Original Research Article

A descriptive study to assess the level of perception and satisfaction regarding online learning among undergraduate nursing students in selected nursing college, Guwahati, Assam

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A B S T R A C T

Background: The COVID 19 pandemic has disrupted the educational system and lead to a drastic shift of professional undergraduate teaching for nursing students into online mode. The definition of satisfaction in online learning is complex and multidimensional and includes manufacturers such as communication student participation in online discussion flexibility workload technology support and feedback. Satisfaction with online learning is based on three learning theories: -social cognitive theory interaction equivalency theory and social integration theory. There is a growing body of literature showing that satisfaction has a positive relationship with student engagement and academic performance the quality of learning is effectiveness success and institutional cost-effectiveness.

Objectives: To assess the students' level of perception regarding online learning. To determine the level of satisfaction regarding online learning.

Materials and Methods: A descriptive study of 138 sample nursing students. Qualitative research approach was used in this study and convience sampling techniques was used Research methodology means an agreement that depicts how, at what times and information is to be collected and scrutinized. It involves all the approach, to answer the research problem. The techniques used to structure a study and to gather and analyze information in a systematic fashion is referred as the research methodology. It includes the steps, action and approaches for the gathering and analyzing the data. The present study adopts a qualitative research approach.

Result: The data analysis was done with the help of descriptive inference statistics for level of satisfaction. 88(63.76%) of undergraduate nursing student had moderate level of satisfaction regarding online learning. 30(21.73%) undergraduate nursing student had poor level of satisfaction regarding online learning and 20(14.49%) undergraduate students had good level of satisfaction. For perception the majority i.e., 90(65%) of undergraduate nursing student had poor perception, 43(32%) of undergraduate nursing student had moderate perception and 5(3.6%) of undergraduate nursing student had good perception regarding online learning.

Conclusion: Nursing is the practice where we can learn theoretically as well as practically. The online learning has played a major role in the development of the skill and knowledge of the nurses and nursing student, in order to that the study which we have conducted says that The e-learning has affected the level of perception and satisfaction among the nursing undergraduate student.

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1. Introduction

The COVID 19 pandemic has disrupted the educational system and lead to a drastic shift of professional

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undergraduate teaching for nursing students into online mode. Due to safety measures as a result of covid-19 online learning has become a useful and practical tool for curriculum delivery worldwide. Several advantages of online learning for learners have been reported in the literature, including easy accessibility to knowledge.

2. Need of the Study

In spite of the eagerness noticed among the staff to enroll themselves in the courses and making use of the educational opportunities offered, there is little known about the advantages they gained; how the courses supported their professional knowledge and practice what obstacles they faced and what factor influenced their learning process.

"Exploring these areas is one of the applications of nursing informatics exports into ensure usable integration of IT technology to enhance the professional development of nurses. Thus, the nursing informatics department planed and implemented this study to assess what impact e- learning had on the nurse's professional knowledge and practice and what factor influenced the utilization of this e-learning at country level."

The study was conducted to assess the attitude of nursing students towards e-learning at a time when it was the only available option to continue learning. The study is even more relevant in India because e-learning had never been practiced on such a large scale before the pandemic.

The results are expected to provide fresh insights into a field that has traditionally relied on physical learning within real life settings in labs and wards to impart hands on knowledge and skills.[1]

2.1. Problem statement

A descriptive study to assess the level of perception and satisfaction regarding online learning among undergraduate nursing students in selected nursing college, Guwahati, Assam.

2.2. Objectives

1. To assess the students' level of perception regarding online learning.
2. To determine the level of satisfaction regarding online learning.

2.3. Assumption

1. Nursing students have high level of satisfaction on online learning.

2.4. Delimitation

The study is limited to:

1. Selected undergraduate nursing college

2.5. Operational definition

1. Descriptive study:[2] In this study "descriptive study" refers to one in which information is collected without changing the environment.
2. Assess:[3] In this study "assess" refers to evaluate or estimate the nature, ability or quality of something.
3. Perception:[4] In this study "perception" refers to the way in which something is regarded, understood or interpreted.
4. Satisfaction:[5] In this study "satisfaction" refers to the fulfillment of ones wishes, expectations, or needs.
5. Online learning:[6] In this study "online learning" refers to the education that takes place over the internet. It is often referred to as 'E-learning' that takes place across distance and not in a traditional classroom.
6. Undergraduate:[7] In this study "undergraduate" refers to a university student who has not yet taken a first degree.
7. Nursing:[8] In this study "nursing" refers to the profession or practice of providing care for the sick and infirm.
8. Institute:[9] In this study "institute" refers to an organization having a particular purpose, especially one that is involved with science, education or a specific profession.

2.6. Conceptual framework

A conceptual framework helps to explain the relationship between the concepts, but rather than being used on one theory, this type of framework links concepts selected from several theories, from previous research results or from the researcher and own experiences. It guides the researcher to know what data has to collect and provides direction to the whole research process.[10]

In the present study the researcher developed a conceptual framework based on the king's theory of goal attainment and it was developed by Imogene King in the early 1960s. It describes a dynamic, interpersonal relationship in which a patient grows and developed to attain certain life goals. The theory explains that factors which can affect the attainment of goals are roles, stress, space and time

In this study the key points are mentioned below:

1. Perception and satisfaction agree to means.
   Whether the students and as well as teachers are agreeing to mean of study i.e., online study.
2. Teachers explore mean
   Teachers and Students will explore their knowledge through online communication
3. Transaction = exchange of knowledge within nursing college
4. Mutual goal setting = to explore and gain maximum knowledge and ideas of nursing subject

5. Action perception and satisfaction
   Result of the perception and satisfaction of online classes among the nursing students
6. Reaction nursing student
   Result whether the students have positive or negative effect of online study
7. Disturbance communication
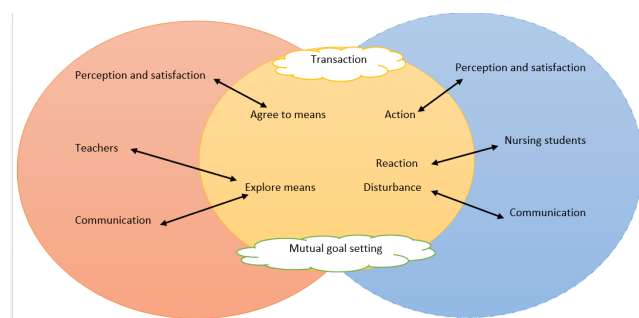   Maximum problem faced among the students and teachers during online classes

Figure 1: Modified systematic diagram of king's theory of goal attainment

3. Review of Literature

A review of literature is a description and analysis of literature relevant to a particular field or topic. It is an account of the previous efforts and achievement of scholars and researchers on phenomenon.

According to Polit and Hungler (1999), "literature review is an evaluative report of information found in the literature related to your selected area of study. The review should describe, evaluate, summarize and clarify this literature." [11]

The review of literature in this study is organized under following headings:

Section A: Usage of online learning

Section B: level of perception and satisfaction regarding online learning among undergraduate nursing students.

3.1. Section A: Usage of online learning

3.1.1. Prevalence

Dr Kasat Payal (2018) a study was conducted to assess the study of usage of online learning resources in medical courses in Mumbai in the year 2018. Total number of 220 sample surveyed. It is indicative from the results of the study that both students and faculty of medical courses believe that online educational resources and technologies can enhance teaching and learning in medical education. Though the usage is good in general, but that of medical specific resources like medical digital libraries, journals or podcasts is very low. The reasons for the same might be lack of relevant resources and their suitability or students

are not aware of them. The results also confirmed the need to integrate IT to traditional method of teaching. Thus, there is a need for curriculum modification and structured computer training for faculty and students. [8]

George Neethu (2022 conducted a study to look into the various perceptions, among students across India in Tamil Nadu in the year 2022. The total number of samples surveyed were 578 students. The study concluded that need for high self-discipline and motivation considered necessary for the online education. The students reported more biased attention and use of video-based lectures in terms of increased time spending and concentration time. So, the revised modules should be made available with importance towards visual capture and to reduce the monotony of the medical education. [9]

Kumar Ashok (2020) conducted a study to assess Online learning in nursing students: Satisfaction and barriers in AIIMS Jodhpur, Rajasthan in the year 2020. the sample surveyed were 219 students. The study concluded that maximum students were extremely satisfied with the online learning and among barriers which effects online learning is low voice and, language clarity, reliability, and connectivity problem physical health barriers such as eye strain. [10]

3.2. Section B: Level of perception and satisfaction regarding online learning among undergraduate nursing students

Dr S Barathi Kala and M Aarthi(2021) conducted a study to assess the level of perception, performance and satisfaction regarding online learning among undergraduate nursing students of Saveetha Institute of Medical and Technical Science, Chennai, Tamil Nadu in the year 2021with 60 BSc. Nursing students. The study revealed that the mean score on level of perception, performance and satisfaction hence concluded that, the undergraduate students had moderate level of perception and satisfaction with fair performance towards online learning. [12]

Sasmal Suvashri, Roy Moitreyee (2021) conducted a study on assessing the Perception of undergraduate nursing students regarding e-learning during COVID-19 pandemic in West Bengalin the year 2021. In this study 327 sample were selected as study participants among them 70.95% had indifferent perception, whereas only 14.07% possessed unfavourable perception towards E-learning. Compared with the indifferent percentage the participants with favourable perception were very less i.e., only 14.98%. This shows that perception of E learning has no association with demographic variables, but significant association is there between gadgets used to attend E learning. [13]

Singh Kumar Hemant et al. (2020) conducted a survey of E-learning methods in nursing and medical education during COVID-19 pandemic in India in 2020, with the aim to evaluate if online teaching methods are as feasible, acceptable, and effective as in-class

teaching for medical/nursing students. Online questionnaire was distributed to 200 medical and nursing colleges across India. Overall, 1541 medical and 684 nursing students completed the survey from 156 cities. It was concluded that there is a need to improve information and communication infrastructure to enhance feasibility of e-learning for nursing/medical students in India. There should be guidelines (number of classes/days, length of each class, break between classes, curriculum, etc) to improve the retention capacity in students and reduce health issues. Continuous feedback from teachers and students will be required to make e-learning effective.[14]

Nepal Samanta et al.(2020) Conducted a study on assessing the student's perspective on online Medical Education Amidst the COVID-19 Pandemic in Nepalat Lumbini Medical College, Palpa,Nepal in the year 2020. A total of 226 samples were surveyed. Almost one-third of the students (n=173, 76.5%) admitted of never having attended the online classes. Most of the students used smartphones to attend online classes; broadband internet service being the source of internet in 65.5%. Two-third of the students rated online classes to be poorer than the traditional classroom teaching and 77.8% of the students preferred traditional classroom teaching in future. The study concluded that medical students did not find online classes as effective as the traditional classroom teachings; it could be made more interactive and productive by introducing interactive and brainstorming sessions complementing the conventional face-to-face education.[15]

Rana Sunita, et al. (2021) conducted a study on assessing the Nursing students 'Perception of Online learning Amidst COVID -19 Pandemic, in Nepal in the year 2020 total 211 samples were surveyed. The result of the study shows that the perception of nursing students towards online learning is positive. Students are satisfied with their learning opportunities amidst covid 19 through online education. However, interrupted internet connection, unfeasible practical natured courses, load – shedding etc were perceived as obstacles to online learning. Age, enrolled nursing program, academic year and devices used had an impact on positive perception.[16]

S Dutta, S Ambwani (2021) conducted a study on assessing the satisfaction level of undergraduate medical and nursing students regarding distant preclinical and clinical teaching amidst covid 19 across India at AIIMS Jodhpur, Rajasthan in the year 2021, total number of 1068 sample were surveyed. The study concluded that online learning is essential at current times but is not an effective alternative for medical and nursing education. Face to face classes and practical sessions along with online learning can be a viable option.[17]

4. Research Methodology

Research methodology means an agreement that depicts how, at what times and information is to be collected and scrutinized. It involves all the approach, to answer the research problem. The techniques used to structure a study and to gather and analyze information in a systematic fashion is referred as the research methodology. It includes the steps, action and approaches for the gathering and analyzing the data.

4.1. Research approach

The present study adopts a qualitative research approach.[18]

4.2. Research design

According to Polit & Beck, research design is overall plan for obtaining answers to the questions being studied and for handling some difficulties encountered during the research process. Quantitative research design was considered to be the most appropriate research design for this study.[19]

4.3. Setting of the study

According to Polit and Hungler, the researcher needs to decide where the intervention will be implemented and where the data will be collected.

The setting of the present study is selected army institute of nursing Guwahati of Assam. The rationale for selecting this setting are:

1. Familiarity with the setting.
2. Easy accessibility to the population under study.
3. Availability of subjects
4. Convenient communication for the researcher.

4.4. Population

According to polit and Hungler, a population is the entire aggregation of cases that meet a designated set of criteria.[20]

In present study population is an adolescent's students of age group 18-22 years studying in selected institution of Assam.

4.5. Sample and sample size

According to polit and Hungler, a sample is a finite part of a statistical population where properties are studied to gain information about the whole.[20]

In this study, sample size consists of 130 students of selected institute of Guwahati, Assam.

4.6. Sampling size calculation

Sample size is calculated by using following formula:
$$N = 2SD^2(Z_{2\alpha} + Z_{2\beta})^2/d^2$$

4.7. Sampling technique

Sampling technique is the process of selecting a representative part of the population for study in research.

Sampling is the process of selecting a portion of the population represents the entire population so that inferences about the population can be made. Purposive sampling technique was adopted for the study.

4.8. Research variables

Variables are qualities, properties, or characteristics of person things or situations that change or vary. In the present study, variables are-

1. Research variable- knowledge and challenges
2. Demographic variable- age, current academic year, educational status of parents, type of family type of e- learning platforms, previous experiences e learning, area, break during classes, other social sites.

4.9. Inclusion criteria

1. Age: 18 to 22 years
2. Students who understand English
3. Institute of Guwahati only
4. Students who are willing to participate in study

4.10. Exclusion criteria

1. Students who are absent during data collection.

4.11. Criteria for sample selection

Sampling criteria specifies the characteristics of the sample in the population that they must process. The following criteria are used in the present study to select the samples.

4.12. Development of tool

The data collection tool or the instruments in the formal return documents used to collect and record information.[21] A tool is an instrument or equipment used for data collection. Data collection is the device used to gather information from participants. Tool develops after updating the theoretical knowledge and guidance from the subject experts along with literature review from different study. A tool was developed by the researchers that is appropriately and precisely measures the variable of interest.

4.13. Content validity of the tool

Content validity evaluates how well and instruments (like a test) covers all the relevant parts of the construct aims to measure.

For the validation of the contents, I was submitted 3 specialist and experts from the field medical surgical nursing, mental health nursing. They were requested
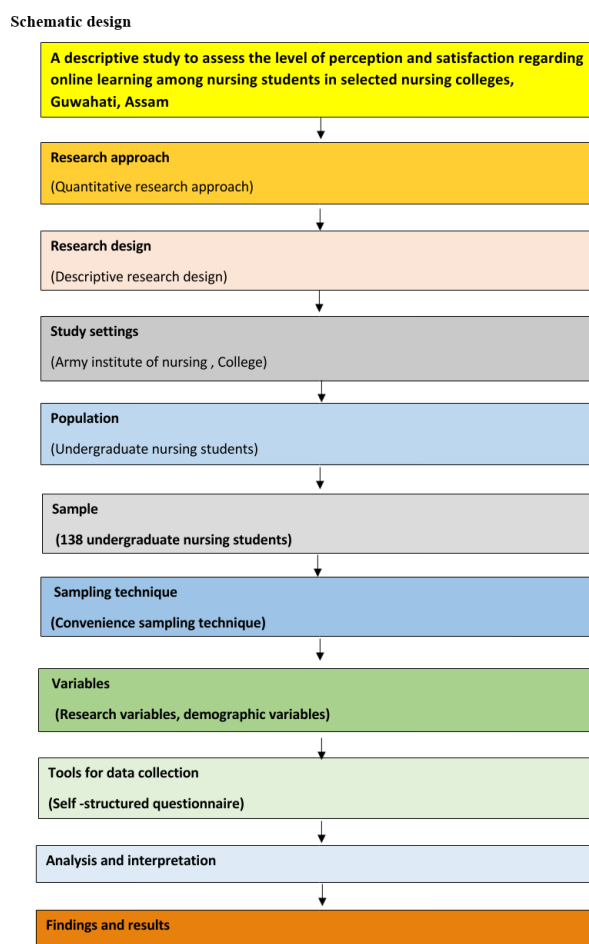
Schematic design

Figure 2: Schematic representation of research process

to verify the items for each clarity, relatedness and meaningfulness and give their opinions and suggestions regarding the items in the tools. The experts were chosen in the basis of their clinical expertise and experience. Suggestions were given by the experts to modify and were incorporated in the tool according.

4.14. Reliability of the tool

According to Treece and Treece (1982) Reliability refers to the consistency of the data gathering instruments in obtaining the same results and in similar situations even though the subjects differ. Reliability is defined as the ability of an instrument to create reproducible results.[22]

In order to find out the feasibility and reliability of the tool, questionnaire was administered to 15 undergraduate B.sc Nursing of the Army Institute of Nursing. The reliability was established by using self-structured questionnaire.

4.15. Pilot study

Pilot study is the small-scale study conducted to test the plan and methods of research study. A pilot study is referred to a small – scale preliminary tries out of the method to be used in and actually large study, which acquaints the researcher with problem that can be corrected in proportion for large research study or is done to provide the researcher with an opportunity to try out the procedure, methods and tool of the data collection. [23]

1. The setting of the study was Army Institute of Nursing, Guwahati Assam. For the pilot study data collection period was 22nd August 2022. The study was conducted on 15 samples (undergraduateB.sc Nursing students). Permission was taken after random selection of the students of the Army students of Nursing. Permission taken from the principal of Army Institute of Nursing to conduct the study; sample chosen according to the purpose of the study. After getting permission, samples were selected using cluster sampling technique: 2 stage sampling - purposive sampling
2. The participants were explained about the purpose and the significance of the study. Signature taken on the inform consent by the nursing students. Collected data were tabulated, analyzed and statistically calculated. The study was found to be effective and feasible to conduct the final study.

4.16. Data collection procedure

4.16.1. Phase 1
The period of data collection was conducted on 30th August 2022. The study setting was in Army Institute of Nursing, Guwahati. Before data collection, permission had been taken from the principal of Army Institute of Nursing, Guwahati. After seeking the permission, the sample were collected by using Purposive Sampling.

4.16.2. Phase 2
The nursing students were selected by using Purposive Sampling technique. The participants explained that anonymity, confidentiality and privacy will be maintained. The informed consent was taken before the administration of the tool by keeping in mind the ethical aspects of research.

4.17. Plan for data analysis

Data analysis is defined as the process of systematically applying statistical and logical techniques to describe summarized and compare data.

The analysis of the data is based on the objectives and hypothesis of the study. Descriptive and Inferential Statistics will be use. The plan for data analysis were as follows:

4.18. Descriptive statistics

1. Frequency distribution and percentage would be computed for description of demographic and clinical variables.

4.19. Inferential statistics

1. The level of satisfaction and perception of undergraduate nursing students regarding online learning has been computed via Sigma Plot 14.5.

This chapter deals with the description of research approach, research design, variables, development of tools, content validity, pilot study, reliability of the tool, Sampling technique, sample, procedure for the data collection, ethical considerations and plan for data analysis.

4.20. Ananlysis and interpretation

This chapter deals with the analysis and interpretation of data collected to assess the level of perception and satisfaction regarding online learning among undergraduate nursing students in selected nursing colleges, Guwahati, Assam.

The data collected themselves do not provide the answer on research questions. Ordinarily, the amount of data collected in the study is rather extensive and therefore, needs to be processed and analyzed in some orderly and coherent fashion, so that the pattern and relationship can be established.

4.21. Data analysis

Analysis and interpretation of data includes compilation, editing, coding, classification and presentation of data. Analysis and interpretation of the data done according to the study objectives and hypothesis. The data were coded and organized in master sheet and were analyzed by using SPSS version 24.

The analysis and interpretation of data was done by using descriptive and inferential statistics based on the following objectives.

1. To assess the student's level of perception regarding online learning.
2. To determine the level of satisfaction regarding online learning.

4.22. Hypothesis

Hypothesis were tested at 0.05 level of significance.

There is significant association between level of perception and satisfaction in online learning among the graduate nursing students.

4.23. Organization and presentation of data

The data collected from the subjects were organized and presented for analysis according to the objectives of the study under the following section.

Section 1: Description of demographic variable.

Section 2: To assess the students' level of perception regarding online learning.

Section 3: To determine the level of satisfaction regarding online learning.

Section 1: Description of demographic variable

Frequency and percentage distribution of undergraduate nursing students according to their age.
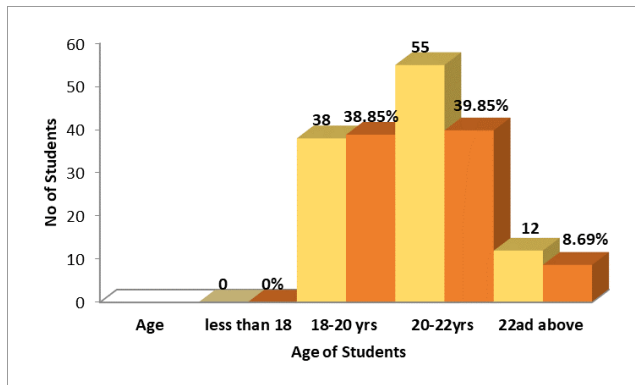
Figure 3: Distribution of undergraduate nursing students according to their age (N= 138)

Figure 3 shows that majority i.e. 55(39.85%) undergraduate nursing students belong to age 20-22 years, 38(38.85%) undergraduates nursing students belong to age 18-20 years, 12(8.69%) undergraduate nursing students belong to age 22 years and above.

Frequency and percentage distribution of undergraduate nursing students according to their academic year.
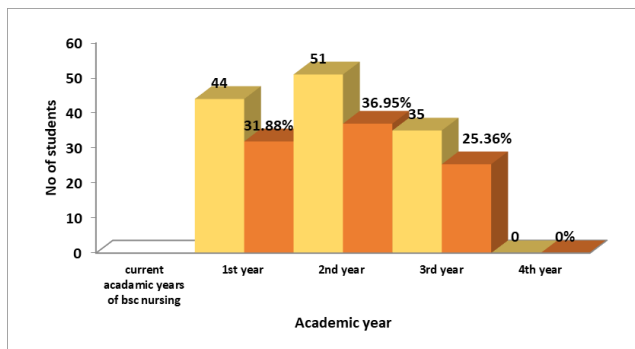

Figure 4: Distribution of undergraduate nursing students according to their academic year (N=138)

Figure 4 shows that majority i.e. 51(36.95%) undergraduate nursing students belong to second year, 44(31.88%) undergraduate nursing students belong to first year, 35(25.36%) undergraduate nursing students belong to third year.

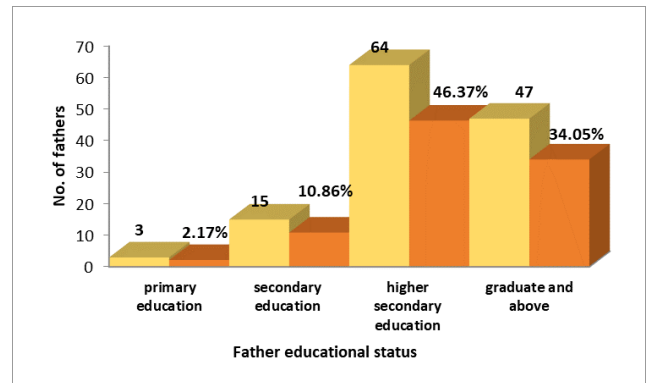Frequency and percentage distribution of educational status of father, of undergraduate nursing students.

Figure 5: Distribution of educational status of father, of undergraduate nursing students (N=138)

Figure 5 shows that majority i.e. 64(46.37%) fathers of undergraduate nursing students have higher secondary education, 47(34.05%) fathers of undergraduate nursing students are graduate and above educational status, 15(10.86%) fathers of undergraduate nursing students have secondary education and 3(2.17%) fathers of undergraduate nursing students have primary education.
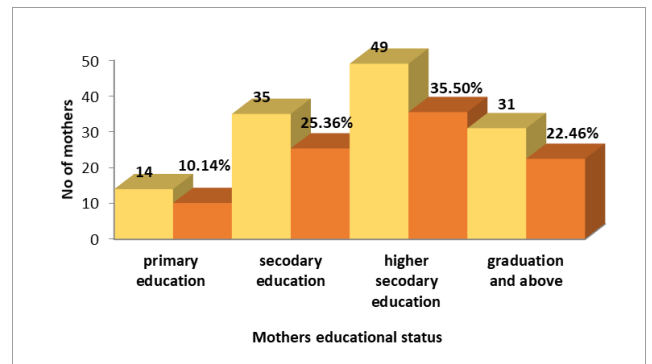

Figure 6: Distribution of educational status of mother, of undergraduate nursing students

Figure 6 shows that majority i.e. 49(35.50%) mothers of undergraduate nursing students have higher secondary education, 35(25.36%) mothers of undergraduate nursing students have secondary education, 31(22.46%) mothers of undergraduate nursing students have graduate and above educational status and 14(10.14%) mothers of undergraduate nursing students have primary education.

Frequency and percentage distribution of undergraduate nursing students according to their type of family.

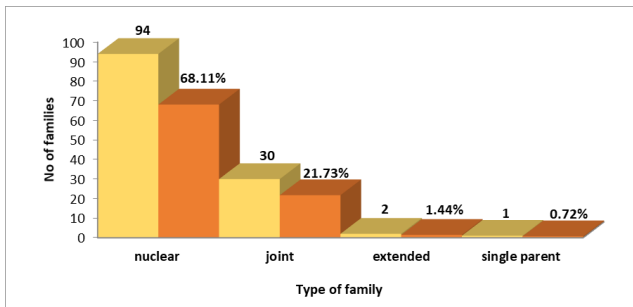Figure 7 shows that majority i.e.94(68.11%) of undergraduate nursing students are from nuclear family,

Figure 7: Distribution of undergraduate nursing students according to their type of family

30(21.73%) of undergraduate nursing students are from joint family, 2(1.44%) of undergraduate nursing students are from extended family, 1(0.72%) of undergraduate nursing students have single parent.

Frequency and percentage distribution of types of learning apps used by undergraduate nursing students.
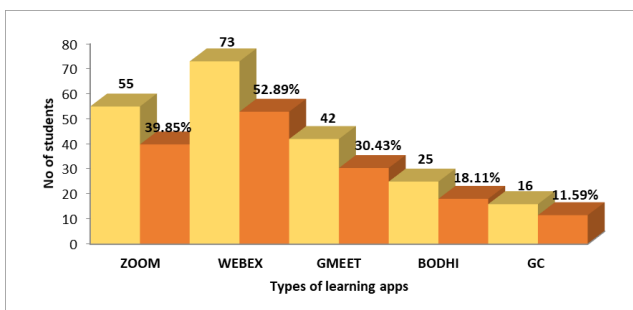

Figure 8: Distribution of types of learning apps used by undergraduate nursing students (N=138)

Figure 8 shows that majority i.e. 73(52.89%) undergraduate nursing students used Webex, 55(39.85%) undergraduate nursing students used zoom, 42(30.43%) undergraduate nursing students used Google meet (GMEET), 25(18.11%) undergraduate nursing students used bodhi, 16(11.59%)undergraduate nursing students used Google classroom (GC).

Frequency and percentage distribution of undergraduate nursing students according to previous experience of attending e-learning session.

Figure 9 shows that majority i.e.110(79.71%) undergraduate nursing students had previous experience of attending e-learning sessions and 18(13.04%) undergraduate nursing students had no experience of attending e-learning session.

Figure 10 shows that majority i.e.113(81.88%)undergraduate nursing students attending online classes in urban area, 15 (10.86%) undergraduate nursing students attending online classes in rural area.
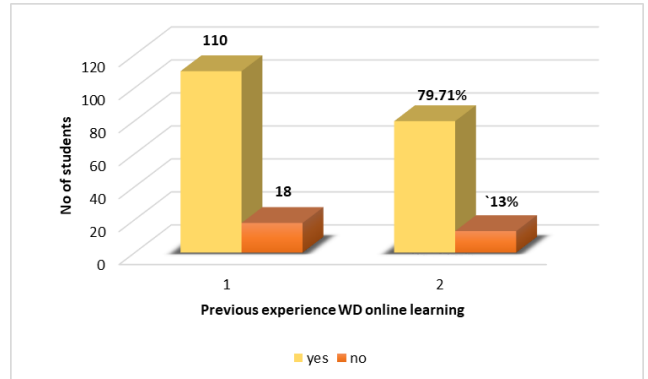

Figure 9: Distribution of undergraduate nursing students according to previous experience of attending e- learning session (N=138)
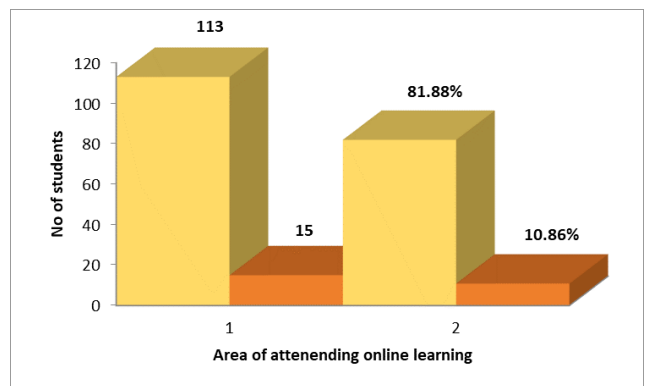

Figure 10: Distribution of undergraduate nursing students according to their area of attending online classes
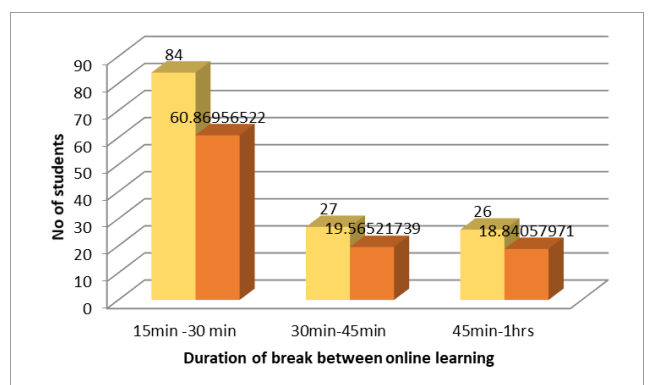

Figure 11: Distribution of duration of break taken by undergraduate nursing students during online classes

Figure 11 shows that majority i.e.,15min-30 min break taken by undergraduate nursing students during online classes, 45min-1hrs break taken by undergraduate nursing students during online classes

Frequency and percentage distribution of time spend in other social sites apart from online classes by undergraduate nursing students.
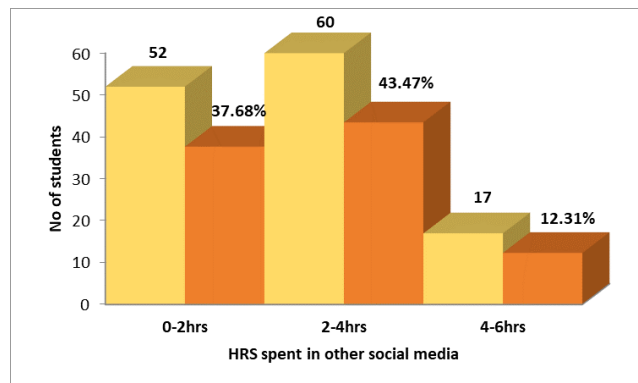

Figure 12: Distribution of time spend in other social sites apart from online classes by undergraduate nursing students

Figure 12 shows that majority. i.e., 60 (43.47%) 2-4hrs time spend in other social sites apart from online classes by undergraduate nursing students, 17(12.31%) 4-6 hours' time spend in other social sites apart from online classes

Section 2: To assess the students' level of perception regarding online learning

This section deals with the frequency and percentage of level of satisfaction of undergraduate nursing students regarding online learning.

Table 1: Frequency and percentage of level of satisfaction of undergraduate nursing students regarding online learning

Level of satisfaction	Frequency	Percentage
Poor(≤50%)	30	21.73913043
Moderate(51-75%)	88	63.76811594
Good(<75%)	20	14.49275362

Data on table 4.1 shows that majority i.e., 88(63.76%) of undergraduate nursing students had moderate level of satisfaction regarding online learning, 30(21.73%) undergraduate nursing students had poor level of satisfaction regarding online learning and 20 (14.49%) undergraduate nursing students had good level of satisfaction.

Section 3: To determine the level of satisfaction regarding online learning.

This section deals with the frequency and percentage of level of perception of undergraduate nursing students regarding online learning

Data on table 4.2 shows that majority i.e., 90(65%) of undergraduate nursing students had poor perception,

Table 2: Frequency and percentage of level of perception of undergraduate nursing students regarding online learning

Perception	Frequency	Percentage (%)
Poor(≤50%)	90	65
Moderate(51-75%)	43	31
Good(<75%)	5	4

43(32%) of undergraduate nursing students had moderate perception and 5(3.6%) of undergraduate nursing students had good perception regarding online learning.

5. Discussion

The title of the study was "A descriptive study to assess the level of perception and satisfaction regarding online learning among undergraduate nursing students in selected education institution." Intended to find out the level of satisfaction and their perception regarding online learning among students.

In order to achieve the objectives of the study descriptive design was adopted. A demographic, structured, self- structured questionnaire foe assessing the level of perception and satisfaction on the students during online learning was prepared and been validated by three experts.

In the present study 138 samples were selected.

The findings of the present study have been discussed in relation with the objective of study under following headings:

5.1. Objective 1

1. To assess the students' level of perception regarding online learning.

In the present study the collected data shows that the poor perception among the students more than and equal to 50and the frequency is90 and the percentage is 65 and the perception that in moderate (51-75%) represents the frequency of 43 and the percentage is 31 and lastly the good perception of the students (<75%) represents the frequency of 5 and the percentage is 3.6.

5.2. Objective 2

1. To assess the students' level of satisfaction regarding online learning.

In the present study the collected data shows the poor satisfaction among the students is more than or equal to 50 and the frequency is 30 and the percentage is 21.73

The moderate satisfaction among the students from 51-75% represents the frequency of 88 and the percentage is 63.76.

The good satisfaction among the students is more than 75% represents the frequency of 20 and the percentage is

14.49.

A similar study was conducted Dr S Barathi Kala and M Aarthi (2021) to assess the level of perception, performance and satisfaction regarding online learning among undergraduate nursing students of Saveetha Institute of Medical and Technical Science, Chennai, Tamil Nadu in the year 2021 with 60 BSc nursing students. The study revealed that the mean score on level of perception, performance and satisfaction hence concluded hat, the undergraduate students had moderate level of perception and satisfaction with fair performance towards online learning.

Sasmal Suvashri, Roy Moitreyee (2021) conducted a study on assessing the Perception of undergraduate nursing students regarding e-learning during COVID-19 pandemic in West Bengalin the year 2021. In this study 327 sample were selected as study participants among them 70.95% had indifferent perception, whereas only14.07% possessed unfavourable perception towards E-learning. Compared with the indifferent percentage the participants with favourable perception were very less i.e. only 14.98%. This shows that perception of E learning has no association with demographic variables, but significant association is there between gadgets used to attend E learning.

6. Summary

This chapter deals with the analysis and interpretation of collected data. It includes frequency and percentage distribution of level of perception and satisfaction among the undergraduate nursing students regarding online classes. The data is presented in figures and tables.it includes chi square calculation to find out the level of satisfaction and perception among the undergraduate nursing students. In summarising the discussion can be stated that expected result obtained after doing tabulation, analysis and interpretation based on data collection from the study area in the light of the objectives if the study. The result of the present study has been supported by the same pattern of the studies done by other researchers of the country.

This chapter deal with the summary, implication of the study in the "A descriptive study to assess the level of perception and satisfaction regarding online learning among undergraduate nursing student in selected nursing college, Guwahati, Assam."

The present study was undertaken to assess the "A descriptive study to assess the level of perception and satisfaction regarding online learning among undergraduate nursing student in selected nursing college, Guwahati, Assam."

Objective of the study

1. To assess the student level of perception regarding online learning.

2. To determine the level of satisfaction regarding online learning.

A review of related research and non – research literature helped to formulate the conceptual framework and to adopt a suitable methodology for the study. Literature review was related to the "a descriptive study to assess the level of perception and satisfaction regarding online learning among undergraduate nursing student in selected nursing college, Guwahati, Assam." The research approach adopted for the study was descriptive study.

To obtain necessary data for the study a self -structured questionnaire was formulated. Content validity of the data collection tools was established by three experts of psychiatry and medical- surgical nursing field. Necessary modifications were made as per the suggestion given by the experts.

Simple random sampling technique was used to select the samples. All the adolescents 'student of age group less than 18 to above 22 years who fulfils the inclusion criteria were selected as samples during data collection. The sample size was 138. The study was conducted in the selected educational institute of Kamrup district, Assam. The data collected were organized, analysed and interpreted according to the objective of the study.

6.1. Summary findings

The data analysis was done with the help of descriptive inference statistics for level of satisfaction. 88(63.76%) of undergraduate nursing student had moderate level of satisfaction regarding online learning. 30(21.73%) undergraduate nursing student had poor level of satisfaction regarding online learning and 20(14.49%) undergraduate students had good level of satisfaction.

For perception the majority i.e., 90(65%) of undergraduate nursing student had poor perception, 43(32%) of undergraduate nursing student had moderate perception and 5(3.6%) of undergraduate nursing student had good perception regarding online learning.

6.2. Nursing implication

The current study implication in all field of nursing practice, nursing practice, nursing education, nursing administration, nursing research. The implication can be discussed as follows:

6.3. Nursing practice

1. With the help of e learning, nurses can attend various educational programs on topic like infectious diseases, new disease like covid management to cure them

2. It can be used as to obtain information on breast cancer self-examination, smoking cessation among adolescents, and nutritional improvement

3. E learning can be used in hospitals as in order to build appropriate strategies and well-developed processes to achieve better outcomes and improve the quality and speed of information exchange.
4. Current disease condition can be studied nicely and measures of management can be known. And to deal with the situation can be easy.

6.4. Nursing education

1. Online learning has a unique advantage, overcoming barriers of introversion and physical distance, creating new ways to communicate and shaping identity.
2. It can help nurses to learn new strategies and ideas of quality-based patient care.
3. Online learning allows educators to translate theory into practice, creating a virtual classroom space that promotes collaboration, engagement, discussion and analysis.

6.5. Nursing administration

1. Nursing administration can also utilize these research findings through in-service education which can be conducted online to educate staff and students.
2. New measures can be introduced of career development by increasing the opportunity to upgrade their opportunity to upgrade their position for chance of promotion by change from junior nurse to senior nurse and then become nurse manager.

6.6. Nursing research

Research in nursing field helps to discover, verify the structure and re-structured the personal and professional knowledge through systematic inquiry. No profession can exist without research to develop its body of knowledge, to list its strategies to ensure that its action makes difference.

1. This research can influence other people and thus can provide scope for upcoming study.
2. This study can help people to gain information on how they can introduce online learning in an institution to improve the skill which are provided.

7. Limitations of the Study

1. The limitation of the study was as it was a new study, so comparatively we did not get many literature review for our reference.

8. Recommendation for Future Study

On the basis of finding, we can be recommended that:

1. The study can be done on large sample where finding can be more generalized.

2. The study can be conducted on the particular batch who has actually faced the pandemic situation.

9. Conclusion

Nursing is the practice where we can learn theoretically as well as practically. The online learning has played a major role in the development of the skill and knowledge of the nurses and nursing student, in order to that the study which we have conducted says that

The e-learning has affected the level of perception and satisfaction among the nursing undergraduate student.

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11. Conflict of Interest

None.

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