



ASSESS THE EFFECT OF VIRTUAL ENGAGEMENT AMONG UNDERGRADUATE NURSING STUDENTS

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ABSTRACT

Virtual engagement among undergraduate nursing students has become increasingly prevalent in recent years. It plays a significant role in the lives of undergraduate nursing students, serving as a platform for information sharing, communication, and networking. While virtual engagement can be beneficial, it also presents challenges for nursing students. It is important for students to be mindful of their online behavior and interactions to ensure a positive and constructive online experience. Students should be aware of the potential consequences of their online behavior, as posts and interactions can impact their reputation and future career opportunities. It is evident from the studies that social media has both positive and negative impact on our students. Higher levels of social media usage were connected with worse mental health outcomes and higher levels of social media use were associated with an increased risk of internalizing and externalizing difficulties among adolescents, especially females. So the researchers felt the need to conduct a study to assess the effect of virtual engagement among undergraduate nursing students. The aim of the study was to assess the effect of virtual engagement among undergraduate nursing students and its association with selected socio-demographic variables. Research methodology used in the study was a descriptive research design and sampling technique used was purposive sampling technique. The sample size was 50 students. The data was analyzed using descriptive and inferential statistics. The major finding of the study was 11 (22%) of students demonstrated minimal engagement, 31 (62%) of students exhibited moderate engagement and 08 (16%) of students showed excessive engagement in virtual platforms. Chi square analysis showed that there was significant association between the age of the students with virtual engagement and has no association with gender, place of residence, time spent on social media per day and favorite social media platform.

Keywords: Assess, effect, virtual engagement, students.

INTRODUCTION

Background of the problem

Virtual engagement among undergraduate nursing students has become increasingly prevalent in recent years. It plays a significant role in the lives of undergraduate nursing students, serving as a platform for information sharing, communication, and networking. Many students use social media to connect with peers, access

educational resources, and engage with professional organizations. Virtual engagement can have several benefits for undergraduate nursing students; it provides opportunities for collaborative learning, peer support, and professional networking. Virtual engagement can provide valuable support and resources for resources for undergraduate nursing students. For example, online resources such as educational websites and podcasts can supplement traditional learning methods and enhance understanding of students about complex nursing concepts.

While virtual engagement can be beneficial, it also presents challenges for nursing students. For example, maintaining a healthy balance between online engagement and academic responsibilities can be difficult. It is important for students to be mindful of their online behavior and interactions to ensure a positive and constructive online experience. Students should be aware of the potential consequences consequences of their online behavior, as posts and interactions can impact their reputation and future career opportunities.

In recent years, there has been a growing interest in understanding the impact of virtual engagement on different populations, including students. This study aims to assess the influence of virtual engagement among students, with a focus on how it may affect their academic performance, social interactions, and overall overall well-being. With the rise of social media platforms such as Facebook, Instagram, and Twitter, students have more opportunities than ever to connect with their peers, share experiences, and access various information. These platforms also provide a means for students to seek support, guidance, and resources related to their academic and personal lives.

In addition to academic considerations, the impact of virtual engagement on the mental health and well-being of students is another important aspect to explore. Research has shown that excessive virtual engagement can be linked to feelings of loneliness, anxiety, and low self-esteem among young adults. Given the demanding nature of nursing education and practice, it is crucial to understand how virtual engagement may contribute to student's stress levels and overall mental health. By assessing the relationship between virtual engagement and well-being among nursing students, this study can inform the development of interventions and support services that promote their mental health and resilience.

Social media enjoys widespread popularity among student nurses, with a majority falling within the moderate to heavy user spectrum. Social media has demonstrated benefits for student nurses in their interest, curiosity, self-motivation, and academic performance in their nursing studies for developing personal, professional, and societal connections and networks.¹ Overuse of digital devices can lead to issues like reduced face-to-face interactions, decreased physical activity, and potential exposure to cyber bullying or inappropriate content.

An estimated 14% of the global population meets the criteria for internet addiction, though rates vary across studies. In some countries, up to 20% of adolescents display problematic online behaviours. Smartphone overuse has risen to nearly 27% worldwide, reflecting the ubiquity of mobile devices. Internet addiction frequently co-exists with other mental health disorders, including depression and anxiety. Adolescents and young adults have the highest rates of internet addiction globally. In some regions, nearly half of teenagers surveyed shows sign of problematic use. Smartphone lead the way, with over 96% of internet users worldwide accessing the web by phone. Excessive phone usage and social media scrolling lead to many addiction cases.²

Social media gives a way to the students to effectively reach each other in regards to class ventures, bunch assignments or for help on homework assignments. Many of the students who do not take an interest consistently in class might feel that they can express their thoughts easily on social media. Teachers may post on social media about class activities, school events, homework assignments which will be very useful to them. It is seen that social media marketing has been emerging in career option. Social media marketing prepares young workers to become successful marketers. The access of social media provides the opportunity for educators to teach good digital citizenship and the use of internet for productivity. The first concern about the negative effect comes to mind is the kind of distraction to the students present in the class, as teachers were not able to recognize who is paying attention in the classroom. One of the biggest breakdowns of social media in education is the privacy issues like posting personal information on online sites. In some of the scenario there were more inappropriate information posted which may lead the students to the wrong side. Because of social media students lose their

ability to engage themselves for face to face communication. Many of the bloggers and writers posts wrong information on social sites which leads the education system to failure. Social Media helps to meet people they may not have met outside the social media forums. It also helps to share ideas beyond the geographical boundaries. It provides open opportunity for all writers and bloggers to connect with their clients. Another positive effect of social networking sites is that it unites people on a huge platform for the achievement of specific goals. This brings positive change in the society. One of the negative effects of social media is that it makes people addicted. People spend lots of time in social networking sites which can divert the concentration and diminishes focus from the particular task they have been performing. Social media can easily affect the kids; the reason is sometimes people shares photos, videos on media that contain violence and negative things which can affect the behavior of kids or teenagers. It also abuses the society by invading on people's privacy. Some people use their images or videos in social sites that can encourage others to misuse it.³

By exploring the relationship between virtual engagement and students experiences, this study can provide valuable insights into the factors that shape their digital interactions, relationships, and learning outcomes. It can also inform the development of interventions and support services that promote student's mental health, social connectedness, and ethical behavior. Through this research, educators and healthcare institutions can better understand the influence of virtual engagement on students and empower them to navigate the digital landscape successfully in their education and practice.

Need and significance of the study

Social media are interactive technologies that facilitate the creation sharing and aggregation of content amongst the virtual community and network. According to Statistics, it is estimated that, in 2022, around 3.96 billion people were using social media globally. This number is up from 3.6 billion in 2020.⁴

The Addiction Center defines this type of addiction as a behavioral condition characterized by “being overly concerned about social media, driven by an uncontrollable urge to log on to or use social media, and devoting so much time and effort to social media that it impairs other important life areas.” In other words, the person is obsessed with social social media habits such as scrolling, texting, and posting, will spend time online to the exclusion of other life activities, and may ignore family members and friends. According to their study addiction destructs psychological wellbeing by stimulating the pleasure centers of the brain-too much for some people. The addiction center explains that constant interaction with an online platform triggers the Brain's reward area chemically in the same way as drugs like cocaine or injecting dopamine.⁵

According to Wikipedia, Problematic social media use also known as social media addiction, social media obsession, or social media overuse; it is evident from the recent studies that problematic social media use can lead to significant negative impacts on sleep quality and duration among adolescents, resulting in daytime fatigue and impaired academic performance. Psychological Psychological or behavioral dependence on social media platforms can result in significant negative functions in individual's daily lives. Studies show there are several negative effects that social media can have on individual's mental health and overall wellbeing. Because social media is consistently evolving, researchers also struggle with whether the disorder of problematic social media use would be considered a separate clinical entity or or a manifestation of underlying psychiatric disorders. The disorder can be diagnosed when an individual engages in online content/conversation rather than pursuing other interests. New data from the WHO Regional Office for Europe reveals a sharp rise in problematic social media use among adolescents, with rates increasing from 7% in 2018 to 11% in 2022. This, coupled with findings that 12% of adolescents are at risk of problematic gaming, rises urgent concerns about the impact of digital technology on the mental health and wellbeing of young people.⁶

A number of studies have been conducted on the impacts of social media, and it has been indicated that the prolonged use of social media platforms such as Facebook may be related to negative signs and symptoms of depression, anxiety, and stress.⁷

It is evident from the studies that social media has both positive and negative impact on our students. The students always involve in social networks and they lack concentration in studies, physical activities, etc. Students must be clear on purpose of using social media and how long they are on online and make it beneficial to their personal and social networking purpose.⁸

Higher levels of social media usage were connected with worse mental health outcomes and higher levels of social media use were associated with an increased risk of internalizing and externalizing difficulties among adolescents, especially females. The use of social media was also connected with body image problems and disordered eating, especially among young women, and social media may be a risk factor for alcohol consumption and associated consequences among adolescents and young adults.⁹

The present study suggests a negative impact of virtual engagement on academic performance. Therefore, student's awareness on effective use of social media in medical education and training is crucial, and it should be included and delivered proactively in the foundation course for undergraduate medical students. In addition, medical educators should incorporate on social media constructively in to the medical curriculum by developing learner-centric modules and effective learning strategies on social media base to enhance student engagement in learning.¹⁰

The article, Impact of social media on the academic performance of undergraduate medical students shows the results that, 41.5% of students used social media up to 3 hours per day. WhatsApp (98.25%) and Youtube (91.75%) were the most commonly used social media applications. 73.5% used social media to read health-related news, 71.5% used it to complete assignments and more than 50% used it for seminar preparation, test preparation and research-related purposes. Academic performance of female students was better than male students. There was significant higher use of social media among academically low-performing medical students compared with high-performing medical students. There was a weak negative correlation between academic performance and social media usage and a strong positive correlation between social media usage and social media addiction score.¹¹

The statistical analysis, which included the Pearson Product coefficient correlation and Structure equation model, showed a positive correlation between social media use and increased mental and physical health problems among young employees. Although virtual engagement is inevitable, it is crucial to raise awareness among the young employees about its negative consequences. Prolonged use of social media can lead to physical health issues such as backache, neck ache and headache, among others. Similarly increased mental health issues such as insomnia, anxiousness, depression and frustration are also prevalent among employees. Other studies have also supported this finding, indicating that excessive exposure to virtual engagement is linked to mental health problems.¹²

Statement of the problem

A descriptive study to assess the effect of virtual engagement among undergraduate nursing students of selected colleges of Pathanamthitta District.

Objectives

1. To assess the effect of virtual engagement among undergraduate nursing students.
2. To find out the association between virtual engagement and selected socio-demographic variables.

Operational definitions

1. Assess: In this study, assess refers to an act of making a judgment about the virtual engagement.
2. Effect: In this study, effect refers to the extent to which virtual engagement influences the students.
3. Virtual engagement: In this study, virtual engagement can be defined as the level of active participation, interaction and attention individuals exhibit in digital or online platforms, such as social media, video conferencing or virtual learning environments.

4. Students: In this study, students refer to those who are studying BSc. Nursing.

Assumptions

1. Increased virtual engagement leads to reduced participation in physical activities due to prolonged screen time and limited movement.
2. Virtual engagement impact student participation in academic, social and physical activities.
3. Virtual engagement plays a significant role in shaping how students participate and engage in educational activities.

METHODOLOGY

Methodology is the study of research methods. However, the term can also refer to the methods themselves or to the philosophical discussion of associated background assumptions.¹³ Research methodology refers to the systematic, theoretical analysis of the methods applied to a field. It comprises the theoretical analysis of the methods and principles associated with a branch of knowledge¹⁴.

This chapter deals with the methodology adopted for the present study, to assess the effect of virtual engagement among undergraduate nursing students.

RESEARCH APPROACH

A research approach is the procedure selected by the the researcher to collect, analyze, and interpret data¹⁵.

The research approach used in the study was **Quantitative Research Approach**.

RESEARCH DESIGN

The research design is the master plan specifying the methods and procedures for collecting and analysing the needed information in a research study. It can be defined as a blueprint to conduct a research study, which involves the description of research approach, study setting, sampling size, sampling technique, tools and and method of data collection and analysis to answer specific research questions or for testing research hypotheses¹⁶.

The research design adapted in the study was **Descriptive Design**.

POPULATION AND SAMPLE

Setting is a physical location and condition in which data collection takes place.

Based on feasibility and familiarity, present study was conducted among undergraduate nursing students of selected nursing college of Pathanamthitta district.

The present study was conducted at MGM Muthoot College of Nursing, Kozhencherry, Pathanamthitta district, Kerala. The criteria for selection of study setting were availability of subjects and feasibility of conducting the study.

Population is the aggregation of individuals or objects that possesses similar characteristics defined by the researcher. It includes target and accessible population. In the present study accessible population is undergraduate nursing students of selected college of Pathanamthitta district.

The population in the study was undergraduate nursing students.

A sample is simply a subset of the population. In this study sample consisted of undergraduate nursing students who was studying in VI semester BSc nursing, MGM Muthoot College of Nursing, Kozhencherry Pathanamthitta District.

The sample size was 50 students from VI semester BSc nursing.

The data was obtained from 50 nursing students who met the inclusion criteria. Data collection extended for three days from 06-05-2025 to 09-05-2025. Demographic data and structured Likert scale were distributed to the participants with a detailed explanation on how to fill them out. The participants were asked to complete the Likert scale in section A and B. It took approximately 30 minutes to complete the Likert scale, and participant anonymity was preserved.

STATISTICAL TOOL

The statistical tool are those tools by which statistical methods are applied. Statistical tools help with data sorting, to identify and remedy issues with the quality of data through various data sorting methods. The most well known statistical tool are mean, median, mode, range, dispersion, standard deviation, coefficient of variation etc.

DESCRIPTIVE STATISTICS

Data analysis is the process of systematically applying statistical and/or logical techniques to describe and illustrate, condense and recap, and evaluate data.¹⁷

Data analysis is planned based on the objectives of the study. After collection of data, data were organized and tabulated using descriptive and inferential statistics manually using MS Excel, 2007 version. Frequency and percentage distribution were used to analyze the selected demographic variables. Chi-square test was used to find out the association between virtual engagement and selected socio-demographic variables.

A chi-squared test (also chi-square) is a statistical hypothesis test used in the analysis of contingency tables when the sample sizes are large. In simpler terms, this test is primarily used to examine whether two categorical variables (two dimensions of the contingency table) are independent in influencing the test statistic (values within the table). The test is valid when the test statistic is chi-squared distributed under the null hypothesis, specifically Pearson's chi-squared test and variants thereof. Pearson's chi-squared test is used to determine whether there is a statistically significant difference between the expected frequencies and the observed frequencies in one or more categories of a contingency table. The chi-square statistic compares the size of any discrepancies between the expected results and the actual results, given the size of the sample and the number of variables in the relationship. For these tests, degrees of freedom are used to determine if a certain null hypothesis can be rejected based on the total number of variables and samples within the experiment. As with any statistic, the larger the sample size, the more reliable the results.

Formula for Chi-Square

$$\chi^2 = \frac{\sum (O_i - E_i)^2}{E^2}$$

where: c = Degrees of freedom; O = Observed value(s); E = Expected value(s)

RESULTS AND DISCUSSION

DISTRIBUTION OF SAMPLES ACCORDING TO SOCIO-DEMOGRAPHIC DATA

DEMOGRAPHIC VARIABLES	FREQUENCY(f)	PERCENTAGE(%)
(A) Age in years		
i.20	18	36
ii.21	30	60
iii.22	02	04

(B)	Gender		
	i.Male	09	18
	ii.Female	41	82
(C)	Place of residence		
	i.Hostlers	37	74
	ii.Day scholars	13	26
(D)	Time spent on social media per day		
	i.>3	25	50
	ii.1-2	06	12
	iii.2-3	14	28
	iv.<1	05	10
(E)	Favorite social media platform		
	i.Instagram	35	70
	ii.Netflix	01	02
	iii.Whatsapp	01	02
	iv.Youtube	13	26

ASSESSMENT OF LEVEL OF VIRTUAL ENGAGEMENT WITH DEMOGRAPHIC VARIABLES.

The distribution of samples according to their level of virtual engagement revealed that 11 (22%) of students demonstrated minimal engagement, 31 (62%) of students exhibited moderate engagement and 08 (16%) of students showed excessive engagement in virtual platform.

ASSOCIATION OF LEVEL OF VIRTUAL ENGAGEMENT WITH DEMOGRAPHIC VARIABLES.

The chi-square value show that there was a significant association between the age of the students with virtual engagement and has no association with gender, place of residence, time spent on social media per day and favorite social media platform.

NURSING IMPLICATIONS

The findings of this study have significant implications on the system of education, impacting nursing practice, administration, education, and research.

NURSING PRACTICE

1. Nurses can empower undergraduate nursing students by teaching effective virtual engagement strategies, enhancing academic performance and professional growth.
2. Nursing educators should educate students on the advantages, methods, and best practices for virtual learning, reducing distractions and digital fatigue.
3. Clear guidelines should be established for students and faculty to optimize virtual learning, addressing challenges like disengagement and isolation.

4. Continuous health education and training on virtual engagement should be offered in clinical and academic settings to boost students preparedness and participation in online learning.

NURSING ADMINISTRATION

1. Encourage students to use effective virtual learning strategies to boost academic performance.
2. Host regular virtual programs and workshops to enhance student engagement.
3. Evaluate and refine virtual teaching methods based on student feedback.

NURSING EDUCATION

1. Nurses can facilitate online discussions and guide students through e-learning platforms.
2. Educators should train students on virtual learning skills, including online communication and digital professionalism.
3. Use webinars, orientation programs, and online simulations to strengthen students virtual learning skills.

NURSING RESEARCH

1. Develop tools to assess the effectiveness of virtual learning and student satisfaction.
2. Conduct research on virtual learning challenges and best practices to inform evidence-based education strategies.

LIMITATIONS

1. Sample size was small, this limit the generalization of the study.
2. The study included only undergraduate nursing students.
3. This study was confined only to a selected college at Kozhencherry.
4. Differences in internet access and digital skills could affect virtual engagement.

RECOMMENDATIONS

1. Similar study can be conducted among large sample to generalize the findings.
2. Similar study can be conducted among all undergraduate students.
3. Collaborate with multiple institutions.
4. Use objective data instead of self-reported data.
5. Ensure equal access to technology and digital skills training.

CONCLUSION OF THE STUDY

The study was aimed at assessing the effect of virtual engagement among undergraduate nursing students and the association of virtual engagement with selected socio- demographic variables. After obtaining permission from the Principal of MGM Muthoot College of Nursing, Kozhencherry the study was conducted among 50 undergraduate nursing students and structured Likert scale was used. The result shows that there is moderate level of virtual engagement among undergraduate nursing students.

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