



Usefulness of Teleconferencing for Nursing Distance Students in India

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ABSTRACT:

Open and Distance Learning (ODL) system is an educational method; a teaching and learning methodology characterized by the distance that separates the educator from the learner. Indira Gandhi National Open University (IGNOU), India, is mandated to provide higher educational opportunities to one and all, a principle that aims to democratize higher education. In its effort to provide student support services and to deliver open and distance learning programmes it employs a diversified delivery system. One of the delivery systems used is the Gyan Darshan channel which is an exclusive satellite based TV channel to provide education both through recorded programmes as well as through live teleconferencing. The objective of the study was to find out the usefulness of the teleconference to the students of Nursing Programme offered by School of Health Sciences (SOHS) and to examine the methods adopted by counselors to interact with the students. This study is expected to throw light on the usefulness of teleconferencing and provide new directions to design and develop such programmes for the students.

KEYWORDS: Teleconferencing, Gyan Darshan channel, Nursing, Open and Distance Education Learning

1. INTRODUCTION:

Open and Distance Education Learning (ODL) systems have emerged all over the world to cater to the growing demands for education, to provide opportunities at a cheaper cost, and to meet the continuing education requirements of professionals. The term is used, in its primary form, to describe a learning method in which a major part of the teaching is performed by the teacher, who is removed from the learner in terms of place and time (Perraton, 1988). The methodology of distance education often involves a multi-approach to design, develop and execute autonomous learning

programmes through self-instructional materials, both in print and electronic media forms. ODL occupies a special place in the Indian education system in light of its significant commitment in enhancing the gross enrollment ratio and democratization of higher education to large portions of the Indian population especially to connect to the unreached and to meet the demands of lifelong learning which has become more of a need in the information and knowledge society.

Indira Gandhi National Open University (IGNOU) is a technology enabled institution to provide higher education to one and all. One of the

delivery systems used is the Gyan Darshan (GD) channel. Gyan Darshan an exclusive satellite based TV channel to provide education both through recorded programmes as well as through live teleconferencing. It offers distance education through the virtual classroom mode and provides access to a digital repository of educational content at IGNOU (Sharma, 2010). It offers one way video and two way audio teleconferencing facilities to build interactive in the distance learning process. Important nation- wide programmes for IGNOU learners, lectures by eminent Experts/ dignitaries, discussion with Regional centres (RC) staff are being organized through this channel. Teachers and other resource persons interact with learners and RC functionaries for academic and administrative matters respectively.

Through teleconferencing, induction programmes for new learners and convocations for graduating students are conducted live every year. Besides, tele-counselling sessions are conducted particularly for professional and application oriented programmes such as sciences, medical, nursing etc. in which students get ample opportunities to interact with the faculty.

The School of Health Sciences (SOHS) at IGNOU offers educational avenues for medical, nursing and Para-medical personnel through the distance mode. The B. Sc. nursing programme provides an opportunity to a large segment of in-service nurses to upgrade their knowledge and skills to respond to the changing health needs of the society: to inspire nurses to keep up clinical competence to give quality care; develop teaching, organization and research skills as well as to promote personal and professional growth for better opportunities.

The course of B Sc Nursing is offered in English Language. In addition to print material, learners are provided multi-media based resources in the form of Audio, and Video programmes. Live interactions are conducted through teleconference on Gyan Darshan channel.

The present study was done to see the effectiveness of teleconferencing for nursing learners.

2. LITERATURE REVIEW:

Since the inception of the use of teleconference for educational purposes, various studies have been conducted on the utility, access and related to its process in formal as well as in ODL institutions.

A number of evaluation studies have brought out the strengths and potential of teleconferencing for rural development. These include: ability to reach out to a large number of functionaries and people in remote areas, establishing rapport with the groups and making them feel connected and part of the system, speedy and cost effective communication and high quality training with little loss in transmission (Sharma & Mishra, 2010, Chaudhary& Padhy 2005).

Koc (2005) said that teleconferencing empowers learners to communicate, share, and work in a collaborative manner irrespective of place and time. For example, learners across the world could be invited over to assemble at the same time for a theme talk through teleconferencing. They may have the chance to analyze issues and develop concepts. Learners secure information together, as well as share their experiences from each other.

According to Panagiotakopoulos, Lionarakis & Xenos, 2003, "In education, the use of technology can improve learning conditions by enhancing educator - learner interaction and/or learner - learner interaction" as well as "collaboration in either synchronous or asynchronous learning environments" (Beldarrain, 2006). Students using Information and Communication Technology (ICT) such as teleconferencing for learning purposes become immersed in the process of learning. As more and more students use computers as information sources and cognitive tools (Jonassen. & Reeves, 1996), the impact of the technology on supporting how learners learn will keep on increasing.

Teleconferences can also be used for professional workshops, continuing educational offerings and peer consultation (Wilson, 1979), and to maintain professional identity, professional networks, and organizations (Adegbola, 2011). Professional nursing organizations, work groups, and boards that are challenged with distance barriers can maintain communication through teleconferences. This mechanism of meeting and networking can help to reduce travel cost.

Sahoo (1994) conducted a study to assess the impact of teleconferencing on students of the Post-Graduate Diploma in Higher Education of the Indira Gandhi National Open University from two angles: (i) effectiveness of teleconferencing as a means of distance education; and (ii) teleconferencing as one of the components of the extended contact programme, which included other components such as group discussion, practicals, individual projects, group projects, brainstorming and question-answer sessions with experts. The findings revealed that both the participants and the resource persons favourably commented on the use of teleconferencing as one of the components of an extended contact programme.

Goel and Sarangi (1995), in their study on the effectiveness of IGNOU Educational Television ETV Programmes in direct, talkback and interactive modes were explored by using a purposive sample of seven IGNOU ETV as the content, the study found that there was a significant gain in six of the IGNOU's ETV programmes through direct and interactive mode; and the interactive mode made a momentous gain in all the seven programmes.

Rao & Khan (1998) had reviewed the teleconferencing sessions conducted at IGNOU both by governmental and non-governmental agencies and concluded that professional programmes were more suited to teleconferencing usage as the learners in these courses were more

motivated and mature. Chaudhary and Panda (2003) in their study suggested careful planning and monitoring of the sessions in order to increase learner's utilisation of teleconference sessions. They also forwarded their opinion that teleconferencing is economically and technically feasible and can serve as an important educational tool, provided the problems in the system are worked out.

Mishra (1999) conducted a micro-level study on teleconferencing at Indira Gandhi National Open University (IGNOU). The major findings of the study indicated a rich quality of interaction. About 90 per cent of the interactions were related to the topics being deliberated. Forty per cent of teleconferencing time was devoted to presentation and 60% to discussion. The overall quality of the teleconferencing was rated "good" to "very good." The technical quality was rated very high.

There are however, studies that indicate a lack of proper utilization of the teleconferencing sessions. These are mainly administrative in nature. Jain (2002) revealed in a study on "A Study on Teleconferencing for Distance Learners", that very few participants were found attending the teleconferencing sessions. Usually the participants were found attending the sessions attentively. Participants who were interested in asking the questions seemed more interested in the live sessions. It was found that the time allotted for the talkback session usually was not enough. There were mixed responses relating to the effectiveness of the teleconferencing sessions, some of the learners found these sessions very exciting and wonderful whereas others could not utilize these live sessions properly. Proper coordination is required among all the personnel involved in IGNOU's teleconferencing sessions.

Kumar and Rai (2008) conducted a study to assess the effectiveness of the interactive multimedia learning resources utilized in IGNOU. The results showed that these resources are underutilized for a different reason such as prior information

is not provided to the learners' and the study centres lack the infrastructural facilities. A similar study was conducted by Kumar and Chander (2005) on the use of multimedia resources by IGNOU learners and the reasons for the underutilization were same as reported in other studies such as more publicity needs to be given in advance through different media.

Suarez (2002) explains telemedicine enables occasional or continuous training to be offered to hospital health care specialists, who would otherwise have to leave the work place. The rapidly developing capacity of interactive technologies to store and transmit data multiples the possibilities for doctor-patient interaction. In the field of telemedicine or practicing various aspects of medicine at a distance has become increasingly common in both initial and continuous medical training (De Gara and Boora, 2006).

Kuba (2011), in a paper on "Assessment of the Post Graduate Diploma in Geriatric Medicine Programme through Open and Distance Learning at IGNOU: A Case Study reported that the teleconferencing sessions were found to be useful by most of the learners around 72 per cent. About 43.41 percent students found sessions adequate, while 30 percent students wanted more teleconferencing sessions.

One of the aspects of medical sciences is nursing and nursing programme is the reality of the higher education landscape. Demand and convenience drive the need for distance education in nursing (American Association of Colleges of Nursing, 2000). To be successful in nursing, nurses need to be self-directed. Professional nursing requires the ability to think critically as nurses manage the nursing care of those whom they serve. "Nursing faculty has developed some of the most creative interactive television and World Wide Web courses currently available to students in any profession" (American Association of Colleges of Nursing, 1999).

With a projected deficit of nurses in the near future, distance education is meeting a need in preparing nurses to serve in current and future practice and education roles (American Association of Colleges of Nursing, 1999).

This review indicates that focus of most of the studies has been on utility and access of teleconferencing as a medium of education in the form of interactivity and other factors influencing the effectiveness in teaching learning. A number of studies have been carried on the usefulness of teleconferencing in Distance Education especially IGNOU. However, there are no studies on the effectiveness of teleconferencing on the students of Nursing Programme. Therefore, there is a need to explore the usefulness of nursing programme offered by School of Health Sciences (SOHS) in IGNOU in ODL mode. The nursing programme is delivered through print material. Audio and video programmes are used as a supplementary material. Live interactions are conducted in the form of teleconferencing sessions and Interactive Radio Counselling on Gyan Darshan television channel and Gyan Vani, radio FM channel. Face to face counseling for learners also takes place in the study centres.

3. OBJECTIVES OF THE STUDY:

The study has the following specific objectives:

- To study the usefulness of teleconferencing sessions by students of Nursing programme of School of Health Sciences in IGNOU.
- Preferences of the Nursing Students for the teleconferencing sessions.
- Perception of teleconferencing among the academic counselors of nursing programme.

4. METHODOLOGY:

In this section, research method, sample, research instruments and data analysis has been described.

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4.1. Method

The survey method was used to find out the usefulness of teleconferencing by the students and the perceptions of the academic counselors of the programme.

4.2. Sample

For this study random sampling of the enrolled learners of B Sc Nursing was done at nine study centres across India. The study centers were at Srinagar, Jammu, Rajasthan, Delhi, Uttar Pradesh, Goa, Hyderabad, Chandigarh and Karnataka. A total of 100 learners' was randomly selected for the study. Out of 100 learners, 85 learners responded with filled in questionnaires.

The Academic Counselors' for B Sc Nursing programme were interviewed. Four Academic Counsellors' were contacted via telephone for their views on the usefulness of teleconferencing through the distance mode.

4.3. Research Instrument

A questionnaire was developed by the researcher for the learners. The draft questionnaire was given to the six experts for their suggestions and comments.

The inputs received from the experts were incorporated in the instrument. The questionnaire contained both closed and open ended questions. The questionnaire was divided into two sections. The first comprised of the profile of the learners and the second comprised questions on their views on teleconferencing.

Interviews comprised of unstructured questionnaire with 4-5 open ended questions. The interviews were conducted with Programme Counsellors' and with 12 learners.

4.4. Data Collection

Data was collected by personally administering the questionnaire.

4.5. Data Analysis

Data collected from the respondents were analyzed using statistics.

5. RESULTS:

The results of the study are presented below:

A) Section 1: Profile of the Learner

Data was collected on gender, age, employment status and Educational qualifications of the learners.

Table 1. Profile of Learners

S. No	Profile	Percentage
1	Gender	
	Female	97.64%
	Male	2.36%
2	Age	
	25-35	37.65%
	36-46	51.76%
	46 and above	10.59%
3.	Employment Status	
	Employed	100%
	Unemployed	NIL
4	Educational Qualification	
	Graduate	100%
	Post Graduate	NIL

Out of 85 respondents 2.36 per cent were males and 97.64 percent were females. This shows that more female learners are

enrolled in the post B Sc Nursing programme of IGNOU compared to male candidates (Table 1).

A) Section 2: *Usefulness of Teleconferencing on Gyan Darshan*

1. Learner Awareness about Teleconferencing through Gyan Darshan

About 88.24 per cent of the respondents said that they are aware and had viewed the teleconference sessions and about 11.76 per cent of the respondents said they were not aware of the Gyan Darshan channel (Table 2).

Table 2. Learner Awareness about Teleconferencing through Gyan Darshan

Yes	No
88.24 %	11.76%

2. Information about the Teleconference Schedule.

About 88.24 per cent respondents said that they received information pertaining to teleconference and 11.76 per cent did not have information about the teleconference schedule (Table 3).

Table 3. Learner awareness about the teleconference schedule

Yes	No
88.24 %	11.76%

3. Source of information about the teleconference schedule

About 53 per cent said that they received information through emails from Regional/ Study Centres and School of Health Sciences, 19 per cent got the information through IGNOU website, 24 per cent said that their friends gave them the information about the teleconference and 4 per cent of the respondents said when they went to study centre they got to know the information regarding the teleconference schedule (Table 4).

4. Participation of learners through interaction in teleconference sessions.

Nearly 71 per cent of the respondents had interacted in teleconference sessions

Table 4. Source of information about the teleconference schedule for the Learners'

Source	Percentage (%)
IGNOU website	19
SMS alert	NIL
Letters/ email from RC/SC/School	53
On Air Announcements	NIL
Friends	24
Others	4

with the experts and 29 per cent have just attended the tele conference sessions but had never interacted with the experts in the studio (Table 5).

Table 5. Participation of learners through interaction in teleconference sessions

Participation	Percentage (%)
Yes	71
No	29

a. Reasons for learner interaction in teleconference programmes.

About 58 per cent of the respondents said that they wanted to clarify the doubts related to the subject in the course material, 25 per cent of the learners said that when the learners give the presentation of the case history that benefits them, 9 per cent claimed they have interacted to clarify certain student support related queries and 8 per cent had interacted with the teachers about the course (Table 6).

5. The usefulness of teleconference to learners

Around 71 per cent respondents found it useful while 23 per cent considered it most useful followed by 4 per cent who found it ok and 2 per cent responded that it is not useful because they have to attend

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face-to face counseling and do the practical's for which attendance is mandatory and they have to take leave from their work places to attend these classes (Table 7).

Table 6. Reason for learner interaction in teleconference programmes

Reasons	Percentage (%)
To clarify doubts related to content	58
To interact with the teachers about the course	8
To clarify certain student support queries	9
To present information for benefit of peer group	25

Table 7. Usefulness of teleconference to the learners

Usefulness	Percentage (%)
Most Useful	23
Useful	71
Ok	4
Not Useful	2
No Opinion	NIL

6. Preferred days for attending the counseling sessions through teleconference

75 per cent of the learners said that teleconference sessions should be conducted on all days because as per our profession we get weekly off on different days, 21 per cent responded that teleconference should be conducted on Saturdays and Sundays when a good number of learners take off on the weekends only 4 per cent preferred week days because they think that they have more work on Saturday and Sundays and are not able to watch these teleconference sessions as their children are at home (Table 8).

7. Preferred timings for attending the

counseling through teleconference

Around 61 per cent of the respondents said that teleconference sessions should be held in the evenings, 23 per cent preferred afternoon followed by 11 per cent in the night and the least 5 per cent preferred for the teleconference sessions to be conducted in the morning time (Table 9).

Table 8. Days preferred for attending the counseling sessions by the learners

Days	Percentage (%)
Monday to Friday	4
Saturday and Sundays	21
All Days	75

Table 9. Timings preferred for attending the counseling sessions through teleconference by the learners.

Timings	Percentage (%)
Morning (6am-8am)	5
Afternoon (1pm-3pm)	23
Evening (5pm -7pm)	61
Night (9pm -11pm)	11

6. SUGGESTIONS FROM THE LEARNERS:

- Teleconference mode of interaction helps the learners to interact with the experts/ counselors whenever they need to clear any doubts regarding their curriculum and other student support services.
- Along with the straight lectures/ discussions, the practical aspects should also be taken up in the LIVE sessions. Experts can show demonstrations of how to perform different activities which are supposed to handle in field as the academic programme is more practical oriented.
- Some learners said that while attending the teleconference sessions they are able to learn about the complete unit and usually it helps even if they are not able to go through the printed learning material.

- Majority of learners said that teleconference sessions are useful, they suggested that inclusion of video clippings, animation sequence and illustrations make presentations interesting lively, effective and also added that more telephone lines should be there to accommodate more questions during interactive sessions.

7. SUGGESTIONS FROM THE ACADEMIC COUNSELORS':

Academic Counselors were approached to know about the usefulness of teleconference. They gave following observations:

- The Counselors found that teleconference was the most useful mode of delivery as they could cater to large number of learners across the country.
- Since the teleconference was one way video and two ways audio, the students were also very enthusiastic to discuss their problems through telephone calls/fax or even email and information was provided so as to clear their doubts through this medium.

8. DISCUSSION

During the study it was found that there is more number of female learners enrolled in the post B Sc Nursing Programme than male candidates. Nursing is seen as a Florence Nightingale profession and is still female dominated. The terms used in nursing profession such as 'nurse' or 'sister' describe this profession more female oriented and the reason behind is that women are considered more caring and gentle as compared to men (McWilliams, Schmidt and Bleich, 2013). The enrollment of male students is less. The reason is that sometimes the patients refuse to be handled by male nurses. In fact the few male nurses who get enrolled feel isolated during their training (Buthelezi, 2015; Stanley, et al., 2016). In this study also the male learner gave his opinion that in some cases the male nurses get offended when

the patient refuses to receive care from a man especially in maternity cases.

All the respondents were employed in different hospitals and around 52 per cent respondents were in the age group of 36 to 46 years.

Being a professional course all the respondents were graduate because the basic eligibility for enrolling into this programme is graduation.

About 88 per cent learners were aware and had received information regarding the teleconferencing sessions. It was found that the information sent was not checked by the learners due to different reasons such as being busy in their routine work and could not attend the previous teleconferencing sessions due to the nature of their duty hours. Regarding the source of information 53 per cent learners received it through letters or e mails sent from regional centres, study centres and school. It was found that only 19 per cent learners opened the IGNOU website to check the teleconferencing schedule. About 24 per cent learners got the information through their friends or peer group. No SMS alerts were sent and nor there was any publicity through different media.

Nearly 71 per cent learners were satisfied that they had interacted with the experts in the studio through different means such as through telephone and emails. The learners from Delhi region revealed that they had come to the EMPC studio at IGNOU headquarter and had interacted through face to face while sitting in the live teleconferencing sessions. Around 29 per cent said that they had attended the teleconferencing sessions but they were the passive learners and had never interacted with the experts. Maximum number of respondents (around 70 percent) found it useful while 23 per cent learners claimed it to be most useful because they revealed that it had helped them to clear their examinations even if they were not able to read the print material. Learners (around 58 per cent) found these sessions to be useful as they were able to clarify their doubts regarding

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the content. Around 25 per cent learners revealed that when the learners gave their presentations of case history through teleconferencing sessions and the experts evaluate them in the sessions the other learners got benefit to do better. These nursing learners were clear about their course so it was found that only 8 per cent interacted with the teachers related to their course.

Interestingly this study found that since the learners were all working in different hospitals in different shifts so their weekly off is not fixed like other offices so maximum learners around 75 percent preferred that teleconferencing should take place on all days and around 61 percent preferred evening time so that all learners should get the maximum benefit while 21 percent preferred these sessions to be held on Saturdays and Sundays. On the other hand, academic counselors also found these teleconferencing sessions the most useful mode of interaction as they could address to large number of learners across the country.

In this study the learners suggested that more of the practical aspects should be taken up in the form of demonstrations and also through video clippings, animations and illustrations to make the teleconferencing sessions more effective and interesting. On the other hand the academic counselors observed that through teleconferencing sessions they can reach to the unreached across the country.

9. CONCLUSION AND

RECOMMENDATIONS:

This study provides evidence that educational programmes delivered by interactive television through teleconferencing met the learning needs of the nursing professionals who responded in this study. Majority of learners of B Sc nursing found teleconference most useful. The results of this study also revealed a positive perception of academic counselors regarding the utilization and impact of teleconferencing through Gyan

Darshan Channel, therefore steps should be taken to make this channel more visible.

Distance learning in medical profession has gained popularity nowadays. The professional courses are more suited to teleconferencing, because the learners are motivated to extract optimum benefit from the system. It has been found that teleconference is an exciting and useful tool available for learning and teaching in nursing education.

The following are recommended

- More interactions with the usage of illustrations, video clips, animations and demonstrations will bring into variety and also help to sustain attention of the learners and will make it more effective.
- Toll free number may be provided (with more telephone lines) that can accommodate more interactions during Live sessions.
- The number of Interactive teleconference sessions should be increased.
- The schedule of the counseling sessions should be intimated in advance so that more learners can make best use of it.

Teleconferencing is a vital component of instructional delivery in the ODL system. So, quality enhancement of this component is extremely important for any ODL institution for increasing viewership and making the desired impact.

More research is needed in designing, developing and customization of teleconferencing sessions as per learner preferences.

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