

Information Literacy among Undergraduate Students of Sri Venkateswara Medical College and Guntur Medical College, Andhra Pradesh: A Survey

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Abstract

Today Information Literacy has become vital because of proliferation of information resources in all forms. Information literacy is a set of abilities require for individuals to identify the need for information, find, locate, evaluate and use information effectively and efficiently. The Present study explores information literacy among the students of Sri Venkateswara Medical College & Guntur Medical College, affiliated to NTR University of Health Sciences, Vijayawada, Andhra Pradesh. The survey method was adopted for the study and 225 questionnaires were circulated among the medical students and 195 were received back for analysis with a response rate of 86.66%. Majority of the respondents were able to determine their information needs, types of information resources available; utilization of e-resources, and know the levels of awareness of social networking sites. This study found that a majority of the respondents of both medical colleges are needed information for updating their subject knowledge, frequently utilized information sources, social networking sites of both medical colleges. Most of the respondents here given top priority high skills in getting information in print and electronic format. They rarely used search engines of both medical college students are viz., infoseek, AltaVista, lycos, MySpace and LinkedIn social networking sites.

Keywords: Information Competence, Information Literacy, Information Literacy Skills, Medical Students, Social Media

1. Introduction

Information has become an intricate process for students as of rapid growth of information technologies in all types of information resources and formats. Due to the development and explosion of Information Communication Technology, individuals are facing lot of difficulties in getting authentic information from plethora of available information resources. "Information literacy enables individuals to recognize the need for information to find, locate, evaluate and use information effectively

for the problem in hand"¹. The term/phrase 'information literacy' was first used in print by Paul G. Zurkowski in 1974¹ in a report written to the National Commission on Libraries and Information Science. The phrase was used to describe the "techniques and skills" known by the information literate "for solutions to their problems complex information society". American Library Association defines "the information literacy as to be an information literate, a person must be able to recognize when the information is needed and have the ability to locate, evaluate and use effectively the needed information"². According to Johnson & Webber "information literacy is the adoption of appropriate information behavior to identify,

through whatever channel or medium, information well fitted to information needs, leading to wise and ethical use of information in the society³⁷. As stated in Association of College and Research Libraries (ACRL). "Information literacy is a set of abilities requiring individuals, to recognize when information is needed and have the ability to define locate, evaluate, and use effectively the needed Information"⁴.

Profile: N.T.Rama Rao University of Health Sciences

The Government of Andhra Pradesh has the distinction of establishing the first University of Health Sciences³⁸ by Act No.6 of the Andhra Pradesh legislature and was inaugurated on 9-4-1986 by the late Sri N. T. Rama Rao, the former Chief Minister of Andhra Pradesh. The University of Health Sciences started functioning in Vijayawada from 01-11-1986. After the death of its founder Sri N. T. Rama Rao the University was named after him as NTR University of Health Sciences, Andhra Pradesh with effect from 2.2.1998 vide act No.4 of 1998. At present there are 29 medical colleges affiliated under this University and intake of undergraduate students during the academic year 2019

S.V Medical College

Sri Venkateswra Medical College was started by Sri Radhakrishna RamnarainRuia of Mumbai, a devotee of Lord Balaji. Initially it was started as a hundred bedded hospital at Tirupati, located at the foot of the Tirumala hills, to serve the medical needs of the pilgrims and general public. The government gave approval for the establishment of a Medical College in Tirupati on 9th April 1960. The TTD leased 200 acres of land to Sri Venkateswara Medical College,

Tirupati. It was started on 25th July 1960. Initially the annual intake in 1964 was 100, and was increased to 150 in the year 2000 and enhanced to 200 in 2013. In 1975 -76, postgraduate courses were started. Presently, research, undergraduate, postgraduate degree and diploma courses are offered in almost all disciplines. Since 1986, the college has been affiliated to Dr N.T.R. University of Health Sciences, Vijayawada, Andhra Pradesh.

Guntur Medical College

The Guntur Medical College was started in the year of 1940. The Government of Madras issued an order on June 22, 1946 that Guntur Medical College would start functioning from July 1st, 1946 with the annual intake of 50 students. The admission capacity of students in the year 1957 was 105 and eventually increased to 125 in 1958 and 150 in 1959. The Medical Council of India (MCI) granted permission for full recognition for the college in 1959, and also permission was granted to start the PG courses in 1958. A separate building for Library and Auditorium was granted on July 2, 1962 by Major K.N. Rao, Dr. P Narasimha Rao. Presently, research undergraduate, postgraduate degree and diploma courses are offered in almost all disciplines. Since 1986, the college has been affiliated to Dr N.T.R. University of Health Sciences, Vijayawada, Andhra Pradesh.

Literature Review

Manthiramoorthi (2019)⁵ made a study on "The awareness of information literacy among students of Arts and Science colleges in Tirunelveli". This study can be used to know how to locate, access, and evaluate the right information in right time. It helps the librarian and faculty members to guide the students as to where they can access the right

source of information and how to evaluate. Aftab and Singh (2018)⁶ conducted a study on “Information Literacy among the Postgraduate Students and Research Scholars of Social Science Faculty at Aligarh Muslim University, India. The authors found that maximum number of respondents visit the library to check in and checkout transactions. Google is the favorite search engine used by most of the respondents and also found that most of the respondents are not acquainted with the use of encyclopedia and journals. It is also found that majority of the Post Graduate students and research scholars are lagging behind in the use of many library sources and services. They are deficient in necessary library skills and need assistance of library staff. They face many problems while seeking required information. Over all the respondents do not have good information literacy skills. Joseph et.al (2018)⁷ conducted a study on “An Assessment of Information Literacy Competency of Post Graduate Students of St, Thamos College, Palai”. The present study under taken to find out the extent of information literacy skills of the Post Graduate students about different sources of information and assessed the ability of P.G students to search, locate, retrieve, and evaluate the information. An important point noted down is that, the PG students are not much aware about electronic information resources and their use. The study was also revealed that information literacy program is inevitable for the students in the academic institutions to make more information literate. The library and information professional can do lot to attain this goal. The study also determines the impact of information literacy on use of library information services and the role of libraries in information literacy skills. Suggestions have been given for empowering the students Chanchinmawla and Verma

(2018)⁸ conducted a study on “Assessment of Information Literacy Skills among Research Scholars of Mizoram University: A Study”. Majority of the scholars were aware with the basic background information of library and enable to access information through print and electronic forms but improvements are required in handling information especially in evaluation of electronic sources. This study urges the inclusion of an information literacy program in the course curriculum and more awareness is required among the students that will make the students information literate. Research scholars of Mizoram University having the satisfactory information literacy skills information search capability. They are well aware to use library resources and finding of study shows that Central Library of Mizoram University are providing good library orientation to research scholars. Awari and Krishnamurthy(2018)⁹ conducted a study on “Information literacy Competencies among Research Scholars of University of Agricultural Sciences, Dharwad: A Pilot study. The results of the study show that the majority of the respondents are understanding about different sources of information is found to be poor except for journals and large majority of them are unaware of the many databases in the field of Agriculture Sciences and different search techniques to make use of electronic information resources. The success of the IL program also depends on the involvement and interest of the LIS professionals. There is need to improve the teaching skills of the library staff to impart the IL programmes effectively. The IL program will prove to be very fruitful with the cooperation and collaboration among the library staff faculty and authorities is established. The qualified LIS professionals and the necessary infrastructure within the library structure will ensure better way to

carry out the Information Literacy task. Kumari and Mallaiah (2017)¹⁰ conducted a study on “Digital Information Literacy skills among faculty Members of Engineering Colleges in Mangalore, Karnataka: A Study”. The study discussed the highlights the ways and means the faculty members search the information from different digital information sources. The survey method was adopted for the present study and a structured questionnaire was administered to collect the data. The study will definitely help to organize different information literacy programs in the college to promote and develop the information literacy skills among faculty and to improve the teaching quality. Swapna and Biradar (2017)¹¹ explained in their study “Assessment of Information Literacy Skills among Science-Post Graduate Students in Universities of Karnataka State: A Study”. IL is treated as the crucial skill of the 21st Century in pursuit of knowledge. They found that in their study, 92.5% of the students are skilled to define, develop and revise the information need on a topic, 83.6% identify the different types, formats and 80.2% identify purpose and target audience of information sources and 97.4% understand the organization and production of universe of knowledge. An average 74.1% of students are skilled to identify and use different information retrieval tools; 62.9% evaluate the information sources available both print and electronic formats and 68.1% able to determine the cost and benefit of acquiring information sources effectively; 51.7% of students are skilled to construct and use different information search strategies; 56.9% able to summarize, synthesize and validate the gathered information; 48.3% plan, develop and communicate the information product or performance, 45.7% is able to use information ethically and legally and 36.2% is able to

acknowledge and document consulted information sources properly. Kishore and Padmaja (2013)¹² carried out a study on “Information Literacy Skills of the Post Graduate Students towards the use of Electronic Information Resources of the Sri Venkateswara Institute of Medical Sciences”, Tirupati. The authors found that 65 percent of respondents are confirmed their computer literacy level an average while 16.25 percent of the respondents rated their computer skills below average, 72.87% and 25.50% given their priority Google and Yahoo search engines respectively. The utilization of internet and other e-resources by 67.5% of the respondents occasionally, while 32.5% used them frequently. 61.25% of the respondents utilized the e-resources for the purpose of seminar and workshop presentations whereas 54.75% of the respondents in the of the projects, and 52.5% of the respondents given first preference to Medline medical database and followed by 33.2% of the respondents Pub Med database. Hazrati (2013)¹³ Conducted a study on “Determining Information literacy Competency of Faculty Members and Post Graduate Medical and Para Medical Students in using Medical Information Resources.” In this study stated that Information Literacy Competency of 160 faculty members and postgraduate medical students in Tabriz University of medical sciences in accessing and retrieving of electronic information resources was investigated. Evaluation was done via Questionnaire about information literacy skills and finding was classified in three levels of low, moderate and high. The results shows that majority of the faculty members had moderate information literacy level (51%), the minority of them had high information literacy level (11.8%) and the information literacy level of majority of the students was in moderate (57%). The result

indicated that students have higher information literacy than faculty members. (T=0.015). The study concludes that Information literacy Competency of faculty members and university students was moderate to low and Information literacy competency of students were higher than faculty members.

Scope and limitation of study

The present study is limited to two Medical Colleges viz SVMC, Tirupati, and G.M.C., Guntur, Andhra Pradesh . This study confines only to explore and find out the information literacy skills among students and not to attempt any comparative perspective. It is limited two medical college students studying 3rd and 4th years of MBBS.

Objectives

The focus of the study is to determine the “Information Literacy Skills among the Students of Sri Venkateswara Medical College and Guntur Medical College, Andhra Pradesh”.

The Objectives of the study are

- ❖ To know the respondent’s ability to identify and specify their Information Needs.

- ❖ To understand the levels of awareness of the respondents about different sources of Information
- ❖ To ascertain the respondents’ ability to access and evaluate printed and electronic resources.
- ❖ To know the level of awareness of the respondents about different Social media tools.
- ❖ To know the perception of the respondents regarding the Information Literacy regarding the Information Literacy Program of the Library.

Methodology

The present study has been conducted through the survey method of research. A structured questionnaire was designed and used for collecting the data from the users of both the medical colleges 125 questionnaires were distributed in Sri Venkateswara Medical College, Tirupati, out of which 95 dully filled questionnaires were received back. Another 125 questionnaires were distributed in Guntur Medical College, Guntur. Out of which 100 dully filled in questionnaires were received back.

Analysis and Interpretation of the data

Table 1 Purpose of Information Need

Purpose	SVMC (N=95)	GMC (N=100)	Total (N=195)
Prepare Class Notes	21 (22.10%)	23(23%)	44(22.56%)
Update Subject Knowledge	49 (51.57%)	38(38%)	87(44.61%)
To write a Paper Seminar & Conference	10 (10.53%)	12(12%)	22(11.28%)
Project Work	6 (6.31%)	13(13%)	19(9.75%)
To become lifelong learners	4 (4.22%)	8(%)	12(6.15%)
General Awareness	5 (5.27%)	6(6%)	11(5.65%)
Total	95 (100%)	100(100%)	195(100%)

Information given in Table 1 shows that the majority of the respondents of both medical college libraries viz. SVMC and GMC 44.61% and 22.56% are needed information for updating their subject knowledge and prepare class notes respectively. In addition,

followed by 11.28% of the respondents were used information to write a paper for seminars, conferences and least preference is given to i.e. 5.65% of respondents to general awareness.

Table 2 Frequency of consulting various sources of information

Information Source	SVMC N=95	GMC N=100	Total N=195
Text Books	65 (68.42%)	68(68%)	133(68.20%)
Journals	67 (70.52%)	64(64%)	131(67.17%)
Medical data Bases	55 (57.89%)	46(46%)	101(51.79%)
Search Engines	54 (56.84%)	71(71%)	125(64.10%)
Social Media Tools	50 (52.63%)	52(52%)	102(52.30%)
Reference Books	25 (26.31%)	25(25%)	50(25.64%)
Wikipedia	15 20(20%)	35(17.94%)	
Bibliography	20 (21.05%)	28(28%)	48(24.61%)

Table 2 shows that the majority of the respondents of both medical colleges viz SVMC and GMC 68.70% and 67.17% are frequently used text books and Journals respectively, followed by 64.10% search

engines, and followed by 51.79% are frequently used medical data bases. Least preference was given to the respondents to Wikipedia, i.e. 17.94%.

Table 3 Frequency use of e- resources

e-resources	Frequently		Occasionally		Never		Weighted mean	Rank
	No	%	No	%	No	%		
Medline	61	31.2	68	34.87	66	33.84	1.97	2
Pub Med	58	29.74	49	25.12	88	45.12	1.84	4
MD Consultant	82	42.05	52	26.66	61	31.28	2.1	1
Science Direct	54	26.69	68	34.87	73	37.43	1.9	3
HELINET	23	11.79	80	41.02	92	47.17	1.64	7
EBSCO Medline collections	48	24.16	66	33.84	81	41.53	1.83	5
DOAJ	38	19.48	58	29.74	99	50.76	1.68	6

Note: Number of respondents is 195. weighted mean is calculated on a 3-point scale with weight assigned as follows: Frequently=3, occasionally=2, Never=1

Table 3: Shows that the rating for each e-medical data base is measured based on three criteria, Viz., frequently, occasionally, and never for which scored have been assigned as 3,2, and 1 respectively and the weighted mean scores have been computed, for which ranks have been allotted. From these ranks, it can be clearly shows that ‘MD Consultant’. Occupies 1st rank in terms of use of e-medical databases by the respondents followed by ‘Medline.

Science Direct, ‘Pub Med and Ebsco Medline collections. ’With 2nd,3rd,4th., and 5th ranks respectively. The lowest ranks in terms of e-medical databases as stated by the respondents is given to ‘myspace’, (7th rank). The ranks of other databases under consideration fall in between these two extreme ranks (6-7). All these results highlight the fact that most frequently used e-medical databases are ’MD Consultant, Medline, Science Direct, PubMed, Ebsco Medline collection.

Table 4 Frequently used search engines

Search Engines	SVMC		GMC		Total	
	No	%	No	%	No	%
Google	195	100	195	100	195	100
Yahoo	55	28.2	45	23.07	100	51.2
Info seek	5	2.56	10	5.12	15	7.69
Alta Vista	10	5.12	12	6.15	22	11.28
MSN	15	7.69	8	4.1	23	11.79
Lycos	6	3.07	12	6.15	18	9.23
Hotmail	12	6.12	9	4.61	21	10.76

Table 4 reveals that majority of the respondents both medical colleges viz. SVMC and GMC are frequently used 100% ‘Google’ search engine and followed by ‘yahoo’ (51.69%).The lowest search engine used

‘info seek’. (7.69%).The lowest extreme search engines are used ‘Lycos’, Hotmail’, AltaVista ‘and MSN respectively.

Table 5: Frequency use of social network sites

Social Network Sites	Frequently		Occasionally		Never		Weighted mean	Rank
	No	%	No	%	No	%		
Face book	152	77.94	34	17.43	9	4.61	2.73	3
Google+	148	75.89	32	16.41	15	7.69	2.68	4
What’s App	167	85.64	20	10.25	8	4.1	2.81	2
Twitter	127	65.12	60	30.76	8	4.1	2.3	6
Share it	102	52.3	62	31.79	31	15.89	2.36	5
LinkedIn	97	49.74	55	28.2	43	22.05	2.27	7
Myspace	10	5.12	15	7.69	170	87.17	1.12	8
You tube	186	95.38	6	3.07	3	1.53	2.93	1

Note: Number of respondents is 195. weighted mean is calculated on a 3-point scale with weight assigned as follows: Frequently=3, occasionally=2, Never=1

Table 5 Shows that the rating for each social network site is measured based on three criteria, Viz., frequently, occasionally, and never for which scored have been assigned as 3, 2, and 1 respectively and the weighted mean scores have been computed, for which ranks have been allotted. From these ranks, it can be clearly shows that 'you tube' occupies 1st rank in terms of use of social network sites by respondents followed by 'WhatsApp', 'Facebook',

'google+', and 'share it' with 2nd, 3rd, 4th, and 5th ranks respectively. The lowest ranks of use in terms of social networking sites as stated by the respondents is given to 'Myspace' (8th rank). The ranks of other sites under consideration fall in between these two extreme ranks (.6-7). All these results highlight the fact that most frequently used social networking sites are 'you tube', 'WhatsApp', 'Facebook', 'google+', and 'shareit'

Table 6: Access and Evaluate Information in print and electronic formats

	Formats	Level	SVM Students N=95	GMC Students N=100
Ability to Access Information	Print	Very High	56 (58.94%)	58 (58%)
		High	18 (18.94%)	17 (17%)
		Average	22 (23.15%)	19 (19%)
		Low	3 (3.15%)	4 (4%)
		Very Low	1 (1.05%)	2 (2%)
		Very High	62 (65.26%)	54 (54%)
	Electronic	High	15 (15.78%)	18 (18%)
		Average	20 (21.05%)	21 (21%)
		Low	2 (2.10%)	5 (5%)
		Very Low	1 (1.05%)	2 (2%)
Ability to Evaluate Information	Print	Very High	46 (48.42%)	53 (53%)
		High	17 (17.90%)	20 (20%)
		Average	25 (26.31%)	16 (16%)
		Low	8 (8.42%)	5 (5%)
		Very Low	4 (4.21%)	6 (6%)
	Electronic	Very High	20 (21.05%)	25 (25%)
		High	30 (31.57%)	32 (32%)
		Average	42 (44.21%)	38 (38%)
		Low	5 (5.26%)	3 (3%)
		Very Low	3 (3.15%)	2 (2%)

Describes that the levels of respondents' ability to access the information of both Medical colleges 58.94 percent and 58 percent are very high in print and 62 percent and 54percent are very high in electronic format respectively. And their ability was

rated to evaluate information 46 percent and 53 percent of the respondents of SVMC and GMC in very high print format, and also 42percent and 38 percent of the respondents both medical colleges are in average electronic format.

Table 7: Users Satisfaction with the IL Program

Satisfaction Level	SVMC (N=95)	GMC (N=100)	Total (N=195)
Satisfied	28 (29.47%)	32 (32%)	60 (30.76%)
Either Satisfied nor Dissatisfied	52 (54.73%)	55 (%)	107(54.87%)
Dissatisfied	15 (15.78%)	13 (13%)	28 (14.35%)

Information given in Table 7: Depicts the satisfactory level of the students with the Information literacy program provided by the library of the both medical colleges of SVMC & GMC i.e. 52% and 55% either neither satisfied nor dissatisfied 28% and 32% of the respondents are satisfied with information literacy Program of both medical colleges of SVMC & GMC.

Conclusion

Medical Professionals are the crucial saviors of life, their time is precious and it must be saved so that they can save more lives. It is impossible for the medical professionals to locate information in the very less span of time and to adequately read it. The skills and abilities that are required enable them to retrieve the right information from the right source without wasting much time. Information Literacy is a major prerequisite for medical professionals. Keeping in view the various specializations in the area and the needs of the medical professionals, It is necessary for them to effectively search, locate, evaluate, and to use the required information. Medical library professionals can play a predominate role in this regard by organizing library orientation and Information Literacy program. Therefore, it is

being recommended that user oriented IL Program should be organized regularly and the issues like how to retrieve information from the printed and electronic sources, various search strategies, searching online medical databases and other electronic information resources may be included in the IL program of the library. Moreover, IL may be added as a subject in the health science curriculum to make the medical professionals information literate and independent lifelong learners.

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