

SELF EFFICACY OF NURSING UNDERGRADUATES COPING WITH THEIR RESEARCH PROJECTS.

1. **Pratibha Khosla**, Associate Professor, Department of Obstetrics and Gynaecological Nursing, Sum Nursing College, Siksha 'O' Anusandhan (Deemed to be University), Bhubaneswar, Odisha, India; Email: pratibhakhosla@soa.ac.in (Corresponding Author)
2. **Mangalam Kumari**, BSc Nursing Student, Sum Nursing College, Siksha 'O' Anusandhan (Deemed to be University), Bhubaneswar, Odisha, India.

ABSTRACT

The ability to conduct scientific studies or research is the basic need for the development of knowledge in the era of this rapid expansion of a quality environment. Research self-efficacy is an individual discernment of their potential to structure and carry out relevant projects in a varied pattern. The present project was undertaken to assess coping self-efficacy of nursing undergraduates with their research projects to assess the level of understanding of research among the nursing undergraduates, to assess the level of coping self-efficacy of nursing undergraduates with research project & to find out the association between the level of understanding & coping self-efficacy among the undergraduates. The research approach was a survey by a structured questionnaire with a descriptive research design. The main study was conducted at SUM Nursing College, Bhubaneswar, with a sample size of 192, among 3rd year BSc Nursing students selected conveniently for two consecutive years, modified coping self-efficacy tools based on Bandura's theory was used. There was moderate self-efficacy among students with their research projects item-based analysis is done with 15 items. Mean and the standard deviation was calculated. Mean \pm 2 S.D(28.23,25.71) shows that 95% of data lie within a moderate range of self- efficacy. While 'complete knowledge about the objective of thesis'(p=0.001) and 'capability of analysis of problem statement'(p=0.001) were the two parameters that show high coping self-efficacy among undergraduates. This study found that there was moderate self-efficacy which can be increased by the interest of the students. It is of utmost importance that the nursing undergraduates get adequate and appropriate guidance as they will be able to generate and implement evidence-based practice as they take professional responsibility and also for the application of the learned skill in higher education, which in the long run will collaborate to the body of knowledge and practice.

Keywords: Coping Self-efficacy, Nursing Undergraduates.

Introduction

Research skills are important & essential. Research is a subject in the B.Sc. Nursing 3rd-year syllabus. According to Briggs. The notion that "Nursing become a research-based profession".¹

supporting practical skill in Nursing. In the development of the nursing profession, Research remains indispensable. It has great attribution towards its occupation. In supporting & developing practical skills, Research skills are important in Nursing which is considered.²By the conclusion of their experience, all the nursing undergraduates will be involved & participated in the whole research project.³It is the primary responsibility of a qualified Nurse to have equilibrium in doing research & providing nursing care. However, there exists less confidence among the number of Nurses to research hospitals while doing nursing care due to lack of knowledge, education, and skill.^{4,5}Nursing students have a lack of basic knowledge regarding research competency while exploring the literature review, analyzing data & writing manuscripts that have been noticed by the professionals while teaching and supervising the students. Self-efficacy is described as confidence regarding the ability to weigh competency and skill to achieve the objective in certain traits and conditions. Level and persistence of efforts can be influenced by self-efficacy which acts lead to effective work. ”.⁶There is a belief seen in most of the nursing practitioners that the clinical work is easier than research projects. If coping self-efficacy can motivate to improve their research ability and directly induced the effect on nurses' revolution potential, then the importance must be set such as the nursing undergraduates get adequate understanding to equip and to improve their coping ability. Further, instruction plays a vital role to advance natural ability to do something, acquire proficiency also generate a plan of action and grow determination and configuration, which will help to provide a good coping skill to the learners.^{7,8}

The level of research ability among the nursing undergraduates was investigated through this study which has an important role to change the world as there is a correlation between coping self-efficacy and research aptitude. The sole purpose of the survey was to explore the ability to cope self-efficacy between Nursing undergraduates with a research project, which has become vital in this ever-progressing world. The investigators suppose that this study may be the first to investigate coping self-efficacy of nursing undergraduates with a research project in the country of India.

Methods

This cross-sectional analysis was conducted in the Faculty of Nursing, Siksha 'O' Anusandhan University in the year 2018 and 2019. The samples were selected through purposive convenience sampling in the mid-way of working on their research project. A total of 192 who were involved in a research project for the partial fulfillment of their degree continuing full-time studies were sampled.

A self-structured questionnaire consisting of 36 items validated in English was used to assess the student's ability to do research. The survey questionnaire was designed in four different sections. Part 1 was for the student's baseline data consisted of 5 items: attendance in class, clinical regularity, percentage of marks, English language proficiency, knowledge of biostatistics. Part 2 quantified data of factors and attitudes about carrying research included 6 items, the questions

were adapted and derived from a study by Wei Zhang et.al in which the sample was 134 nursing undergraduates in a university of China.⁹Part 3 assessed the knowledge on electronic databases to use for scientific research projects and ethical considerations in research with 10 items.

Part 4 was modified coping self-efficacy tools based on Bandura's Theory with 15 items.¹⁰Popularly self-efficacy speaks of one's general confidence in one's potential to prosper, but there are a lot more distinct forms of self-efficacy as well (e.g., academic, parenting, sports). Bandura suggested that perceived self-efficacy impacts what coping behavior is instituted when a person undergoes pressure and oppositions, further regulating what amount of endeavor will go through to gain individuals objective and for how long those objectives will be followed (1999).He postulated that self-efficacy is a self-sustaining attribute; when an individual is interested to toil through their problems on their conditions, they acquire constructive experiences that in due course of time enhance their self-efficacy further. The answers were collected with a three-point Likert scale and were represented as 1, low, 2 moderate, and 3 high.The sum of the total score was the undergraduate's self-efficacy score, the higher the score the more self- efficacious the undergraduates with their project.Low self efficacy(0-13), Moderate self efficacy(14-26), High self efficacy(27-39).

The subject characteristics were assessed with descriptive analysis and frequencies were used. The data was analyzed using SPSS 19, p= 0.05 set as the level of significance. To explore the association between coping self-efficacy and other explanatory variables.

Results

All 192 students completed and returned the questionnaire there was no missing or incomplete response.

Table 1. The Features of Nursing Undergraduates

| | | N | % |
|------------------------------|----------|-----|----|
| Attendance in class | >90% | 60 | 31 |
| | 80% -90% | 113 | 59 |
| | <80% | 19 | 10 |
| Clinical regularity | >90% | 102 | 53 |
| | 80% -90% | 78 | 41 |
| | <80% | 12 | 6 |
| Percentage of marks | >85% | 58 | 30 |
| | 70%-85% | 109 | 57 |
| | 55%-70% | 25 | 13 |
| English language proficiency | High | 46 | 24 |
| | Moderate | 118 | 61 |
| | Low | 28 | 15 |
| Knowledge of Biostatistics | Good | 80 | 42 |
| | Average | 99 | 51 |

| | | | |
|--|------|----|---|
| | Poor | 13 | 7 |
|--|------|----|---|

Table 2. Characteristics, the attitude of nursing undergraduates and relationship with their project

| Items | | n | % |
|--|-----------------------------------|-----|-----|
| Is learning research important for the nursing curriculum | Yes | 183 | 95 |
| | No | 9 | 5 |
| Features that affect your interest in the research project | No idea or nothing specific | 12 | 62 |
| | Lack of time | 54 | 28 |
| | Absence of guidance | 48 | 25 |
| | Not interested | 22 | 11 |
| | Don't know how to start. | 56 | 29 |
| Is nursing research important | Very Important | 174 | 90 |
| | Not important but good if learned | 11 | 5 |
| | Not Important | 7 | 5 |
| How to determine research topics | Interest Area | 133 | 69 |
| | Problems faced in the past | 54 | 28 |
| | Guides area of interest | 5 | 2 |
| Skills developed while working on a research project | Comprehensive writing | 192 | 100 |
| | Analysis | 135 | 70 |
| | Critical Thinking | 180 | 93 |
| | Writing a research proposal | 192 | 100 |
| Instructions required from experts | How to choose a problem | 192 | 100 |
| | Instrument Preparation | 192 | 100 |
| | Writing Papers for publications | 192 | 100 |

Table 3. Knowledge of nursing undergraduates on electronic databases to use for scientific research projects and ethical considerations in research.

| Items | | n | % |
|--|---------------------|----------|----------|
| Website searched to during the project | University Internet | 192 | 100 |
| | Pubmed | 130 | 67 |
| | Science Direct | 150 | 78 |
| | Google | 192 | 100 |
| Do you know the use of reference software Mendeley | Yes | 110 | 57 |
| | No | 82 | 42 |
| Are you comfortable in using Microsoft Excel for analysis | Yes | 154 | 80 |
| | No | 38 | 19 |
| Have you heard of SPSS | Yes | 44 | 22 |
| | No | 148 | 77 |
| Do you know what is plagiarism | Yes | 188 | 97 |
| | No | 4 | 2 |
| What should be the similarity index of a research paper according to UGC | Less than 10% | 136 | 70 |
| | Less than 20% | 56 | 29 |
| Do you always use the library for the resources required for the project | Yes | 96 | 50 |
| | No | 96 | 50 |
| Scopus is a product of | Sage | 59 | 30 |
| | Elsevier | 133 | 69 |
| Do you wish to know advanced techniques that will help conduct research? | Yes | 189 | 98 |
| | No | 3 | 1 |
| Do you have a desire to do research even when you will be in the job | Yes | 166 | 86 |
| | No | 26 | 13 |

Table 4. Coping self-efficacy levels of the nursing undergraduates

| Coping Self-efficacy | Level | N (%) | M(SD) |
|----------------------|-----------|--------|-----------|
| | Low/poor | 30(15) | 54(10.77) |
| | Moderate | 98(52) | 79(9.97) |
| | High/good | 64(33) | 59(14.39) |

Discussion

In the present study, coping self-efficacy was defined as is the ability of the students to understand research and confidence to do the assigned project. The total score of undergraduates for coping self-efficacy represented in Table 4. The table shows a relatively moderate coping with their research projects. All the students used a campus network for their research work and all of them used Google search and a large number of them also searched other databases. More than half of the students knew or heard about referencing software. Undergraduates had heard about SPSS software but did not have acquaintance with it. Ethical issues related to research and publication were also a concern of undergraduates and more than 70 % undergraduates knew about similarity index and had heard about similarity check software while 97% of them had heard about plagiarism. The good part of doing a research project as partial fulfillment of the degree is more than 80% of the undergraduates had a desire to learn more about research and even after joining as a professional at job they want to continue research and contribute to the profession. This study is inspired by and replication in the Indian setting of a study conducted by Wei Zhang et.al in the Jilin University of China in 2015 and published in an Elsevier Journal in 2016.⁹ The study shows the undergraduates had moderate coping self-efficacy and were qualified better in coping with research projects. The investigator supposes that this kind of study for nursing undergraduates may be the first of its kind in the country. The study like the mentioned study of China shows moderate coping self- efficacy among nursing undergraduates.¹⁰

Conclusion

Writing research projects apart for partial fulfillment of the degree is essential for the advancement of the body of knowledge in profession and individuals. It was a very thoughtful step taken by the Indian Nursing Council to introduce the undergraduates with the technicalities of conducting research projects as a foundation for the future of the profession. The students

should be made aware of every advancement in the field of research and get ethically equipped by the instructors and the instructors must, in the same manner, should help and guide the new bi researcher or the budding researchers in the process of selecting a problem and conducting a review to publishing in high impact journals.

Ethical approval: The permission was obtained from the IEC Committee of Siksha “O” Anusandhan Deemed to be University, Bhubaneswar. Written consent from the participants was obtained.

Acknowledgment: Appreciate the contribution of students who participated in the study.

Funding: None

Conflict of Interests: None

References

1. Briggs. Department of Health and Social Security Annual Report 1972. Royal Society of Health Journal, 1973; 93(5), 284–285.
2. Rui Zhen, Ru-De Liu, Yi Ding, Jia Wang, Ying Liu, Le Xu, The mediating roles of academic self-efficacy and academic emotions in the relation between basic psychological needs satisfaction and learning engagement among Chinese adolescent students, *Learning and Individual Differences*, 2017; 54: 210
3. Johnson RE., Chang CH, Yang LQ. Commitment and motivation at work: The relevance of employee identity and regulatory focus. *Academy of Management Review*, 2010; 35(2), 226–245
4. Estes TS, Globig C, Selig PM. An Innovative Teaching Approach to Nursing Research. *Newborn and Infant Nursing Reviews*, 2009; 9(2), 102–105.
5. Hashemian A, Khani B. Relationship between coping styles with mental health & social adjustment, Islamic Azad University, 2012.
6. Maddux, J. E. (2002). Self-efficacy: The power of believing you can. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of positive psychology* (p. 277–287). Oxford University Press.
7. Pulido-Martos M., Augusto-Landa JM, Lopez-Zafra E. (2012). Sources of stress in nursing students: A systematic review of quantitative studies. In *International Nursing Review* 2012; 59(1)15–25.

8. Shupe, M. J. (2000) Relationships between self-concept, social isolation, and academic achievement in college students with and without learning disabilities. Ed.D. dissertation, University of Cincinnati, United States -- Ohio. Retrieved January 5, 2008, from ProQuest Digital Dissertations database. (Publication No. AAT 9983983).
9. Wei Zhang, Kun Li, XiuMin Zhang, et-al Nurse Education Today, 2016; 45:126–131.
10. Bandura A. Social foundations of thought and action: A social cognitive theory. Englewood Cliffs, NJ: Prentice-Hall; 1986.