A study of the selected factors influencing the academic performance of the First Year Basic B. Sc. Nursing students of colleges affiliated to Maharashtra University of Health Sciences, Nashik.

TNAI, Maharashtra State Branch

in collaboration with

Wockhardt Institute of Nursing (Now, Fortis Institute of Nursing), Mumbai.

2012

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ACKNOWLEDGEMENT

The report is a product of the teamwork of Mrs. Aleyamma Joykutty, Ms. Rita Lakhani, Ms. Pearl Cruz, who were responsible for the conception, data capture, the final analysis and report-writing, & Ms. Jyotsna Pandit, Ms. Seema Bhagat, Ms. Vrushali Deshpande who assisted in the initial research design and data collection process.

With heartfelt gratitude the investigators wish to extend a sincere thanks to all those who have contributed to this study.

- Trained Nurses Association of India, Maharashtra Branch, for their financial support for this *year long state wide* project.
- The administrative staffs at TNAI Maharashtra branch office for collating the collected data in a soft copy.
- Principals, educators, students & management committees of all the participating nursing colleges affiliated to Maharashtra University of Health Sciences.
- The staff of Wockhardt Institute of Nursing (now Fortis Institute of Nursing) for their wholehearted participation and support in the research. And, also for providing us the working space & infrastructure for the research meetings.

TITLE

A study of the selected factors influencing the academic performance of the First Year Basic B. Sc. Nursing students of colleges affiliated to Maharashtra University of Health Sciences, Nashik.

AIM

The principal aim of the research was to identify and correlate the selected factors influencing the academic performance of the First Year Basic B. Sc. Nursing students.

OBJECTIVES

1. To correlate the mean scores of the students in Physics, Chemistry & Biology subjects in 12th standard with the mean scores obtained at the First Year Basic B. Sc. Nursing University examination.
2. To correlate the mean scores of the students in English subject in 12th standard examination with the mean scores obtained at the First Year Basic B. Sc. Nursing University examination.
3. To correlate the mean scores of the students at the First Year Basic B. Sc. Nursing University examination, from vernacular medium with those from English medium in the S.S.C.E. board.
4. To correlate the mean scores of the First Year Basic B. Sc. Nursing students residing in the college hostel with those who do not reside in the hostel.
5. To identify the personal factors influencing the mean scores of the students at the F. Y. Basic B. Sc. Nursing University examination.

OPERATIONAL DEFINITIONS

1. **Factors :** In this study 'factors' refer to the following aspects of the First Year Basic B. Sc. Nursing students from selected colleges in Maharashtra:
   a. Marks obtained by students at 12th standard examination
      - Mean scores obtained by the students in Physics, Chemistry & Biology in their 12th standard University examination.
      - English marks secured by them in the 12th standard University examination.

b. Personal factors: Refers to the following aspects:
   - Medium of instruction in 10th standard
   - Choice of Nursing course by self or others
   - Reasons for joining Basic B. Sc. Nursing course
   - Accommodation – College Hostel or Non-Hostel which includes staying with parents, staying with relatives, rented apartments & other hostels.

2. **Academic Performance:** In this study 'academic performance' (outcome variable) is the mean scores obtained by the students in the following four groups of subjects at the F. Y. Basic B. Sc. Nursing, MUHS examination:
   a. Professional subject - Foundations of Nursing (FON) theory
      - FON practical
   b. Professional related subject - Anatomy & Physiology
      - Nutrition & Biochemistry
   c. Allied subject - Microbiology
   d. Humanity subject - Psychology

INTRODUCTION

Nursing as a healthcare profession is focused on the care of individuals, families, and communities so that they may attain, maintain, or recover optimal health and quality of life from conception to death. Nurses work in a large variety of specialties where they work independently and as part of a team to assess, plan, implement and evaluate patient care. A student nurse also has certain responsibilities. Some of the responsibilities as stated by College of Nurses of Ontario:-

- Respect the safety and well-being of the clients in the learning experience
- Recognize her/his knowledge, skills and abilities, limits of responsibilities, legislative authority and supervision requirements
- Contribute to the development of nursing objectives from their clinical experience
- Understand and clarify her/his role in the provision of care with the educator/preceptor
- Use clear, accurate and effective communication skills in professional interactions
- Identify the areas for improvement and act to obtain appropriate supervision
- Be accountable for the quality of care she/he provides within the established objectives

- Become familiar with and follow the practicing hospital's policies, procedures and principles

Being a student nurse is a responsible task. A candidate with a right acumen will be able to develop into knowledgeable professional with the finest set of patient care skills. An effective admission criterion may help to select a candidate who is appropriate for the profession of Nursing. Studies have shown that better academic performance in the junior college may affect the undergraduate performance. Developing such an effective criterion requires the understanding of the factors that influence the academic performance of the students.

Knowledge about these factors is also paramount in developing strategies for effective teaching-learning activities.

NEED OF THE STUDY

A study conducted by Confer. A. W. et al., to identify predictors of performance in the first year of the basic nursing diploma programme found academic factors as better predictors of student's academic performance than the non-academic factors.

Platt, L. S. et al., examined the predictability of the performance of the medical students during the first trimester from their pre-admission average grades, admission test scores, interview ratings and system of education. Findings indicated a significant relationship between pre-admission grades, admission test scores, and the subject test scores in MBBS part I examination. A relation was also found between the system of education and the academic ability of the students. The study concluded that the system of education from which the student received his or her previous education has an effect on certain basic science related courses.

Madigan V. (Prehospital Emergency Care. 2006 Jan-Mar;10(1):81-8) in his retrospective study concluded that previous health-related experience, postsecondary educational qualifications, background, student entry type, and gender were all found to be significant predictors of first-year academic performance in selective cohorts. In addition, a combination of predictors produced higher GPAs (grade point average) than did any single predictor.

Majority of the research studies on predictive ability of admission criteria have examined various academic and non-academic factors that include measures of previous academic performance such as college and high school grade average, scores of different aptitude tests, and certain demographic characteristics such as age, gender, marital status, ethnicity, residential background and previous work experience. Evidence suggests that certain academic and non-academic variables could play a very important role in prediction of the academic performance of the students and can thus be justified to use in the admission process.

The team of researchers during their discussion about student's performance reported that many students had cited various reasons for an unsatisfactory academic performance, such as, lack of parental guidance, lack of time due to travel, language barrier etc. There was also dissatisfaction about 45% in 12^{th} standard science stream, being an eligibility criterion for admissions in the Nursing program. It was felt that this criterion probably brought students with lower acumen to First year B.Sc. Nursing class, making it difficult for such students to cope with the professional subjects & the intricacies of this profession. Although, saying that, the team also felt that there were many other factors which influenced the students' performance. A need was felt to identify certain selected factors that might aid in improving the selection criteria, the teaching-learning activities of Basic B. Sc. Nursing programme and also determine the relationship between the 12^{th} standard performance & the First Year Basic B. Sc. Nursing academic performance.

RESEARCH DESIGN

Since this study aims to obtain information about the link between the selected factors in the study and the academic performance of the students at the University examination, an explanatory research was thought to be appropriate for this study.

In an explanatory research, the researcher begins with ideas about the possible causes of a social phenomenon, i.e., the researcher develops hypotheses before collecting any data. The researcher then plans a study that can provide systematic evidence supporting (or not supporting) these initial ideas about the cause.

SAMPLE AND SAMPLE SIZE

The samples were 430 students (2009-10 batch) from selected nursing colleges, who were studying in the 2nd year Basic B. Sc. Nursing & had appeared the F. Y. Basic B. Sc. Nursing University examinations conducted by MUHS (Maharashtra University of Health Sciences). There were 85.8% were female students & 14.2% were female students.

SAMPLING TECHNIQUE

The sampling technique used in this study was stratified random sampling design, as reasoned in the data gathering process.

TECHNIQUE AND TOOL

Technique: Interview & self reporting

Tool:

- Tool I: Interview Schedule (Annexure A)
- Tool II**:** Mark record of students (Annexure B)

VALIDITY

The reliability and the validity of the tool were established through individual evaluation by experts from the field of nursing, education & statistics.

PILOT STUDY

The pilot study was done on a total of 45 students to test the logistics, practicability and feasibility of the research design. Based on the pilot study required modifications were incorporated in the tool.

DATA GATHERING PROCESS

For its functionality purpose, MUHS divides the state of Maharashtra into 5 regions i.e. Mumbai, Marathwada, Vidarbha, Pune & Uttar Maharashtra. There were around 47 colleges of Nursing functioning under the affiliation of MUHS in the year 2009-10 (source: MUHS) with the student strength of 1447 students in the F. Y. B. Sc. Nursing in the year 2009-10 (source: MUHS) described as follows:

Region	Colleges	Students
Mumbai region	12	389
Marathwada	9	260
Vidarbha	7	240
Pune	12	357
Uttar Maharashtra	7	201

The researchers proportionally divided the number of students to be sampled from each region so that an equal representation is made from all the regions. Then, a stratified random sampling technique was used to select the colleges from these regions. Thus, the students to be sampled totaled to 430. Necessary permissions were sought from the authorities of selected colleges. The staff members who had volunteered to collect the data were oriented to the tool & the data gathering process in order to maintain internal validity of the study.

The researchers, on the day of appointment, reached the designated college to meet the 2nd year Basic B. Sc. Nursing students i.e., the samples of the study. The students were explained the purpose of the study & the tool. As one member of the research team was engaged with the students the rest of the members filled the mark records with the help of college authorities.

ANALYSIS AND INTERPRETATION OF DATA

Objective 1: To co-relate the Mean Scores obtained by the students in Physics, Chemistry & Biology subjects in 12th standard with the Mean Scores obtained in the First Year Basic B. Sc. Nursing University examination.

Table 1.1. Correlation between Mean Scores obtained by the students in Physics, Chemistry & Biology subjects in 12th standard with the Mean Scores obtained in the Professional subjects of First Year Basic B. Sc. Nursing University examination.

Mean Scores in PCB	Mean Scores in Professional Subject (FON Theory & Practical)	Pearson's Coefficient of Correlation	Significance
61.88	71.02	0.35	Low correlation

Table 1.2. Correlation between Mean Scores obtained by the students in Physics, Chemistry & Biology subjects in 12th standard with the Mean Scores obtained in the Professional related subjects of First Year Basic B. Sc. Nursing University examination.

Mean Scores in PCB	Mean Scores in Professional Related Subject (Anatomy & Physiology and Biochemistry)	Pearson's Coefficient of Correlation	Interpretation
61.88	54.37	0.31	Low correlation

Table 1.3. Correlation between Mean Scores obtained by the students in Physics, Chemistry & Biology subjects in 12th standard with the Mean Scores obtained in the Allied subjects of First Year Basic B. Sc. Nursing University examination.

Mean Scores in PCB	Mean Scores in Allied Subject (Microbiology)	Pearson's Coefficient of Correlation	Interpretation
61.88	58.33	0.27	Little correlation

Table 1.4. Correlation between Mean Scores obtained by the students in Physics, Chemistry & Biology subjects in 12th standard with the Mean Scores obtained in the Humanity subject of First Year Basic B. Sc. Nursing University examination.

Mean Scores in PCB	Mean Scores in Humanity Subject (Psychology)	Pearson's Coefficient of Correlation	Interpretation
61.88	59.39	0.29	Little correlation

Table 1.5. Correlation between Mean Scores obtained by the students in Physics, Chemistry & Biology subjects in 12th standard with the Mean Scores obtained in the First Year Basic B. Sc. Nursing University examination.

Mean Scores in PCB	Mean Scores in F. Y. B. Sc. Nursing	Pearson's Coefficient of Correlation	Interpretation
61.88	64.12	0.29	Little correlation

The data in all the above tables (1.1-1.5) establishes little or low correlation.

It is to be noted that the marks scored at an examination is influenced by various subjective factors including the methods and techniques used in the conduction of examination and evaluation of the answer papers; hence statistical evidence of 'little or low correlation' is also significant. Dr. B. K. Mahajan, author of *'Methods in biostatistics for medical students & research workers'*, reports that in a large sample even low degree of correlation can be considered highly significant, especially so when the variable is performance in an examination. Similarly, just as high correlation does not mean that there are no other influencing factors of causation; low correlation also implies disentangling a chain of factors likely to be involved in the causation.

Objective 2: To correlate the Mean Scores obtained by the students in English subject in 12th standard with the Mean Scores obtained in the First Year Basic B. Sc. Nursing University examination.

Table 2.1 Correlation between Mean Scores of students in English in 12th standard with the Mean Scores obtained in the First Year Basic B. Sc. Nursing university examination.

Mean Scores in English (12th std. examination)	Mean Scores in F. Y. B. Sc. Nursing University examination	Pearson's Coefficient of Correlation	Interpretation
65.66	64.12	0.38	Low correlation

The low correlation shown in the above table illustrates the importance of command in English language in order to understand all the subjects which are dealt in English at the F.Y. Basic B.Sc. nursing course.

Objective 3: To co-relate the Mean Scores obtained by the students in First Year Basic B. Sc. Nursing University examination from vernacular medium (in the 10th standard) with those from English medium

Table 3. Correlation between the Mean Scores of the First Year Basic B. Sc. Nursing students from vernacular medium in 10th standard with those from English medium

Medium of instruction in 10th standard	Mean Scores in F. Y. B. Sc. Nursing	't' value	Interpretation

English	64.61	0.06	No significant difference
Vernacular	63.20		

df = 428

No significant difference is found between the students from vernacular medium & English medium in their scores at the University examination. This finding probably is due to the fact that the data used, is the scores of the exam conducted at the end of the academic year & by then the language barrier is generally reduced.

Objective 4: To correlate the Mean Scores obtained by the First Year B. Sc. Nursing students residing in the hostel with those who do not reside in the hostel.

Table 4.1 Correlation between the Mean Scores obtained by the First Year B. Sc. Nursing students who reside in hostel with those who do not reside in the hostel

Type of residence	Mean Scores in F. Y. B. Sc. Nursing	't' value	Interpretation
Hostel	64.25	0.69	No significant difference
Non-Hostel (Staying with parents, Staying with relatives, rented apts & other hostels)	63.79		

df = 428

Table 4.2 Correlation between the Mean Scores obtained by the First Year B. Sc. Nursing students who stay with parents with students who stay with relatives, in rented apartments & other hostels.

Type of residence	Mean Scores in F. Y. B. Sc. Nursing	't' value	Interpretation
Staying with parents	64.88	0.67	No significant difference

Staying with relatives, rented apartments & other hostels	63.34		

df = 428

Students staying with relatives, in rented apartments & other hostels are completely responsible for their studies & are not monitored by parents or college hostel authorities. Hence, samples staying in these 3 accommodations are compared together with students staying with their parents.

As per the data in the above tables (Table 4.1 & 4.2), the residing places of students do not seem to make a difference in the scores of the students at the University examination. Thus, the existing practice, of the students freedom, to choose where they wish to stay (in hostel or at other places of accommodation) is justified.

Objective 5: To identify the personal factors influencing the average marks scored by the students in F. Y. Basic B. Sc. Nursing University examination.

(In the following tables the total f >430 since there could be more than one response chosen by each sample.)

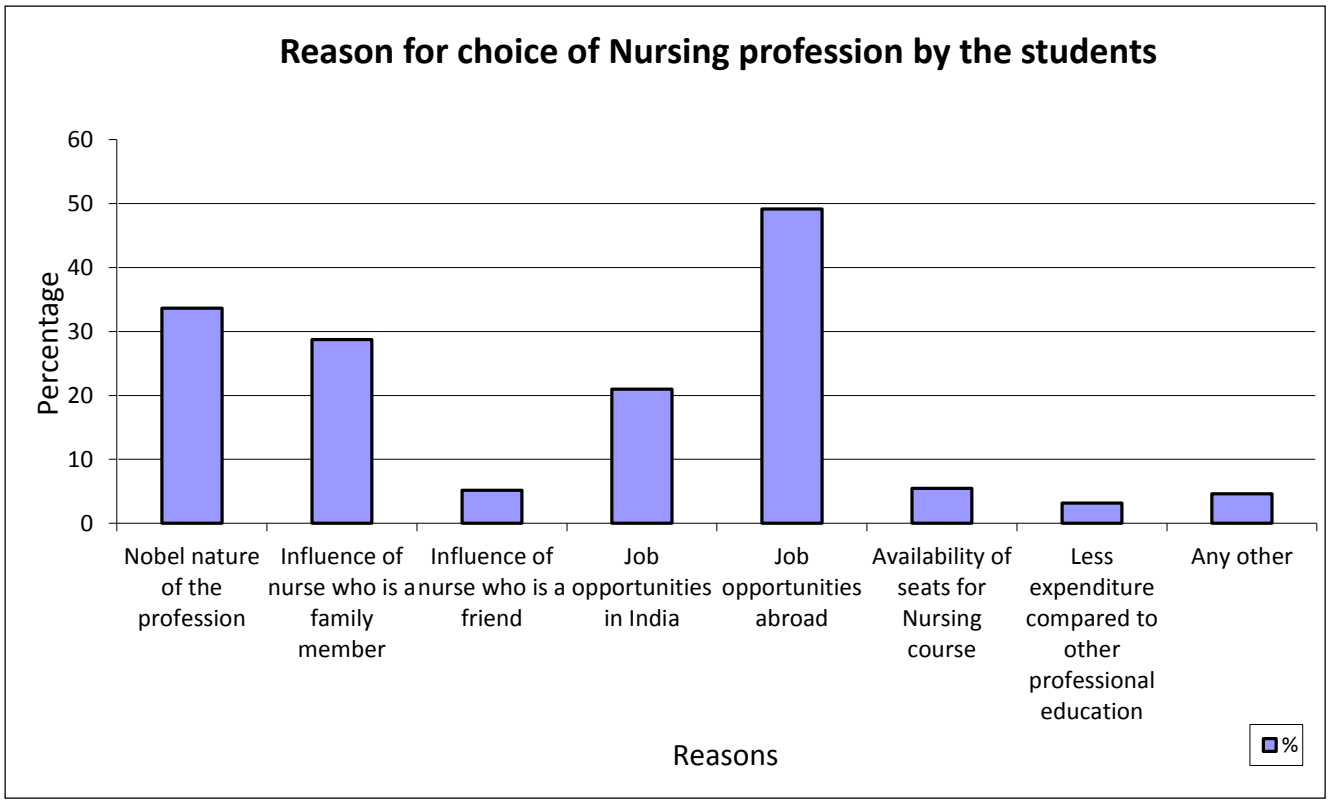
Table 5.1.1 Choice of Nursing profession

Sr. No.	Choice of Nursing Profession by self	f	%
1	Yes	348	80.93
2	No	82	19.07

Table 5.1.2 Reasons stated by the students for choosing Nursing profession

Sr. No.	Reasons for choosing the profession	f	%
1	Nobel nature of the profession	117	33.62

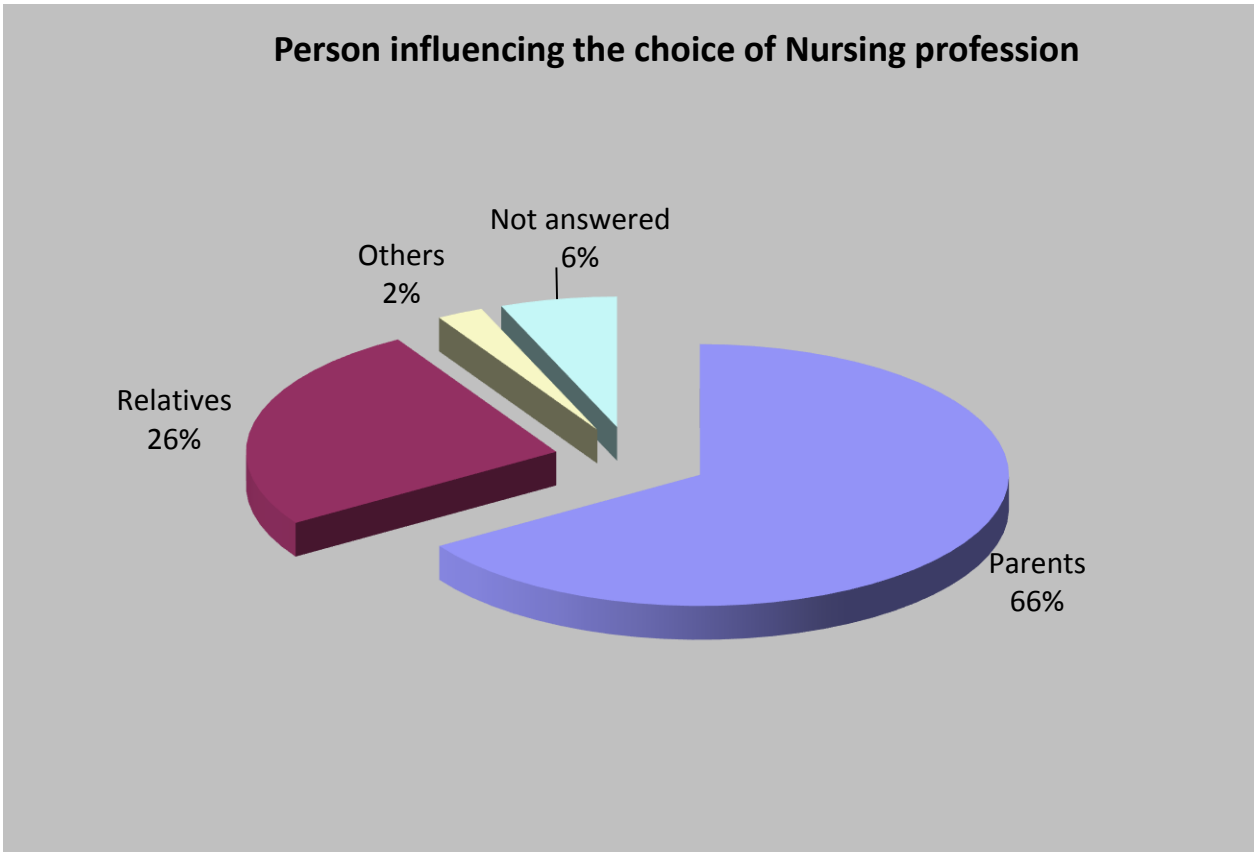
2	Influence of nurse who is a family member	100	28.74
3	Influence of nurse who is a friend	18	5.17
4	Job opportunities in India	73	20.98
5	Job opportunities abroad	171	49.14
6	Availability of seats for Nursing course	19	5.46
7	Less expenditure compared to other professional education	11	3.16
8	Any other	16	4.60



Monetary benefits due to 'job opportunities abroad' as well as the 'noble nature of profession' are the two major reasons cited by most of the samples. 'Job opportunities' cited by the students, as one of the important reasons for selecting nursing may be an indication of an urge of self-reliance. 'Noble nature of the profession' which is valued by the students as one of the reasons for selecting nursing course could be a precursor of the positive attitude in the students about nursing profession.

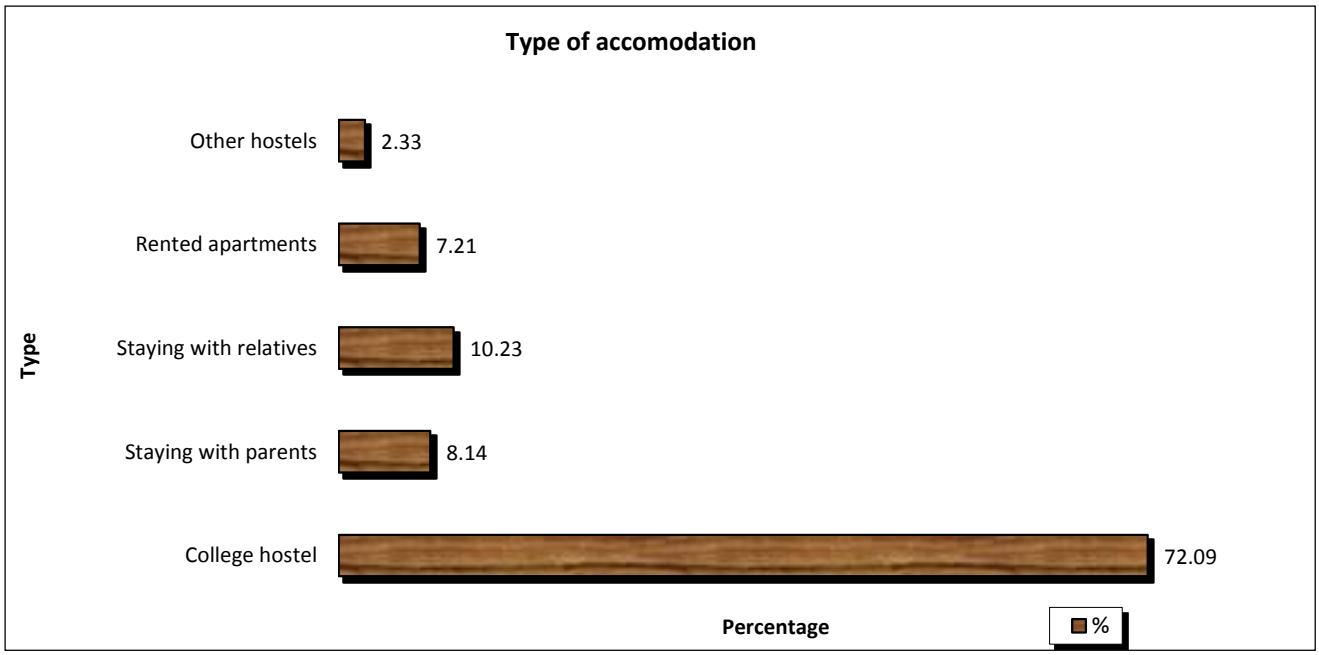
Influence by a nurse who is a family member' is also highly visible.

Table 5.1.3. Person who chose the Nursing profession for the students			
Sr. No.	**Person who chose the Nursing profession for the students**	**f**	**%**
1	Parents	54	65.85
2	Relatives	21	25.61
3	Others	2	2.44
4	Not answered	5	6.10



Of the 82 samples, who reported that they had not chosen the profession by self, 66% of them have said that their parents have chosen the nursing course for them; which is again a precursor of positive attitude about nursing profession in parents, too.

Table 5.2.1 Type of accommodation			
Sr. No.	**Type of Accommodation**	**f**	**%**
1	College hostel	310	72.09
2	Staying with parents	35	8.14
3	Staying with relatives	44	10.23
4	Rented apartments	31	7.21
5	Other hostels	10	2.33



From the above table it is apparent that 72% of the students are residing in the College hostel. Table 4.1 reveals that there is no significant difference between the mean scores obtained by the students residing in the hostel with those who do not reside in the hostel. Though only a small number of the students (31+10) are staying in rented apartments and other hostels, it is a phenomenon by itself, worth exploring the reasons of equal success at the university examination.

Table 5.2.2 Hostel stay helping students score better in F.Y. B. Sc. Nursing university examination			
Sr. No.	**Opinion**	**f**	**%**
1	Yes	228	71.25
2	No	92	28.75

Table 5.2.3 Reasons for scoring better marks when students stay in the hostel			
Sr. No.	**Reasons for scoring better marks**	**f**	**%**
1	Possibility of group study	117	51.32
2	More time available for studies	107	46.93
3	Timely help from other students	61	26.75
4	Motivation from friends	53	23.25
5	Any other	8	3.51

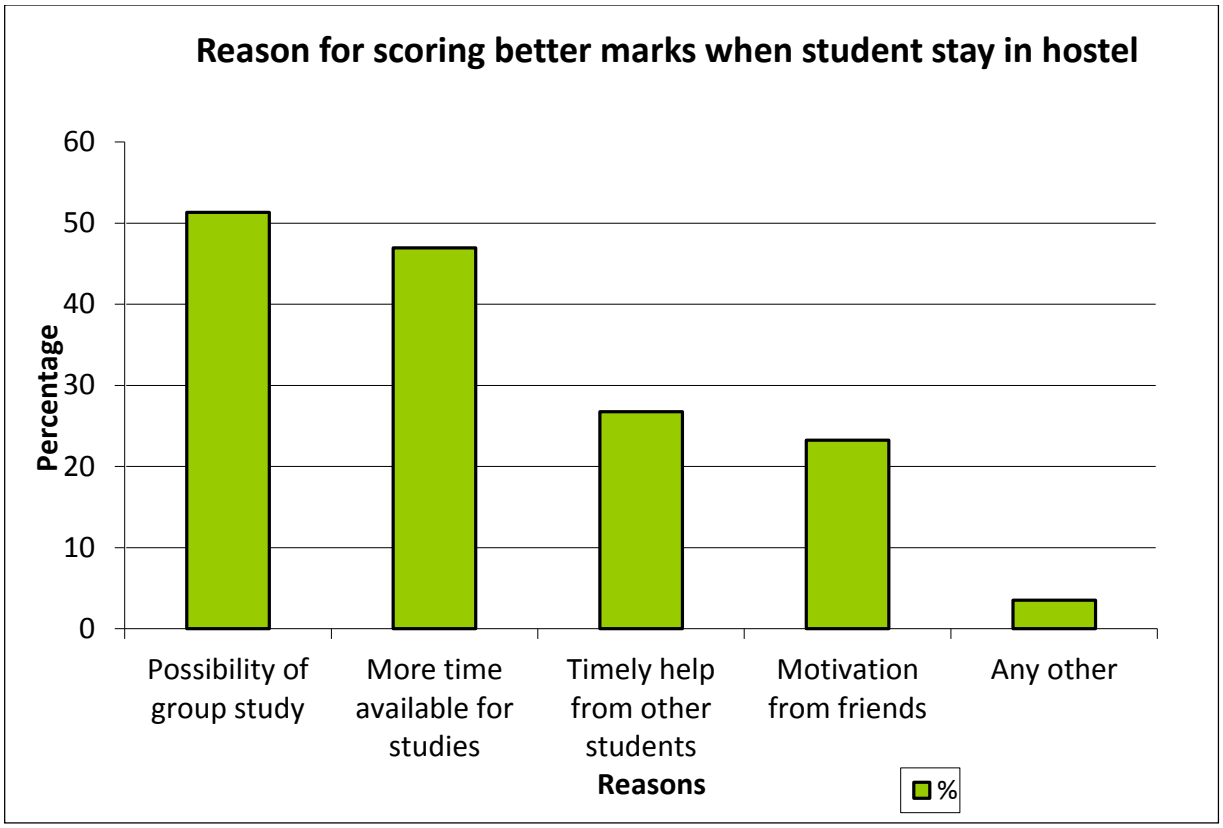
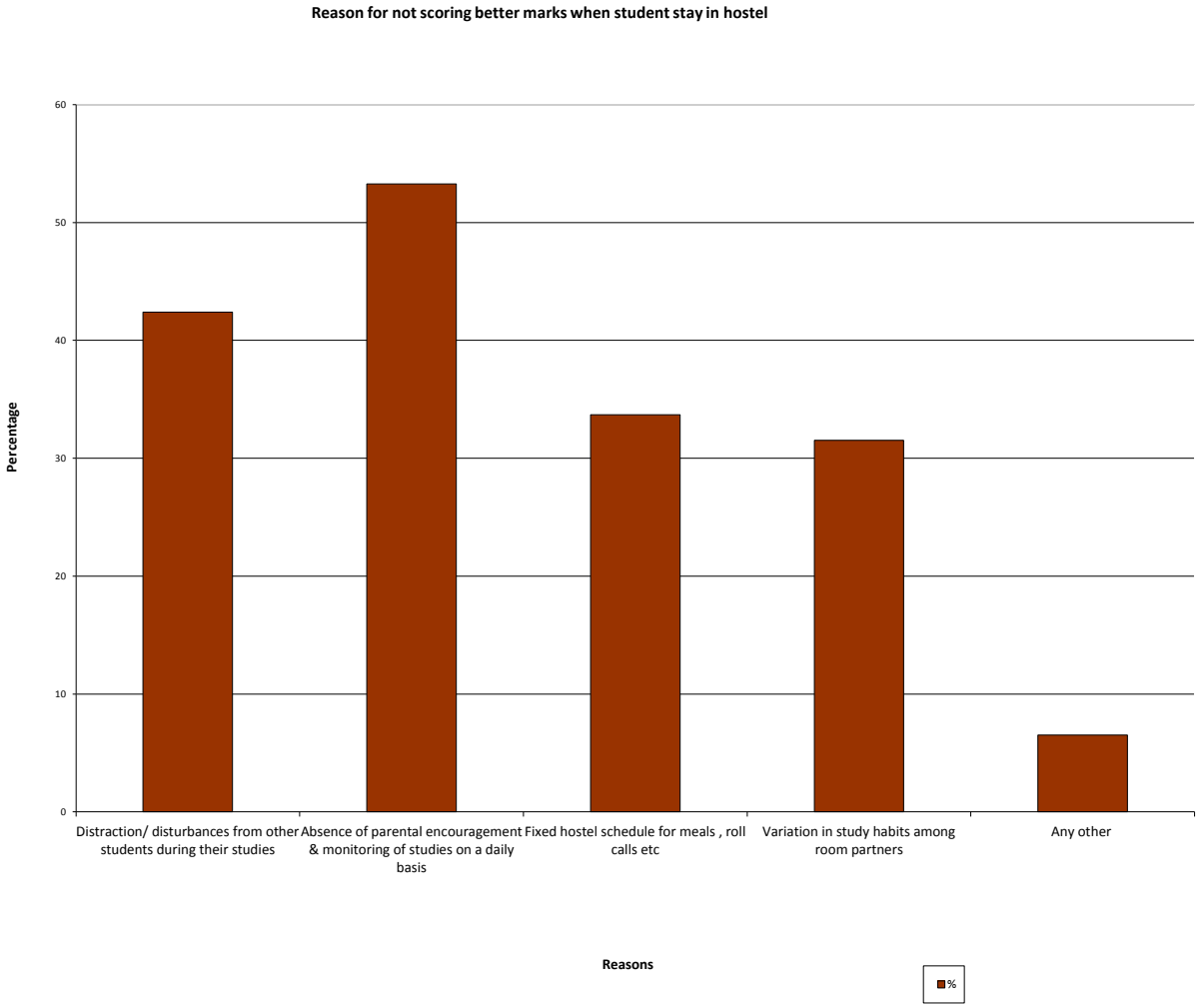


Table 5.2.4 Reasons for not scoring better marks when students stay in the hostel

Sr. No.	Reasons for not scoring better marks	f	%
1	Distraction/ disturbances from other students during their studies	39	42.39
2	Absence of parental encouragement & monitoring of studies on daily basis	49	53.26
3	Fixed hostel schedule for meals , roll calls etc.	31	33.70
4	Variation in study habits among room partners	29	31.52
5	Any other	6	6.52



The data in table 5.2.2, 5.2.3 and 5.2.4 depicts the opinion of students residing in college hostel. 71% of these students have reported that hostel stay helps them in scoring better in the University examination owing to group study and availability of more time for studies. They have also reported that 'absence of parental encouragement and monitoring of studies on a daily basis' was the major reason for not scoring better marks.

Table 5.2.5 Home stay with parents as an influencing factor in scoring better marks in F.Y. B. Sc. Nursing university examination

Sr. No.	Type of accommodation	f	%
1	Home stay helps to score better marks	28	80.00

2	Home stay *does not* help to score better marks	7	20.00

Table 5.2.6 Reasons for scoring better marks when students stay with parents

Sr. No.	Reasons for scoring better marks	f	%
1	Travel time used for study	8	28.57
2	Parental encouragement & monitoring of studies on a daily basis	18	64.29
3	Flexibility in scheduling day to day activities	12	42.86
4	No distraction/disturbances from family members during studies	12	42.86
5	Any other	2	7.14

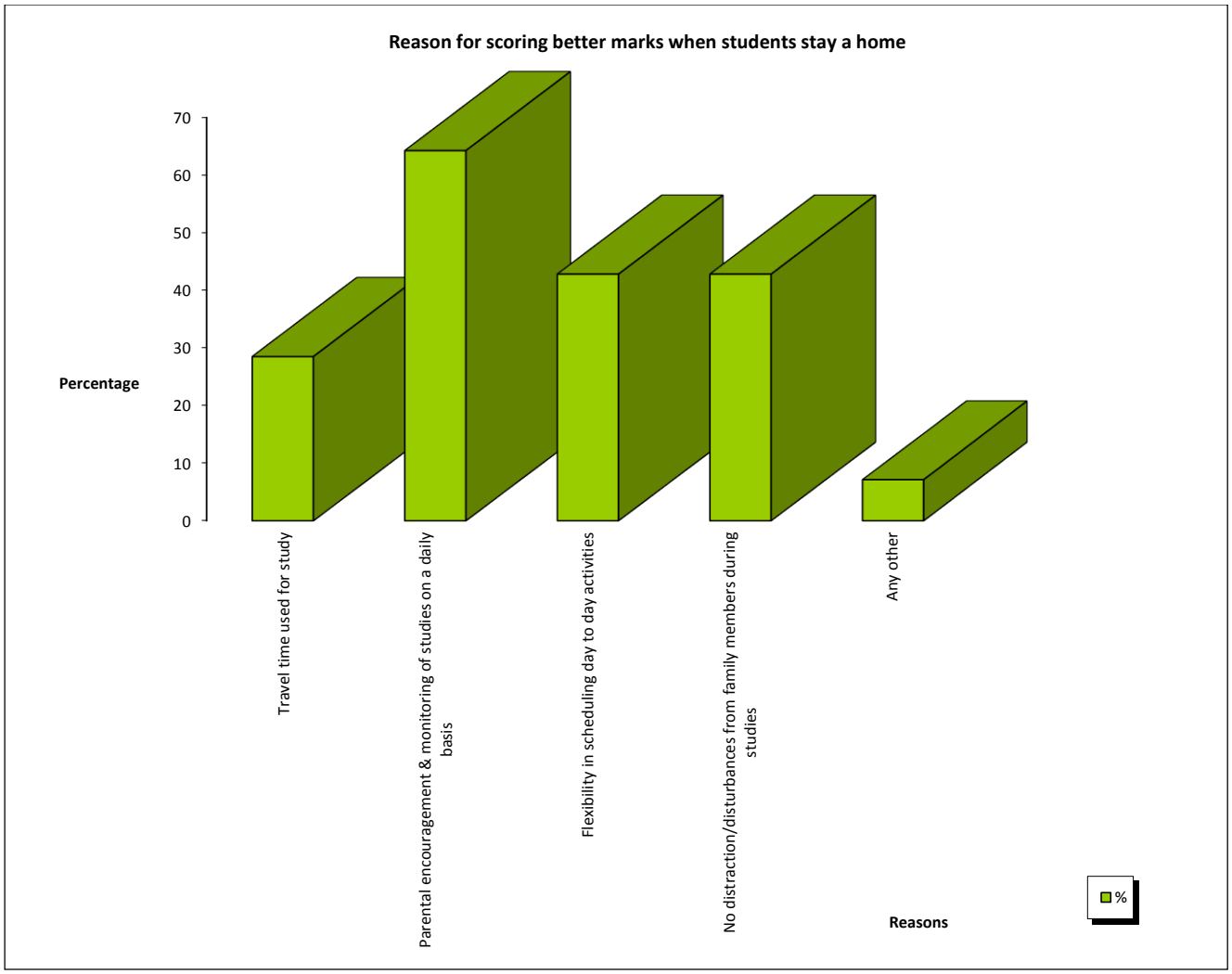


Table 5.2.7 Reasons for not scoring better marks when students stay with parents

Sr. No.	Reasons for not scoring better marks	f	%
1	Time lost during travel	4	57.14
2	Sharing family responsibilities	0	0.00
3	Distraction / disturbances from family events & sickness in the family	3	42.86
4	Distraction / disturbances from family members during studies	2	28.57
5	Absence of group study	2	28.57
6	Any other	1	14.29

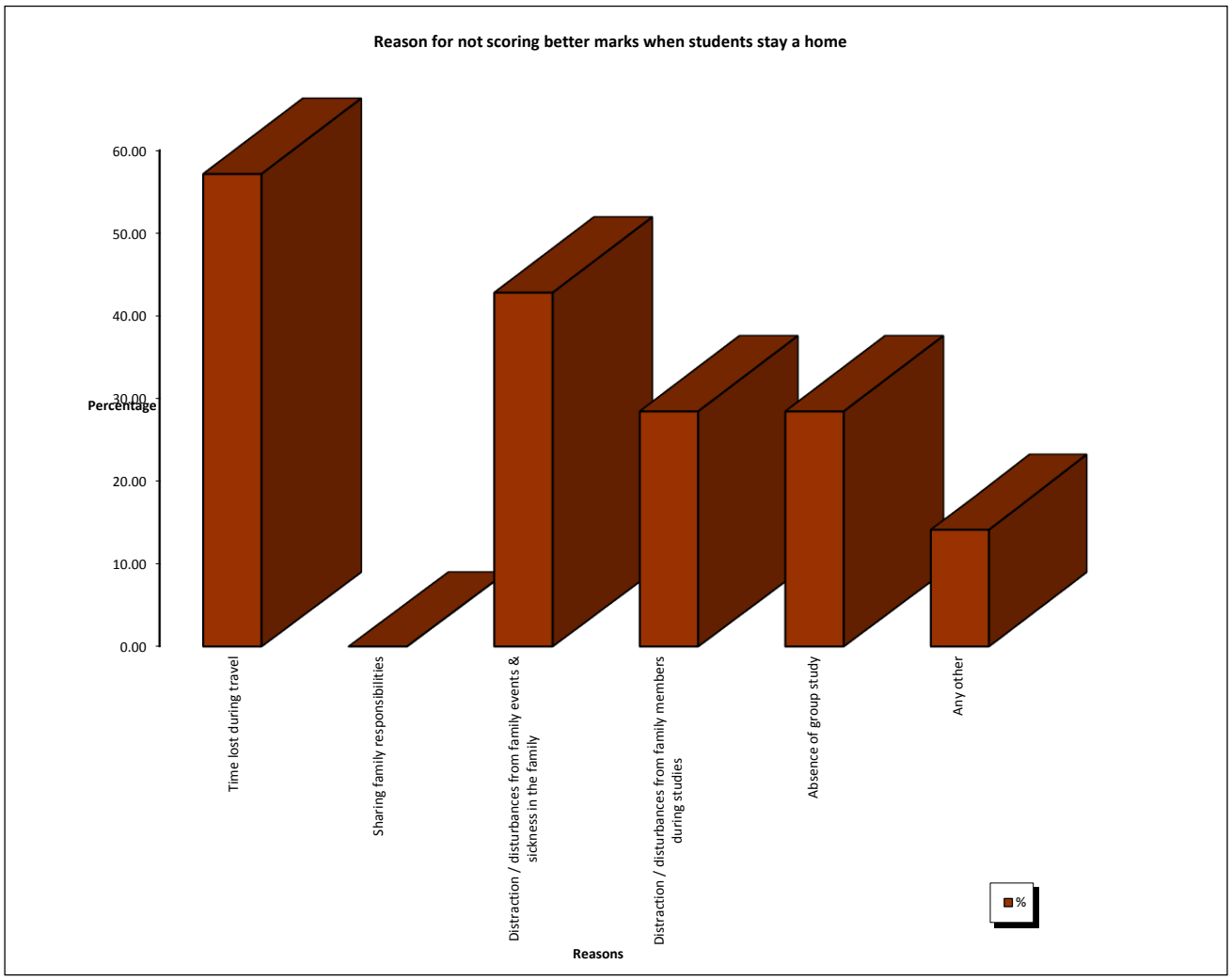


Table 5.2.5 to 5.2.7 shows the data related to the students accommodation (stay) with their parents. Parental encouragement and monitoring of studies on a daily basis is the reason quoted by more number of students for scoring better marks at the University examination, which signifies the importance of parental support during studies in an individual's life.

Table 5.2.8 Stay in rented apartments or with relatives helping students to score better in F.Y. B. Sc. Nursing

Sr. No.	Opinion	f	%
1	Yes	51	68.00
2	No	24	32.00

Table 5.2.9 Reasons for scoring better marks when students stay in rented apartments or with relatives			
Sr. No.	**Reasons for scoring better marks**	**f**	**%**
1	Travel time used for study	11	21.57
2	Flexibility in scheduling day to day activities	45	88.24
3	Any other	6	11.76

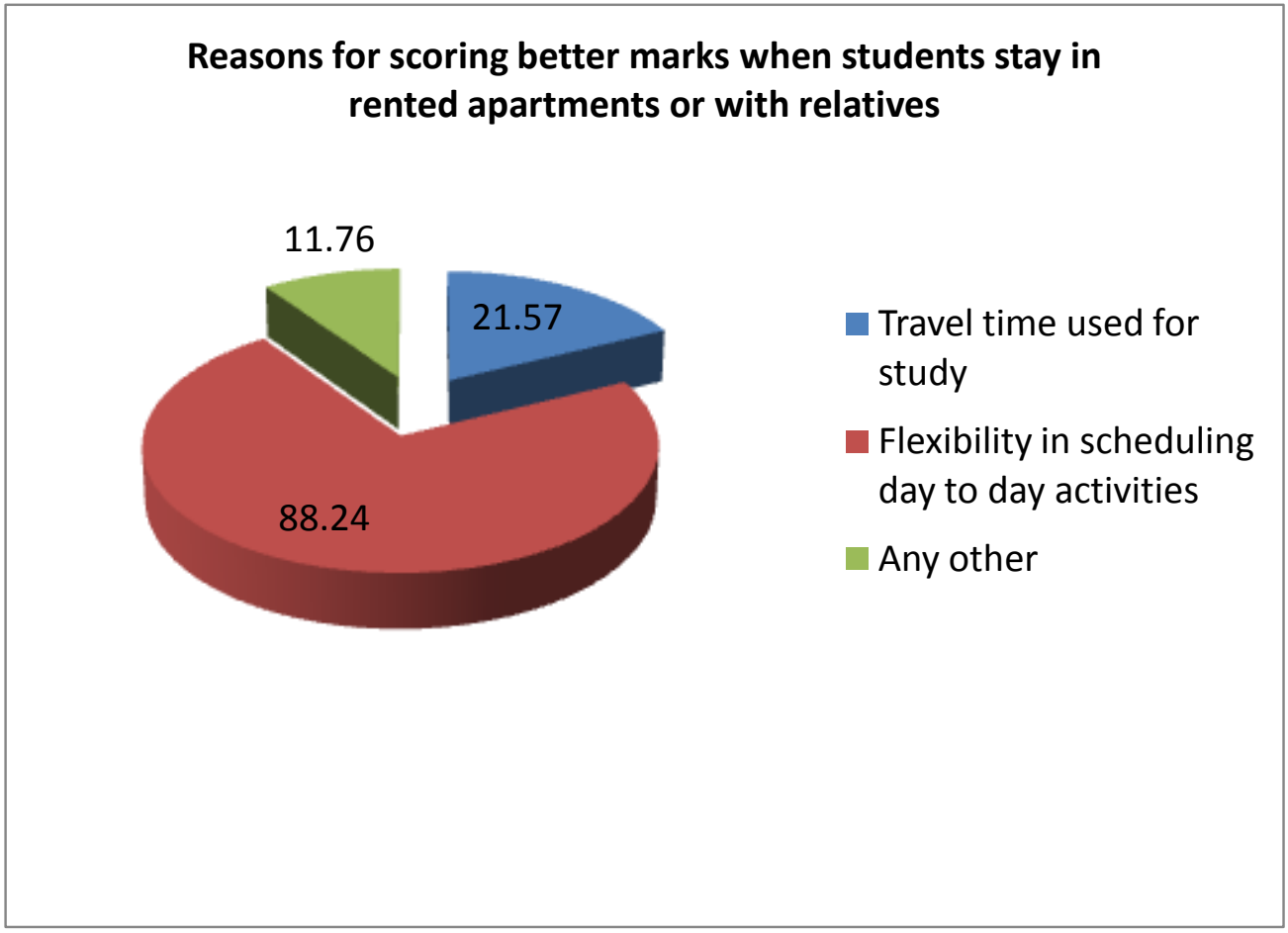


Table 5.2.10 Reasons for not scoring better marks when students stay in rented apartments or with relatives

Sr. No.	Reasons for not scoring better marks	f	%
1	Managing household chores	5	20.83
2	Distraction / disturbances from family events & sickness in the family	15	62.50
3	Distraction / disturbances from family members during studies	5	20.83
4	Absence of group study	9	37.50
5	Any other	0	0.00

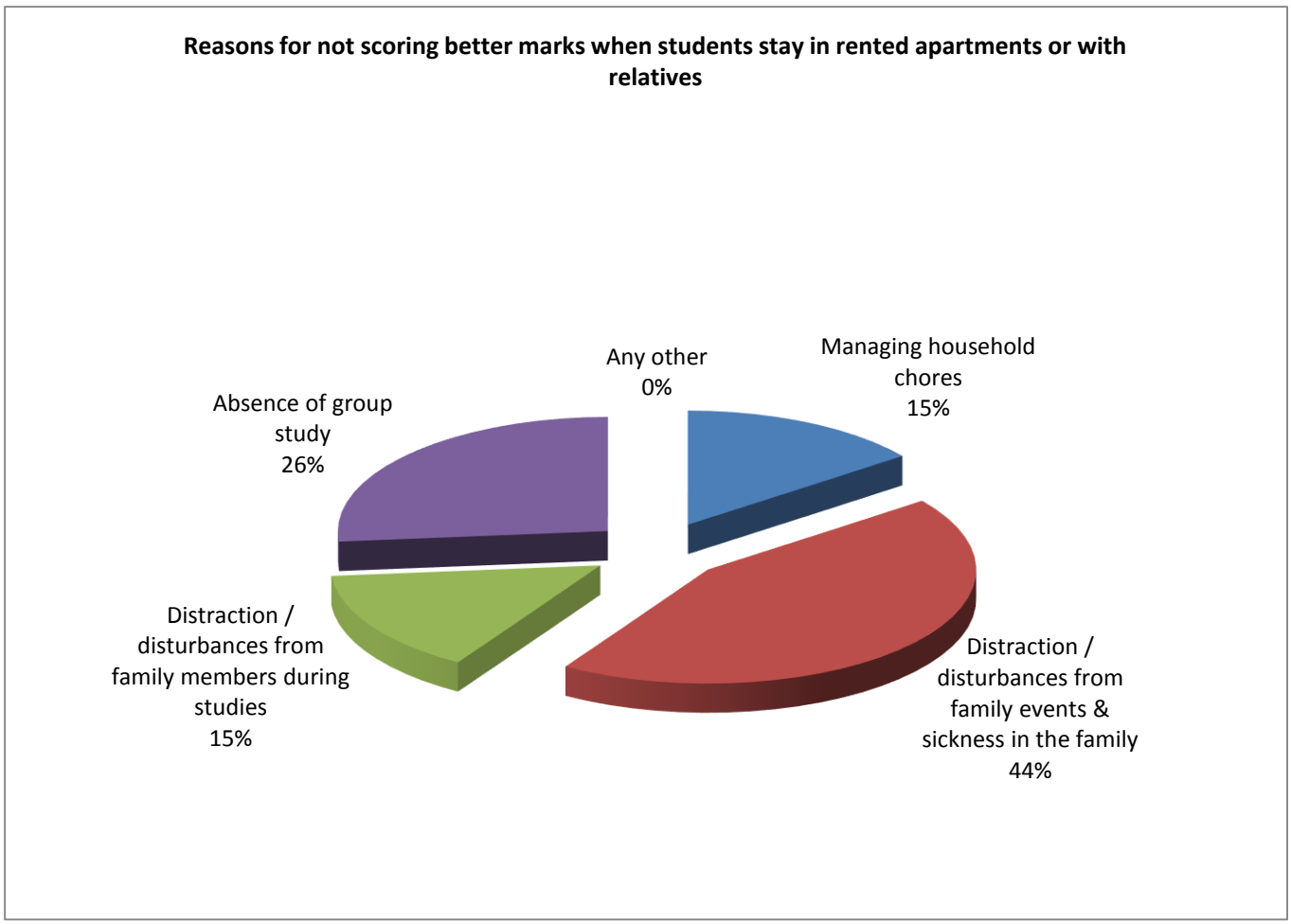
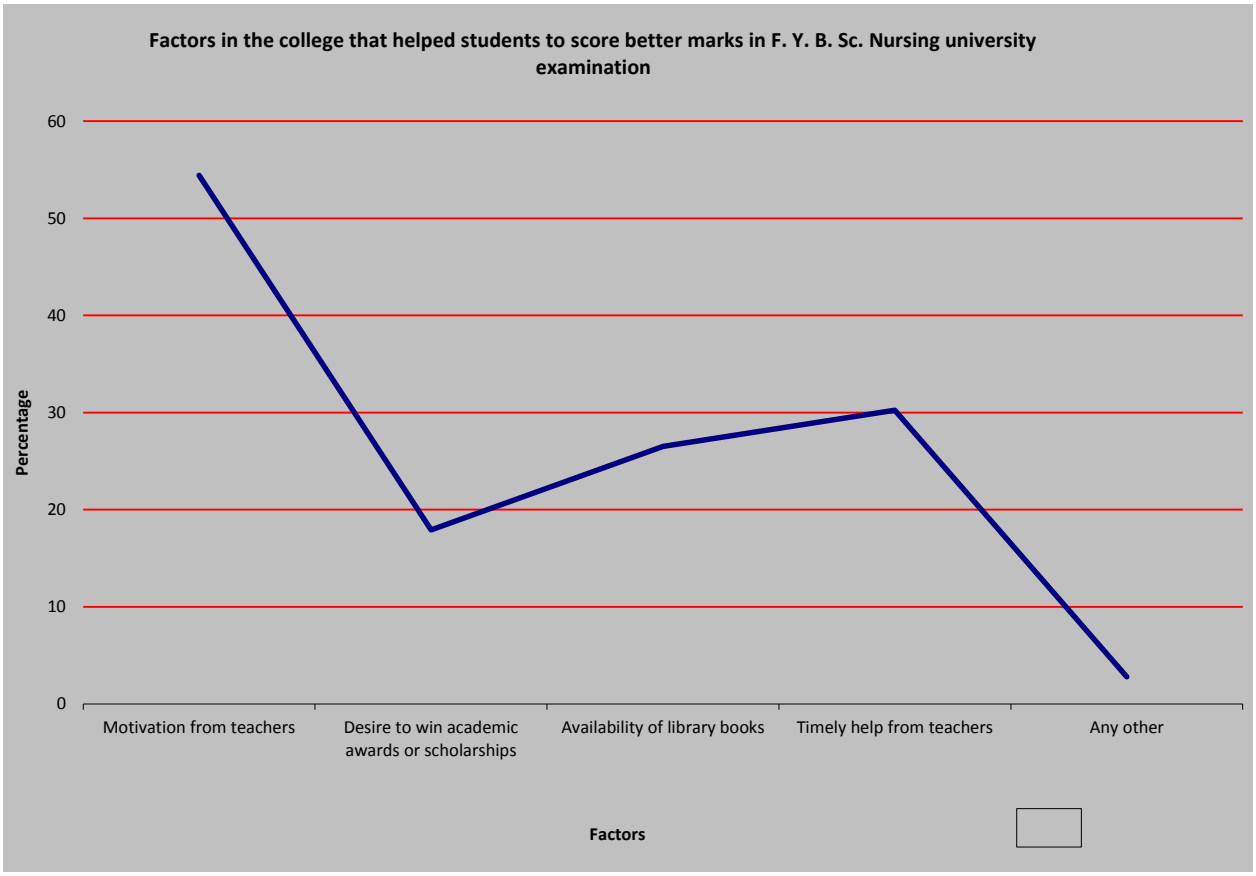


Table 5.2.8 to 5.2.10 shows varied data. Yet, 'Flexibility in scheduling day to day activities' is a factor reported to be helping the students to score better marks at the University examination. As Danielle Bassett, a postdoctoral fellow in physics at UCSB, said in a press release. "That flexibility seems to be

the factor that predicts learning; so, if you are very flexible with self and study time, then you will end up learning better, and if you are not very flexible, then you learn less."

Table 5.3.1 Factors in the college that helped students to score better marks in F. Y. B. Sc. Nursing university examination

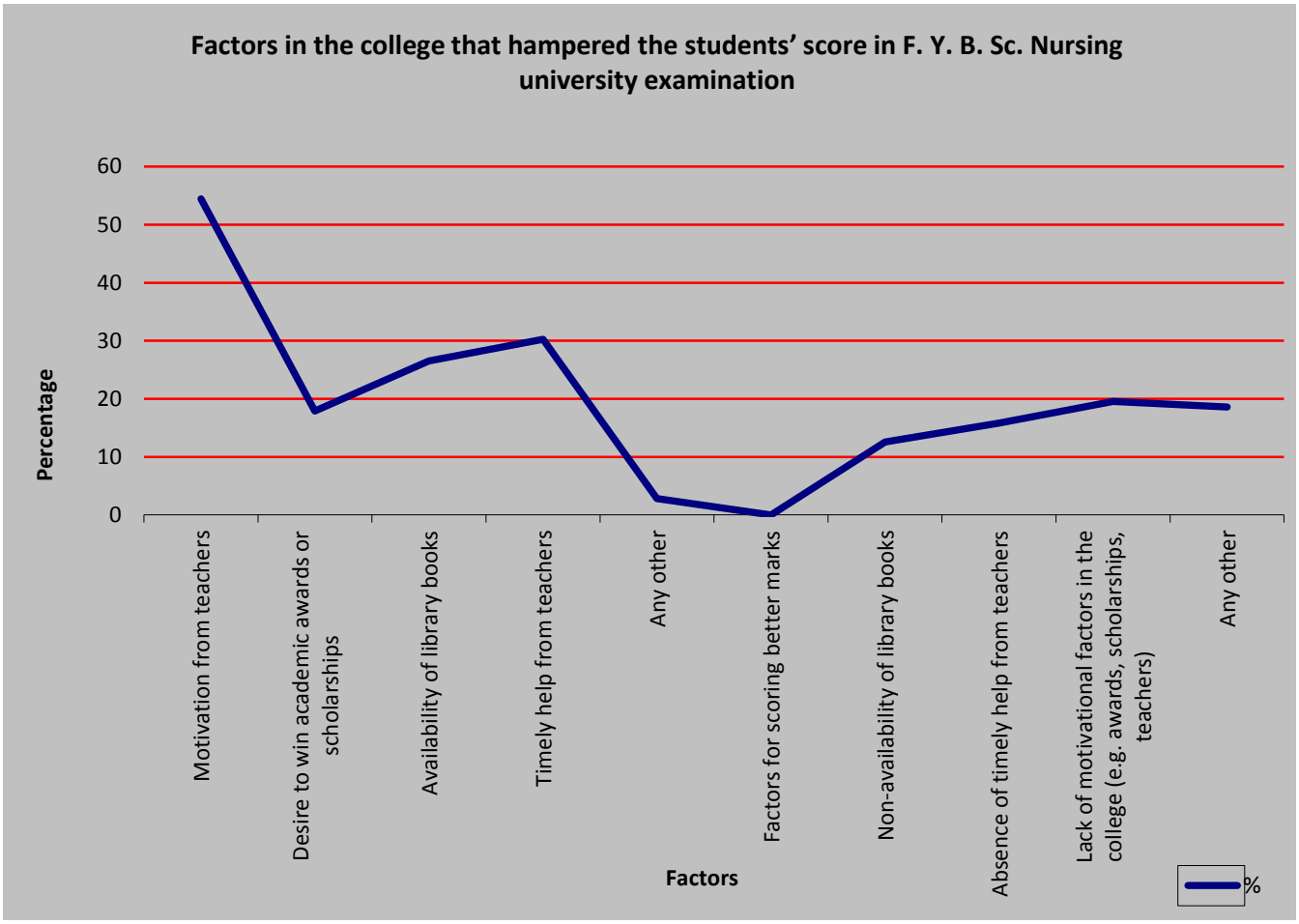
Sr. No.	Factors that helped students	f	%
1	Motivation from teachers	234	54.42
2	Desire to win academic awards or scholarships	77	17.91
3	Availability of library books	114	26.51
4	Timely help from teachers	130	30.23
5	Any other	12	2.79



In the above table, 'Motivation and timely help from teachers' is one of the factors influencing better scores at the University examination. This emphasizes the role of teachers in student's performance. Research tells us that when teachers motivate students they understand their role as agent over their feeling, thinking, and learning behaviors, they are more likely to take responsibility for their learning. To be autonomous learners, however, students need to have some choice and control. And teachers need to learn how to help students develop the ability to make appropriate choices and take control over their own learning

Table 5.3.2 Factors in the college that hampered the students' score in First Year Basic B. Sc. Nursing university examination

Sr. No.	Factors for that hampered students studies	f	%
1	Non-availability of library books	54	12.56
2	Absence of timely help from teachers	68	15.81
3	Lack of motivational factors in the college (e.g. awards, scholarships, motivation from teachers)	84	19.53
5	Any other	80	18.60



This data needs to be interpreted cautiously in light of only 286 responses.

The above table again recognizes 'lack of motivational factors' as the major factor hampering student's performance at the University examination, which further addresses how teachers can help students to be responsible and autonomous learners by giving them appropriate choices, as addressed earlier.

SUMMARY, MAJOR FINDINGS & RECOMMENDATIONS:

The study highlights the following:

The study investigated the selected factors that influenced the academic performance of the First Year Basic B. Sc. Nursing students in order to assess evidently which factor influenced/did not influence their academic performance. Identifying the effect of various factors influencing students' academic performance is of great importance to educators and psychologists. An effective admission criteria helps in selecting appropriate candidates. Besides, the knowledge about predictors of academic performance of the students helps in developing strategies to facilitate students' success in the nursing education program. An evaluative design was used for this study. Through stratified random sampling, 430 students (2009-10 batch) were selected from selected colleges, who were studying in the second year Basic B. Sc. Nursing and had appeared the First Year Basic B. Sc. Nursing University Examination conducted by the MUHS.

The findings of the study have been analyzed under two major headings:

A. ***Effect of the students' Performance at the pre-entry qualifying exam***: Low to little correlation has been statistically found in the following aspects:

- Between the mean scores obtained by the students in PCB in 12th standard with the mean scores in the professional subjects. (FON theory and practical)
- Between the mean scores obtained by the students in PCB in 12th standard with the mean scores in the professional related subjects. (Anatomy & Physiology and Biochemistry)
- Between the mean scores obtained by the students in PCB in 12th standard with the mean scores in the allied subjects. (Microbiology)
- Between the mean scores obtained by the students in PCB in 12th standard with the mean scores in the humanity subjects. (Psychology)
- Between the mean scores obtained by the students in PCB in 12th standard with the aggregate scores in the 1st year Basic B.Sc. Nursing University Examination.

A statistically low correlation between performance at the pre-qualifying exam and the current academic performance is somewhat contradictory to that reported in previous literature. Nevertheless, it is to be noted that the marks scored at an examination can be influenced by myriad of other subjective factors including the methods and techniques used in the conduction of examination and evaluation of the

answer papers; hence statistical evidence of 'little or low correlation' is also significant. Dr. B. K. Mahajan, author of *'Methods in biostatistics for medical students & research workers'*, reports that in a large sample even low degree of correlation can be considered highly significant, especially so when the variable is performance in an examination. Similarly, just as high correlation does not mean that there are no other influencing factors of causation; low correlation also implies disentangling a chain of factors likely to be involved in the causation

Having said that, there is a need for an unprejudiced statistical analysis of the examination system for identifying the problems with regard to the policies, procedure and practices (including validity) of assessment. The stringency of the evaluation must be based upon the stakes that are associated with the examination.

B. *Effect of students' medium of instruction in 10th standard and selected personal factors on their current academic performance:*

- There is no significant difference (t = 0.06) found in the mean scores scored at the 1st year Basic B. Sc. Nursing University examination between the students from vernacular medium & English medium; this may be because by the end of the first academic year the language barrier gets negated.
- 81% of the respondents have said that selecting a career in nursing was their personal choice because of factors such as 'excellent job opportunities abroad' as well as the 'noble nature of the profession'. Majority of the remaining respondents have said that their parents and relatives have chosen the profession for them. This indicates the need for promoting the nursing profession among the prospective candidates.
- 72% of the students are residing in the college hostel. There is no significant difference (t = 0.69) found in the mean scores scored at the 1st year Basic B. Sc. Nursing University examination between the students residing in the hostel with those who do not reside in the hostel. Thus, the existing practice of the students freedom, to choose where they wish to stay is justified
- The students residing in the hostel have reported that hostel stay helps them for scoring better in the University examination owing to 'group study and availability of more time for studies'. These students have also reported that 'absence of parental encouragement and monitoring of

day to day study by them was the major reason for not scoring better marks; which signifies the importance of parental support during studies in an individuals' life.

- Those students who are staying with their parents have reported that 'parental encouragement and monitoring for day to day studies' has helped them for scoring better marks at the University examination, which signifies the importance of parental support during studies in an individual's life.
- 'Motivation & timely help from teachers' is cited as a key factor by students for a better academic performance. It's a positive stroke for the teachers. However it also suggests the need for teachers to keep on bettering their teaching-learning skills as well as their role as a counselor.

Based on the analysis, the study thus concluded, that the selected academic factors considered in the admission criteria predicted (positive correlation) the subsequent academic performance of the nursing students in the Basic B. Sc. Nursing course. Therefore, it is appropriate to consider these variables in the admission and selection of the nursing students. The study did not find any association between their place of stay, medium of instruction at the 10th standard and the academic performance of the students at the Basic B. Sc. Nursing University examination. Thus, it suggests that candidates, regardless of their place of stay or their earlier medium of instruction can perform well at the Basic B. Sc. Nursing University examination.

Generalizability of the results is one of the limitations of this study. Since the study was carried out at one University, differences in demographic variables, location, and student characteristics may affect results when applied to another university. Secondly, the students may have responded cautiously for the fear of being tracked back, which may limit the results to a certain extent. Future, studies should use administrative supported student responses with a larger sample size to validate these study results.

ANNEXURES

Annexure 'A'

Tool 1: Interview Schedule

Objective:

To collect data regarding the personal factors influencing the academic performance of the students in First Year Basic B. Sc. Nursing.

Instructions:

1. Tick your responses in the space ( ) provided
2. Should you have any doubts consult the researcher present in the room.

Code No.: __

Section 1

1. Gender : Male ( ) Female ( )
2. Accommodation : College Hostel – Yes ( ) No ( )

   If No, then tick the appropriate option:

   { } Rented apartments/ relatives

   { } Other hostels

   { } With parents
3. Medium of instruction in 10^{th} std. ( ) Vernacular

   ( ) English

Section 2

1. Did you choose the nursing profession by yourself?

   ( ) Yes ( ) No

2. If yes, what is/are the reason/s for choosing the profession?

   ( ) Nobel nature of the profession

( ) Influence of nurse who is a family member

( ) Influence of nurse who is a friend

( ) Job opportunities in India

( ) Job opportunities abroad

( ) Relatively a better chance for securing admission

( ) Less expenditure compared to other professional education

( ) Any other -_____

3. If no, who chose this course for you? _____

4. If you are a hostelite, does hotel stay help you to score better in the university examination?

( ) Yes ( ) No

4.1. If yes, what are the reasons? (Tick whichever is applicable)

{ } Possibility of group study

{ } More time available for studies

{ } Timely help from other students

{ } Motivation from friends

{ } Any other (specify)

4.2. If no, what are the reasons? (Tick whichever is applicable)

{ } Distraction/ disturbances from other students during studies

{ } Absence of parental encouragement & monitoring of day to day study

{ } Fixed hostel schedule for meals, roll calls etc.

{ } Variation in study habits among room partners

{ } Any other (specify)

5. If you are a non- hostelite, does staying with parents help you to score better in the university examination?

( ) Yes ( ) No

5.1. If yes, what are the reasons? (Tick whichever is applicable)

{ } Travel time used for study

{ } Parental encouragement & monitoring for day to day study

{ } Flexibility in scheduling day to day activities

{ } No distraction/ disturbances from family members during studies

{ } Any other (specify)

5.2. If no, what are the reasons? (Tick whichever is applicable)

{ } Time lost during travel

{ } Sharing family responsibilities

{ } Distraction/ disturbances from family members during studies

{ } Distraction/ disturbances due to family events & sickness in the family

{ } Absence of group study

{ } Any other (specify)

6. If you are a non- hostelite, does staying with relatives or in rented apartments help you to score better in the university examination?

( ) Yes ( ) No

6.1. If yes, what are the reasons? (Tick whichever is applicable)

{ } Travel time used for study

{ } Flexibility in scheduling day to day activities

{ } Any other (specify)

6.2. If no, what are the reasons? (Tick whichever is applicable)

{ } Managing household chores

{ } Distraction/ disturbances from family members during studies

{ } Distraction/ disturbances from family events & sickness in the family

{ } Absence of group study

{ } Any other (specify)

7. Please specify any other factors in your college that helped you to score better marks in your university examination.
   ( ) Motivation from teachers
   ( ) Desire to win academic awards or scholarship
   ( ) Availability of library books
   ( ) Timely help from teachers
   ( ) Any other (specify)

8. Please specify any factors in your college that hampered your score in First Year Basic B. Sc. Nursing university examination.
   ( ) Non- availability of library books
   ( ) Non- availability of timely help from teachers
   ( ) Lack of motivational factors in the college (e.g. awards, scholarships, motivation from the teachers)
   ( ) Any other (specify)

Annexure 'B'

Tool 2: Mark Record

Objectives:

1. To collect biographical data of the Second Year Basic B. Sc. Nursing students
2. To record the marks scored by students in English, Physics, Chemistry & Biology subjects in 12th standard examination & all the subjects in First Year Basic B. Sc. Nursing University Examination.

Code No.	**Academic Performance in 12th std.**			**Academic Performance in First Year Basic B. Sc. Nursing University Examination**						**Remarks**
	No. of attempts	**English (Marks In 12th std.)**	**PCB (Avg. Marks)**	**FON Theory**	**FON Prac.**	**Professional related subjects**		**Allied Nsg. Subject**	**Humanity**	
						Anatomy & Physiology	Nutrition & Biochemistry	Microbiology	Psychology	

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Date:

To:
The President,
Trained Nurses Association of India,
Maharashtra State Branch,

Sub: - Submission of research report.

Dear Madam,

We are enclosing herewith three copies of the research titled *'A study of the selected factors influencing the academic performance of the First Year Basic B. Sc. Nursing students of colleges affiliated to Maharashtra University of Health Sciences, Nashik.'*

The research project was conducted under the supervision & guidance of Ms. Aleyamma Joykutty (ex-principal L.T. College of Nursing, ex-principal Wockhardt Institute of Nursing & Chairperson- Research, TNAI-Maharashtra state branch.). The details of each investigator in this project are as below:

Name of the investigators
Ms. Aleyamma Joykutty, Principal, Wockhardt Institute of Nursing.
Ms. Rita Lakhani, Reader, Wockhardt Institute of Nursing.
Ms. Pearl Cruz, Lecturer, Wockhardt Institute of Nursing.
Ms. Jyotsna Pandit, President, TNAI- Maharashtra State Branch.
Ms. Vrushali Deshpande, Chairperson- ANM, TNAI- Maharashtra State Branch.
Ms. Seema Bhagat, SNA Advisor, TNAI- Maharashtra State Branch.

We thank TNAI Maharashtra State branch for their financial support & for providing us an opportunity to carry out this project. Most of the investigators involved in this study are full time employees in either academic or service sectors. Hence, coordination & conduction of research activities of a project of such a great magnitude requires huge time lines. We are grateful to TNAI Maharashtra state branch for their patience & cooperation.

Thanking you.

Warm Regards,

Ms. Aleyamma Joykutty,
Chairperson- Research
TNAI-Maharashtra State Branch.