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Metacognitive Awareness in Academic Reading Strategies among B.Sc. Nursing Students

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Abstract:

A descriptive study titled Metacognitive awareness in academic reading strategies among BSc. Nursing students was conducted among the BSc. Nursing students at Government College of Nursing, Kozhikode. Out of 237 students from all batches, 224 students were participated in the study. A 16 item Semi structured questionnaire on socio personal and academic data, and a 30 item Metacognitive Awareness of Reading Strategies Inventory (MARSI) were administered to measure the key variables. MARSI is a validated, self administered, and Likert-type inventory with established reliability and factorial validity. The items of MARSI focus on three sub domains like Global Reading Strategies (GLOB Subscale), Problem Solving Strategies (PROB Subscale) and Support reading strategies (SUP Subscale). Out of its maximum score of 150, the participants obtained an overall mean score of 112.02 (SD14.47) which showed that the BSc. Nursing students have high metacognitive awareness in their academic reading strategies. But a year wise comparison showed that the mean scores of first year students exceeds that of all other batches and a subsequent one way ANOVA demonstrated significant difference between the four batches. For overall score, F-value 4.793 (p<.005), for GLOB Subscale F-value 3.974(p< 0.05), PROB Subscale, F-value 3.177 (p<.05) and for SUP Subscale F-value 4.218 (p< 0.05). The study also revealed significant association of metacognitive awareness in academic reading strategies with selected variables like gender, preferred mode of study before coming to Nursing and their plus two grades.

Keywords: Metacognition, Metacognitive Awareness, Academic Reading Strategies, reading comprehension

1. Introduction

Awareness and monitoring of one's comprehension processes are critically important aspects of skilled reading. Such awareness and monitoring processes are often referred to in the literature as metacognition (Mokhtari K, Reichard C A, 2002). This can be thought of as the knowledge of the readers' cognition about reading and the self-control mechanisms they exercise when monitoring and regulating text comprehension.

Metacognition was originally referred to as the knowledge about and regulation of one's cognitive activities in learning processes (Flavell, J. H. (1979). Under the umbrella of this inclusive definition a number of metacognitive terms have originated through the years. Metacognitive awareness, metacognitive experiences, executive skills and self-regulation are several of the terms we commonly associate with metacognition.

Nursing is a practice profession. For the nursing students proper learning doesn't just happen if they simply sit in a classroom and listen the lecture for long enough or read the same page enough times. Knowing about metacognition and its potential benefits greatly supports them in fixing the concepts well in mind and applying it in to clinical situations. Some efficient learners use metacognitive strategies by themselves, but many of them lack the skills to direct their own learning. By showing them that they can be in control of how they study, how they organize their work, and how they reflect upon it, we can encourage them to take responsibility for their own learning (Lerner, J., & Kline, W. (2006). Considering these facts, the investigator felt a need to assess the metacognitive awareness in academic reading strategies among BSc. Nursing students of Government College of Nursing and make a class wise comparison to see what changes happen in their awareness after exposing them to the present system of nursing education.

1.1. Problem Statement

A Study to assess the metacognitive awareness in academic reading strategies among BSc. Nursing students studying at Government College of Nursing, Kozhikode.

1.2. Objectives

- Assess the metacognitive awareness in academic reading strategies among BSc. Nursing students
- Compare the metacognitive awareness in academic reading strategies between BSc. Nursing students in different years of study.
- Find out the association between metacognitive awareness in academic reading strategies and selected variables

1.3. Operational Definitions

- Metacognitive awareness in academic reading strategies: It is defined as the student's awareness of own cognitive activities while reading the academic materials and its regulation by self. In this study it is measured using Metacognitive Awareness of Reading Strategies Inventory (MARSI).
- BSc. Nursing students: Students studying for BSc. Nursing course
- Selected variables: Selected variables are some of the items included in the socio personal data sheet which include, Gender, age, religion, Educational status of mother, Educational status of father, Occupation of mother, Occupation of father, Place of stay during the course, Type of school studied, Medium of Instruction, Grade obtained in plus two, Preferred mode of study and their reading habits.

1.4. Hypotheses

- H₁: There will be significant difference in the mean scores of Metacognitive awareness in academic reading strategies among BSc. Nursing students in different years of study
- H_{2:} There will be significant association between Metacognitive awareness in academic reading strategies of BSc. nursing students and selected variables

2. Research Methodology

- Research Approach: Non Experimental Approach
- Design: Cross sectional Descriptive survey design
- Setting: Govt. College of Nursing, Kozhikode
- Population: BSc. Nursing students
- Sample: All BSc. Nursing students of Govt. College of Nursing, Kozhikode during the period of study.
- Sample size: 224
- Sampling method: Purposive sampling

2.1. Tools and Technique

- Tool-1: Semi structured questionnaire on socio personal data and academic data which consists of 16 items with an open ended item. The items were Gender, Age, Religion, Place of Stay during BSc.Nursing study, Educational status of mother, Educational status of father, year of study, Type of school studied before coming to Nursing, Medium of Instruction in the school classes, plus two grade, Preferred mode of study before and after joining to Nursing, reading habit, the types of books like to read and the total hours spending daily for reading. The open ended item was on changes in their reading habits after joining to nursing if there is any.
- > Tool-2: Metacognitive Awareness of Reading Strategies Inventory (MARSI) which consists of 30 items

MARSI inventory consists 30 statements over 3 subscales indicating what people do when they read academic materials such as text books, library books, etc.

Five numbers follow each statement (1, 2, 3, 4, 5) and each number means the following:

- 1 means "I never or almost never do this," 2 mean "I do this only occasionally."
- 3 mean "I sometimes do this." (About 50% of the time.) 4 mean "I usually do this."
- 5 mean "I always or almost always do this."

The subscales are Global Reading Strategies (GLOB subscale), Problem-Solving Strategies (PROB subscale), and Support Reading Strategies (SUP Subscale).

The MARSI has a maximum score of 150. The overall average indicates how often students use reading strategies when reading academic materials. The average for each subscale of the inventory shows which group of strategies (i.e., global, problem-solving, and support strategies) the students use most when reading. With this information, we can tell if they are very high or very low in any of these strategy groups. A low score on any of the subscales or parts of the inventory indicates that there may be some strategies in these parts that they might want to learn about and consider using when reading (adapted from Oxford 1990: 297-300).

 \rightarrow Key To Averages: 3.5 or higher = High 2.5 – 3.4 = Medium 2.4 or lower = Low

2.2. Data Collection Procedure

The formal administrative permission was obtained from the institutional head after the review by Institutional scientific Review Board and Ethics Committee. The study was conducted during first week of September 2015 at Government College of Nursing, Kozhikode. The investigators approached the whole BSc. Nursing students in their classes during their free time. After explaining the purpose of the study and ensuring the confidentiality of data, informed consent was obtained verbally. Then the tools were administered to all students. Total time taken by each subject was approximately 30 mts. The results were analyzed and interpreted in relation to standard norms of MARSI. At the end a sample Strategy Evaluation Matrix (SEM): A reference aid which helps students to familiarize themselves with possible strategies that they might use, and the appropriate context for using them (Schraw, G. 2001)

2.3. Major Findings

2.3.1. Section 1: Findings on Socio Personal Data and Academic Data

There was approximately equal representation from every batch. Majority (96.4%) were females and higher percentages (54.9%) of them were in the age group 19-20 yrs. Majority of fathers (68.8%) and mothers (54.9%) were educated up to high school level only. Most of them were either educated at Government schools (48.7%) or aided schools (47.8%) and for them English and Malayalam were the instructional medium at school i.e. fifty percent each. Majority of the participants (93.3%) were having distinction for their plus two examination. While most of them (66.1%) preferred self study before coming to nursing, 59.8% preferred both self study and combined study after joining to nursing. Majority of the sample (92.4%) reported that they like to read books and for most of them literature was favorite. As per the data 1/3 of the sample were reading <1hr, 1/3 for 1hr and remaining 1/3were reading >1hr per day.

2.3.2. Section 2: Metacognitive Awareness in Academic Reading among Bsc. Nursing Students

Strategies	Score allotted	Range obtained	Mean	SD
GLOB subscale	65	29.00-64.00	46.61	7.07
PROB subscale	40	16.00-40.00	32.08	4.43
SUP subscale	45	17.00-45.00	33.32	4.84
OVERALL score	150	68.00-145.00	112.02	14.47

Table 1: Analysis of metacognitive awareness in academic reading strategies among total BSc. Nursing students (n=224)

Year of study	Strategies	Score allotted	Range obtained	Mean	SD
	GLOB Subscale	65	29.00-64.00	49.10	6.99
	PROB subscale	40	23.00-40.00	33.58	4.25
First Year	SUP subscale	45	19.00-45.00	35.12	5.01
(n=58)	OVERALL score	150	71.00- 145.00	117.81	14.47
	GLOB Subscale	65	37.00- 59.00	46.67	5.72
C I	PROB subscale	40	21.00- 40.00	31.83	4.25
Second	SUP subscale	45	22.00-42.00	33.17	4.36
Year (n=56)	OVERALL score	150	92.00-140.00	111.69	12.18
	GLOB Subscale	65	29.00-60.00	45.58	8.37
	PROB subscale	40	16.00-40.00	31.50	4.88
Third Year	SUP subscale	45	17.00-43.00	32.15	5.55
(n=60)	OVERALL score	150	68.00-137.00	109.23	16.87
Fourth Year (n=50)	GLOB Subscale	65	32.00-56.00	44.88	6.15
	PROB subscale	40	23.00-40.00	31.34	3.97
	SUP subscale	45	26.00-40.00	32.80	3.64
	OVERALL score	150	86.00-130.00	109.02	11.89

 score
 Table 2: Year wise analysis of metacognitive awareness in academic reading strategies among BSc. Nursing students (n=224)

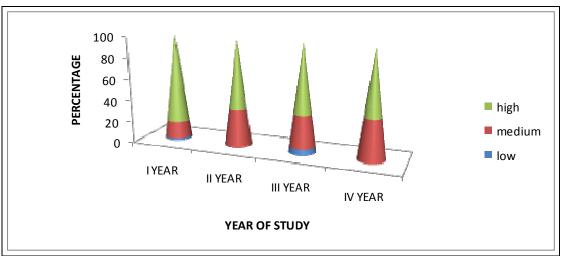


Figure: 1 comparison of levels of metacognitive awareness among different years of BSc. Nursing students

2.3.3. Section 3: Significance of Difference in Metaco	gnitive Awareness between Bsc. N	ursing Students in Different Years of Study

Varia	able	n	Mean	SD	F –value	p- value
GLOB	First Year	58	49.10	6.99		
Subscale	Second	56	46.67	5.72		
score	Year				3.974	.009**
	Third Year	60	45.58	8.37		
	Fourth Year	50	44.88	6.15		
PROB	First Year	58	33.58	4.25		
Subscale	Second	56	31.83	4.25		
score	Year				3.177	.025*
	Third Year	60	31.50	4.88		
	Fourth Year	50	31.34	3.97		
SUP	First Year	58	35.12	5.01		
Subscale	Second	57	33.17	4.36		
score	Year				4.218	.006**
	Third Year	60	32.15	5.55		
	Fourth Year	51	32.80	3.64		
Overall	First Year	58	117.81	14.47		
reading	Second	57	111.69	12.18		
strategy score	Year				4.793	.003**
	Third Year	60	109.23	16.87		
	Fourth Year	51	109.02	11.89		

 Table 3: Significance of difference in metacognitive awareness between BSc. Nursing students in different years of study (n=224)

 *significant at <0.05 level, ** Significant at <0.01 level</td>

2.3.4. Section 4: Association between Metacognitive Awareness in Academic Reading Strategies and Selected Variables Independent t- test and one way ANOVA were used to analyse the association between meta cognitive awareness in academic reading strategies and selected variables

Variables	Strategies	t- value	p-value
	GLOB subscale	1.836	0.068
	PROB subscale	1.605	0.110
Gender	SUP subscale	2.524	0.012*
-	Overall Score	2.238	0.026*

Table 4: Significance of association between Meta cognitive awareness in academic reading strategies and gender (n=224)*Association is significant at <0.05 level</td>

Variables	Strategies	F- value	p-value
	GLOB subscale	3.154	.045*
	PROB subscale	4.118	.018*
Plus two grade	SUP subscale	2.276	.105
	Overall Score	3.965	.020*
	GLOB subscale	3.997	.020*
Preferred Mode	PROB subscale	.853	.428
of study before	SUP subscale	5.757	.004**
coming to nursing	Overall Score	3.977	.020*

Table 5: Significance of association between Metacognitive Awareness in AcademicReading Strategies and selected variables like plus two grade, mode of study before coming to nursing* Significant at < 0.05 level</td>**Significant at < 0.01 level</td>

3. Discussion

The results of the study show that the BSc. Nursing students of this institution possess a high metacognitive awareness in academic reading strategies. But on the year wise comparison, data shows that it is first year students who scored more than any other class and the investigator could visualize a downward trend in scores of students in higher classes. This finding is somewhat distressing and needs further attention. We know that the use of metacognitive strategies or having metacognitive awareness is closely related to meaningful learning which is essential for a practice profession like Nursing. As such, it should be thought about the presence of any lacunae in the present system of nursing education. This data can be explored with an individual or focused group interview so that measures can be taken to improve their metacognitive awareness by giving proper guidance and if needed by making some changes in the curriculum planning or utilizing some constructive teaching strategies.

4. Conclusion

The present study concluded that majority of BSc. nursing students had high metacognitive awareness in academic reading strategies, regardless of the year wise difference. The study also revealed that the metacognitive awareness is significantly associated with gender, preferred mode of study before coming to nursing and their plus two grades.

5. Limitations

- Data was collected only from the students who were present during the data collection period
- The study used purposive sampling, so generalization of the study is limited to the sample
- Awareness of strategies does not guarantee that students actually use them.

6. Recommendations

- A similar study can be conducted among students of Diploma and Post Graduate nursing students
- Studies can be conducted to identify the strategies which improve metacognitive awareness in academic reading strategies.

7. References

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