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THE READING HABITS OF UNDERGRADUATE STUDENTS AT THE FACULTY OF NURSING AND MEDICAL TECHNOLOGY, CAN THO UNIVERSITY OF MEDICINE AND PHARMACY

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ABSTRACT

Background: *Developing a reading habit is a crucial life skill. It enhances our knowledge, fosters personal growth and maturity, sharpens our critical thinking, and broadens our understanding of social, economic, political, and environmental matters. Evaluating the reading habits helps students not only achieve the goal of self-study and lifelong self-study but also improve the quality of training.* ***Objectives:*** *To describe the reading habits of students who are learning at the Faculty of Nursing and Medical Technology, Can Tho University of Medicine and Pharmacy.* ***Materials and methods:*** *A descriptive cross-sectional study was conducted on 387 undergraduate students. A research questionnaire, developed by Mona M. Soliman and colleagues in 2009, was used in this study. The scale was standardized in a Vietnamese version with a Cronbach's alpha of 0.75.* ***Results:*** *Students reported that lecture handouts and test preparation textbooks were commonly used and consumed a significant amount of their study time. However, most students considered medical textbooks and test preparation textbooks to be the most frequently used and useful learning resources. Additionally, nearly 85% of undergraduate students reported difficulties in identifying the most suitable learning resources for themselves.* ***Conclusion****: Students dedicate a considerable amount of time to reading test preparation textbooks and lecture handouts, while spending less time on medical textbooks. A majority of students reported challenges in reading, which medical educators need to address.*

Keywords: *Reading habits, undergraduate students, textbooks.*

I. INTRODUCTION

Developing a reading habit is a crucial life skill. It enhances our knowledge, fosters personal growth and maturity, sharpens our critical thinking, and broadens our understanding of social, economic, political, and environmental matters. Acquiring knowledge through reading is very important for the learning process of medical students. When medical students begin clinical practice, they are interested in examining and caring for patients. Additionally, In clinical practice, it is important as it relates to clinical competencies [1]. According to Terry Kind *et al.* (2021), 67% of medical students used textbooks compiled by lecturers during their theoretical and clinical practice studies, with final-year students being more likely to refer to documents than other groups. At the same time, students who referred to documents regularly have higher learning outcomes than other students ($p<0.05$). In addition, this study also noted that lack of time to refer to documents is the biggest barrier to students' reference documents [2]. Another study which was carried out by Erin M Watson, this study found that reading in their free time would

help students improve their knowledge of their major, improve their thinking and communication with other colleagues, and also increase empathy for each other's workload.

In Vietnam, 46% of university students spent all their time regularly referring to documents and 80% of students said they like to refer to documents, 74.5% of students read the entire book and 68.3% of students are able to recall important information when reading [3]. This situation is related to factors such as the provision of documents and tests by lecturers as well as the frequency of visiting the library. In addition, according to Nguyen Dinh Lam's research, when students learned in the university, if the total accumulated knowledge is 100%, the knowledge gained from reading accounted for 45%, the knowledge gained in other forms of learning made up nearly 45% and the remaining 10% was accumulated from the communication process in realistic practice [4]. Therefore, in order to contribute to raising students' awareness about the role of reading during their learning period, we conducted this study to describe the reading habits of undergraduate students at the Faculty of Nursing - Medical Technology, Can Tho University of Medicine and Pharmacy.

II. MATERIALS AND METHODS

2.1. Materials

Undergraduate students at the Faculty of Nursing and Medical Technology, Can Tho University of Medicine and Pharmacy from November 2023 to March 2024.

- Inclusion criteria: Undergraduate students who were learning the majors from 1st to 4th year including: nursing, midwifery, medical laboratory technology, and medical imaging technology.

- Exclusion criteria: Students who did not agree to participate in this research, were absent during the research period.

2.2. Methods

- Research design: Descriptive cross-sectional study.

- Sampling size: In our study, we calculated the sampling size with a significance level of 5%, absolute error (d) of 0.05 and a standard deviation (SD) (σ) of 5. Therefore, the minimum sample size in our study was 385 students.[5]. However, the actual study included 387 students.

$$n \geqslant (\frac{Z_{1-\alpha/2}\sigma}{d})^2$$

- Sampling technique: Convenient sampling methods.

- Data collection tools:

+ Our study used this research scale which was built by Mona M. Soliman *et al.* in 2009 [5]. This research questionnaire included open and closed questions. Question domains included student's demographic characteristics and reading habits such as what sources they were reading, how useful they found them, the difficulties they encountered, and the guidance they received. The questions identifies reading resources as basic medicine textbooks, review of medical textbooks, pocket-books, online sources (online version of textbook, online journal article and medical websites), journal articles, lecture handouts prepared by teachers and students, and test preparation books [5].

+ In addition, the content of the assessment of the benefits of document sources is through a 5-point Likert scale (1=Not useful at all, 2=not useful, 3= Neutral, 4=somewhat useful, 5=extremely useful). This scale has been translated and evaluated for reliability with a Cronbach's alpha coefficient of 0.75 (Beaton, 2000). In addition, we also collected

general information of the research subjects including: age, gender, year of study and academic performance.

- Data collection procedure: Students who agreed to participate in the study were asked to complete the demographic data and outcome variables.

- Statistical analysis: Descriptive statistics were used to describe the characteristics of participants: qualitative variables (gender, year of study, major, types of reference materials used, barriers) are described as frequencies (n) and proportions (%). Quantitative variables include: (age, time using documents and assessment of the usefulness of documents) are described as mean and standard deviation (if normally distributed) or median and interquartile range (if skewed). Data are entered and analyzed using STATA 14.2 software.

- Ethics approval: The study was approved by the Institutional Review Board of Can Tho University of Medicine and Pharmacy in Decision No. 23.243.SV/PCT-HDDD dated December 25, 2023. Students participating in the study were informed about the purpose, role and significance of the study; students were assured of confidentiality of personal information when participating and volunteering). Written informed consent was obtained from all students who agreed to participate in the study.

III. RESULTS

Table 1. General characteristics of participants (n = 387)

Characteristic		Frequency (n)	Proportion (%)
Age	>= 20	157	40.57
	< 20	230	59.43
Genders	Male	100	25.84
	Female	287	74.16
Majors	Nursing	157	40.57
	Midwifery	57	14.53
	Medical Laboratory Technology	128	33.05
	Medical Imaging Technology	45	11.63
Academic years	1st year	167	43.15
	2nd year	95	24.55
	3rd year	120	31.01
	4th year	5	1.29
Ranked academic	Medium and higher level	321	82.95
	Others	66	17.05

59.43% of the students participating in the study were under 20 years old, and 287/387 were female students, accounting for 74.16%. The highest proportion of students participating in the study was in the nursing majors, accounting for 40.57%, and 43.15% were first-year students, of which 82.95% had above-average academic performance.

Table 2. Reading resources used by participants (n = 387)

Source of documents	Frequency (n)	Proportion (%)
Medical Textbook (print version)	251	64.86
Online resources: scientific articles, medical websites	251	64.86
Pocket books	87	22.48
Journal articles (printed version)	77	19.90
Lecture handouts made by teachers	382	98.71
Test Preparation textbooks	381	98.45

Lecture handouts and test preparation textbooks were the most frequently referenced by students which accounted for 98.71% and 98.45% respectively. Scientific articles (printed version) were the least frequently referenced by students, accounting for 19.90%.

Table 3. Number of reading hours

Source of documents	Reading time (Mean ± S.D.)	Min	Max	Median	Interquartile range
Medical Textbook (print version)	4.75 ± 7.56	0	48	2.0	0 – 7.0
Online resources: scientific articles, medical websites	6.49 ± 11.03	0	72	3.0	0 – 8.0
Pocket books	0.89 ± 2.38	0	12	0	0 – 1.0
Journal articles (printed version)	1.06 ± 3.71	0	20	0	0 – 1.0
Lecture handouts made by teachers	8.20 ± 11.22	0	68	5.0	2.0 – 10.0
Test Preparation textbooks	7.45 ± 9.42	0	48	4.0	2.0 – 8.0

Most participants spent time to reading the lecture handouts and test preparation with an average score of 8.20 (SD=11.22) and 7.45 (9.42) respectively. However, pocket books were spent the least amount of time reading (0.89 ± 2.38).

Table 4. Usefulness of the reading resources used by students

Source of documents	Not useful at all n (%)	Not very useful at all n (%)	Neutral n (%)	Somewhat useful n (%)	Extremely useful n (%)
Medical Textbook (print version)	6 (1.55)	5 (1.29)	68 (17.57)	205 (52.97)	103 (26.61)
Online resources: scientific articles, medical websites	8 (2.07)	11 (2.84)	104 (26.87)	198 (51.16)	66 (17.05)
Pocket books	10 (2.58)	35 (9.04)	149 (38.50)	151 (39.02)	42 (10.85)
Journal articles (printed version)	8 (2.07)	41 (10.59)	165 (42.64)	131 (33.85)	42 (10.85)
Lecture handouts made by teachers	0	0	21 (5.43)	179 (46.25)	187 (48.32)
Test Preparation textbooks	0	4 (1.03)	31 (8.01)	134 (34.63)	218 (56.33)

Test preparation textbooks were rated as the extremely useful by 218 students (56.33%) who used them. Pocket books and journal articles were the resources which students reported that it wasn't useful during participants' learning period (10.85%).

Table 5. The most useful resources for students (n = 387)

Source of documents	Frequency (n)	Proportion (%)
Medical Textbook (print version)	168	43.41
Online resources: scientific articles, medical websites	49	12.66
Pocket books	2	0.55
Journal articles (print version)	9	2.33
Lecture handouts made by teachers	26	6.71
Test Preparation textbooks	133	34.34

Table 5 depicts the source rated as the single most valuable by each undergraduate student. The majority of students chose medical textbooks (print version) and test preparation

textbooks as the most useful source of documents, accounting for 43.41% and 34.34% respectively. Only 2 students chose pocket books as the most useful source (0.55%).

Table 6. Problems experienced in reading (n=387)

Issue	Frequency (n)	Proportion (%)
No problems	219	56.59
Lack of sufficient time to read	243	62.79
Did not know on what to focus reading	285	73.65
Did not know the best resources	326	84.24
Difficult to find sources appropriate to my level	301	77.78

The main problem related to reading was that they didn't know the best resources (84.24%).

IV. DISCUSSION

Participants in the study were predominantly under 20 years old, with a majority being female students, and first-year nursing students comprising a higher percentage compared to other groups. These demographics reflect the unique context of our study, as first-year students tend to focus on foundational courses, which differ significantly from the specialized subjects undertaken by upper-year students. This aligns with findings by Le Xuan Hung *et al.*, affirming that early academic performance benefits from foundational, structured content [6]. In terms of academic performance, our study revealed that 82.95% of students achieved above-average grades, exceeding the 75.70% reported by Nguyen Thi My Phuong's study [7]. This difference can be attributed to the varying academic focus across cohorts. First-year students in our study primarily engage with theoretical content, while third- and fourth-year students in other studies contend with specialized subjects and clinical practice, which are inherently more challenging [8]. These findings underscore the importance of academic year differences when evaluating performance, emphasizing the need for tailored academic support at different learning stages.

Our research also highlights a notable trend in study material usage. Over 98% of students in this study relied heavily on lecture slides and old exam preparation materials. This contrasts with other studies where printed medical textbooks were identified as the most common reference materials [9]. Moreover, while electronic resources are increasingly utilized, the choice of materials is influenced by students' learning environments, resource availability, and access to electronic databases [10], [11], [13]. The reliance on old exam preparation materials in our study reflects a pragmatic approach among students, aiming for efficiency in exam preparation [12]. This pragmatic preference aligns with Terry Kind's findings (2021), which emphasize that lecture slides help students mentally organize content and provide structure prior to clinical practice [13].

A significant challenge reported by students in this study was the uncertainty surrounding the selection of appropriate and reliable study materials. Unlike previous studies, which identified time constraints as the primary barrier to learning [12], [13], our findings suggest a critical gap in students' ability to identify and focus on relevant content. This may stem from insufficient training in information literacy, particularly in searching for and evaluating academic resources [7]. These findings highlight the need for instructors to develop targeted teaching strategies that include guidance on resource selection and content prioritization. By addressing these challenges, educators can help students optimize their learning effectiveness and achievement by providing soft skills courses on library use, information search skills, and how to select reference sources as early as the first year of medical school.

V. CONCLUSION

Most students used lecture slides and old exam preparation materials for their studies. The main barriers were the inability to determine which sources were suitable and which content to read. Therefore, educational institutions need to implement teaching methods and guide students in reading strategies, which will contribute to improving the quality of education.

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