

Use of Internet Vs Book as a Source of Information among Nursing Undergraduates, AIIMS, New Delhi

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ABSTRACT

Background: The Internet has become part and parcel of every walk of life across the world. Nursing students are in touch with books and the internet in order to acquire information for their academic learning.

Aim: This study explored use of the internet Vs book as a source of information among nursing undergraduates and how these sources are influencing their academic performances.

Method: A descriptive Survey Design was adopted; 197 students of B.Sc. (Honors) Nursing students recruited to study by convenience sampling. Data was collected by using demographic profile, likert scale on web based learning, likert scale on traditional book based learning and record analysis for academic performance.

Results: Students showed a greater appreciation for books than for Internet (Average Books Score was greater than Average Internet Score). However, the difference was not significant at the 5% level, though it was significant at the 10% level. Increased use of Internet for Academic Activity was not associated with better academic performance as measured by the percentage of marks obtained by the student.

Conclusion: The effects of Internet use on academic performance and the higher rating of books as compared to the Internet is a clear indication that while internet is useful for study it cannot be a universal and complete solution.

Keyword: internet, book, source of information, nursing undergraduates.

INTRODUCTION

Gathering appropriate information is very crucial in any sort of academic learning. The teachers and students utilize this collected information for their academic activities.¹ The information can be collected through electronically or printed material. The Internet has become part and parcel of every walk of life across the world. This ranges from its support in improving the way people seek information, conduct research, perform business transactions, and communicate with others and various other features.² According to Solangaarachchi, et al (2016) for medical students, many of the tools that support medical education and transmit health research are now available online.³ Ayatollahi A (2014) found that use of the Internet among medical students is increased and they are competent enough to use computer and easily access the internet.⁴

Although there are many benefits associated with the use of Internet, there has been a deep concern regarding

the risk associated with using it.⁵ It is undoubtedly true that students have sidelined the use of books with the emergence of the Internet. This is probably due to the benefits and comfort of using the virtual information. The internet act as a catalyst for medical students to understand the theoretical and critical concepts. Though the internet is a storehouse of much information, the quality and authenticity of information need to be ascertained. A research conducted by Niels (2006) argues that students do not bypass the physical libraries and it is also evident that the use of physical libraries and digital resources complement each other. Book or library stands higher over virtual information because of many advantages such as many books are not available in online.⁶

The present study aims to explore the use of the internet Vs book as a source of information among undergraduates nursing graduates and how these sources are influencing their academic performances. The researcher have observed that use of books among

students have significant reduced due to the intrusion of technology.

New Delhi. The objectives of the study explained and informed consent obtained from participants.

Materials and Method

In this descriptive Survey Design, sample consisted of 197 students (all female) of B.Sc. (Honors) Nursing studying at the College of Nursing, All India Institute of Medical Science, New Delhi. Non Probability Convenience sampling was used to select students. Of them there were 56, 75, 40 and 26 students studying in the First, Second, Third and Fourth year respectively of the B.Sc. (Honors) Nursing programme. Data collecting instruments consist of four sections: demographic profile, likert scale on web based learning, likert scale on traditional book based learning and record analysis for academic performance. The demographic components included age, class, percentage acquired in last financial year, total family income, percentage of attendance, choice of course, average time spent on internet and other scholastic activities. The likert scale to determine the preference of web based learning and traditional book consisted of twenty items. In order to ensure the validity of tool, it was given to five experts from nursing. Tool was found to be valid with few corrections, which were incorporated and the final draft of the tool was prepared. Try out was conducted to ensure the clarity of the tools. The reliability of the tool was determined by Cronbach’s alpha which is .76 and the tool found to be reliable. Ethical permission was taken from institutional ethical committee of All India Institute of Medical Science,

Results

Time Spent on Internet and Other Activities: Altogether there was only one student (who was from B.Sc. (H) First Year class) who did not use the internet. On the whole, there was an increase in internet use as we move from the first year batch towards the fourth year batch, with a noticeable dip in the case of the third year students. On an average a first year student used the internet for nearly 4 ¾ hours, including 1 ½ hours was for study, 1 hour for Assignments, 25 minutes for Facebook, 20 minutes for news and 43 minutes for Whatsapp. Another 3 hours were spent on reading textbooks, journals, newspapers etc, and 1 hour was spent on watching TV, movies etc. The total internet usage increased to nearly 6 ½ hour in the Second Year, before falling to about 5 ¼ hours in the Second Year and then rising sharply to nearly 8 ½ hours in the Fourth Year. The biggest increases were on account of Whatsapp, Facebook and less so on account of increased use for Assignments and Study. Reading of books, journals, newspapers also showed similar variation: further rise in the Second Year, then a decline, followed by a major increase in the Fourth Year.

Average marks received by the Students: This data was collected not from the recipients but from the official College of Nursing records. The summary is given in Table 1 below:

Table 1: Marks (%) Received by Students

	First Year (N = 56)			Second Year (N = 75)			Third Year (N = 40)			Fourth Year (N = 26)		
	Mean	Std. Deviation	C.O.V.	Mean	Std. Deviation	C.O.V.	Mean	Std. Deviation	C.O.V.	Mean	Std. Deviation	C.O.V.
MARKS (percent)	75.88	5.44	0.07	69.01	3.86	0.06	71.41	2.39	0.03	69.88	3.88	0.06

There is very little change in the mean marks received by the students. There is a slight decrease from an average of 76% for First Year Students to 70% for Fourth Year students. It is to be noted that the Coefficient of Variation (C.O.V) of marks is extremely low for all four groups of students, in all cases much below 10%, whereas the variations in times spent on various activities are much larger: in no case was the Coefficient of Variation less than 38%.

Use of Internet Vs Use of Books: A number of questions in the questionnaire about the relative preference for internet vs. books were posed in two exactly opposite

ways. For example, there was a question, “I prefer the internet over books for Assignment”, as well as its exact opposite, namely, “I prefer books over internet for Assignment”. Ideally the respondents should respond in exactly opposite ways to the two questions. But on examining the responses, it was found that the correlation was not significantly different from zero. Hence these questions were not used in the analysis.

Instead, an “Average Internet Score” and an “Average Book Score” were calculated as averages of the numerical scores for 5 questions pertaining to Internet and Books respectively.

Table 2: Average Internet Score and Average Books Score for 1st, 2nd, 3rd and 4th year students

Class		Average Internet Score	Average Books Score
B.Sc (H) Nursing 1st year	Mean	3.7750	3.8071
	N	56	56
	Std. Deviation	.61386	.55526
B.Sc (H) Nursing 2nd year	Mean	3.8314	3.9892
	N	70	74
	Std. Deviation	.56531	.49423
B.Sc (H) Nursing 3rd year	Mean	3.7026	3.8450
	N	39	40
	Std. Deviation	.62048	.55928
B.Sc (H) Nursing 4th year	Mean	3.8000	3.8385
	N	26	26
	Std. Deviation	.47329	.51852
Total	Mean	3.7843	3.8878
	N	191	196
	Std. Deviation	.57780	.53094

Table 3: ANOVA to show differences in Average Internet Score and Average Books Score between different groups (1st, 2nd, 3rd and 4th year Classes)

	Sum of Squares	df	Mean Square	F	Sig.
AverageInternetScore * Class	.427	3	.142	.423	.737
	63.006	187	.337		
	63.433	190			
AverageBooksScore * Class	1.262	3	.421	1.503	.215
	53.709	192	.280		
	54.971	195			

Table 3 shows that there were no significant differences either for Average Internet Score or for Average Book Score between the four groups of students, namely, B.Sc. (H) 1st year, B.Sc. (H) 2nd year, B.Sc. (H) 3rd year and B.Sc. (H) 4th year. The next test was to compare the Average Internet Score and the Average Book Score. A paired t-test was used for this purpose. The results are shown in Tables 04 and 05.

Table 4: Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Average Internet Score	3.7843	191	.57780	.04181
	Average Books Score	3.8921	191	.53380	.03862

Table 5: Paired Samples Test

		Paired Differences				t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference	Mean	Std. Deviation	Std. Error Mean
Pair 1	AverageInternetScore - AverageBooksScore	-.10785	.79465	.05750	-.22127 .00556	-1.876	190	.062

Tables 04 and 05 tell us that the Students showed a greater appreciation for books than for Internet (Average Books Score was greater than Average Internet Score). However, the difference was not significant at the 5% level, though it was significant at the 10% level.

Correlation between Academic Performance and Time Spent on Internet for Academic Study: Scatter diagrams of the data on academic performance and time spent on internet indicated that the relation, if at all it existed was not linear. Hence non-parametric correlation (Spearman's Rho) was preferred as the measure of association as shown in Table 06:

Table 6: Spearman’s Rank Correlation Rho between Percentage of Marks and extent of use of Internet for Academic purposes

		Percentage of Marks	Internet Academics Time (Minutes)
B.Sc.(H)Nursing 1st year	Spearman’s Rho	1	0.189099
	Sig. (2-tailed)	.	0.162775
	N	56	56
	Spearman’s Rho	0.189099	1
	Sig. (2-tailed)	0.162775	.
	N	56	56
B.Sc.(H)Nursing 2nd year	Spearman’s Rho	1	-0.09751
	Sig. (2-tailed)	.	0.40526
	N	75	75
	Spearman’s Rho	-0.09751	1
	Sig. (2-tailed)	0.40526	.
	N	75	75
B.Sc.(H)Nursing 3rd year	Spearman’s Rho	1	0.059364
	Sig. (2-tailed)	.	0.715956
	N	40	40
	Spearman’s Rho	0.059364	1
	Sig. (2-tailed)	0.715956	.
	N	40	40
B.Sc.(H)Nursing 4th year	Spearman’s Rho	1	0.193993
	Sig. (2-tailed)	.	0.342321
	N	26	26
	Spearman’s Rho	0.193993	1
	Sig. (2-tailed)	0.342321	.
	N	26	26

In none of the cases was Spearman’s Rho significantly different from zero. This indicates that increased use of Internet for Academic Activity was not associated with better academic performance as measured by the percentage of marks obtained by the student.

Similar investigations were carried out to examine whether there was any correlation between the percentage of marks and increased study of Books and Journals. The result was mixed: there was significant positive correlation only for the Fourth Year Batch, but not for First, Second or Third year batches. The conclusion regarding the effects of Internet use on academic performance and the higher rating of books as

compared to the Internet is a clear indication that while internet is useful for study it cannot be a universal and complete solution.

Discussion

Findings of this study conclude that students had a greater appreciation for books than for Internet. However, the difference was not significant at the 5% level, though it was significant at the 10% level. This findings were consistent with those of Ngoumandjoka, (2013) who reported that the Internet exerts some influence on students’ academic performance but no link of causality between the two could be established.⁷

According to Dee, C., & Stanley, E. E. (2005) nursing students and clinical nurses were most likely to rely on colleagues and books for medical information, while other resources they frequently cited included personal digital assistants, electronic journals and books, and drug representatives.⁸ The present findings was also similar to Supriya C et al, who found that maximum students are using library as source of scientific information for their academic purpose as compared to the internet.⁹ Promise ifeoma, Goodluck I (2010) reported that student should not only focus on the library to gain the knowledge but also they need to access the internet for their education and in betterment in clinical practice.¹⁰

The present study revealed that use of internet for academic activity was not associated with better academic performance. Similarly, Sumaiyah et al (2017) found that there was no significant relationship between the students' usage of internet for their academic purposes with their academic achievement.¹¹ Contrary to this findings El-Ezazy, Abdel-Latif, & Ali,(2014) reported that there is a positive correlation between the internet and academic performance among the students at Two Faculties in Beni Suif University, Egypt.¹²

Limitation & Recommendations

The present study is limited to one setting and self reports for internet usage among students. Longitudinal and multi-centered with more sample size studies can be conducted to get more details about students preference towards source of information for studies. From the finding of this study, it is advisable for the students decide source of information wisely. In order to make nursing education more effective and conducive nurse educators can help the nursing students to find a reliable source of information.

Conclusion

This study explored use of the internet Vs book as a source of information among undergraduates nursing graduates and how it influenced them academically. There was an increase in internet use as we move from the first year batch towards the fourth year batch. the Students showed a greater appreciation for books than for Internet. However, the difference was not significant at the 5% level, though it was significant at the 10% level. Though internet is useful for study it cannot be a universal and complete solution.

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Ethical Clearance: The study was approved by Ethics Committee, AIIMS, New Delhi. Written informed consent from all participants was obtained.

REFERENCES

1. Kumah, Cynthia H. A Comparative Study of use of the Library and the Internet as Sources of Information by Graduate Students in the University Of Ghana. *Library Philosophy and Practice* (e-journal). 2015: Paper 1298
2. Chien Chou. *CyberPsychology & Behavior*. July 2004;4(5): 573-585. doi:10.1089/109493101753235160.
3. Solangaarachchi D.I.K, Marasinghe M.P. L.R, Abeygunasekera C.M, Hewage S.N. Thulani U.B. Use of Library and Internet Facilities for Seeking Information among Medical Students at Faculty of Medicine, University of Kelaniya. *Kelaniya International Conference on Advances in Computing and Technology (KICTACT - 2016)*, Faculty of Computing and Technology, University of Kelaniya, Sri Lanka. 2016: p 62-63.
4. Ayatollahi A, Ayatollahi J, Ayatollahi F, Ayatollahi R, Shahcheraghi SH. Computer and Internet use among Undergraduate Medical Students in Iran. *Pakistan Journal of Medical Science*. 2014; 30(5):1054-8. doi: 10.12669/pjms.305.5355.
5. Albouq N, Hafiz B, Qasem A, Ekhmimi Y. Prevalence Of Internet Usage Among Medical Students at Taibah University and Its Impact on The Academic Performance, Madinah, Kingdom Of Saudi Arabia. *European Journal of Pharmaceutical and Medical Research*. 2016; 3(7): 110-113.
6. Niels Ole Pors. The public library and students' information needs. *New Library World*. 2006; Vol. 107 Issue: 7/8:275-285. doi: 10.1108/03074800610677263
7. Ngoumandjoka, U.T. *Correlation between Internet usage and academic performance among university students* (Thesis). 2013. Retrieved from <http://wiredspace.wits.ac.za/handle/10539/13009>

8. Dee C, Stanley E. E. Information-seeking behavior of nursing students and clinical nurses: implications for health sciences librarians. *Journal of the Medical Library Association*. 2005; 93(2): 213–222.
9. Supriya C, Aiswarya TR, Anisha R, Anjumol KR, Archana S. Utilization of the Library and Internet as a Source of Scientific Information by the Nursing Students. *Biomed J Sci & Tech Res* 2(4). 2018; BJSTR.MS.ID.000792. DOI: 10.26717/BJSTR.2018.02.000792
10. Ilo, Promise Ifeoma and Ifijeh, Goodluck I. Impact of the Internet on Final Year Students' Research: A Case Study of Covenant University, Ota, Nigeria. *Library Philosophy and Practice* (e-journal). 2010: 403. Retrieved from <https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1414&context=libphilprac>
11. Sumaiyah Jamaludin, Thandar Soe and Awang Kechik, Nurulhusnaa and Mei Chan, Chong. *The Impact of internet usage for academic purposes on nursing students' achievement*. *Scholars Journal of Applied Medical Sciences (SJAMS)*. 2017; 5 (10A): 3857-3861. ISSN 2320-6691.
12. El-Ezazy, A. A, Abdel-Latif, S. A, Ali H. H. Impact of Internet Usage on the Student Attitude and Academic Achievement at Two Faculties in Beni Suif University. *Zagazig Nursing Journal*. 2014; 395(3589): 1–14. <https://doi.org/10.12816/0029148>