualified In The Practical Nurse Certificate Program Of Caring For Older Adults

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Abstract

This descriptive research aimed to study the relationship between personal factors on the media, information, and digital literacy of students in the nursing assistant certificate program caring for older adults in Thailand. Adaptive UNESCO global media and information literacy assessment was to apply the conceptual framework, including *Access, Understanding, Analysis and Evaluation, Response, and Creation media*. Collecting data through personal questionnaires and the rating scale of the media literacy questionnaire tested content validity from 3 health experts, which received 0.96. Eighty-five samples were in the nursing assistant certificate program for caring for older adults. The data were analysed using a computer program for statistics and Spearman's Rho correlation. The results found personal data average of 23.38 years, an income of 13,851.70 baht, uses of smartphones, an experience of 8.72 years, duration of media use of 6 hours per day, with an interval of 2-18 hours. It found positive components of the relationship between usage time per day and statistical significance at .05. In conclusion, income adequacy and access to the media over a long period, users must gain access to media and develop greater awareness and accessibility skills to enable more efficiency.

Keywords: Media, Information, Digital Literacy, Practical Nurse, Older Adults

1. Introduction

There are worldwide changes and facing an aging society situation. Thailand is one of the Asian countries and a member of the United Nations. The need for care in the aging society, especially the older person with dependency, needs mental, emotional, social, and economical care^{1,2}. The older adult was more alone. Families or relatives could not provide all the time needed to support and manage, which brought about problems in the quality of care and community participation in the family, society, and their communities². The first solution is to produce a healthy workforce to meet assistance and resolution. However, it is still insufficient to provide care for older adults with chronic illness or dependency and complex problems, diseases, and symptoms²⁻⁵.

A nursing assistant is a person who has completed a nursing assistant certificate program from educational institutions according to the regulations of the Nursing Council, who helps to perform nursing care to take care of people assigned to and under the control of nursing practitioners or nursing and midwifery⁶. Having a nursing assistant to help care for the older person would help support the family to take care of the older person with quality; however, it found that leaps and bounds in technology development in the present era^{6,7}. There is much information. There is ongoing communication with technology and digital, especially the use of information related to health, health promotion, and recreation through communication tools protecting the privacy of the older person in the digital world. It is of great importance for education in the 21st century in accordance to respond to such demands also comply with the Millennium Development Goals (MDGs) on good health and promoting well-being for all ages in Goal 3 (Ensure healthy lives and promote well-being for all at all ages) which is essential public services in the 21st century^{7,8,9}.

According to the conceptual framework of UNESCO, the literature reviews related literacy to media technology, information literacy, or what to see communication knowledge and social awareness. Five components are access, understanding, analysis and evaluation, response, and creation media⁷. It believes that learning can manage or prevent accessing media, information, and digital problems. There is a system of rational analysis, especially information related to health care for the older person in terms of health promotion and recreation through various communication tools. According to an adaptive conceptual framework, many factors affect knowledge, such as age, gender, education, income, and media experience⁷⁻¹².

Besides that creation and development of nursing assistants for graduation originally graduated, and will grow from youth to adults in the future, will help solve the shortage of nursing personnel. It also helps build skills and competencies for those who have completed the training to apply the knowledge and skills gained to careers in enterprises related to older person services in both the public and private sectors. However, in the modern era of technology and digital, it is

developing unlimited growth with no control over the content and endless browsing^{7,11,12}. There is a large amount of information to many choices of things. But on the other hand, the wrong use of media, information, and digital for youths leads to inappropriate behaviour problems such as screen addiction, gambling, and lack of reasoning. It is the rational analysis, especially the use of information related to the health of older persons, health promotion, and recreation through communication tools by protecting the privacy of the older person in the digital world. It is of great importance in education in the 21st century, the transition to an online society^{12,13}. Therefore, it is the source of research on the relationship between personal factors and media, information, and digital literacy among students in the nursing assistant certificate program. The results benefit from using the data acquired to improve the curriculum and valuable for creating teaching materials or as a guideline for developing media literacy skills to continue using the knowledge of media, information, and digital appropriately.

Objectives

The objectives of this research is to study the relationship between personal factors and media, information, and digital literacy among students in the nursing assistant certificate program.

2. Methods

The Human Research Ethics Committee, Faculty of Medicine Ramathibodi Hospital, Mahidol University, approved this research (COA. MURA2020/1552). An applied media and information literacy assessment framework from UNESCO was used, including five components: access, understanding, analysis and evaluation, response, and creation media in this study^{7,12}. According to the inclusion criteria, the purposive sample includes participating in the Nursing Assistant Certificate Program, 17 years or older, and communicating by speaking, listening, reading, and writing Thai. Two instruments composed of personal information interviews and five Likert scale tools used 20 questionnaire questions on media literacy on a 5-point scale, answering response alternatives from 1 = Least to 5 = Highest. All of the above items worked the tested instruments before the research from the fundamental Nurse, gerontological and community nurse, an audio-visual technician was found to have a good content validity index: CVI (0.93) and were reliable instruments (Cronbach's alpha 0.96). Descriptive research conducted with data collection involved 85 participants. The calculation of sample size uses Cohen's power analysis^{13,14}. Participants were face-to-face interviews that took approximately 20 minutes. The research used statistics PASW version 18.0 from the computer program to analyze the data processing achieved. Data in mean range averages, standard deviation, percentages, and Spearman's rank correlation were used to find the relationship between personal factors and media, information, and digital literacy among nursing assistant certificate program students.

3. Results

The results showed the ages of participants range from 19 to 36 years; mean age 23.38 ± 3.85 years. Most of them were female (87.1%), status single (92.9%), Buddhism (94.1%), and stay alone (45.9%). Range of Income 6,000 to 30,000 baht; mean $13,851.75 \pm 3,892.39$ baht. The source of income came from full-time or part-time work, 83.5 %, followed by family, 15.3% had enough income and 45.9% had leftover, followed by having enough income, 34.1% of the devices used to access media were mostly smartphones, 68.2% notebook computers 17.6%, media usage experience 8.72 years media usage time 6 hours per day average time interval between 2 -18 hrs. The factors age, gender, education, status, income, and media usage experience related to nothing relating to the statistical significance at.05. However, it found that the related component between access and retrieval to digital media income adequacy and between the analysis and evaluation content on status and duration of media use except the understanding the content and the save interactions with media content. The creative media production was related to the statistical significance at the level of .05. **Table 1** shows the relationship between individual factors with media, information, and digital literacy. A significant positive correlation between the duration of media usage time per day was related to the statistical significance at.05 ($r=0.338$; $P=0.02$). The analysis results show the components have a statistically significant relationship between access on income adequacy ($r=-0.273$; $P=0.012$), analysis and evaluation on marital status ($r= 0.214$; $P=0.05$), and analysis and evaluation duration on media use during the day ($r= 0.234$; $P=0.031$) (**Table 2**).

Table 1. The relationship of individual factors with media, information and digital literacy (N=85)

Variables	Media, Information, and Digital literacy	
	Spearman's Rho	p-value
Age	.196	0.73
Gender	.129	0.24
Education	-.024	0.83
Marital status	.170	0.12
Income adequacy	-.008	0.94
Media usage experience	.185	0.09
Duration media use	.338	0.02*

* *p-value* < 0.05

Table 2. The relationship of individual factors with the component of media, information and digital literacy (N=85)

Component's Media, Information, and Digital Literacy	Spearman' Rho		
	Marital status	Income adequacy	Duration media use
Access	-.011	-.273*	.132
Understanding	.009	.041	.039
Analyse and Evaluation	.214*	-.032	.234*
Response	.093	-.034	.320
Creation Media	.000	.040	.485

* *p-value* < 0.05

4. Discussion

This study also found a positive and significant correlation between personal factors and media, information, and digital literacy among students in the nursing assistant certificate program and components analysis. When studying the relationship between individual characteristics and media, information, and digital literacy, marital status was related to media literacy regarding access to digital media, information, and digital literacy to analyze and assess content was statistically significant at the .05 level of income sufficiency. The duration of phone use per day was associated with media literacy, comprehensive information, and digital at a .05 level and in terms of ability to analyse and assess content with statistical significance at a .05 level, consistent with the research studying the factors influencing information literacy and digital media among youth in Bangkok^{16,17,18}. In addition to, found the factors influencing cognitive skills keeping up-to-date with media and information through digital media of youth in Bangkok are divided by aspects: health from using online media, ethical and conscientious, ability to explain information literacy skills and digital media, and in line with a study of media literacy. Benefits and uses of a case study in the research, the study results revealed that the students saw the importance of values, morals, and ethics that people should have for themselves, their communities, and society¹⁸⁻²⁰. Students were aware of the importance of professional ethics that media professional's must-have must have, and students were able to choose to receive news or content from the media. Good quality and can be beneficial to the students themselves in terms of use. Explain that the duration of daily phone use is related to media literacy. Information and digital are statistically significant. Demonstrates how long access to or learning from the media is. Users gaining access to media will develop greater awareness and accessibility skills. In addition, most of the marital statuses were single, and media usage time of 6 hours per day correlated with media content analysis and assessment. And income sufficiency is related to media accessibility, enabling a more efficient selection of electronic media devices.

Recommendation

Suggestions in this research should be present to utilize the information to the relevant agencies in particular Hospitals or hospitals that accept nurses to work or work including an educational institution that manages to teach and learn or as a guideline for developing media literacy skills of participants in the Nursing assistant certification program older adults to be able to continue to use the knowledge of media, information and digital appropriately. There were positive and significant correlations. This study found that personal factors in status, income adequacy, and duration of media use affect media, information, and digital literacy. It can show that by accessing or learning from the media over a long period, users must gain access to media and develop greater awareness and accessibility skills to media to enable more efficiency. The income adequacy will create an opportunity to select modern electronic media devices.

Acknowledgments:

We thank the involved participants in this research. This work had supported by a grant from the new graduate nursing production project, Ramathibodi School of Nursing, Faculty of Medicine Ramathibodi Hospital, Mahidol University, Thailand.

Disclosure statement:

No potential conflict of interest was reported by the author(s).

Funding:

This work was supported by the new graduate nursing production project, Ramathibodi School of Nursing, Faculty of Medicine Ramathibodi Hospital, Mahidol University, Thailand.

References

1. WHO, "Integrated care for older people: guidelines on community-level interventions to manage declines in intrinsic capacity," Geneva; 2017.
2. WHO, "Handbook for national quality policy and strategy: A practical approach for developing policy and strategy to improve quality of care", Geneva, Switzerland; 2018.
3. O. Komazawa, and S. Yasuhiko. "Coping with rapid population ageing in Asia discussions on long-term care policy and cross-border circulation of care workers", Economic research institute for ASEAN and East Asia (ERIA): Jakarta; 2021.
4. K. Kittipimpanon, and, S. Wangpitipanit, "Factors Associated with Quality of Care Among Dependent Older Persons in the Community", *J Multidiscip Healthc*, vol. 21, no. 14, pp. 2651-2655-12, Sep 2021, doi: 10.2147/JMDH.S323851.
5. E. O'Shea, "Improving the quality of life of elderly persons in situations of dependency", Strasbourg Cedex, France: Council of Europe publishing; 2002.
6. Government Gazette. "Regulations of the Nursing Council on Accreditation of Nursing Assistant Certificate Programs", B.E. 2560 Volume 134, special chapter 216 d., pages 41-46, 2017. Available at [https://www.tnmc.or.th/images/userfiles/files/3_Rule2560\(6\).PDF](https://www.tnmc.or.th/images/userfiles/files/3_Rule2560(6).PDF)
7. UNESCO, "UNESCO Strategy for Youth and Adult Literacy (2020–2025)", 2019. Available at
8. <https://unesdoc.unesco.org/ark:/48223/pf0000371411>.
9. Aufderheide, "Media Literacy. A Report of the National Leadership. Conference on Media Literacy", December 7-9. Queentown:MD. 1992. <https://files.eric.ed.gov/fulltext/ED365294.pdf>
10. F. Suwana, "Content, changers, community and collaboration: expanding digital media literacy initiatives. Media practice and Educations", vol. 22, no. 2, pp. 153-170, Jan 2021, <https://doi.org/10.1080/25741136.2021.1888192>.
11. D. Buckingham, "Digital media literacies: Rethinking media education in the age of the internet. Research in Comparative and International Education", 2(1), 43–55. ", vol. 21, no. 1, pp. 45-55, March 2021, <https://doi.org/10.2304/rcie.2007.2.1.43>
12. J. Mills, J. Field, and R. Cant, "Factors affecting evidence translation for general practice nurses", *International Journal of Nursing Practice*, vol. 17, no. 5, pp. 455-463, Oct 2011.
13. NBTC, "Media Literacy Digital Literacy cooperation with educational institutions for Develop curricula and promote people in media literacy", 2014. Available at http://bcp.nbtc.go.th/uploads/items/attachments/b7bb35b9c6ca2aee2df08cf09d7016c2/_651dab51d77cc9cc0b46de8a418db8e7.pdf
14. K. Boonyapitruksagoon, and P. Poonpol, "Factors Related to Using Social Media Behavior and Media Literacy in Universities In Bangkokmetropolitan area" vol. 17, no. 5, pp. 455-463, July 2019. Available at. <https://so06.tci-thaijo.org/index.php/BSRI/article/view/184439/143657>
15. J. Cohen, "Statistical power analysis for the behavioral sciences", Hillsdale, NJ: Lawrence Erlbaum Associates, Publishers; 1988.
16. N. Burns, and S.K. Grove, "The practice of nursing research conduct, critique, & utilization", Philadelphia: W.B. Saunders Company, 2001.
17. C.A. Nagaoka, and K. Santawee, "The Factors Influencing Information and Digital Media Literacy of Youth in Bangkok" *The journal of social communication innovation*. vol. 7, no. 1, pp. 55-62, Feb 2019, Available at <https://so06.tci-thaijo.org/index.php/jcosci/article/view/199856/139651>.

18. Y. Buawech, and T. Sarbmuangpak, "Media Literacy: Advantages and Applications A Case Study of Chinese Student of Nakhon Pathom Rajabhat University" *Journal of Management Science Nakhon Pathom Rajabhat University*. vol. 7, no. 2, pp. 216-229., June 2019.
19. B. Krodshagorn, and P. Poonpol, "Factors Related to Using Social Media Behavior and Media Literacy in Universities in Bangkok metropolitan area", *The Journal of Behavioral Science*. vol. 25, no. 2, pp. 139-159, July 2019, Available at <https://so06.tci-thaijo.org/index.php/BSRI/article/view/184439/143657>.
20. N. Jaemtim, and S. Yuenyong. M, "The Used of Online Media and Perception of eHealth Literacy Among the Elderly in Suphanburi Province", *The Journal of Baromarajonani College of Nursing, Nakhonratchasima*. vol. 25, no. 2, pp. 168-180, Nov 2019, Available at <https://so06.tci-thaijo.org/index.php/BSRI/article/view/184439/143657>.
21. W. Rattanawarang, "Elderly's Internet Usage for Health Information in Bangkok Region" *Journal of Behavioral Science for Development*. vol. 7, no. 1, pp. 169-186, Jan 2015, Available at <https://so02.tci-thaijo.org/index.php/JBSD/article/view/29924/25767>.