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## **Fadama III Project in Nigeria as Catalyst for Wealth Creation**

• Erharuyi Nosakhare Richard<sup>1</sup>      • Ifeanyi Ugweogbu<sup>2</sup>      • Helen Adebola<sup>3</sup>

### **Abstract**

This paper seeks to discuss the importance of Fadama III project in wealth creation. It examines Fadama III project in Nigeria as paradigm for wealth creation. The thrust of the paper is on the analysis of Fadama I, II and III projects. This is with a view to giving strong justification for the relevance of Fadama III project in national development. Hence, the general goal of this submission would be that if the nation is yearning for development, serious attention has to be given to agriculture.

**Keywords:** *Fadama III Project, wealth creation, catalyst.*

### **Introduction**

Agriculture is the mainstay of any progressive nation. It is the backbone of every economy and is crucial for economic growth. Agricultural development is one of the most powerful tools to end extreme poverty, boost shared prosperity and feed a projected 9.7 billion people by 2050 (World Bank, 2020). In all countries, the government regulates economic processes, which include agriculture. Government intervention in agriculture is different across countries and depends on various factors, such as increase in agricultural production, protection of farmers' income, national food safety and security, external effects and public goods, among others. Majority of the advanced countries were able to develop as a result of the contributions made by the agricultural sector. This enabled them to invest in other sectors that aided their development. The basic source of food supply to every economy is agriculture. If the demand for food production is not met in any country, it affects the growth rate of that country. Most countries export their agricultural products to other countries

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<sup>1</sup>**Lecturer**, University of Benin, Benin City, Nigeria. ✉ nosakhare.erharuyi@uniben.edu

<sup>2</sup>**Professor**, Nnamdi Azikiwe University, Awka, Anambra State. ✉ it.ugweogbu@unizik.edu.ng

<sup>3</sup>**Professor**, Nnamdi Azikiwe University, Awka, Anambra State. ✉ he.adebola@unizik.edu.ng

and in return, purchase goods and services from other countries which are vital for their national development. It also increases export earnings which help to balance the foreign exchange. Agriculture plays a great role in national development. It contributes to the Gross Domestic Product (GDP) growth of every country. It creates employment, raises the standard of living, empowers the rural dwellers, provides food, sustains wealth, increases exports, provides basic infrastructure, which are significant to the improvement of the economy.

Agriculture as an indigenous occupation in Nigeria has gone through various phases of development. This development is an effect of government policies and state approach to agriculture which either demeans or heightens the impact of the sector in the nation (Christian, 2020). In Nigeria, agricultural policies and programmes have undergone changes. These changes have been a mere reflection of changes in government or administration. This is because these policies and programmes vary only in nomenclature and organisational network. They emphasise almost same objectives like: to provide food for the inhabitants of the nation (food security and sufficiency) and export excess to other countries, and to provide rural dwellers and farmers with extension services, agricultural support and rural development services. Despite all the laudable programmes with challenging objectives, Nigeria is yet to achieve food security. In a bid to solve the problem of food production in the country, the Federal Government of Nigeria has initiated different projects and programmes over the years; some were positively impactful while some made no difference.

In the 1970s and 1980s, the World Bank supported a series of Agricultural Development Projects (ADPs) in Nigeria. The mixed experience with ADPs during that period offered lessons for subsequent interventions, especially for the Fadama project. The World Bank in partnership with Nigeria Government developed Fadama programme to enhance productivity and market linkage of farmers through a new project on information and knowledge services (Egwu, 2015).

### **Fadama Project**

Fadama is an old tradition in Hausa, where flooded land is used for growing a variety of crops. Fadama is a six-letter word in Hausa which means “marshy terrain”. Such land is suitable for irrigation, fishing and providing food and water for livestock. The project builds upon two previous projects. The first National Fadama Project (NFP-I), implemented from 1992-1999 emphasised the use of simple drilling techniques to increase dry season crop production. Irrigation wells were also provided to crop farmers through a simple credit arrangement aimed at boosting the aggregate

crop output. NFP-I was implemented in 7 states. The lessons learnt in the NFP-I such as the success of community-driven development mechanisms, informed the design of the second National Fadama Project (NFP-II) to include beneficiaries, non-crop farmers, marketers and other stakeholders who are directly or indirectly affected by the Fadama resource (World Bank, 2016).

Fadama II (2003-09) fundamentally changed the project's delivery model, moving from a more traditional top-down approach to a more inclusive bottom-up model that cultivated community ownership and participation. Fadama-II also introduced an innovative local development planning (LDP) tool and built on the success of the community-driven development mechanisms. NFP-II adopted a community driven development (CDD) approach to provide productive assets to the poor and economically vulnerable groups and was implemented in 11 States. The States are Bauchi, Gombe, Adamawa, Imo, Kaduna, Kebbi, Lagos, Niger, Ogun, Oyo, Taraba and the Federal Capital Territory (FCT).

African Development Bank also supported the initiative in six more states (Borno, Katsina, Kogi, Kwara, Plateau, and Jigawa), bringing the total participating states to 18. Encouraged by the positive results of NFP-II, the Government of Nigeria decided to roll out the project to the entire country and sought World Bank assistance to finance the third phase of the project. To support the Government of Nigeria in increasing rural income and reducing poverty in rural areas, the World Bank approved The Third National Fadama Project (Fadama III) as a Specific Investment Loan (SIL) in June 2008.

Fadama-III's primary objective was to support the growth of non-oil sectors through the development of productive infrastructure aimed at enhancing agricultural productivity and the diversification of livelihoods. It involved building social capital of participating communities' and their capacity to provide rural services to the poor. The developmental objective of the NFP III was to increase the incomes of the farmers, reduce rural poverty, increase food security and contribute to the achievement of the Sustainable Development Goals (SDGs). Fadama-III project increased the average real income of 75% of targeted project beneficiaries by 40%.

Fadama-III project as approved by the World Bank's Board of Directors has six main components:

- i. Capacity Building, Local government and communication.
- ii. Small-scale community-owned infrastructure.
- iii. Advisory services and input support development.
- iv. Support the Agricultural Development Programmes.

- v. Asset acquisition for individual Fadama Users Groups.
- vi. Project management, monitoring and evaluation (World Bank, 2020).

The NFP-III was driven by the community. Local community members under the Fadama Users Groups (FUGs) and Fadama Community Associations (FCAs) oversaw the design and implementation of the project and were empowered through skills and capacity-building to improve their livelihoods by increasing income generating activities. According to the World Bank (2016), the basic strategy of the project was a Community Driven Development (CDD) approach, which placed beneficiaries in the driver's seat with strong emphasis on stakeholders' participation, especially at the community level.

Fadama-III Project has served as a catalyst in the agricultural sector since its inception. According to Macmillan Publishing Company (2002), catalyst is someone or something that causes something to happen or change. In many ways, Fadama has succeeded in "putting agriculture back on the map". Fadama has become what some might describe as an "island of success" in a country portfolio that faces frequent implementation problems (World Bank, 2016). It is hoped that the project's long process of evolution and continued analysis of the project's specific features and results will help other project teams which are seeking innovative ways to deliver developmental results.

The design of Fadama-III allows participating communities the flexibility to develop their own plans and choose their own local subprojects. Communities remain empowered to make decisions at the local level, and FUGs are responsible for identifying, preparing, executing, supervising, operating, and maintaining their subprojects (World Bank, 2016). Fadama-III had enhanced flexibility by expanding the types of products and investments that are eligible for financing under the project, thereby giving communities more choices in addressing local needs. The concept of Fadama-III was brought about by the need for government to fight the challenges of pervasive poverty in rural areas, thereby restoring the agricultural sector to its position in the economy (Effiong & Asikong, 2013).

The beneficiaries of this project were registered as Fadama Users' Groups (FUGs). FUG is a group of not less than 10 farmers, while a group of 15 FUGs formed Fadama Community Association (FCA). The FCAs in the community identified the sub-projects they needed Fadama- III project to support. Fadama-III project was initially designed to end in 2013. Prior to the end of the Project, the Nigerian Government requested additional financing. In consent to this request, a sum of US

\$200 million was approved in June 2013 as the 1st installment. The 2<sup>nd</sup> installment was US \$50 million, approved in 2016 by the board of the World Bank as additional financing to Fadama-III Project. The additional financing came as an extension of phase III of Fadama Project. Fadama-III Additional Financing (Fadama III - AF) was aimed at scaling up the impacts made under Fadama-III and also supported clusters of farmers in six selected states with comparative advantage and high potential to increase the production and productivity of cassava, rice, sorghum and horticulture value chains (World Bank, 2020).

Fadama-III National Project operated in all 36 Nigerian States and the Federal Capital Territory. Fadama-III Project was a tripartite funded intervention by the World Bank, the Federal Government of Nigeria and participating States with objectives targeted toward poverty reduction (Ike, 2012).

### **Unique Features of Fadama-III Project**

Firstly, Fadama-III project had a unique feature called Fadama User's Equity Funds (FUEF). The fund is financed and owned by the Fadama Users' Group, it is funded primarily from annual FUG contributions. The fund is to be invested by FUGs at the community level. The objective of this fund is to strengthen the commitment for maintaining local subprojects. The revolving nature of the fund ensures the continued circulation of financial capital in the community or investment in physical capital, depending on the decisions made by the FUGs. The fund constitutes the basis for developing a sustainable savings and loan scheme for FUG members. It has strengthened financial literacy among FUG members, assisted by the facilitators who help to manage the fund and identify opportunities to improve the sustainability of subprojects.

Secondly, the implementation strategy of the project was designed to support the financing and implementation of six main components: (i) Capacity building, local government and communication, (ii) Small-scale community-owned infrastructure, (iii) advisory services and input support, (iv) support for agricultural development programmes, (v) asset acquisition for individual Fadama Users Groups; and (vi) project management, monitoring and evaluation (World Bank, 2010). It was designed to transfer financial and technical resources to the Fadama Users' groups.

Thirdly, Fadama-III had Additional Financing (Fadama-III - AF) which was aimed at scaling up the impacts made under Fadama-III and also supported clusters of farmers in six selected states with comparative advantage and high potential to increase

production and productivity of cassava, rice, sorghum and horticulture value chains. Cluster farming refers to a group of smallholder farmers who collaborate on joint sharing of buying and using implements, negotiations and selling to the same buyers. Cluster farmers are usually in the same locality. Fadama-III - AF adopted this strategy because of the many benefits associated with it, such as strengthening linkages between farmers, agro-dealers, processing firms, off-takers and other private sector participants.

### **Need for Fadama-III Project in Nigeria**

Nigeria has a comparative advantage in the production of a variety of fresh and processed crops during the dry season. This also applies to livestock and fisheries production throughout the year (Apata & Saliu, 2016). It is imperative to note that incremental production necessary to sustain food production and guarantee national food security cannot be achieved without supplementing irrigation for major food production in the country. This is because Nigeria is endowed with underground and surface water reserves, rich pastures and favourable agro-ecological conditions.

The Fadama resources are largely wetlands all year round and since these resources are also potentially irrigable, they are vastly suited for crop production, fishing as well as provision of water and feed for livestock (EDSFCO, 2019). This enables farmers to carry out farming activities throughout the year. In the light of these potentials, the National Fadama Development Project was designed to promote simple and low-cost improved irrigation technology under World Bank Finance. The widespread adoption of the technologies helped farmers to increase production in some crops.

### **Fadama-III Project - a Panacea for Wealth Creation**

The project promoted growth in non-oil sectors by providing support to: develop productive infrastructure; access quality agricultural inputs, technology, and advisory services; and conduct on-farm adaptive research. Together, these interventions were designed to enhance agricultural productivity and diversify livelihoods. Below are the benefits of the Fadama-III Project (World Bank, 2016):

- Through the funding available, Fadama-III Project provided finance to rural farmers through the Nigerian Agricultural Co-operative and Rural Development Bank.
- It fostered the interest of the private sector in Agriculture, leading to partnership through advisory and technical services.



- It enabled rural communities to take charge of their development agenda. This is sustainable through their support by means of small-scale infrastructure.
- The Fadama-III Project helped the users to be proactive by selecting their preferred agricultural research and advisory services. They used the private sector in this regard instead of governmental services.
- The areas being served under the Fadama-III Project don't just assess financial services on the short term; but it is made available over a long period of time.

On the average, the project was intended to reach about 317,000 direct beneficiary households in clusters and 1.4 million indirect beneficiaries (National Fadama Coordination Office, 2019). Fadama-III project assisted more farmers than expected; it also benefited members of marginalised groups such as internally displaced people, women, youths, and physically challenged people, in addition to effectively targeting activities to the poorest beneficiaries. The target was for 75 percent of beneficiaries to increase their average real income by at least 40 percent. Project data from the results framework indicated that under Fadama- III the average real income of beneficiaries rose from ₦70,548.00 in 2008 to ₦184,240.96 in 2013 (the year that the project was originally expected to close) and ₦347,645.18 in 2019 (when the project closed), indicating that almost all project beneficiaries increased their real income by at least 40 percent (World Bank, 2020). This improvement in income is solely attributed to the project's interventions.

### **Conclusion**

Fadama- III project has been able to improve livelihoods through capacity building, job creation and empowerment amongst farmers in our communities. The project was designed to be socially inclusive. The basic strategy of the project was a Community Driven Development (CDD) approach, which placed beneficiaries in the driver's seat with strong emphasis on stakeholders' participation, especially at the community level.

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## **Essence of ICT in Total Literacy Campaign: Recapitulation of 2011 TLC In Thongju, Manipur**

• Lamalu Thaimai<sup>1</sup> • Gaichangpou Ruangmei<sup>2</sup> • Lungjengkwan Kameih<sup>3</sup>

### **Abstract**

Providing an alternative system of education itself to people is considered as one of the basic attributes of quality enhancement of teaching-learning process in higher education sector. Adoption of Information and Communication Technology (ICT) and its impact on teaching illiterate adults show far reaching achievement of targets by the end of the Total Literacy Campaign (TLC) programme. The TLC is about working with illiterate adults in real life situation with the mission to eradicate illiteracy in the society. The article deals with the importance of ICT; the need of providing proper ICT items by the implementing agencies, the need to innovate ICT by Student Volunteers for the programme and more importantly, the reactions of the adult learners in the use of ICT items such as for cell-phone literacy and use of calculator for their overall demand for improvement of standard of living of adult individuals.

**Keywords:** *Literacy as Extension Dimension of University; Total Literacy Campaign, ICT and Social Esteem Enhancement; ICT Literacy; Cell Phone Literacy.*

### **Introduction**

University as one of the agencies of adult education in India took up Total Literacy Campaign (TLC) which was the main approach and strategy of the National Literacy Mission under Ministry of Human Resource Development in India. It is an extension education module carried out in a time bound manner in the selected locality. The basic aim is to eradicate adult illiteracy in the locality with the responsibilities of providing post literacy, continuing education and extension education for the neo-literates. It is conducted in a mass campaign approach depending largely on the voluntary services of all educated people, government servants, students of

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<sup>1</sup>Assistant Professor . ACEE, Manipur University, Imphal, Manipur. ✉ lamalu@rediffmail.com

<sup>2</sup>Research Scholar (SRF), ACEE, Manipur University. ✉ ruanggai@gmail.com

<sup>3</sup>Research Scholar, Dept. of History, Manipur University. ✉ lungjengkhwank@gmail.com

colleges and universities, as part of their NCC, NSS, and such other national service programme (MHRD, 1988).

TLC is a nationwide campaign in India for the liquidation of illiteracy. It gives priority to the weaker sections of the society such as SCs, STs, OBCs, women and socially deprived sections of the society where the concentration of illiterates adults are maximum. It is through TLC that illiterate adults can be introduced to the ever changing world and can become better, successful and happier citizens. Illiteracy, is the greatest stumbling block in a country's equitable development, and therefore, it is considered a mission to eradicate illiteracy (NLM, 1994).

### **Theories and ICT Interwoven**

There are a variety of programmes available in adult literacy which can be grouped into general content areas in which general programmes are open to any adult focusing mainly on improving foundational content or core literacy skills such as reading, writing, spelling, numeracy and information and communication technology. Several philosophical theories have been propounded from which adult education sector can aptly be incorporated for the maximum achievement target of the adult education programme. Some of the interwoven theories from which the importance of ICT can be extracted are discussed here.

The humanistic philosophical orientation to education maintains that the purpose of education is to enhance personal growth and development and lead to a swing from teacher-centered to learner-centered learning environment. The principles of humanism are found most notably in the work of Abraham Maslow (1908-1970) and Carl Rogers (1902-1987). They centre on the learner as an individual and consider that learning is not just about the intellect, but also about educating the "whole person", taking a person's interests, goals and enthusiasm into account, so that full potential can be achieved. This approach to learning is student-centered, with learners encouraged to take responsibilities for their own learning and being intrinsically, rather than extrinsically motivated (Norbert. 2012).

The progressive philosophy of education holds that the purpose of education is to help the learner develop practical knowledge and problem-solving skills. The propounders include John Dewey, Spencer and Lindeman. Teaching methods used in this philosophy include problem solving, the scientific method and co-operative learning. Here, the educator is an organizer who guides learning instead of directing learning and evaluates the learning process.

Adult learners' willingness to learn more is strengthened when resources for learning are related to real life problems and to personal development goals. Such an assumption implies that adult educators or facilitators need to adopt techniques based on true assessment of their needs. Adult learners learn better and faster when they apply their learning efforts in context of real problem and their current developmental needs (Harry & others, 2002, as cited in Kumar, 2012).

Information literacy implies the ability to locate, understand, evaluate, utilize and convey the information at home, at workplace, and in the community. The Association of College and Research Libraries, Chichago, describes Information Literacy as "a set of abilities to locate, evaluate, and use effectively the needed information", to promote lifelong learning (American Library Association. 2000:2). Knowles (2011) states that, "Adult students seek learning opportunities because their life situation has created a need to know".

According to Burge (1998) (cited in Rhoden, 2015: 29) adult learning is all about: construction (how adults create their own framework of knowledge) and confusion (when learners attempt to organize a mass of incoming information); achievement, affiliation and acknowledgement (feeling competent and being connected to others); relevance, responsibility and relationship (relating life experiences and personal knowledge to learning, accepting learner responsibility for learning and establishing a collaborative relationship which creates a climate that allows for talking in order to think, making mistakes, letting go of old ideas and attitudes and being open to anything new); and expression through which the learner is able to see himself perform, hear himself, compare thoughts and skills with those of his peers and open mind to feedback.

The work of Laura Rhoden (2015) also concludes that analysing specific information literacy instructional initiatives designed for adult learners serve effectively "meeting adult learners where they are" and advancing adult information literacy skills to competency. In another contextualized learning approach, it is taught in the context in which the learning outcomes would be useful in real life. The underlying assumption is that the context provides meaningfulness to abstract information, making it more concrete and therefore, easier to learn.

The whole learning objectives are needed to be reflected in the curriculum framework specially designed for adult learners emphasising on both the content (the material to be learned) and process of learning (the actions and resources involved in the teaching and learning). An adult centred curriculum and its first principle of andragogy focuses on the information literacy curriculum to be relevant, applicable and have a real-life focus (Knowles et. al., 2011:147).

In adult education and lifelong learning activities, various assumptions and theories could be executed only when there are means, agents and for good ends. In the same way, providing information is the means; providing communication and information for teaching-learning are the ends that are elaborately bridged by the available technologies as agents in all teaching and learning programmes.

### **Extension Education and Total Literacy Campaign**

The Total Literacy Campaign (TLC) approach and strategy is one of the ingredients of extension education under the third dimension of the university. In the context of rural community development, practitioners and scholars believe that extension education leads to changes in human behaviour in terms of attitudes, knowledge and skills. It makes rural people aware of their problems and shows them the ways and means by which they can solve them. It leads them towards positive actions.

Ensminger (1957) believes the purpose of extension education is to change the attitude and practices of the people, with whom the work is done<sup>4</sup>.

The Total Literacy Campaign programme is a form of extension education, a 'reaching out' to the local illiterate adults, youth and school drop-outs to once again receive the opportunity for education in an informal system and setting.

TLC is a nationwide campaign in India for the liquidation of illiteracy. It gives priority to the weaker sections of the society such as Scheduled Caste and Scheduled Tribes, OBC, women and socially deprived sections of the society who constitute the maximum number of illiterates adult. It is through TLC that illiterate adults can be introduced to the ever-changing world and can become better, successful and happier citizens (NLM, 1994; UNESCO, 2000).

### **Method and Tools of the Study**

The study is a descriptive analysis and was conducted based on the field survey using the Village Survey Schedule and Interview Survey Schedule provided by the Department of Adult, Continuing Education and Extension, Manipur University (DACEE-MU).

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<sup>4</sup>Extension: Concept and Need | Education - Your Article Library <https://www.yourarticlelibrary.com>

### **Scope of the Study**

The present article deals with the TLC-2011 which was organised by the DACEE-MU in the selected locality called Thongju Part- 2 in Imphal East District, Manipur in 2011. The village has a population of 1,232 with 123 illiterates as per the village census survey conducted for the programme.

### **Duration of the TLC Programme**

The Total Literacy Campaign was conducted for 45 days as per the UGC norm from 1<sup>st</sup> April, to 15<sup>th</sup> May, 2011, under the strict supervision of the then Head of the Department, Smt. Potsangbam Jamini Devi, (DACEE-MU).

### **Aims and Objectives**

The TLC in Thongju, Manipur aimed:

1. To generate interests among the illiterates through motivation and various means and media to join the literacy classes.
2. To attain 100% literacy of enrolled learners in the specified time duration in cost effective ways.
3. To enable the learners to attain the three minimum level of learning as specified by in the NLM document for Level-1, Level-2 and Level-3.

#### **Level-1.**

- (a). Ability to read and write words and sentences using the most frequent letters and vowel signs.
- (b). Ability to read and write numbers up to 50.
- (c). Ability to write their own names.

#### **Level -2.**

- (a). Ability to read and write words and sentences having almost all the letters, all vowel signs and some conjunct letters.
- (b). Ability to read and write numbers up to 100 and do simple additions and subtraction.
- (c). Ability to write the names of the family members and their addresses.

#### **Level -3.**

- (a). Ability to comprehend a simple and unknown passage or text, newspaper headings, road signs etc.

- (b). Ability to compute simple problems involving multiplication and division.
- (c). Ability to apply skills of reading and numeric in day-to-day activities (NLM, 1998: 17).

### **Approach of the Study**

Development of an appropriate approach for conducive environment for learning is a primary asset of TLC. For this purpose, the attention and co-operation from family members are also necessary and their contributions are drawn. Motivation holds true for building a favourable condition to learning (IAEA, 2012: 453-54). A relationship satisfying both teachers and learners are established to make them enjoyable, satisfy their wants and to achieve the goals of 3R's (Reading, wRiting and aRithmetic). The interventional use of ICT materials in the learning environment also adds more ingredients and makes it satisfying and useful to them in their situations with certain aesthetic values.

### **Teaching-Learning Materials (TLM) Used**

The necessary teaching-learning materials and standard primers were supplied by the department for the TLC programme. They included:

1. Primer-1: Mayek Chattaba Ahalsinggi Tamnaba Ahaanba Lairik Book-1.
2. Primer -2: Mayek Chattaba Ahalsinggi Angka Mayek Chatnaba Lairik Book-2.
3. Literacy Kit.
4. Black Board.
5. Exercise books.
6. Pencils, erasers, chalks, duster.
7. Teaching aids and follow-up materials like supplementary books, content sheets, newspapers, calendars, posters, pictorial charts, magazines, flash cards, photographs and signboards.

These teaching-learning materials are categorized under non-projected teaching aids. These were made available and used for adult learners manually to learn the ability to attain 3R's in the literacy centre.

### **The ICT and the Projected Teaching Aids Used**

1. Movie Projector/Film Strip: Some sort of movies which are relevant to adults and the hurdles they face due to illiteracy were shown to them.



After viewing the movies, the learners were engaged in discussion and the ways they react to its theme were explained by the volunteer student teachers.

2. LCD Projector/Power Point Slide Show: Slides of different pictures of pet animals are prepared under which the names of the pets are written. With the pictures they are instructed to spell the words accordingly. Here, the learners developed the curiosity to know the constituting alphabetical letters of the shown pictures. Adults did learn faster and retain longer memories in following this method.
3. Radio Set Tuning: Practice of locating the pointer of radio station tuning exercises greatly helped adult learners to develop the habit of using radio set for information and communication tools. The bands inscribed at the backside of the radio set and the programme corresponding to each band, knowing to read numerals and choosing the preferred items were well acquired.
4. Calculator Operational Demonstration: Demonstration with the use of calculating machine and their know-how helped adult learners recognize the numerals and the basic signs of arithmetic, i.e., addition, subtraction, multiplication and division.
5. Cell Phone Operation Demonstration- Cell Phone Literacy was the most anticipated demand of adult learners and its uses in every day indoor and outdoor purposes. They are very curious to know how to use the cell phones. This made them to develop retention of regularity in their literacy classes.

These projected teaching aids are directly associated with ICT and the audio-visual essence and effects in TLC have special implications in teaching learning and achievements of adult learners. It is easily synchronized with the talks by facing the audience to observe their reactions. It further makes the programme more dynamic and sustained the interests of learners.

It is useful in such small group situation with maximum achievement results. They are concerned with an application of modern skills and techniques for the requirement of education. These materials involve the appropriate teaching strategies, techniques and tactics for generating desired learning structures. The radio-set tuning practices, electronic calculator operation and the cell phone operation abilities are the greatest and immediate demands of the everyday activities of the adult learners. These learning skills have been the immense contribution of the ICT in the lives of learners enrolled in Thongju Part-2 TLC of 2011 in Manipur, as evident from the tables.

**Table 1: Illiterate Population of Thongju Part-2 Ward No. 7, 8 and 9.**

Age group	6 – 35 years	35+ years	Total	% of illiteracy
Male	6	18	24	4.2
Female	8	91	99	16.04
<b>Total</b>	<b>14</b>	<b>109</b>	<b>123</b>	<b>20.35</b>

Source: Village Survey of Thongju Part-2, 2011 TLC.

**Table 2: Enrolment and Achievement of Neo – Literates in Thongju Part 2.**

Gender	Enrolled Learners	Achievement of Neo-Literates	Achievement %
Male	01	01	100%
Female	19	19	100%
<b>Total</b>	<b>20</b>	<b>20</b>	<b>100%</b>

Source: Evaluation of TLC 2011, Thongju Part-2.

As per the village survey report, the actual number of illiterates of the village numbered 123 of which 24 were males and 99 were females. Twenty learners have been enrolled for the programme and the remaining non-enrolment was mainly due to their critical old age, ill health, poor sightedness, general poverty and weakness. There were no dropouts during the programme.

The achievement of the programme was directly proportionate to the effectiveness of the working volunteers who were the actual ‘Doers’. All the adult learners who underwent the TLC programme have been able to do simple arithmetic in addition, subtraction, multiplication and division. The learners have been able to write names of their family members, read newspaper headings, signboards and names of markets. The overall achievement of the learners can thus be taken as 75.87%.

### Findings from the TLC Programme

There are some important aspects which emerged in the course of the TLC programme conducted in the adopted area. It deserves due consideration for all stakeholders in the mission.

1. There is difficulty in identifying illiterates as they have inferiority complex to disclose.
2. Most of the illiterates are in the age group of 35+ years.
3. Illiteracy of females was more than that of males.
4. Involvement of public leaders and participation from the community members created more enthusiasm and zeal among the learners.

5. Attendance of learners was directly proportionate to the achievement level of the learners.
6. Recreational and ICT related activities, ego involvement activities and perpetual motivation were the challenges for the volunteer teachers.
7. Teaching-Learning material printed in bold and impressive letters, with good illustration facilitates easy learning and retention of interest and learning.
8. The adult learners wanted to learn comfortably. Benches, desks and tables are needed to be provided to lessen fatigues.
9. The fast learners wanted to learn English so that they know how to operate cell-phones.
10. They wanted to learn further and developed interests towards post-literacy programmes.

### **Suggestions**

The student volunteers have encountered various challenges in relation to the TLC programme. Some suggestions are offered to address them:

1. For the observance of Annual World Literacy Day in a village, one such village can be selected, so that it can be adopted as the locality for TLC programme in the following year. This may to a great extent create awareness and the desire for the TLC in that area.
2. Contents of the text (Primers) may be improved.
3. Preparation of Primers in different languages including English and Meitei Mayek scripts are needed in respect of Manipur state.
4. More teaching aids, projected materials and ICT items are needed and should be made available.
5. Duration of the course may be extended to more days.
6. Post-literacy, extension education, follow-up activities and integrated ICT classes can be taken up for neo-literates.

### **Conclusion**

As per the survey report of Thongju Part-2, Imphal East, Manipur, the literacy rate has been raised from 89.64% to a higher level of 91.32% within a short period of time. The influence and its impact of the programme have been felt by all the enrolled adult illiterate learners. The people in the locality felt that participation in the literacy programme had become a catalyst in expanding the knowledge and raised their social status in the village. Eradication of illiteracy through a campaign approach,

with the involvement of all the stakeholders and making such localities and villages as role models in improvement of the learners. As borne out from Thongju Part-2, TLC, it also holds true in assuring neo-literates' enhanced social esteem in the community. These role model scenarios from the TLC approach remain a challenge beckoning the attention and involvement of all stakeholders.

## APPENDICES

### Appendix – 1. INTERVIEW SCHEDULE FOR ADULT ILLITERATE (Rural Areas)

Name of the correspondent:.....Age:.....Sex:.....  
Village:.....District.....  
Police Station.....

#### Part – 1.

Age.....Sex..... Religion.....  
Whether belong to Scheduled Caste/Scheduled Tribe.....  
Married/Unmarried.....Occupation.....  
Residing in a town or village.....  
Whether attended any school before: Yes/No.....  
Educational Standard of: Father..... Mother.....  
Number of family members: Male.....Female..... Total.....  
Number of educated persons in the family: Male..... Female..... Total...  
Number of illiterate persons in the family: Male.....Female..... Total....  
Has he/she got himself enrolled in any A.E.C ? Yes/No.....  
If yes, how he/she came in touch with the A.E.C: Through the teacher/  
Friend/ any other Member of the family.....  
Why he/she felt it necessary to be enrolled in the A.E.C ?  
Name of the A.E.C.....

#### Part – 2:

Personal Income per month:..... Family Income Per month.....  
No. of earning members in the family.....  
If any landed property: Yes/No

If yes, are of agricultural land he owns.....  
If residing in a rented house. Yes/No.  
What is the source of Income:  
Cultivation/Service/ Business.....  
Having Children: Yes/No.....  
Number of Children: Male with age.....Female with age.....  
How many of them go to school? Male..... Female..... Total.....  
How many of them go to school regularly? Male..... Female..... Total.....  
How many of the stopped going to school? Male.....Female..... Total.....  
Why do they stopped going to school?.....  
Do you want your children to be educated? Yes/No.....  
If no, give reasons:.....

**Part – 3:**

Does he/she play games? Yes/No.....If yes, names of the games.....  
Does he/she sing songs? Yes/No..... Folk songs/ Film songs/Classical/  
Any other song.....  
Does he/she like drama? Yes/No. If he/she is an actor: Yes/No. If he/she  
got friends: Yes/No.....  
What he/she does during leisure time?.....  
Does he/she want to go to A.E.C. during leisure time? Yes/No.....  
What does he/she expect to learn from the A.E.C.?.....  
Who is the man/woman he/she respects most in the  
village?.....  
Why he/she respect him/her most?.....  
Does he/she have ambition in childhood? Yes/No... If Yes, what is that  
ambition?.....  
Could he/she fulfil the ambitions? Yes/ No.....  
If Yes, how?.....  
If No, why?.....

Date:

Signature of Interviewer

**Appendix – 2: VILLAGE SURVEY SCHEDULE FOR TLC-PROGRAMME**

1. Name of the village:.....  
 Name of the block:.....  
 Gram Panchayat:.....  
 District:.....  
 Police Station:.....
2. Name of the respondent:.....
3. Population distribution chart:

Age Group	6 – 10	11 – 14	15 – 35	35+	0 - 6
Literate Population					
Male					
Female					
Total					

4. Castes in the village and number of members belonging to the same:  
 Scheduled Castes:  
 Male:..... Female:.....  
 Total:.....Scheduled Tribes: .....  
 Male:..... Female:..... Total:.....  
 OBC: Male:..... Female:..... Total:.....  
 Other Weaker Minority section: Male:..... Female:..... Total:.....
5. Names of existing clubs (if any):  
 1..... 2..... 3..... 4.....  
 Registered/Not registered:  
 1. Yes/No. 2: Yes/No. 3: Yes/No. 4: Yes/No.  
 Name of the Club Secretaries: a):.....b):.....c):.....d):.....
6. Local Sports(A short note on):.....
7. Local culture(A short note on):.....
8. Local seasons(a short note on):.....
9. Number of landless families:.....
10. Major occupation of the local people:  
 a).....b).....c).....d).....
11. Nearest market with distance:.....
12. Nearest bus stand and distance:.....

13. Nearest bank and distance:.....

14. Nearest Institution(s) details:

Nearest Institutions:	Names	Location	Distance
Primary/Junior Basic School			
High /Junior High School			
College			
Others			

15. Names of interested persons for TLC with parents' name and educational Qualification:

a). .....b). .....c). .....d).....

16. No. of houses:

in the village:.....

kutchra :.....

Semi pucca:.....

Pucca houses.....

17. Medical facilities available in the village:.....

18. Animal husbandry facilities in the village:.....

19. Electricity facilities:.....Drinking water facilities:.....

20. Any Co-operative Society opened/found:.....

If so, name of the President.....Secretary:.....

21. Resourceful person(s) in the village:.....

22. Total land holding/average holding:.....

Total area of village in Sq.km.....

23. Land /Area irrigated.....Land/Area non-irrigated.....

24. Type of Ashram works in the village:.....

No. of shops in the village:.....

25. No. of educated unemployed: Male.....Female..... Total.....

26. No. of employed persons: Male.....Femlae..... Total.....

27. Other developmental programme taking place in the village:

a).....b).....c).....d).....

28. Is there any village industry: If yes:

a). Name.....

b). Individual/Joint ownership:.....

c). No. of units/ items produced.....

d).No. of people involved in each unit/item: Male..... female..... total.....

- e). If closed down, give reason for closure:.....
29. Local administration:
- a). Chieftain system .....
- b). Relationship with Police/Revenue/any other.....
30. File Workers who live in the village:
- a). Give name, otherwise state number:.....
- b). Village level workers:.....
- c). Panchayat level:.....
- d). School teacher:.....
- e). Others:.....
31. Means of communication.....
32. Media Assessments:
- a). No. of radio:.....
- b). No. of TV:.....
- c).Newspaper:.....
- d). Library:.....
- e). others:.....
33. Full needs of the village:.....
34. Real needs of the village:.....
35. Any comment:.....

Date :

Signature of the Interviewer

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## Situated Cognition Learning as a Modus Operandi for Adult Education

• Rajani Upadhyay<sup>1</sup>      • Saroj Sharma<sup>2</sup>      • Amit Ahuja<sup>3</sup>

### Abstract

Psychologists who focused on learning, in general, made attempts to understand better how adults learn. Later, adult educators joined the efforts. Learning and knowing are inextricably intertwined with the activities of everyday life. To better understand how adults learn, situated cognition holds excellent promise. Knowledge and skills are acquired and applied in real-world situations using a situated learning approach. Instead of seeing learning as an individual's acquisition of general information from a decontextualized library, situated cognition theory sees learning as a social situation. Situated cognition in the context of adult education is discussed in this article. This study shows the mental activity outside of school has distinct characteristics that differ from typical schoolwork. Authentic activity requires actual cognitive processes rather than simulated ones like in schools. Utilizing the primary components of situated cognition, content, context, community, and participation, instructors can engage students in new and meaningful ways. Cooperative and participatory methods of learning are used in situated learning.

**Keywords:** *Adult learning, cognitive psychology, situated cognition theory, situated learning, authentic activity, adult classroom.*

### Introduction

For centuries, it has been widely accepted that learning and living are inseparable. Since formal educational activities have become so strongly associated with knowledge, it's hard for an adult to separate "taking a class" from the term "learning". Adults'

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<sup>1</sup>**Research Scholar**, University School of Education, Guru Gobind Singh Indraprastha University (GGSIPU), New Delhi-110078. ✉ [rju.2285@gmail.com](mailto:rju.2285@gmail.com)

<sup>2</sup>**Chairperson**, NIOS, Noida-201309, and Former Professor, University School of Education, GGSIPU. ✉ [professorsarojsharma@gmail.com](mailto:professorsarojsharma@gmail.com)

<sup>3</sup>**Assistant Professor**, University School of Education, GGSIPU. ✉ [dr.amitahuja1975@gmail.com](mailto:dr.amitahuja1975@gmail.com); [amitahujaipu@gmail.com](mailto:amitahujaipu@gmail.com)

ability to learn and their intelligence level have been questioned due to the growing trend toward formalizing education. Adult Learning by Thorndike, Bregman, Tilton, and Woodyard (1928) was a comprehensive primary study of adult education. This study discovered that teachers of adults aged twenty-five to forty-five should expect them to learn at nearly the same rate and in nearly the same manner as they would have learned the same thing if they were twenty years old. Adult test scores were only discovered later by Lorge (1944 and 1947) to be linked to previous education, and skill sets rather than age. As a result of a lack of formal education and limited opportunities to practice test-taking, older adults were perceived as less competent. Adults over the age of seventy performed just as well when Lorge emphasized their capability to learn rather than their learning speed (i.e., when time pressure was removed).

### **Objectives of the Study**

To better understand adult education, researchers have focused on determining what, if anything, distinguishes it from alternative modes of instruction. Indeed, adult education researchers and practitioners alike will undoubtedly continue their efforts to pinpoint what makes adult education distinct from other educational approaches. The following are the study's objectives:

1. To define adult learning.
2. To contrast school learning with other learning.
3. To exemplify the situated learning lies in authentic activity.
4. To discuss situated cognition and its components.
5. To apply situated cognition in adult learning.

### **Research Methodology**

The article is based on secondary data collected from various journals, reports, print media, and websites. The methodology comprises discussing situated cognition, its elements and how to apply situated cognition in adult learning.

### **What Makes Adult Education Unique?**

The concept of andragogy, which originated in Europe, was introduced to North American adult educators by Malcolm Knowles. Adult learning andragogy was contrasted with child learning pedagogy (Knowles, 1980: 43). The concept of andragogy set off an assembly point for those seeking to separate the study of adult learners from all other aspects of educational practice.

Pedagogy to andragogy shows a spectrum of learning from teacher-directed to student-directed. According to Knowles, both children and adults can benefit from both approaches. In the beginning, adults who have little or no prior knowledge of a subject advantage from the teacher-led direction have acquired sufficient information to take charge of their education. The term “andragogy” is used to describe a set of principles for teaching students who prefer to learn on their own rather than under the guidance of a teacher.

### *Learning, Experience, and Adult Education*

Philosophical and educational pillars of adult education in the twentieth century were the belief in the importance of hands-on experience in learning. An essential part of Dewey’s (1938: 25) educational philosophy is that all genuine education comes about through experience. The approach to adult education will be via the route of situations, not subjects because the resource of highest value is the learner’s experience, according to Lindeman (1926: 69). Experience is a central learning component in Knowles’s (1980) portrayal of andragogy. The emphasis on experience is clearly expressed.

It was not until Kolb (1984) that the significance of first-hand experience for learning was articulated. Kolb’s model is represented cyclically by concrete experiences, reflective observation, abstract conceptualization and active experimentation. No matter how he tries to defend his model, Kolb concedes that experience and observation are two of the most critical stages in any learning process. Learning is not just a psychological process that happens in splendid isolation from the world in which the learner lives. It is intimately related to the world and affected by it, argued Jarvis (1987: 11), in his development of Kolb’s model of reflection. Knowledge and learning are situated according to the situated perspective. Indeed, Jarvis’s argument is based on the same assumptions about how adult education is culturally organized. Indeed, his opinion is to highlight the fact that learning always occurs within a social context and that the learner is to some extent a social construct (Jarvis, 1987: 15).

### **How Schooling Differs from Other Learning**

Cognitive anthropologists, sociologists, and psychologists have conducted a small amount of recent research on how people perform cognitively in real-world situations. In a provocative article titled “Learning in School and Out”, Resnick outlined four facets of mental process outside of school that differ from typical schoolwork.

*Individual cognition in school versus shared cognition outside of school*

An individual's education and performance are the primary modes of schooling. Group activities are everyday in schools, but students are ultimately judged on their ability to perform independently. In addition, a significant portion of schoolwork is assigned to students individually as in-class and in-home assignments. For the most part, a student's performance on a task is unrelated to the performance of their peers. Outside of school, most activities are done in a group setting. Each person's ability to perform well in the workplace, in their personal life and in their recreational pursuits depends on the actions of others and how their mental and physical performances mesh.

*Pure thought in school versus tool manipulation outside*

When it comes to education, "pure thought" activities are given the highest priority without the aid of textbooks or other complex instruments. When it comes to exams and tests, students are rarely allowed to use these tools, even if they are allowed in class. Because it values independent thought rather than physical or cognitive aids, schools implicitly promote independent thought. But most mental activities outside schools are dominated by tools, and this results in a cognitive task that is both influenced by and reliant on the types of instruments accessible.

*School-based symbol manipulation versus real-world context reasoning*

There are numerous ways physical reality is incorporated into out-of-school thinking, including extensive use of tools. For those who aren't in school, actions and events have a strong connection; they are frequently used in reasoning without symbols to represent them. A school education relies heavily on symbols; in fact, many students cannot connect symbols to real-world events or objects.

*School-based general knowledge versus situation-specific skills*

Formal education's universality and transferability are frequently cited as significant justifications. Arithmetic is an excellent example of how school curricula don't seem to be directly linked to the kinds of knowledge and skills that people use in their professional or personal lives. Technical professional training also appears to fit this description. Situational learning, however, can be very restrictive. Extensive research has shown that people with little formal education are capable of performing complex mathematical calculations. Many people find it challenging to adapt to new situations,

such as construction foremen working with scales not utilized in their culture or bookies being questioned about accepting risk based on information that is impossible to compute on their tables (Carragher, 1986). As a rule, educated people perform better than those with no formal education. To solve the problem, they develop new methods tailored to the situation at hand.

An emerging cognitive psychology theory known as “situated cognition” can be seen clearly in Resnick’s thinking.

In adult education, Schon (1983, 1987) has acquired much recognition. When it comes to knowledge transfer, his work explicitly criticizes the concept of generalized principles being applied to specific situations. He bases his theories and research on the idea of reflection-in-action. In his view, professional practitioners learn by engaging in their profession in the real world. A case in point is Schon’s extensive documentation of discrepancies betwixt the systematized rationality and fundamental tacit theories used by professional practitioners in action. Instead of relying on well-developed ideas to solve well-understood problems, practitioners improvise instead. It means that professional practice isn’t just “instrumental problem solving made rigorous by applying scientific theory and technique.” (Schon, 1983: 21). Researchers like Lave and others have found that the tools and social interaction present in a learning environment are critical to success.

Examining human cognition in the context of authentic activity rather than school simulations is the best way to learn about human cognition and how it functions. Instead of the simulated processes required in schooling, the authentic activity must include situations that necessitate actual cognitive processes (Resnick, 1987). Knowing and learning are intricately a product of the activity they are produced, as demonstrated by Brown, Collins, and Duguid (1989: 33). We must be enculturated to learn; the conceptual structure cannot be meaningfully detached from its contexts or practitioners.

According to them, learning is an enculturation procedure. Rather than acquiring abstract knowledge that can be applied to any situation, people develop skills specific to a particular culture. Since childhood and throughout one’s life, people adopt the behaviour and beliefs of new social groups both consciously and subconsciously. It is when people are allowed to observe members of their own culture’s behaviour in action that they can pick up relevant vocabulary, mimic behaviour, and gradually adapt to the culture’s standards (Brown, Collins, and Duguid, 1989: 34). Thus, the best way to describe authentic activity is to think of it in everyday cognitive practises which are situation-defined, reliant on a tool, and socially interconnected.

### **Situated cognition theory**

According to conventional psychological theories, which see learning as a process based on mechanisms and individual differences, situated cognition theories represent a significant shift in learning theory toward emergent and social perspectives on learning. As a result of their work, Brown, Collins, and Duguid (1989) are often acknowledged for creating situated cognition or learning theory. Situated learning is acquiring knowledge in situations similar to those in real life (Collins, 1988: 2). That's why students should be taught in an environment that mimics the real-world application of their new knowledge and skills, according to the situated cognition theory (Schell & Black, 1997).

The goal of the cognitive apprenticeship is to place learning in the context of the student's immediate surroundings (Brown et al., 1989). Aside from rehearsing and practicing fundamental skills such as a serving technique or a backhand technique, tennis students can see professional players demonstrate these skills in action and receive guidance from an expert coach, as well as put these skills into practice by participating in matches.

Situated cognition theory's view of learning is based on sociology and emphasizes the importance of dynamic communities of practice (Lave & Wenger, 1991). Various people are involved in learning beyond the teacher and student: experts from the school, district, and the Internet. To make matters more interesting, members of learning communities can take on various responsibilities at any given time, depending on the circumstances. For instance, during a learning episode, a student can be a learner, an instructor, or a coach. If a student has already mastered the scanning and uploading of images to a project website, they can teach and coach others (such as classmates, parents, or friends) on how to do it.

Learning can benefit from situated cognition, according to Collins (1988). To begin, students study the conditions under which knowledge can be used. When students learn in novel and diverse environments, they tend to be more inventive and problem-solving oriented. Third, students can see how their newfound knowledge affects their lives. When students learn in context, they can better organize their ability to be put to use in the future.

### **The concept of situated learning**

Situated cognition has long been advocated as a teaching strategy because of its potential to connect the material to student's actual needs and concerns (Shor, 1987).



Making sense of what we do daily is fundamental to how we learn. Transferring classroom knowledge to the real world is facilitated by providing students with opportunities to apply what they've learned. Putting one's thoughts and actions in a specific location and time is what situated learning means. To situate is to include additional students, the surrounding conditions, and the various tasks in the learning process. Placing experts in a specific context allows us to see how they think and act when tackling complex problems (Lave and Wenger, 1991). To situate learning in the adult classroom, it is necessary to create a learning environment in which students can experience the complexities and ambiguities of real-world learning. A community's social structure, interactions with other members and environmental cues all serve as raw materials from which participants build their knowledge and understanding.

Cooperative and participatory methods of learning are used in situated learning. The learner's interactions with others and the environment create or negotiate knowledge. The learning community's conversation and the environment's cues shape the course of study. The experience itself provides the framework for learning rather than the predetermined curriculum laid out by the teacher. The 'way in' and 'practice' processes are how knowledge is gained. After observing an expert, students are encouraged to try out some of their learned techniques.

The acquired knowledge can only be used effectively if it is put to use in practice (Lave, 1997: 21). When it comes to the classroom, situated learning involves more than just reflecting on and drawing conclusions from previous experiences.

### **Components of situated learning**

Learning takes place in a context that includes content, context, community and participation (Brown, Collins, and Duguid, 1989; Lave, 1988). To learn, one must interact with others in a context as similar to the execution condition as possible. Situated learning in the classroom includes all of these components.

*Content.* In a context-free learning environment, higher-order thinking processes take precedence over rote memorization (Choi and Hannafin, 1995). Reflective thinking is made possible by using content that is rooted in the daily lives of students (Shore, 1996). Learning is not about retaining information. In a conversation with students, the instructor explains the material, structures it in the word of the matter to the students and gives them opportunities to work together on solving problems. The content is then tailored to the way students will interact with their surroundings. A successful educational encounter focuses on application rather than retention.

*Context.* “Learning in context” mentions creating an educational climate that is tailored to the needs of students to help them succeed in the workplace. The learner’s relationship to a group, organization, or family’s values, norms, and culture is examined through the prism of context (Courtney, Speck, and Holtorf, 1996). According to Boud (1994), context is how learners engage and intervene in their social, psychological, and material surroundings. Students learn better when they are allowed to relive events from various perspectives. Instead of being on the sidelines, students actively participate in the event (Wilson, 1993). Learning is shaped by the context in which it occurs and by the community in which it takes place.

*Community of practice.* A sense of belonging is essential for helping students make sense of their experiences. Social interaction, which is necessary for exploring different points of view on a subject, is fostered by one’s local community (Brown, 1994; Lave and Wenger, 1991) Sharing tacit knowledge and creating a community of learners results from practice, analysis, and reflection. An individual’s contribution to a community of learning is also referred to as a contribution to the community. When a new member joins a community, they must learn to interact with other community members to learn how to perceive, interpret, and communicate their own experiences, according to Jacobson (1996). Participation gives the experience meaning for the learner because of the opportunities for interaction provided by the community.

*Participation.* As a concept, “participation” refers to how students interact with one another and the materials they are studying, including exchanging ideas and working through problems together. Meaning systems are created and solidified in the context of social interaction. In the context of situated cognition, learning is facilitated by interacting with others in the community (Lave, 1988). To learn is to reflect, interpret, and negotiate meaning within a community of learners. The narratives that a group of learners create and share make learning possible.

### **Situated learning in the adult classroom**

Schell and Black (1997) designed a collaborative classroom for doctoral-level organizational behaviour students to foster organic learning processes. Students compared and contrasted their findings with those of experts through group discussions, role-playing, and articulation-reflection. Schell and Black initiated that the level to which knowledge and competency were transferred from the simulation to the real world varied depending on the level of involvement with the simulation as accuracy and the limitations of the simulation itself. ‘Natural’ learning environments are more conducive to learning retention, according to Courtney and Maben-Crouch (1996).

In the context of a natural learning setting, students solve real-world, non-routine problems that they will face when they return to the workplace. Solving problems is a group effort where everyone contributes to the discussion and comes up with new ideas. For students, this means questioning the values and assumptions that underlie other people's suggestions for solutions. Problems are better understood when framed in terms of the kinds of situations workers are likely to face on the job.

Young (1993) recommends that situated learning in the classroom should be designed with critical tasks in mind by teachers. Learners should be placed in challenging, real-world situations that help them acquire the desired skills. Instructors need to know how much and what kind of help new students need to help them succeed in the course. Less assistance will be required as students' abilities grow. Learners' progress is tracked, their products assessed, and they are encouraged to reflect on their learning. Instructors help students become more aware of their surroundings to understand better and apply what they've learned (Ottoson, 1997).

The final step is to monitor each student's and the group's progress intellectually regularly. Learning through cognitive apprenticeships is encouraged in an adult education classroom (Brown, Collins, and Duguid, 1989). Through observation and imitation, students learn how to solve problems independently. Discussion, evaluation, and validation of the community's point of view are some of the cognitive apprenticeship tools.

### **Conclusion**

Is there a bright future for adult education? Work in various disciplines will continue to influence adult learning theory, resulting in the ability to comprehend how adults learn and the conditions that encourage it. Regardless of the setting, the underlying assumptions of andragogy provide clear guidelines for adult education programmes in various locations, from community programmes to higher education to lifelong learning. Situated learning methods can develop a complete theory of adult learning. Situated cognition's main components - content, context, community, and participation, allow trainers new and meaningful ways to interact with students. A key takeaway from the study of situated cognition is that adult students can be great diverse sources of stories, data and interpretations that modify the classroom into a place where ideas can be discussed, challenged and created. Students' daily lives can be affected by their interactions with the surrounding environment, whether at home, in the neighbourhood, or in the workplace.

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## **Effectiveness of Teaching through Concept Maps on Achievement in Science of Secondary School Students**

• Sweta Singh<sup>1</sup>

• Shamim Aara Hussain<sup>2</sup>

### **Abstract**

Constructivists say that learners construct new knowledge from previous learning. It means knowledge is built instead of innate or passively obtained. A concept map is a pictorial tool for visual organization and representation of information. It starts with a specific point or concept and then is diversified to exhibit how that main idea can be broken down into distinct topics. The present article is based on a master-level research work. In this research, the researchers attempted to teach through Concept Maps and study the effectiveness of Concept Maps on Science achievement of secondary class students of Gujarat. Researchers had selected five chapters from ninth class science book published by NCERT and taught through concept maps. Simultaneously, they taught another control group through traditional teaching methods (due to COVID 19, both through online mode), for comparing the effectiveness of teaching through concept maps. The present study was experimental in nature. All the students studying in class IX in the session 2020-21 affiliated to Central Board of Secondary Education, Gujarat formed the universe. The sample size of the present research was 68. Duration of treatment was for 60 days. Data were collected through self-developed pre, and post-test questionnaire, developed by the researchers. For data analysis correlated 't' test has used. The findings indicate clearly that Concept map is the effective way of teaching rather than traditional method for teaching concepts through constructivist approach.

**Keywords:** *Concept Map, constructivism, effectiveness.*

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<sup>1</sup>**M.Ed. Student**, Centre for Studies and Research in Education Central University of Gujarat, Gandhinagar.

✉ yuvishweta1293@gmail.com

<sup>2</sup>**Asst. Professor**, Centre for Studies and Research in Education, Central University of Gujarat,

✉ shamimaara@cug.ac.in

## **Introduction**

School students are generally curious, which makes science the perfect subject for them to learn. Science permits students to explore their world and discover new things. Science is an active subject, including activities such as hand-on labs and experiments. This makes science appropriate to active younger children. Especially,

Science helps to generate problem-solving skills in students.

Science makes us aware about technology.

Science makes us responsible to conserve natural resource.

Science instils survival skills.

Science helps develop literacy and language.

Science helps to separate fact from fiction and develop process and experimental skills.

Science Education and recommendations in various commission and committees.

According to Kothari Commission, Science plays an important role in accelerating the economy of the developing nation like India. It said that to boost the economy of the country, Science, Technology and Research should be given most important consideration. For this, subjects like Science and Mathematics should be a mandatory for school stage education (Ministry of Education, 1966).

The National Policy of Education, 1986 (NPE, 1986) focuses on new advancement and how Science and Technology play a significant role in achieving this goal. It states that Science plays a vital role in inculcating values like the spirit of scientific inquiry, logical and analytical reasoning, and curiosity among students. The NPE 1986 declared that Science Education will be designed to provide the ability to the learner in obtaining problem-solving and decision-making skills and adopt the multidisciplinary approach to associate science's relationship with health, agriculture, industry, and other aspects of daily life (MHRD, 1986:20).

The National Policy of Education 2020 advocates that for students whose medium of instruction is the Regional language will start to learn Science bilingually in class 8 or earlier, and in English after end of class 10 so that they can speak about science both in their Regional language and English (MHRD, 2020: 43).

Primary science education is mandatory because it provides a framework for developing children's inner curiosity about their natural environment. It nurtures habits of careful observation and investigation. Science promotes critical thinking, discovery-based, discussion-based, and analytical-based learning.



## **Constructivism and Learning**

Constructivism says that people build their own understanding and knowledge of the world. Constructivism implies that learners construct new knowledge from previous learning. It means knowledge is constructed instead of being innate or passively obtained. The second belief is that learning is an agile process rather than a submissive process. In the passive perspective of teaching vision, the learner, as an “an empty vessel” has to be charged with knowledge, whereas constructivism means that learner builds meaning only through dynamic participation with the world. Information may be statically received by the learner, but comprehension cannot be, for it must derived from making relevant connections between previous understanding, updated knowledge and the processes intricate in learning.

Constructivism’s focus is that human knowledge is built, that humans build new knowledge upon the base of prior learning. This previous knowledge impacts what new or modified knowledge learner will build from new learning experiences (Phillips, 1995).

## **Concept Map**

Concept maps were evolved in 1972 during Novak’s research programme at Cornell University where Novak looked to understand modifications in children’s understanding of science (Novak & Musonda, 1991). In this research, Novak and his colleagues questioned many children, they found it was hard to find out specific changes in the children’s understanding of science concept. Novak defined that the concept are objects and events designed by a scientist by a scientific level. Concept map is a visual representation of a domain that contains concepts represented as nodes that are interlinked to each other by arcs and links.

## **Meaning of Concept Map**

Concept map is a pictorial tool for visual organisation and representation of information. It starts with a specific point or concept and then becomes diversified to exhibit how that main idea can be broken down into distinct topics. Concept map shows concept and ideas and the relationship among them. Concept map can be written by writing key words (sometimes inserted in shape such as circles, boxes, triangle, etc.) and then drawing arrows between the ideas that are linked. Concept maps are shown in a hierarchical manner with the more common facts at the top of the concept map and the more important, less common facts arranged hierarchically down.



### **Definitions of Concept Map**

1. “A Concept Map is a tool utilized to represent facts, thoughts and ideas. Concept maps shows a domain of understanding, explain patterns and relationships among concepts” (Novak, 1972).
2. “Since individuals have peculiar sequences of experiences leading to unique total sets of hypotheses, all concept maps are to some extent peculiar (Novak, 1990: 29-31).

### **Features of Concept maps**

1. Concepts maps pictorial representations that exhibits meaningful relationship between concepts.
2. Generally, concepts are written inside a circle or a box, interconnected by lines with connecting words.
3. Concepts are represented in a hierarchical sequence from top to bottom, placing the most common concepts at the top and less common concept at the bottom.

### **Importance of Concept Map**

- A concept map aids visual learner catch the content easily.
- It helps students to visualise relationship between ideas and facts.
- Makes use of the entire range of the left and right hemisphere of the brain.
- Concept maps help in recalling previous knowledge.
- It helps to clarify ideas and structuring facts.
- Concept map encourages learners to think creatively about the subject.
- Concept map helps in developing higher-level thinking skills among learners (create, analyse, evaluate)
- Concept maps can be used as information organising tools, meaningful learning tool, and assessment tool.
- Linking concepts and visualising their relations may assist explore new problem-solving abilities.
- Concept maps has arisen from the learning movement called constructivism.

### **Objective**

- To study the effect of methods of teaching, gender and their interaction on achievement in science when pre-test of science has been taken as covariate.

### Hypothesis

There is no significant effect of method of teaching, gender and their interaction on achievement in science when pre-test of science has been taken as covariate.

### Methodology

#### Population and sample

The present study was experimental in nature and it was conducted in one school. All the Students studying in class IX in the session 2020-21 affiliated to Central Board of Secondary Education, Gujarat formed the universe. From the population, the school was chosen using Random Sampling technique. The randomly selected school was Chaitanya School. From the selected school, class IX students were taken up for this study. The total number of students in the sample was 68. The selected school was assigned randomly to the two levels of Treatment, i.e., instruction. Chaitanya School has 2 Sections in class IX, from which Section A was taken as Control Group that was given instruction through Conventional Method, Section B was taken as Experiment Group and was given taught by Concept Mapping Strategy.

#### Research design

Present study was experimental in nature in which pre-test and post-test control group design were used, its layout is-

O .....X..... O  
 O .....• ..... O

(Campbell & Stanley, 1963)

O = Observation

X = Treatment

• = Traditional Method (Lecture Method)

#### Tool

For the assessment of achievement in science, a self-made achievement test, developed by the researchers, was used in which all the items were related to all covered topics in the research.

### Data collection

At first, consent for conducting the research was taken from the Principal of the selected school. Permission for selecting Chaitanya School was taken from the Dissertation Supervisor. Due to the COVID-19 situation, data was collected online through Google form and classes had been taken in online mode. Before starting the class, the researcher had a formal conversation with all the students and conducted a pre-test in both Sections. After that, Section A of Class IX was taken as Controlled Group and Section B was taken as Experimental Group. The students of Experimental Group were treated with teaching by using Concept maps and students of Controlled Group was taught through lecture method. Duration of treatment was for approx. 60 days. The researcher has taken five chapters for the treatment. Both conventional and Concept maps were used for treatment in Section A and Section B respectively. After the treatment, post-test was operated on both groups

### Data Analysis

#### Data Analysis, Result and Interpretation

The objective of the research was to study the effect of the method of teaching, gender and their interaction on achievement in Science while pre-achievement were taken as covariates. For analysis of data related to the objective 2 x 2 ANCOVA (Two-way Analysis of covariance) was used, whose results are shown in Table 1

**Table 1: Source, df, SS, MSS, F, and Sig values**

Source	df	SS	MSS	F	Sig
MOT	1	186.17	186.17	10.86	0.002*
Gender	1	0.008	0.008	.008	.983
MOT x Gender	1	1.721	1.721	.100	.752
Error	60	1028.58	17.143		
Total	65				

\*sig. at 0.05 level

It can be observed from Table 1 that the value of F for Methods of Teaching (MOT) is 10.86, df= 1 and P- value (2-tailed) = .002 which is smaller than 0.005 level of significance that means significant. In the light of this the null hypothesis “There is no significant effect of method of teaching on Achievement in science of class IX students is rejected. Further, the value of adjusted mean scores of Lecture method and Concept maps are given below in Table 2 for comparison.

**Table 2: Comparison between Means of Lecture Method and Teaching through Concept Maps**

M O T	M e a n
L e c t u r e	12.657
C o n c e p t M a p s	16.909

From Table 2, it is clear that the adjusted mean scores of achievement scores of concept maps group (Experimental group) are 16.909 which is significantly greater than the adjusted mean scores of achievement scores of Lecture method group (Control group). This implies that the achievement of Concept map group in Science is better than Lecture method group. So, we can conclude that the Concept map is more fruitful than lecture method in terms of achievement in Science for class IX students.

The possible reasons behind those results may be due to the fact that more variety of senses are involved in concept map learning, as compared to traditional method. Apart from this, here visual representation of the concepts or facts helps in easy understanding of the facts. Studies conducted by Ghorai and Guha (2018), Ahuja (2013), Barouch, et. al. (2011), Somers (2009), Rao (2003), Jackson & Trochim (2002) also support this result.

In Table 1, the value of F for Gender is 0.000,  $df = 1$ , and P value (2-tailed) = 0.983 which is Greater than 0.05 level of significance; hence, it is not significant at 0.05 level of significance. In the light of this, the null hypothesis "There is no significant effect of Gender on achievement is taken as covariant is not rejected. So, we can say that there is no difference between adjusted achievement mean scores of male and female students and we can conclude that there is no effect of Gender on achievement of Science taught by Lecture method and Concept maps, and both methods were equally effective.

The possible reasons for getting above results may be due to the fact that learning has no effect on Gender, and both the Gender has equal chance of getting knowledge through Concept maps rather than conventional/ traditional method.

From Table 1, it can be observed that the value of F for Method of Teaching and Gender's interaction is 0.100,  $df = 1$  and P-value (2-tailed) = 0.752, which is greater than 0.05 level of significance; hence, it is not significant at 0.05 level of significance.

In light of this the null hypothesis "There is no significant effect of method of teaching and Gender interaction on achievement in Science in secondary classes".

The possible reasons for above results may be due to the fact that learning is transmitted equally to both the gender and both the gender learn equally through Concept maps and from traditional method.

### **Conclusion**

The result clearly indicates that Concept maps is the effective way of teaching rather than conventional/traditional method. Before the treatment, the mean-score of the students was 9.73 and after treatment, the mean-score of the students was 14.73. The possible reason behind this may be that in Concept maps more senses are involved to grasp the concepts. Vygotsky's constructivist theory also says that children acquire knowledge more when they establish knowledge by their own. Constructivist learning is underpinning a range of student-centered teaching approaches and strategies that contrast with traditional education, in which professors simply pass on knowledge to pupils. Bruner defines constructivism as a learning principle in which learning is seen as an active process in which learners build new ideas or concepts based upon their current and past knowledge.

### **Educational Implications of the research**

#### **1. For Teachers**

This strategy will help the teachers in shifting teacher-centred classroom to learner-centred classroom, and also shape their student's attitude and learning from rote memorization to concept formation. According to NCF-2005, the role of teacher is a guide, facilitator rather only content delivery in the classroom. Concept maps will help the teachers to improve the retention of the concepts in the students as well as it will help the teachers to get attention of the students.

#### **2. For students**

Concept maps will truly help students in not only to construct knowledge by themselves, but also to clarify concepts, ideas and help in retention of the concepts and facts. Teaching by Concept maps promotes creative thinking to develop interest in the learners, and while generating ideas and relationships between different facts and concepts, it helps the learners to think discerningly. We can say that Concept maps are a boon for both slow and fast learners. This is because sometimes slow learners generally are not able to recall long sentences, but in this process, they may be able to do because here, there is no memorization of the facts. and only key words are enough for understanding the whole concept.

### 3. For Curriculum developers and policymakers

This method will be helpful for curriculum makers as they know the strength and weakness of students so that it will give feedback about the intended objectives, the outcome, and the implementation efforts needed for achieving a good outcome. It will help curriculum developers in proper planning and giving individualised consideration. Curriculum developers should be imbued with the idea that they should include self-learning, through the constructivism approach in the curriculum making process.

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## **A Study of Self-Leadership among University Students in Shillong, North East India**

- **Md. Nawaz Sarif<sup>1</sup>**

### **Abstract**

Our views of who we are, what we are capable of, and how we can communicate with others have an effect on our lives. Self-leadership is characterized as the ability to control one's own thoughts, actions, and attitudes in order to achieve personal or institutional goals. The aim of this study was to determine the degree of self-leadership among university students. Its goal was to see if a group of M.A. and M.Ed. students varied in their self-leadership abilities. A descriptive research design was used in this study, and the data was collected using a revised self-leadership questionnaire developed by Houghton & Neck, 2002. The percentile norms, mean, correlation matrix, and independent-sample analysis were used to complete the data analysis. Overall, students had a high degree of self-leadership ( $M=123.80 > \text{Mid-value}=87.5$ ), according to the results. They had a higher level of self-leadership skills in the dimension of natural reward strategies ( $M=3.82$ ) and was followed by constructive thought ( $M=3.52$ ) and behaviour-focused strategies ( $M=3.47$ ). There was also a strong association ( $p < 0.01$ ) between these aspects of students' self-leadership. Furthermore, there was a substantial difference in constructive thought strategies ( $p < 0.05$ ; small Cohen's  $d$ ) between M.A. and M.Ed. students, but no significant difference in behaviour-focused and natural reward strategies ( $p > 0.05$ ). Also, students' chronological age, educational attainments, and training-based experience have all been identified as possible influences on their self-leadership. Finally, the study concluded by outlining its consequences and suggesting directions for further research on self-leadership at university levels.

**Keywords:** *academic streams, self-leadership, constructive thought strategies, natural reward strategies, behaviour-focused strategies.*

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<sup>1</sup>**Ph.D. Scholar**, Department of Education, North-Eastern Hill University, Shillong, Meghalaya.

✉ [nawazsarif@nehu.ac.in](mailto:nawazsarif@nehu.ac.in)

## **Introduction**

Students' self-management, self-functioning, progressive achievement, and performance outcomes may benefit from self-leadership (Neck & Manz, 1992; Carmeli et al., 2006). It is a critical construct that allows students to be aware of themselves, regulate themselves, manage themselves, drive themselves, and maintain the desired behaviour needed to meet set goals. It is critical for developing leadership skills and psychologically empowering people (Prussia et al., 1998; Houghton & Yoho, 2005). Self-leadership is based on theories of self-regulation and social cognition (Neck & Houghton, 2006). It is the organization's theoretical expansion of self-management theory (Manz & Sims, 1980; Manz, 1986; Neck & Houghton, 2006). Behavioural-focused strategies, natural reward strategies, and constructive thinking strategies are some of the sub-constructs that are often theorised as an organisational construct (Anderson & Prussia, 1997; Prussia et al., 1998; Manz & Neck, 1999).

Unlike leadership, which is the ability to persuade a group of individuals to achieve a common goal in an organisation, self-leadership is the ability to persuade one's own ideas, habits, and attitudes to achieve personal or institutional goals. Unlike traditional leadership, which affects followers, it is the process of influencing oneself (Manz, 1986; Neck & Manz, 1992). Self-leadership is defined by Malmir and Azizzadeh (2013) as the process of knowing oneself, self-management, self-motivation, and self-discipline. Similarly, Bryant and Kazan (2012) defined self-leadership as a developed cognitive and behavioural sense of who we are, what we can do, and how we can influence our communication, emotion, and behaviour in order to achieve our goals. Thus, herewith, self-leadership can be defined as a set of cognitive, affective, and behavioural strategies that have a positive impact on an individual's effectiveness (Mans & Houghton, 2006). It's also a self-influencing process in which a person tries to control their thoughts and actions in order to achieve their objectives (Manz, 1986; Manz & Neck, 2004).

In this study, self-leadership is characterised as the intentional use of one's own cognitive, affective, and behavioural resources to achieve a specific goal. It is divided into three categories: behaviour-focused strategies, natural reward strategies, and constructive thought strategies. (a) As sub-elements, behaviour-focused techniques included self-goal setting, self-reward, self-punishment, self-observation, and self-cueing. It is a person's goal-directed behaviour towards a goal and related activities. It is an individual's engagement in one's own self, in which the individual keeps motivating (self-incentives) or de-motivating (self-punishments) himself/herself depending on the circumstances in order to achieve the set-target. Individuals who



use behaviour-focused strategies can better manage themselves and maintain the consistency of behaviour needed to meet a specific goal. (b) Natural reward strategies are intertwined with affective and motivational components. It refers to a person's objective involvement and participation in works and activities in which they have a vested interest and can enjoyably work. Individuals who use natural reward strategies are often motivated at work and prefer to engage with people and activities in which they are interested. (c) Constructive thought strategies, which included individuals' perceived ability to visualise successful performance, engage in self-talk, and continually evaluate self-beliefs and assumptions for effective performance and self-functioning toward goal achievement.

Studies on self-leadership have been conducted in both business and academic institutions over the last few decades. Recent studies have primarily focused on how self-leadership affects individuals' attitudes, behaviour, and performance-related outcomes. Furthermore, these studies identified various self-leadership correlates and antecedents. The components of self-leadership, according to Bandura (1991), have a direct effect on individuals' cognitive, affective, and behavioural aspects. Prussia et al. (1998) discovered that students' self-leadership had a direct impact on self-efficacy beliefs and performance. Separate studies by Prussia et al. (1998) and Türköz et al. (2013) found that self-leadership skills have a significant impact on students' learning outcomes in institutions. Ay et al. (2015) discovered a strong link between self-leadership and critical thinking, finding that self-leadership skills (i.e., constructive thought and natural reward strategies) have a positive impact on critical thinking. Carmeli et al. (2006) found a link between self-leadership skills and innovative behaviours at work, with self-leadership positively influencing individuals' innovative behaviours.

University life necessitates a great deal of adjustment. Self-motivation, determination, and goal-persistent behaviour were found to have a positive impact on students' adaptation to the university environment. Won (2015) discovered significant relationships between students' self-leadership skills, stress-coping skills, and college life adjustment, and concluded that self-leadership components, such as goal-setting, self-reward, and constructive thoughts, affected students' college life adjustment. Lee (2016) revealed that self-leadership is linked to students' resilience and college adjustment, with behaviour-focused strategies and natural reward strategies having a direct impact on students' college adjustment. Self-leadership skills alleviated stress levels in students, according to studies conducted by Houghton et al. (2012) and Maykrantz and Houghton (2020), and can be used as a tool to reduce stress in students. Furthermore, Ramos-Villarreal and Holland (2011) and Houghton et al.

(2012) found a strong link between emotional intelligence and self-leadership strategies, with the findings indicating that the various components of emotional intelligence positively contributed to the development of self-leadership skills in students.

Also, the development of self-leadership is critical for the institutional empowerment of individuals (Anderson & Prussia, 1997; Prussia et al., 1998). Recent research has identified a variety of factors that have affected the development of self-leadership in students. For example, Neck and Manz (1996) found that individuals who participated in self-leadership training programmes had improved mental work performance, positive effects, job satisfaction, and reduced negative effects. Experience, awareness, and debate were highlighted by Tat & Zeitel-Bank (2013) as key factors in the development of self-leadership skills such as self-knowledge, self-regulation, self-motivation, and constructive thoughts. Similarly, Houghton and Yoho (2005) suggested that certain difficult factors, such as follower growth, situational urgency, and task structure, may lead to the development of self-leadership. Students' participation in monitorial activities had a positive impact on their level of self-leadership at the university, according to Lee and Hur (2015). Similarly, Hilliard (2010) found that early participation in leadership tasks and activities, as well as exposure to experiential activities, teamwork, civic activities, and internship programmes, had a significant impact on the development of self-leadership skills among students.

Based on the above analysis, it can be concluded that self-leadership research is still in its infancy and is being conducted in a variety of business and educational settings. It demonstrated the link between students' leadership abilities and their academic adjustment and outcomes. In addition, various factors such as emotional intelligence, self-efficacy, institutional environments, and others had an impact on students' self-leadership abilities.

The university year is regarded as critical for students' progress in a variety of ways. Self-leadership has been shown to benefit students' self-functioning, self-management, performance outcomes, and institutional adjustment in previous research (Neck & Manz, 1992; Carmeli et al., 2006; Won, 2015; Lee, 2016). However, it was pointed out that self-leadership research has yet to be properly identified in educational institutions (Lee & Hur, 2015; Kyguoliene & Ganusauskaite, 2017). Besides, further research is needed to determine whether students' self-leadership skills differ across academic streams and to identify the underlying factors that may affect their level of self-leadership skills at university levels. Thus, the current research was conducted to fill a gap in the literature by investigating self-leadership skills among university students from various academic streams.

### **Objectives of the Study**

The objectives of the study have been:

1. To investigate university students' self-leadership and assess their levels of behaviour-focused, natural reward, and constructive thought strategies.
2. To determine whether M.A. and M.Ed. students have significantly different levels of self-leadership.
3. To determine whether M.A. and M.Ed. students vary significantly in terms of behaviour-focused, natural reward, and constructive thought strategies.
4. To look into the connections between behaviour-focused, natural rewards, constructive thought strategies, and collective self-leadership among students.

### **Hypotheses**

The investigator's goal in this study was to test the following hypotheses:

1. H1: The level of students' self-leadership in behaviour-focused strategies, natural reward strategies, and constructive thought strategies is low, collectively and dimension-wise.
2. Ho2: The mean difference in self-leadership between M.A. and M.Ed. students is not statistically significant.
3. Ho3: Between M.A. and M.Ed. students, there is no statistically significant mean difference in behaviour-focused strategies, natural reward strategies, or constructive thought strategies.
4. Ho4: Students' behaviour-focused strategies, natural reward strategies, constructive thought strategies, and collective self-leadership have no meaningful relationship.

### **Design of the Study**

A descriptive research design was used in this study. The following research processes and methods were included:

#### ***Methods***

In this study, a survey method was used. To assess students' self-leadership and determine whether there is a substantial difference in self-leadership skills between M.A. and M.Ed. students, the researcher used a quantitative research approach.

### ***Samples and Data Collection***

A non-random purposive sampling technique was used for the selection of the M.A. and M.Ed. first-year students, 2017-18 academic session, at the Department of Education, North-Eastern Hill University in Shillong. Eighty-seven out of total ninety-seven enrolled students had participated voluntarily in the present research. The questionnaire was administered to students at two different points of time for M.A. and M.Ed. students separately and the response-based questionnaires were collected accordingly on the same day. Before data collection, the purpose of the study was informed to the students, and confidentiality was assured.

### **Instrument and Data Analysis Procedures**

In the present study, data collection was done using the revised self-leadership questionnaire (Houghton & Neck, 2002). The scale has a five-point Likert response anchor, ranging from 'not at all accurate' (1) to 'completely accurate' (5). It has nine sub-scales consisting of a total of 35 items and all are positively worded. The statements were incorporated into three different dimensions of students' self-leadership: (a) behaviour-focused strategies (18 items) with five sub-scales of self-goal setting (5 items), self-reward (3 items), self-punishment (4 items), self-observation (4 items), and self-cueing (2 items), (b) natural reward strategies (5 items) with no sub-scale, and finally, (c) constructive thoroughness strategies (5 items) with no sub-scale (4 items). The investigator calculated the scale's overall reliability, which was Cronbach's Alpha.804 (>.7), indicating high scale reliability in the context of this study. The scale score ranged from 35 to 175 points, with a high score indicating high self-leadership and a low score indicating low self-leadership. Furthermore, the dimension-wise range of scores for behaviour-focused strategies was 18 to 90, for natural reward strategies, 5 to 25, and for constructive thought strategies, 12 to 60. The composite score of the scale, as well as the individual composite scores of its three sub-scales, were used to assess students' levels of self-leadership and its three dimensions in the current study.

### ***Statistical Design***

Based on the data normality, the statistics used in this study were both descriptive and inferential in nature. The Shapiro-Wilk test yielded a p-value of .465 indicating that the data had a normal distribution. Based on this, descriptive statistics such as frequency, percentiles, and mean were used for descriptive analysis, while differential analysis was done with an independent sample t-test and Pearson's correlation using

IBM SPSS 22 software. The percentile analysis was used to assess the students' level of self-leadership skills, while the mean and Mdn-value were used to calculate their score distribution in various dimensions of self-leadership. The mean was also used to compare differences in student self-leadership across streams. A statistically significant difference in self-leadership and its dimension between M.A. and M.Ed. students was also discovered using an independent sample t-test.

### Results and Analysis

The investigator has completed data analysis and interpretation in this section, which includes the following statistics and diagrams:

#### Student Demographic Characteristics Analysis

Table 1 showed that 87 students took part in the study, with 46 from M.A. and 41 from M.Ed. In terms of age, educational qualifications, and training exposures, there were differences between these two groups of students. In contrast to M.A. students, who were 22 years old on average, with a maximum of 25 years and a minimum of 20, M.Ed. students were 28 years old on average, with a maximum of 48 years and a minimum of 20 years. Only a few students (N=2, 4.35 percent) had graduation+B.Ed degrees, while the majority of M.A. students (N=46, 100 percent) had graduation degrees. On the other hand, all M.Ed. students received a diploma, and the majority of them had a masters+B.Ed. (N=27, 65.85%) followed by a graduation+B.Ed. (N=14, 34.15%). As a result, M.Ed. students were found to have higher educational attainments and training-based experience than M.A. students. Furthermore, M.Ed. students were older on average than M.A. students.

**Table 1: Descriptive of Students' Demographic Characteristics**

Students	N	Mean Age	Age Range	Qualifications (N)		
				Graduation	Graduation +B.Ed.	Masters +B.Ed.
M.A.	46	22	25-20	46	2	-
M.Ed.	41	28	48- 20	41	14	27

#### Self-Leadership of Students - A Descriptive Analysis

Percentile statistics have been computed and presented in table 2 to understand students' scores on the self-leadership scale. It was found that fifty percent of the

students scored less than 126.00 weighted average values on self-leadership. The dimension-wise analysis of percentile showed that fifty percent of the students scored less than 64.00, 19.00, and 43.00 weighted average values in behaviour-focused strategies, natural reward strategies, and constructive thought strategies respectively.

**Table 2: Percentile Norms for Self-Leadership Scores**

Percentiles	P <sub>5</sub>	P <sub>10</sub>	P <sub>25</sub>	P <sub>50</sub>	P <sub>75</sub>	P <sub>90</sub>	P <sub>95</sub>
Self-Leadership	93.20	100.40	114.00	126.00	137.00	143.20	148.60
Behavior-focused strategies	44.00	50.00	58.00	64.00	69.00	74.00	77.20
Natural reward strategies	14.40	15.00	17.00	19.00	22.00	23.00	24.00
Constructive thought strategies	30.40	31.80	37.00	43.00	47.00	50.00	53.00

In the present study, the mid-point was considered to determine the level of students' self-leadership skills. The scale's maximum and minimum scores were 35 and 175 respectively, while the scale's midpoint score was 87.5. The students' mean score was 123.80 (SD=16.67) in table 3, which was higher than the scale mid-value of 87.5. (fig.1). As a result, the researcher disproved the hypothesis and found that first-year university students have a high level of self-leadership.

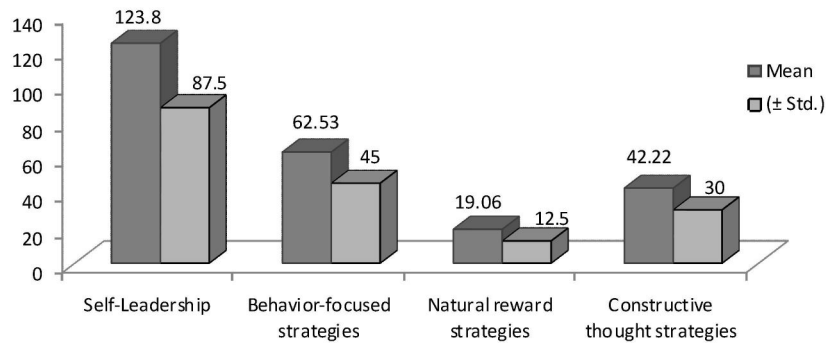
In addition, the dimension-wise analysis revealed mean scores of 62.53 (SD=9.30), 19.06 (SD=2.97), and 42.22 (SD=6.60) in behaviour-focused strategies, natural reward strategies, and constructive thought strategies, respectively, that were higher than their respective mid-values of 45, 12.5, and 30. (fig.1). As a result, the researcher dismissed the hypothesis and concluded that students had high levels of self-leadership in behaviour-focused strategies, natural reward strategies, and constructive thought strategies.

Further, in order to comprehend the relative mean scores of students' self-leadership in its dimensions, table 3 found that students' mean score of self-leadership in natural reward strategies was 3.82, which was comparatively higher, followed by 3.52 in constructive thought strategies and 3.47 in behaviour-focused strategies.

It meant that students were more likely to use natural reward strategies, such as objective participation in study-related activities, self-interested tasks, and intrinsic motivation, which were accompanied by constructive thought strategies, such as visualising effective performance, self-talk, and assessing beliefs and assumptions strategies. Furthermore, it meant that students were less likely to use behaviour-focused techniques such as self-goal setting, self-reward, self-punishment, self-observation, and self-cueing.

**Table 3: Sample Descriptive of Students’ Self-Leadership**

Variable and Dimensions	N	Mean	Std.	Scale mean	Mid-Value (± Std.)
Self-Leadership	87	123.80	16.67	3.54	87.5
Behavior-focused strategies	87	62.53	9.30	3.47	45
Natural reward strategies	87	19.06	2.97	3.82	12.5
Constructive thought strategies	87	42.22	6.60	3.52	30



**Figure 1: Mean and Mdn-Value of Students’ Self-Leadership and its Dimensions. Differential Analysis for Students’ Self-Leaderships**

The descriptive analysis table 4 showed that the mean score of M.A. students was 120.30 while the mean score of M.Ed. students was 127.73. It was statistically evident that in comparison to M.A students, M.Ed. students had a higher level of self-leadership skills including behaviour-focused, natural reward, and constructive thought strategies collectively (Fig.2). By implication, it is Inferring that M.Ed. students had a higher level of self-leadership skills in directing their own cognitive, affective, and behavioural resources to achieve their set-goals than M.A. students, this meant that M.Ed. students had a higher level of self-leadership skills in directing their own cognitive, affective, and behavioural resources to achieve their set-goals.

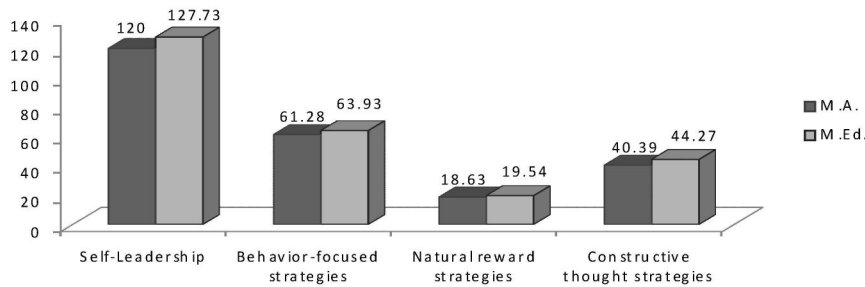
Furthermore, the dimension-wise analysis, Table 4 showed that the mean score of M.A. students was 61.28 while the mean score of M.Ed. students was 63.93 in behaviour-focused strategies. It was found that though not statistically, but M.Ed. students had a higher level of self-leadership skills in behaviour-focused strategies as compared to M.A. students (Fig.2). By implication, it connoted that M.Ed. students had more leadership skills than M.A. students in terms of setting academic goals, engaging in goal-relevant activities, and using self-reward and self-punishment strategies to sustain a coherent study-relevant behaviour for the achievement of the set goal.

Similarly, Table 4 showed that in natural reward strategies, the mean score of M.A. students was 18.63, while the mean score of M.Ed. students was 19.54. It was evident, although not statistically significant, M.Ed. students had a higher level of self-leadership ability in natural reward strategies than M.A. students (Fig.2). It implied that, in contrast to M.A. students, M.Ed. students possessed higher leadership skills in engaging themselves with study-related activities in which they have interests and enjoy doing them through intrinsic motivation.

Table 4 shows that the mean score in constructive thought strategies for M.A. students was 40.39, while the mean score for M.Ed. students was 44.27. It was statistically evident that M.Ed. students had a higher level of self-leadership ability in constructive thought strategies than M.A. students (Fig.2). By implication, it was evident that M.Ed. students had better leadership skills than M.A. students in terms of visualising successful performance, effective self-engaged talks, and assessing self-beliefs and assumptions for effective performance toward goal achievement.

**Table 4: Sample Descriptive of Students’ Self-Leadership Using t-Test**

Variable and Dimensions	Students	N	Mean	S.D.	SE <sub>M</sub>	df	t-value	Sig.
Self-Leadership	M.A.	46	120.30	16.38	2.41	85	-2.117	.037
	M.Ed.	41	127.73	16.30	2.55			
Behavior-focused strategies	M.A.	46	61.28	8.95	1.32	85	-1.330	.187
	M.Ed.	41	63.93	9.59	1.50			
Natural reward strategies	M.A.	46	18.63	2.95	.44	85	-1.431	.156
	M.Ed.	41	19.54	2.94	.46			
Constructive thought strategies	M.A.	46	40.39	6.78	1.00	85	-2.846	.006
	M.Ed.	41	44.27	5.81	.91			



**Fig. - 2: Mean Scores of M.A. and M.Ed. Students in Self-Leadership and its Dimensions**



**Correlation Analysis of Students’ Self-Leadership**

The analysis Table 5 showed the coefficient of correlation among students’ self-leadership skills and its three components. The coefficient of correlation between behaviour-focused strategies and self-leadership was found to be .929, indicating a strong relationship. Similarly, a high correlation was found between natural reward strategies and self-leadership, with an r-value of .754. Furthermore, at the 0.01 level, an r-value of .878 was discovered, indicating a strong correlation between constructive thought strategies and self-leadership (2-tailed).

Much like the above, an r-value of .669 between behaviour-focused strategies and constructive thinking strategies was found in the inter-dimensions coefficient of correlation matrix, indicating a mild correlation. A mild correlation was also observed between behaviour-focused strategies and natural reward strategies, with an r-value of .597. Similarly, a mild correlation was found between natural reward strategies and constructive thought strategies, with an r-value of .615 recorded. As a result, the hypothesis was refuted, and it was concluded that self-leadership and its three dimensions have high to moderate positive correlations.

**Table 5: Inter-Dimension Correlations for Students’ Self-leadership Skills**

Correlation		1	2	3	Self-leadership
<sup>1</sup> Behavior-focused strategies	Pearson Correlation		.597**	.669**	.929**
	Sig. (2-tailed)		.000	.000	.000
	N	87	87	87	87
<sup>2</sup> Natural reward strategies	Pearson Correlation			.615**	.754**
	Sig. (2-tailed)			.000	.000
	N			87	87
<sup>3</sup> Constructive thought strategies	Pearson Correlation				.878**
	Sig. (2-tailed)				.000
	N				87

\*\* . Correlation is significant at the 0.01 level (2-tailed).

**Findings and Discussions**

The current study discovered that first-year university students have a high level of self-leadership. Students’ self-leadership in behaviour-focused, natural reward, and constructive thought strategies was found to be high in the dimension-wise analysis. The results of this study are supported by previous research, such as a study conducted by Tuovinen (2010), which found that students with a reasonably high level of self-leadership would effectively use self-leadership strategies. Similarly, Ay et al. (2015) discovered that student self-leadership is high.

Besides, the current study's results showed that students were more likely to use natural reward strategies, which were accompanied by constructive thinking and behaviour-focused strategies. Visualizing successful performance, self-goal setting, and self-observation are more likely to be appropriate strategies among students than self-punishment, self-talk, self-cueing, and assessing beliefs and assumptions, according to a study conducted by Kyguoliene and Ganusauskaite (2017).

A statistically significant difference in self-leadership was discovered between first-year M.A. and M.Ed. students in this study. When compared to their M.A. counterparts, M.Ed. students were found to be more effective in self-leadership. Also, a statistically significant difference in constructive thinking strategies was discovered between M.A. and M.Ed. students ( $p < 0.05$ ; small Cohen's  $d$ ) in the dimension-wise analysis. However, there was no statistically significant difference between these two groups of students in behaviour-focused and natural reward strategies ( $p > 0.05$ ). As a result, while there were differences in mean scores for different dimensions of students' self-leadership, the only substantial difference was found in constructive thinking strategies, where M.Ed. students outperformed their M.A. counterparts in self-leadership skills.

However, the investigator has not found any previous studies on self-leadership that are based on academic streams. As a result, an effort was made in this study to identify possible factors based on students' demographic characteristics that could explain the disparity in their levels of self-leadership skills. When comparing, it was discovered that M.Ed. students had higher educational attainments and had more training-experience from the B.Ed. programme. Also, M.Ed. students were found to have a higher mean age than M.A. students. When comparing M.A. and M.Ed. students, it is clear that M.Ed. students had the potential benefits of having a higher level of educational attainments, training exposures, and age-based life experience, resulting in higher levels of self-leadership than M.A. students. As a result, the current research has proved chronological age, educational achievement, and training-based experience as key factors that may influence students' self-leadership abilities in higher education institutions.

Finally, the current study found a moderate level of positive correlation between the dimensions of self-leadership among students. It also discovered a strong positive relationship between self-leadership and each of the three dimensions. This finding is in line with previous research, which found that the components of self-leadership have a strong positive correlation (Anderson & Prussia, 1997; Malmir & Azizzadeh, 2013).

### **Delimitations and Suggestions**

The current research focused on first-year university students at North-Eastern Hill University, especially M.A. and M.Ed. students in the Department of Education. The study focused on students' self-leadership and found that they possessed higher levels of self-leadership abilities. As a result, a study may be conducted to investigate the factors that influence students' self-leadership in higher education institutions both positively and negatively. A further investigation into the statistical relationships between students' self-leadership and their chronological age, educational attainments, and training-based experience could be undertaken. Only 87 people were chosen for the study, which used a non-random sampling method. As a result, the same study may be conducted with a larger sample size to increase the external validity of the findings.

### **Conclusion**

The current research provided a descriptive and exploratory backdrop for students' self-leadership abilities in higher education institutions. Through the successful use of behaviour-focused, natural reward, and constructive thinking strategies at university levels, it opened up a new window to understand students' evolving state of self-knowing, goal-directed behaviour, self-management, self-motivation, and self-regulation skills. Students had a higher level of self-leadership, and they were more likely to use natural reward strategies, which were accompanied by constructive thinking and behaviour-focused strategies, according to the study. Therefore, the implication goes to the academic stakeholders especially university teachers and administrators. They must give emphasis on training of self-leadership skills amongst university students in their academic, social, and personal lives. Teachers should encourage students to engage in monitoring, situation urgency, and civic-related activities on campus to help them develop self-leadership skills. Experiential learning, participatory activities, debates, and conversations should also be made available to students.

In the same way, each of the three dimensions of students' self-leadership was found to have a strong positive correlation in the current study. There were mild correlations between behaviour-focused, natural rewards, and constructive thinking strategies, according to the study. As a result, the study highlighted the interactional impact of self-leadership and its dimensions on cognitive, affective, and behavioural aspects of students. Further, the findings encouraged stakeholders to acknowledge the academic stream as a significant influence on students' self-leadership. Students' chronological age, educational attainments, and training-based experience have all been identified as potential factors. As a result, it is critical to address these factors in

terms of both understanding the influencing factors and developing intervention training programmes that may will directly enhance students' self-leadership abilities. Furthermore, the results of this study may be helpful in grounding self-leadership research and initiating new research on student self-leadership at the university level.

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## **Youth Participation and Empowerment: A Tool for National Development**

• Deepak Goswami<sup>1</sup>

• V. Mohankumar<sup>2</sup>

### **Abstract**

Youth are an important human resource for development of a nation and agents of social change, economic development and technological innovation. No nation can translate its vision and progressive dreams into reality without the potential and vigour of the youth. They represent the culture and hope for the future because of their unbounded energy and enthusiasm. Youth constitute an important asset of any society and the investment made for their development is an investment for the future. They are the leaders of tomorrow. Youth is the period everyone wants to maintain and desire to project the same when they grow old. Hence, this article examines and highlights the different facets of youth development and the need to empower them for the better future of nation. It identified a few areas which are important for youth empowerment which includes literacy, education, skilling, employment and governance.

**Keywords:** *Youth population, ageing population, human resource, human capital, quality of life, wealth of nation, sustainable development.*

### **Introduction**

Human resource is considered as an important asset for the progress of a country and for economic development. In case the human resource is not educated to get useful engagement or not having the expertise to offer, or a substantial number is illiterate, or has very little vocational skill in their hands, then such a resource is useless for the country. This, as among the factors, often contributes to poverty, and is responsible for unemployment and underemployment. In human resource, youth

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<sup>1</sup>**Research Scholar**, Department of Adult, Continuing Education and Extension, University of Delhi.

✉ [deepak.goswami8118@gmail.com](mailto:deepak.goswami8118@gmail.com)

<sup>2</sup>**Coordinator**, JSS Mahavidyapeetha, JSS Academy of Technical Education, NOIDA, UP-201301.

✉ [vmohank74@gmail.com](mailto:vmohank74@gmail.com)

population is a separate segment which is considered the backbone of the country, as the future of the nation depends more on them, apart from their being in the productive and reproductive age group.

The word youth has a biological as well as a sociological implication. In general, the term youth is classified separately on the basis of age, which is a biological factor that contributes to social differentiation. It also distributes privileges and responsibilities, rights and duties in terms of their separate status. In almost all societies, five age groups are recognised distinctively and they are - *infancy, childhood, adolescence, adulthood* and *old age*. Youth refers to the period between childhood and full manhood or womanhood. Since the Second World War, there is a growing emphasis in many countries on youth as a special category and young people between the ages of 12 and 20 have acquired a distinctive social identity.

Sociologically, the term youth has specific characteristics that include psychological and biological state of any personality. There cannot be any firm plinth to lay down the world's lineage in an endeavour to define Youth. Youth is a subjective and relative term. Kerchoff and Jackson (1982) have given a wider range to the age of Youth. In their study, persons of the age group of 15-33 years were considered as youth. (Naidu, 1983) studied Youth of 15-29 years of age groups viewing them as a distinct social category, which has promise and potentially for future. Nehru Yuva Kendra Sangathan<sup>3</sup> was established in 1972 and in 1987 became an autonomous organisation of Govt. of India catering to the needs of non-student rural youth in the age group of 15-35. In our society, adulthood is considered to be attained when a person can support himself or herself entirely independent of the parental family. Full adulthood also implies the ability to form a family of one's own. Adolescence is the stage during which young is ordinarily more and more emancipated from parental control. The crisis of the period is precisely the strain produced by much greater demands for independence. At the same time, the adolescent is still controlled to some extent by his/her parents in many activities in which he/she might like greater freedom. This is especially true, perhaps, of sexual activity. The most important sociological issues concerning youth cultures are their relationship with their parents.

According to the United Nations (UN), the term youth refers to people who are aged between 15-24 years. In the third world countries, about 20% of the population belongs to this age group. In India, the National Youth Policy 2001 covered all the youth in the age group of 13-35 years while in the National Youth Policy 2014 (Ministry of Youth Affairs & Sports, 2014), the age group of youth was revised to

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<sup>3</sup><https://nyks.nic.in/aboutus/About-nyks.html>

15-29 years. As per Census 2011, the youth population in this age group was 333 million (27.53%) of the total population of 1210 million. Hence, India is considered to be a youthful nation while Japan, a well-developed country is an aging nation as it is experiencing a “super-aging” society both in rural and urban areas, as according to 2014 estimates, 33% of the Japanese population was above the age of 60 years. However, the population of India of 60 years and above (called senior citizens) was 8.95%. So, for the future of the country, the youth population of India needs to be empowered so that the nation is in the safe hands of the next upcoming generation.

**Table-1: Youth Population in Age Group 15-29 Years**

Age group	Male (In millions)	Female (In millions)	Total (In millions)
15 – 19	63.9	56.5	120.4
20 – 24	57.5	53.8	111.3
25 – 29	51.3	50.0	101.3
Grand Total	172.7	160.3	333.0

Source: Census 2011

### Why do youth need to be empowered?

Each and every action of the world today, directly or indirectly, is ultimately stimulated or guided by the ‘progress phenomenon’. Equipped with their strength and weaknesses, this phenomenon has around 193 players (nations) excluding those few which are yet to be recognised by the United Nations. 193 players represent the sovereign states and have equal representation in the UN General Assembly New York Times columnist Thomas L. Friedman (2005) in his famous book ‘The World is Flat’ claims that in the global economic and political arena ‘the playing field is levelled now’ but for all practical purposes, we know that even among these 193 players there exist different categories.

Some constitute the wealthiest and highly advanced/developed world, some others are the part of underdeveloped world and the rest are struggling even to cater to the minimal human needs of their respective countrymen. In this world where there exists huge imbalances regarding the share of the accumulated world resource, India is fortunate enough to have certain strategic advances over other countries. One of those rare advances include the presence of a higher population of youth which is expected to continue till 2050. It is to be mentioned here that some of the well-developed countries in the world face the worst problem of an ageing society.

The UN Report on World Population Ageing 2015 presents information for all



the world countries of the percentage of population aged 60 years not only for the year 2015 but also the projection for 2030 and 2050, as below.

**Table-2: Percentage of world population aged 60 years and over**

<b>World</b>	<b>2015</b>	<b>2030</b>	<b>2050</b>
More developed regions	23.9	29.2	32.8
Less developed regions			
(a) Least developed countries	5.5	6.7	9.8
(b) Other less developed countries	10.7	15.9	22.7
(c) Less developed regions, excluding China	8.2	11.4	16.5
Sub-Saharan Africa	4.8	5.3	7.6

Source: United Nations (2015), World Population Ageing 2015.

The proportion of elderly in the more developed regions of the world in 2015 was 23.9% which is expected to increase to 29.2% in 2030 and 32.8% in 2050. The poverty stricken Sub-Saharan Africa (54 countries) was having the lowest elderly population, with 4.8% in 2015, which is expected to go up to 5.3% in 2030 and 7.6% in 2050<sup>4</sup>.

**Table-3: Percentage of population in different areas of world aged 60 years and over**

<b>Area</b>	<b>2015</b>	<b>2030</b>	<b>2050</b>
Africa	5.4	6.3	8.9
Latin America & the Caribbean	11.2	16.8	25.5
Asia	11.6	17.2	24.6
Oceania	16.5	20.2	23.3
Northern America	20.8	26.4	28.3
Europe	23.9	29.6	34.2

Source: United Nations (2015), World Population Ageing 2015.

Table-3 indicates that Europe was having the highest percentage of elderly people with 23.9% in 2015 which is expected to increase to 34.2% by 2050. Again, the lowest was Africa which was 5.4% in 2015 and expected to move forward to 6.3% in 2030 and 8.9% in 2050.

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<sup>4</sup><https://blogs.worldbank.org/opendata/number-poor-people-continues-rise-sub-saharan-africa-despite-slow-decline-poverty-rate>.

**Table-4: Percentage of population aged 60 years and over in countries**

Countries	2015	2030	2050
<b>Africa</b>			
Western Africa	4.5	4.9	6.6
Middle Africa	4.5	4.9	6.6
Eastern Africa	4.8	5.3	8.2
Southern Africa	7.5	9.9	14.7
Northern Africa	8.0	10.9	16.7
<b>Asia</b>			
Central Asia	7.9	11.9	17.7
<b>(India)</b>	<b>8.9</b>	<b>12.5</b>	<b>19.4</b>
Western Asia	7.9	11.6	18.3
South Eastern Asia	9.3	14.7	21.1
Eastern Asia	16.7	26.4	36.9
<b>Europe</b>			
Eastern Europe	21.5	25.7	31.9
Northern Europe	23.4	28.0	30.7
Western Europe	26.0	32.7	35.2
Southern Europe	26.2	33.9	40.0
<b>Latin America &amp; Caribbean</b>			
Central America	9.3	14.2	23.2
South America	11.7	17.7	26.7
Caribbean	13.3	19.2	25.4
Northern America	20.8	26.4	28.3
<b>Oceania</b>			
Melanesia	5.8	7.7	11.1
Micronesia	9.7	15.6	19.3
Polynesia	9.8	15.6	20.4
Australia/ New Zealand	20.4	25.0	28.5

Source: United Nations (2015), *World Population Prospects: the 2015 Revision*

From Table-4 above, one can find that among the African countries, Northern Africa (Algeria, Egypt, Libya, Morocco, Sudan, Tunisia and Western Sahara) have the highest number of elderly populations. It was 8% in 2015 and may go up in 2030 to 10.9% and 16.7% in 2050.

In Asian countries, Eastern Asia (China including Special Administrative Regions of Hong Kong/Macao/Taiwan Province of China, Democratic People's Republic of Korea which is also called a North Korea with capital at Pyongyang, Japan, Mongolia, the Republic of Korea which is also as South Korea with capital at Seoul) has the highest number of elderly population. It was 16.7% in 2015 and may go up in 2030 to 26.4% and 36.9% in 2050.

In European countries, Southern Europe (Albania, Bosnia & Herzegovina, Croatia, Greece, Italy, Malta, Montenegro, Portugal, Serbia, Slovenia, Spain, TFYR Macedonia - Former Yugoslav Republic) has the highest number of elderly populations. It was 26.2% in 2015 and may go up in 2030 to 33.9% and 40.0% in 2050.

Countries in Northern America (Canada, United States of America) have the highest number of elderly populations. It was 20.8% in 2015 and may go up in 2030 to 26.4% and 28.3% in 2050.

In Oceania, Australia and New Zealand, the proportion of elderly populations in 2015 was 20.4% and expected to reach 25.0% in 2030 and 28.5% in 2050.

### **Advantage of youth over others**

Everyone in this world would like to maintain youthfulness as it is the best period in one's life. This is precisely the reason that even people getting old always try to conceal age-related changes in the body and project before others that they are still young. Every individual wants a prolonged share of youthfulness because this is the period full of abilities, energy and spark which gives a person to imagine, acquire vision and also can translate the same into action. There is a famous proverb 'Vir Bhogya Vasundhara', which means 'Only the able can enjoy'.

Youth is a major human resource for development and key agent of social change, economic development and technological innovation. No society can hope of translating its dreams and visions into reality without utilising properly the potential and vigour of youth.

Youth is also the backbone of any culture upon which the future of a nation depends. Youth are reservoirs of unbounded energy and enthusiasm. History shows that they have always been in the forefront in building political, social and economic orders of a society. They play a positive role in the cause of a nation and its national integration. For this, their energy, skills and talents have to be properly harnessed, channelised and put to use for the common good of the country. Youth constitute an important asset of the society and any investment in their development is the investment for future. Hence, today's youth are tomorrow's leaders and pace setters. However, there is much to be accomplished in this direction and they have to be empowered so that they play their role well.

Youth can be empowered in many ways but some of the important areas they need empowerment are literacy, education, skill training, employment and governance.

### **Literacy**

Literacy is the fountain of human capital for a better quality of life. It is the wealth of nation in respect to economic, political and social transformation. Literacy

and grassroots democratic participation mutually reinforce each other. Together, they enable people and communities to influence factors that affect their lives. Lack of universal literacy has been a major factor in restricting the total development in India since independence. Functional literacy is most effective when it becomes an instrument to liberate people from restrictive beliefs, and creating among them an awareness of their potential. Empowerment is a very popular concept in the contemporary development discourse. In relation to literacy, it has two dimensions - psychological and political. Psychological is connected with individuals and groups gaining mastery and control over their own lives and political refers to the democratic participation in the life of the community. The linkage between literacy and empowerment has three stages, viz., (i) positive idea of the self, (ii) development of more critical understanding of a political or social environment, (iii) and the move toward collective endeavor for social and political action. It is believed that a literate man can transform his own realities. Thus, literacy has transformative dimensions.

Though literacy rate is increasing in every Census, but still, India is not able to reach the stage of a country of a reading society due to regional, religions and caste variations. Poverty also plays a major role in India for increase in the number of illiterates. As per 1951 Census, the literacy rate of India was 18.33% with male literacy being 27.16% and female literacy as low as 8.86%. This increased to 73% overall with 80.90% male literacy and 64.60% female literacy in Census 2011. However, the absolute number of illiterates also increased along with the increase in population and as per Census 2011<sup>5</sup>, it stood at 282.70 million which is more than the total population of some of the countries of the world.

It is not that India did not plan and implement any adult education programme. In fact, adult education was included in all the Five-Year Plans, though in different names, but unfortunately, none of the programmes had any assured post-literacy for guided learning and continuing education for independent learning. Every new programme for adult education started with basic literacy in which most of the time the learners who have already acquired basic literacy in earlier programmes have become learners again as they have forgotten the literacy skills acquired and relapsed into illiteracy. Hence, this problem needs to be addressed afresh and every single individual in India should get not only basic literacy but also an assured continuing education in a well-planned institutional set-up so that they become self-learners. SDG 4 also wants the UN member countries to '*ensure that youth and a substantial proportion of adults, both men and women achieve literacy and numeracy by 2030*'.

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<sup>5</sup><https://censusindia.gov.in/census.website>

## **Education**

Education is an important tool for development. It is a process of acquisition of knowledge as well as its effective execution. Therefore, it should not limit to merely literacy but also include awareness and functionality. India had the distinction of having the best educational centres, which attracted a number of scholars from all over the world. The centres of learning/higher learning, which were famous then have now become a part of history. What is called the scientific advancement today was already there in use in our country. Unfortunately, many were not explained properly or kept as a closed secret, and not even revealed to the family members. Hence, they did not come under the framework of science. Strict social structure prevailed in those days, and provided an opportunity for education only to a privileged few, as a result of which a large section of the society could not get education. This situation was aggravated when the population increased enormously.

The progress made by India in the recent past shows that India is slowly moving from the position of 'developing country' to 'developed country' but, as a nation with 282.70 million illiterates, it is still struggling to increase the pace of moving forward. Hence, education needs to be given much more importance as it encompasses everything which influences human personality and the driving force for social development which brings improvement in every aspect of the society. In the last many years, the educational status of India changed a lot with primary schools in almost every village, secondary and senior secondary schools even in small towns, colleges in towns, cities and mega cities and universities in many mega cities, cities and big towns. Every stream of education is in mission mode today. The Right to Education Act 2009<sup>6</sup> reinforces free and compulsory education for children in the age of 6 to 14 years. Rashtriya Madhyamik Shiksha Abhiyan (RMSA)<sup>7</sup> started in 2009-10 has further strengthened Secondary Education, and Rashtriya Uchchattar Shiksha Abhiyan (RUSA)<sup>8</sup> was initiated in 2013 with the aim of providing strategic funding to Higher Educational Institutions. But, even with all these efforts, we could not prevent school dropouts and ensure quality and content in education. This is because most of our education centres emphasise more on acquisition of knowledge (theory) and very less on its execution (practical).

The Indian system of education in olden days was basically for knowledge building but today education is pursued as a matter of routine with no goal setting. Most of the youth do not even know what they want to do after getting educated. Both boys

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<sup>6</sup><https://dse.education.gov.in/rte>

<sup>7</sup><https://www.education.gov.in/en/rmsa>

<sup>8</sup><https://www.education.gov.in/en/rusa>

and girls in the early stage wish to complete secondary/senior secondary education and once it is over, they go to degree courses in colleges. After passing degree course even with minimum eligibility marks/grades, they go for PG admission and further to M.Phil. or PhD. Finally, they land in the big pool of unemployed as in today's world, degree matters less and skills matter more. Very rarely, people know that National Education Policy 1986 proposed delinking of degrees from employment which is happening in reality in the electronic sector where hands-on is much more important than the qualification. There was a time when government was the major employer, but now, it is not. Private enterprises, national and international companies give a lot of importance to skills, meaning performance/delivery which no one teaches in schools or colleges but need to be acquired by oneself. Hence, youth should be properly guided in this area so that they pursue such education which gives proper return afterwards.

### **Skill Development**

Developing skill in young people is the age-old tradition of India which was transferred from the family elders to the generation next. This ensured not only learning the skill in perfect form under the close watch of the elders but also increased employability at an early stage of life and kept the family profession intact. In foreign countries also, it is practiced and many times the names of individuals carry the name of vocation like – Blacksmith, Brickman, Carpenter, Goldsmith, etc. Unfortunately, in course of time, family tradition in India slowly disintegrated and new generation youngsters want to do what others do, i.e., clamouring for white collar jobs. While a large number of students come out of schools and colleges every year, only limited jobs are available to offer and hence, unemployment. This creates ill will, depression and anger. Why is the young generation not interested in learning vocational skills? Because of the mindset that such training programmes are for less educated people.

In this regard, Chetan Bhagat has penned a four column note in Times of India, dated August 5, 2019, under the heading “India’s Anti-Vocation Mindset” which everyone should read, especially young people. He says that the harsh reality is that the simple graduate will have to struggle to get a job, but an electrician would have to turn off his phone because too many people would be calling him for work. This is the reality. Fortunately, skill training is getting more priority today and the state and central governments have taken a number of steps which will enable the youth to acquire one or more skills leading to economic empowerment. The Skill India<sup>9</sup> Campaign launched on July 15, 2015, is to train 400 million people in India by 2022

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<sup>9</sup><https://www.msde.gov.in/>

under different schemes like PMKVY and Skill Loan Scheme, etc. It is important that balance is maintained between the traditional and new age skills right at the district level and also target a shift from the unorganised to the organised market through recognition of prior learning.

### **Employment**

The ultimate aim of education is to get knowledge and values of life which once used to be transmitted by the elders in the family in a non-formal way and teachers in the schools through formal education. In modern days, the students do get knowledge and values through their textbooks, but the ultimate aim of this gain is more linked to get employment. Unfortunately, today's education testifies the students for their memorising power and capacity to reproduce in the examination. The question here is, do all who are educated get employment? The answer is a big 'No'. When the answer is 'No', then one must know the reasons.

India is a country with large number of rural areas, and the Indian society is basically an agrarian one. Traditionally, majority of the population depend on agriculture-based occupations. Even after a great deal of industrial development, non-profitable agricultural occupation, dwindling of job opportunities in the field of agriculture, migration of rural people to cities and towns in search of better employment opportunities continue. The field of agriculture till date is the major employment provider to the rural population. Over the years, due to population increase and the need for a greater number of houses, fertile agriculture lands are converted into housing plots with the result, there is a considerable reduction in the occupational opportunities in the area of agriculture. Hence, people in rural areas started looking for greener pastures outside the rural areas.

The villages of India also had the tradition of division of labour in which families/ persons specialised in particular jobs which almost became traditional occupations of the generation next, such as washer man, barber, potter, cobbler, tailor, carpenter, agricultural labourers, etc. When children grew, they were involved in the family occupations which provided a lot of opportunities for guided training under the close watch of the elders. This also enabled the younger generation to get the best of the training and assured employment/self-employment. After attaining independence, the country started growing in almost all the fields including education. The end result was that many who are educated did not want to be in villages and do the traditional jobs, instead started moving to other places looking for white collar jobs. This almost made the original self-contained villages to depend on outside help even for small things.

In view of the vast expansion of government machinery to plan and implement programmes and activities, many departments were created which provided abundant employment opportunities for the educated people. As the government jobs not only provide regular monthly salary but also permanency, career promotion and post-retirement benefits, the educated youth preferred government jobs. This trend continued for long. However, when globalisation came in due to technical advancement made by telecommunication and computers, the trend started reversing and educated youth started looking for jobs in the private sectors (including multinational companies) as it offered huge sum as salary and other privileges.

The educated youth almost shun their preference for permanency of the jobs to immediate gain of getting hefty pay packets. However, the recruitment in the private sector is strictly based on merit and efficiency in which many could not get in. In the meantime, administrative reforms in government sector took place and the government introduced computers in large numbers in the administrative machinery which almost took over the workload of many individuals. Also, economists started advising the government to minimise the administrative expenditure to increase more allocation for projects and programmes. As the governments are interested in development economy, they started adopting downsizing of the administrative structure by keeping a large number of sanctioned posts vacant so that they are abolished subsequently. Hence, recruitment in the government sector started dwindling. The result was unemployment or underemployment. Now what is the way out for people who want employment for living? The sector left is self-employment for which mere educational qualification is not enough. What is needed is skill and entrepreneurship. Some have these things in an inbuilt way and for some others they need to be acquired.

Unemployment or underemployment is not the problem of individuals alone but of the government also. Unless able-bodied persons work and earn their livelihood, the country cannot progress well. That is precisely the reason government brought assured employment scheme for a certain number of days in a year through Mahatma Gandhi National Rural Employment Guarantee Programme (MNREGP) which benefit a lot both men and women in rural areas. Simultaneously, government also started providing support for skill development programmes so that the Indian population, particularly youth, are trained in chosen vocations which enable them to get employment or give way for self-employment. Most of the young people today look for employment opportunities rather than going for self-employment. The main reason for this attitude is the feeling of security once you are in paid employment and always self-employment is connected to risk taking and time consuming. It is not that everyone desires to go for self-employment has entrepreneurial skill inbuilt in them. It is only the wings of the fire which ignite the persons and many times skills are developed as an ongoing process. In this the desire to acquire stability gets primacy.



## **Governance**

Youths in all ages have been in the vanguard of progress and social change. Thirst for freedom, impatience for a quicker pace of progress and a passion for innovation, coupled with idealism and creative fervour saw the youth in the forefront of the freedom struggle. Today when everybody is talking against corruption and good governance to ensure increased pace of progress, the presence of effective youth elements certainly becomes essential. On one hand, participation of young people in decision making will give the best inputs for their empowerment and, on the other hand, presence of considerable proportion of youth population in governance will refresh and revitalise the entire structure of the government. Youth participation can create enormous effect at three different levels which will favourably change the entire scenario, and they are:

- At a personal level, the participation can increase young people's knowledge and practical skills that come from real life problem solving. It can also strengthen their social interest and nurture long term commitment to self-fulfilment. It enables young people to think critically and actively challenge the circumstance.
- At the organisational level, it enables the organisation to make informal decisions regarding the need of young people.
- Finally, at the cultural level, it can increase youth friendliness and result in structures, policies and procedures that are demand driven to address the needs and rights of the young people.

## **Youth involvement in Governance**

In a democracy, the Parliament plays the vital role as it is one of the three pillars of governance. The Indian Parliament has two chambers - the lower chamber, Lok Sabha for which members are elected directly by the people and the upper chamber, Rajya Sabha which is the Council of States in which members are elected indirectly apart from nominated members. Both the houses play an important role in governing the country. If we look into the statistics of Lok Sabha in table - 5 below only in the 2<sup>nd</sup> Lok Sabha 31.92% of the members were in 25-40 years. Thereafter, almost in all the elections this age group has not got adequate representation. While the youth are involved in election related mobilisation work right from pasting the posters to arranging the stage for meetings, they are not given priority to contest the election as a candidate. The lowest turnout was the 16<sup>th</sup> Lok Sabha with 8% which has increased in the present one (17<sup>th</sup>) to 12.35%. This trend needs to be reversed as it is not enough that the government lowering the voting right to youth from 21 years to 18 years but

ensure that they sit in the lower house of Parliament and be a part of the policy making process<sup>10</sup>.

**Table – 5: Members of Lok Sabha in 25-40 years age group**

Lok Sabha	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>	13 <sup>th</sup>	14 <sup>th</sup>	15 <sup>th</sup>	16 <sup>th</sup>	17 <sup>th</sup>
No. in 25-40 age group	112	151	98	105	90	88	114	96	72	82	65	68	78	60	63	47	55
Total No. of MPs in the House	434	473	464	474	488	501	510	524	508	497	505	524	540	543	543	543	545
Percent	25.8	31.92	21.18	22.15	18.44	17.25	22.35	18.32	14.17	16.49	12.87	12.97	14.44	11.04	11.06	8.0	12.35

Source: <https://prsindia.org/parliamenttrack/vital-stats/profile-of-the-newly-elected-17th-lok-sabha>

## Conclusion

Everyone talks about the importance of the youth population for the future of the nation but rarely the does the elderly population impose full confidence in them. Unless they are given the freedom to think and act and brought into the mainstream activities, they will not be having any opportunity to show their strength. A few opportunities provided or a few used the opportunity usefully cannot be taken as full involvement. The progress of the nation cannot be judged only by strengthening or developing infrastructure but by strengthening the society. Unless inclusive growth is ensured, the nation cannot grow fast and finally it will take more than the period required for reaching the desired goal. We all know that almost all political parties state in their election agenda that youth will be given priority but most of the time this is in only on paper. Hence, youth should be given their place, pride, involvement, encouragement and appreciation so that they can lead the nation when the opportunity comes to them.

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## **Pandemic and Old Age: Investigating the Issues and Challenges of Elderly People**

• Pankaj Das<sup>1</sup>

• Bhagwan Ji Gupta<sup>2</sup>

### **Abstract**

The outbreak of COVID-19 posed a severe threat to each and every section of society in one way or the other. The elderly population being the most vulnerable section of the society bore the brunt in a wide spectrum of their lives. Lack of digital literacy amongst elderly people resulted in challenges and trust issues while using different online platforms for various utilities such as banking, telemedicine, online medical consultation, etc. Sudden shrinking of socialisation impacted their psychosocial well-being during the pandemic. Availability of digital devices is not found to be sufficient but digital literacy will play a crucial role. Incidences of losing near and dear ones affected the elderly people with a severe level of mental trauma. They lived a life filled with a fear of getting infected themselves and family members. They are still in a phase of recovery from that mental trauma. It is reported that to meet the financial needs during pandemic, many of them had to break their fixed deposits or savings that depicts the financial crisis during the pandemic. Family support, NGOs, government policies and communities have a crucial role in helping elderly people to overcome all these challenges.

**Keywords:** *Old Age, pandemic, challenges, Digital Divide, Mental Trauma, Covid-19.*

### **Introduction**

Outbreak of the COVID-19 pandemic across the globe posed a severe threat to human beings and challenged every aspect of human life. There were many waves reported at different times in different countries with different levels of intensity. The health infrastructure of all the countries experienced an extreme level of pressure. In

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<sup>1</sup>**Assistant Professor**, School of Education, Sharda University, Greater Noida, Uttar Pradesh, India.  
✉ [daspankaj4@gmail.com](mailto:daspankaj4@gmail.com)

<sup>2</sup>**Education Scholar**, School of Education, Sharda University. ✉ [bhagwanji.gupta6@gmail.com](mailto:bhagwanji.gupta6@gmail.com)

addition to it, its impact was not limited to health services but all the sectors and every aspect of human life experienced its toll. Marathe & Shukla (2021) find that during the second wave, India almost crumbled under pressure in dealing with medical facilities, in terms of beds in hospitals, oxygen support, medicines, and availability of doctors and other resources.

During the pandemic, all sections of society were heavily impacted. Chaturvedi *et al.*, (2021) has clearly pointed out that the pandemic had taken a toll on the education, social life and mental health of children. Other research studies find the severe impact of COVID-19 and lockdown on the mental health of children as well as adolescents (Singh *et al.*, 2020; Cheung *et.al*, 2020). The whole education system had to change to adapt and meet the needs and demands of the current time. Use of technology helped the system to adapt to the new learning environment, but its sudden excessive use impacted the social and mental health of teachers as well as learners. Kalenkoski, Pabilonia, & Wulff (2020) in their reports have examined the impact of COVID-19 on adults and their jobs, business and employability along with the quality of life. The fact that cost cutting, salary deduction, etc., impacted the life of adult people was clearly evident.

Confinement and isolation due to the pandemic affected women's situation in more adverse ways. An increase in domestic violence cases was reported during this period. Their emotional health suffered severe negative impact. Power's (2020) study concludes that the pandemic has increased the care burden of women and families. Martins (2020) explains that the impact of COVID-19 further extended to the elderly people and the challenges they faced during pandemic.

COVID-19 almost entirely stopped social and physical contact because of which many activities shifted to the digital mode. Differential access of digital tools for the elderly people posed a tough challenge before them to adjust to a completely new situation. During this pandemic, many challenges such as digital divide, access to medical facility, mental trauma, and psycho-social problems arose before them. Banerjee (2020) explains that the impact of COVID-19 in various aspects of life in isolation and collectively took a very disastrous toll on the physical, mental, social and economic aspects of their life.

This study has assessed and investigated the challenges of the pandemic on the lives of elderly people in different dimensions, like digital divide, access to regular medical facility, mental trauma, psycho-social impact and personal issues. This study is important because old people are the most vulnerable and ignored section of society.

So, this study will identify the areas where challenges exist, suggest improvement strategy and recommend measures to overcome these challenges.

## **Review of Related Literature**

### ***Digital divide - differential access to old and young people***

The term *digital divide* is employed to explain the existing gap between different groups of individuals in accessing new technology. Such digital diversity can be in many respects such as gender-based (men and women), class (upper class, middle class), established area (rural and ethnic), literacy based (educated and uneducated category) and age (new generation and older generation). Technology has become a driving force in itself. As technology advances and becomes more ingrained in our daily lives, the pace of digital divide is becoming increasingly complex. The fact is that older generations are either unfamiliar or uncomfortable while using gadgets, apps and the use of internet while the younger generations have taken a leap with technology. This widening digital divide may lead to various social and economic issues. Many studies have shown that the lowest use of technology comes from the category of older adults, which is usually 65+ years, if we look at this issue with respect to age demographics (Martins, 2020; Smith, 2014; Pew Research Survey, 2017).

Lack of digital literacy poses another serious challenge among older people. As per an article in *The Indian Express* (2021, June 7) only 7% of the older population use smart phones in India. Another fact is that among this segment, the digital literacy rate is also low which further limits them in accessing various technological platforms for various purposes.

### ***Disruption of routine healthcare services of senior citizens due to the pandemic***

A research by Falvo *et. al.* (2021) talks about the lived experiences of older people during the pandemic. It recognizes the detrimental effect of labelling older people as the most at-risk age group. This caused their unintentional stigmatisation and isolation. Older adults, especially those living on their own had to face serious consequences as they were not allowed to carry out their daily health routines such as taking a jog at the park or purchasing their diabetes medicine in time.

According to the recent United Nations (2020) study report, during the peak months, when all hospital beds were occupied by the COVID affected, the elderly

were marginalised and faced challenges in obtaining treatments for their already existing health conditions. Moreover, they were not given an opportunity to give consent to medical treatment or put under pressure to withdraw treatment in advance by signing the do-not-resuscitate orders before being admitted. An article published by the *Hindustan Times* (2021) talks about the increasing gap between the COVID shadow and the treatment of general ailments of countless elderly individuals.

### ***Trauma of getting isolated after being infected with corona virus***

Jassim *et al.* (2021) expressed that seclusion and quarantine both include the partition of a person from their friends and family, typical exercises, and schedules with the end goal of contamination anticipation. The mental effect was exasperated by the destructive impact of restricted actual work and changes in diet. These progressions came about in sensational and durable mental effect. It was very clear that clinic confinement was more discouraging than home separation. Darira (2020) in her paper expressed how the confinement due to COVID has affected the patients and driven them to some injury. Many individuals subsequent to recuperating from COVID choked in 'after disconnection trauma, which dialled back their recuperation speed. The research paper demonstrated that the guardians experienced post-hospitalisation side effects, both intellectually and in general. COVID has affected all individuals' psychological wellness as nobody was ready for a particularly crushed circumstance. Banerjee and Rai (2020) expressed that the world has confronted worldwide general well-being emergencies both actually and just as intellectually.

### ***Psycho-social Impact on the Elderly Population during the Pandemic***

Cheung *et al.* (2020) in their study examined the impact of COVID-19 on the health and psychosocial status of vulnerable older adults. The aim of this study was to track the spread and the impact of COVID-19 on self-reported, self-rated health, other health and psychosocial indicators, and health services utilisation by people who have an inter-rail assessment during the first year of COVID-19. The results of the study show that older people were facing mental health issue about the Covid virus, much more than the children. Additionally, they faced hardships during the lockdown especially with their daily life.

### ***Economic Problems of Elderly People during Pandemic***

Subedi (2020), in her paper, pointed out that the impact of pandemic was more devastating on the elderly group than any other age group. Many older people working

on the frontline as health care professionals succumbed from contracting the virus. COVID-19 protocols like physical distancing, restrictions on movement and home-quarantine led to social isolation, specifically for this age group. Most of the elderlies faced financial problems due to lack of steady income and insufficient savings.

Joshi (2020), in his study indicated that the elderly population faced severe economic crisis during COVID-19. This study also reflects that most elderly people are forced to work in the labour market to reduce their financial crisis and to meet their daily needs.

### **Objectives of the Study**

1. To assess the challenges of growing digitalisation on the daily lives of elderly people during pandemic.
2. To investigate the challenges of accessing medical and regular check-ups of older people during pandemic.
3. To examine the mental trauma of older people during the pandemic.
4. To explore the psycho-social conditions of elderly people during pandemic.

### **Research Methodology**

The present research design is an exploratory survey research. The survey instrument of this research is based on the interview method. The method of data collection was structured in the form of interview technique. The questionnaire contains five major sections i.e., digital divide, regular medical check-up during pandemic, mental trauma during pandemic, psycho-social impact and economic status and livelihood. Since the study was basically targeted towards the older population, the target sample consisted of people of 60 years or more. The respondents were from different backgrounds like retired government employees, businessmen, and householders. There were total of 43 respondents from the areas of Delhi-NCR region with whom the interviews were conducted.

### **Results**

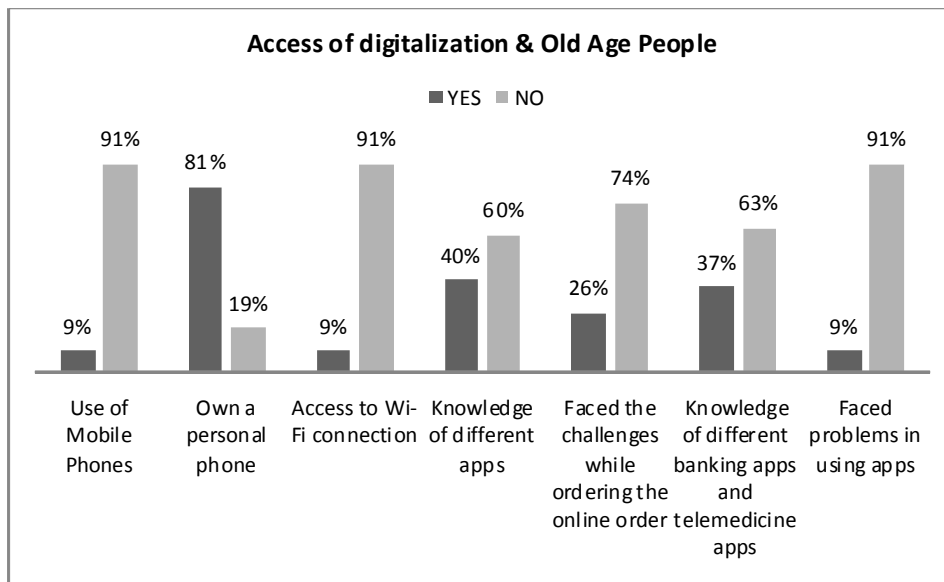
#### ***Digital Divide and Elderly People***

One of the major objectives of this study was to assess the challenges of growing digitalisation on the daily lives of elderly people during the COVID-19 pandemic. Although we all have seen that the pandemic has affected people of all ages in almost



every sphere of life, the impact on the daily lives of elderly people was huge, especially when it comes to using smart phones and digital platforms for availing different services online. The data of the study indicates, as evident from Graph-1 that majority of the respondents were having personal phones and they were using it as well. But despite using smart phones in large number, they have limited access to Wi-Fi connection. Similarly, a large chunk of around 60% of elderly people were not even aware of using any mobile apps during pandemic. So, it can be concluded that digital awareness among the elderly people is lacking and is a matter of concern.

**Graph-1: Access of digitalisation on daily lives of elderly people during pandemic**

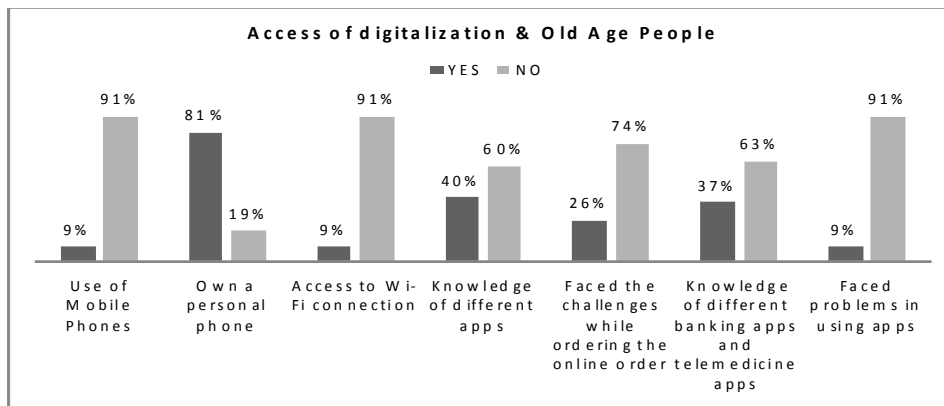


**Regular Medical Check-up during the Pandemic**

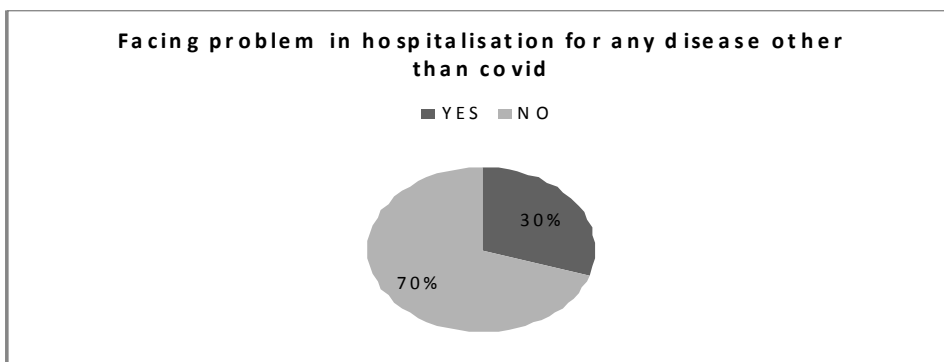
The pandemic period saw serious disruptions in regular and non-emergency medical services. Ignorance of access to prevention and treatment of chronic illness, cardiac illness and other diseases that need regular care has caused the morbidity and mortality rate to increase. Countless senior citizens who were in need of regular check-up and medicines had to face a number of disruptions and their health was under constant risk of deteriorating throughout the COVID period. From the Graph-2, it can be observed that few elderly people visited their doctors for regular health check-ups during the pandemic. They preferred to stay indoors at home during that time of crisis. However, those who visited the doctors regularly for their health

check-ups preferred to visit the same doctors instead of any other doctors. In fact, they had some kind of comfort and easy accessibility to meet and discuss their health issues with the same medical practitioner. A majority of our elderly respondents faced the problems of accessing the family/regular doctors during pandemic. The kind of problems they faced ranged from unavailability of transportation services to get the prior appointments, waiting in the long queue and many other miscellaneous issues. The most interesting facts that surfaced from the field data is that despite the physical restrictions during the pandemic, a very small number of respondents had consulted a doctor online. Many of elderly people had in fact consulted the doctors in person in assessing their regular medical health check-ups. And those (a very few in numbers) who had consulted the doctors even online faced problems in online consultation.

Graph-2



Graph-3

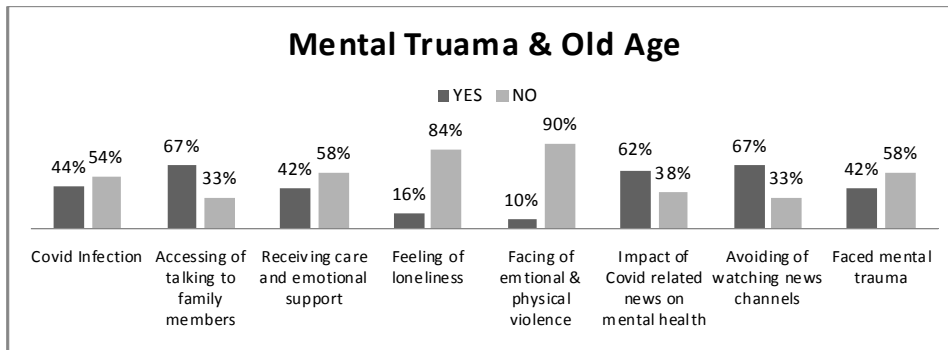


As evident in (Graph-3), 70% of elderly people did not face any kind of problem in getting access to hospital admission other than COVID disease. At the same time, it cannot be denied that 30% of our respondents, which is quite a sizable chunk of the elderly population faced problems with regard to hospitalisation for any disease other than COVID during the pandemic.

**Mental trauma during Pandemic**

Graph-4 illustrates that elderly people faced a lot of mental trauma during the pandemic. It had a great impact on their mental and physical health as well. 44% of the elderly people got infected by COVID. But majority of them got the chance to talk to their relatives and family members. Even during pandemic, it was reported from the respondents that majority of them were taken care of by the family members and received emotional support from their family members while the other 15% did not receive any support or care from family members. Similarly, only 15% of them suffered from loneliness during their COVID infections. Though the figures are less (10%), a few of our elderly respondents revealed that they had experienced the increase of emotional and physical violence by the near and dear ones during the time of pandemic. Further, it was observed that majority of respondents regularly watched news channels that created a sense of extreme fear and anxiety among them. This led to mental trauma among our respondents. Almost 42% of respondents faced such kind of mental trauma during the pandemic.

**Graph-4: Assessing Mental Trauma of Old Age during Pandemic**



**Psycho-social impact**

One of the objectives behind the survey was to explore the psycho-social impact

of pandemic on the elderly people (aged 60 and above). The results show that majority of elderly people did not feel like meeting people frequently during the pandemic as they feared contracting the virus. They followed COVID restrictions and did not indulge in any social gatherings. Due to this, majority of the elderly people felt emotionally anxious when they could not meet people in person. In our interviews one of the respondents replied, *“I was more worried about them if they were alright or not”*. Similarly, another respondent expressed, *“I felt like a bird in a cage”*. These views of respondents throw light on the situations of the psycho-social impact of pandemic on the elderly people. In rare instances, they used mobile phones to communicate with others but for a short duration. Sometimes, the impact of pandemic on the psyche of the elderly people created feelings of frustrations and anger. According to one respondent: *“Yes, because of being inside the house for a long time feels very frustrating”*. This also had a negative consequence on their sleep order. They woke up in the middle of the night and faced difficulty in falling asleep again. Further, it was found from the data that most of the elderly people admitted not being a member of any social community. They were left out. Their socialising with others had curtailed during the pandemic. However, some of them were a part of social groups and communities like RWA and club members of the society.

## Discussion

According to the 2011 Census, India has about 104 million people of above 60 years of age. When it comes to usage of online platforms by elderly people, the condition is not satisfactory, considering the digital era that is prevailing now-a-days. Most of the elderly people had to suffer even for trivial activities which could have been avoided easily had they been aware of the convenience of these online platforms. For example, they had to stand in long queues for medicines in hospitals or shops. One of the respondents said that he had to visit the bank consecutively for 2-3 days to get a single work done. Even while visiting banks offline, bank officials were not very friendly. During the pandemic, since banks were temporarily closed, work related to cheque books and cash withdrawals were delayed. The most remarkable scenario that came into the picture was that even though there were many ATMs available, they were more comfortable to withdraw their money by visiting banks in person. This indicates mainly two things—one, they do not know how to operate ATMs and second, they still do not trust such platforms.

We need to work on this issue very seriously if we want to convert our dream of digital inclusion into reality. Though the government is trying to empower at least one

person per household through its National Digital Literacy Mission (NDLM), it does not give any priority to senior citizens. In 2018, a survey conducted by an NGO named Agewell Foundation in Delhi-NCR, revealed that out of 5000 senior citizen respondents, 86% of them were digital illiterates. Therefore, it may be said that in this rapidly growing digitalisation era, the governance spaces and policies of the government have not been quite able to achieve the aspect of digital equality in the life of an older person. At this juncture, conducting many digital literacy workshops for senior citizens may improve such situations. Patience holds the key for the trainer to train elderly people as they may keep asking the same questions many times. Different NGOs and the younger generation need to come forward to help them to get acquainted with the fast-growing technology environment.

The pandemic not only impacted the health of the people around the globe, but its advent caused depression and fear to everyone including elderly people. Some of them having no technological access, suffered from loneliness and anxiety in isolation. Most of them avoided social gatherings, clubs and even meeting their loved ones. They were locked in their houses with many of them having no one to take care and fulfil their basic needs (Jassim *et.al.*, 2021). According to the survey conducted, most of them had stopped meeting people frequently during the pandemic and lack of digital access had shut down alternative ways of reaching out to the loved ones.

The pandemic had an even worse impact on their psyche. Majority of them accepted that they at one point or other, felt left out and completely cut off from the world. This caused emotional turmoil in most of them. As per this study, many of them felt frustrated and annoyed when they could not meet their loved ones.

The stress level was high during the pandemic among the elderly people. They felt frustrated and started getting angry without any genuine reason. The sleeping pattern of most of them was affected during the pandemic; they observed change in their sleeping pattern, with most of them spending more hours sleeping. Some of the elderly people felt alone during the pandemic with no one to take care of them. Others had their families and their children and grandchildren around.

After completing data collection, we came to know and understood that senior citizens faced many problems in medical check-up during this pandemic period. According to the data, most of the senior citizens are not able to visit the doctor for regular medical check-up; almost all the senior citizens were visiting the government hospital during this pandemic. Most of the people consulted the doctor in person because they did not believe in online consultation and these people do not even get

satisfaction in online consultation. But, there were some who did not have any problem in online consultation (Cheung *et al.*, 2020). Maximum number of people said that they had to face the problem of medical facilities and had a lot of problems in availing regular medical service as well. People lost a lot of their close ones or near and dear ones during this pandemic.

It was found in this study that 44% of the total respondents suffered from COVID. Most of them were able to talk to their near and dear ones when they were infected.

When asked whether they felt alone while they were infected with the virus, as was the case with the majority of them, they said that they did not feel alone because most of them lived in joint families. But, a few of them shared their feelings about being alone in the hospital and not getting the proper attention from the doctors. One of them said that as he did not know how to use mobile phones and other technologies, it became very difficult for him to communicate with his family and hence resulting in loneliness (Banerjee, 2020). Some of the respondents shared their experience on how watching the news related to COVID created a sense of fear and anxiety (Chaturvedi *et al.*, 2021). One of them said that it created extreme fear and they started wondering what would happen if they die, or lose their job. Most of them were worried about their grandchildren, work and thought that they would never get better. Some respondents believed that getting a minor cold and cough made them worried if they catch the virus, ultimately, they too will die as shown in the news channels. On being asked whether they suffered from any mental trauma during the pandemic, one of the respondents said she lost her husband due to COVID-19 and suffered from mental trauma.

The fear of losing anyone in life made her not do anything for a while and she was afraid to go to the hospital after this incident. One of the respondents said that she was very scared as her son was having symptoms and she could still feel that fear whenever she thinks about it. Some say that not being able to communicate with anyone and being alone made them suffer from anxiety.

### **Suggestions and Conclusion**

The challenges faced by older people during the pandemic affected a wide spectrum of their lives. It includes their inefficiency to use digital platforms that resulted in poor time management and posed difficulty in accessing different facilities. Lack of digital literacy resulted in lack of trust in using digital platforms and so, they

tried to access every facility in offline mode that gave them some unpleasant experiences from workers and officials of different organisations they visited. Availability of mobile phones and computers inside the house is different from the ability to use it efficiently. Younger members of the family, NGOs and government initiatives need to work upon the digital literacy of the elderly people actively but patiently as they may require training more than just one time.

Psycho-social well-being of the elderly was severely affected during the pandemic. Like other studies (Banerjee, 2020; Bhatt, 2020; Martins, 2020), this study also reported that most of the people had access to communication modes but not being able to meet people in face-to-face often frustrated them. On the other hand, it was found that many people got the opportunity to spend more time together and felt happy while spending time together during pandemic. People's jobs were affected in cost cutting measure by companies such as deduction in salary and layoffs. People who were financially stable, could enjoy spending time altogether but those who lost their jobs and deduction in salary and income faced difficulties in managing their expenditures. In the case of the elderly who received pension, it was found that they did not find much difficulty in availing pensions as they were in government jobs. Some senior citizens had to break their FDs to meet the daily expenditures that depict the difficulty in earning required amount of money during pandemic.

The elderly people faced trust issues in online medical consultation and tried to meet the doctors in person. In this, they found it very difficult to meet the doctors in person as hospitals were flooded with COVID patients and they could not access the doctor's consultation in person for regular medical check-up. Many elderly people lost their loved ones and these losses affected them for a very long time. They lived in fear and trauma of getting infected again and also the fear of losing near and dear ones. Family members of many infected persons helped them in dealing with the trauma of loneliness. They served food wearing PPE kits and talking over phones but, at the same time, many old people faced a span of extreme loneliness. Therefore, to overcome these types of stress and anxieties arising out of the pandemic, it can be suggested that the elderly people must be involved in group-based activities like cooking, sharing sweet memories with family, enjoying songs, movies and similar uplifting activities. Further, it is also noticed that older people suffer in a major way by psycho-social trauma. Not meeting people and friends, not being allowed to visit any tourist places, only living in their homes impacted their minds a lot. They can be introduced to apps where they can watch movies or media that will help them overcome and reduce the psycho-social trauma faced by being alone.

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## Single Parent Families and their Social Ties

• Simran Sharma<sup>1</sup>

• Saigita Chitturu<sup>2</sup>

### Abstract

The purpose of the research study was to highlight the experiences of single-parent families in a metropolitan city in India. The objective was to study closely the social groups that the single-parent families belong to and the support they derive from the other members. A case study approach was used to understand minutely the nature of the relationships the single-parent families had with different entities in their social system. The focus was also on how these associations and relationships affected the children within single-parent families. Given that there are no formal avenues of support for single-parent families, it is imperative to study the naturally formed social support systems that single-parent families develop independently. These support systems play a crucial role in providing mental, physical, psychological, financial, and social support to single-parent families. Therefore, it was essential to analyse the relationship between single-parent families and their social groups.

**Keywords:** *single parents, social ties, social groups, single-parent families, children, social network.*

### Introduction

Edwards (2009) defined the *single-parent family* as having “either a father or a mother who is singly responsible for raising a child. The child can be by birth or adoption. They may be a single parent by choice or by life circumstances. The other parent may have been part of the family at one time or not”.

According to a report by the OECD (Organization for Economic Cooperation and Development), released in 2014, 17% of children aged 0-14 live in single-parent households worldwide. Women are heads of approximately 88% of these households, and contrary to popular belief, the majority of the single parents in the study were

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<sup>1</sup>Program Associate- Operations, Udhyam Learning Foundation, ✉ [simran.sharma201196@gmail.com](mailto:simran.sharma201196@gmail.com)  
<sup>2</sup>Faculty at Tata Institute of Social Sciences, Mumbai. ✉ [csaigita@tiss.edu](mailto:csaigita@tiss.edu)

employed. Woessmann (2015), says that in the 28 countries that he studied, “on average across all 28 countries, the share of single-parent families is 14 percent”. The article also states that a “vast majority of single-parent families are families with a single mother”. Across the study, in many countries, single mothers headed 86 percent of the single-parent families.

There are several social consequences attached to belonging to a single-parent family. Single-parent families might become isolated from society and suffer from loneliness. The single-parent family is presented with difficulty of managing the day-to-day activities without another spouse in the picture. This puts all the pressure of child-rearing and managing occupational responsibilities on one person’s shoulders. Most single-parent families are women-headed, which adds the gender dynamic to the inequality faced by being a part of a single-parent family. This is reflected in limited job opportunities and societal bias against women “neglecting” their children and working.

The social support that single-parent families receive is of great consequence as it helps in balancing out the disproportional disadvantages the family has to deal with. Coleman (1988) suggests that the physical absence of a second parent in single-parent families represent a deficiency in the “social capital” available to the child (Asmussen & Larson, 1991). Therefore, the social network of the single parent comes to play an important part. This network is defined as those people outside the household who engage in activities and exchanges of an effective and/or material nature with the immediate family members (Cochran & Brassard, 1979). This could include the grandparents, the neighbours, close family friends, or other relatives. The social support that these individuals provide is influential in the operation of the day-to-day activities of the single-parent family.

Child rearing and household management have never been a solitary activity, but in single-parent families, the responsibilities are shouldered by one individual alone. However, external agencies that can take care of at least a portion of these responsibilities have also developed. Access to these external agencies can be facilitated through the parents’ social network, or rather the members of the network themselves could be instrumental in sharing the burden. The parents’ social network may include neighbours, voluntary associations, colleagues, extended family members, peers, and even religious associations. The support received from these groups could be mental, physical, or social and have a significant impact on the functioning of the single-parent family.

The “additional adult” hypothesis (Stolba & Amato, 1993) states that children in single-parent families are seen to benefit from the presence of other adults within the household. Studies suggest that the parent-child relationship is often threatened by the multiple responsibilities that the parent has to juggle. There is only a limited amount of time and attention that the parent can give their children. The development of children from single-parent families itself is affected by a multitude of factors. Depending on the cause of being part of a single-parent family, the child’s development could get hampered due to lack of attention, stress, and added household responsibilities at an early age. During major life events like divorce, death, or separation, constant support and attention should be given to the emotional and psychological needs of the child. A robust support system of individuals from the social network would be beneficial in situations like these.

### **Significance and Scope of the Study**

The research conducted on single-parent families has been very limited in India, although their existence is not a rare entity within the Indian society. There are various reasons why a single-parent family comes into being. It could be formed due to the death of a spouse or partner, divorce, separation, or simply an individual’s decision to raise a child independently. All the previous research conducted on single-parent families has brought forward that most of these families are economically weak. This is usually because the burden of running the household falls on one person. It is usually not easy to find a suitable job for parents who do not have adequate qualifications. Finding a suitable job is even more difficult for women heading a single-parent family because of the lack of job opportunities. Even when women manage to find jobs, the pay gap with their male peers impacts them negatively. Additionally, there is no alternate assistance available for single-parent families from the government’s side.

All the research done prior to this has primarily focused more on the challenges of belonging to a single-parent family, and not much has been explored concerning how the parents’ social network has an impact. The single-parent family is usually considered a vulnerable unit. Therefore, researchers need to know how these families cope with their situation and modify circumstances to suit their needs and how the people around them are helping them achieve this. The scope of this study would be to encompass a broader understanding of single-parent families themselves and a further understanding of how they cope with their lives within a metropolitan set-up. The study’s main aim is to establish the importance of the influence of members outside the immediate family have and the role they play in providing support to the

single-parent family unit and understand the kind of interaction the single-parent family has with people beyond the extended family.

Mila Tuli (2012) has said, “Children in India grow up in a network of multiple interactions with members from within and outside the family”. Raising children in India has predominantly been a “shared experience with family, friends, and others in the neighbourhood”. Even though the family size has grown significantly smaller, the involvement of extended kin members has not lessened. The family in India is still characterised by a certain degree of “jointedness”. Great value is attached to “being connected”, The relationships are maintained “across distances and changing aspirations, occupations and lifestyles”. Changes in family and childcare are evident in “the altered patterns of family interaction, evolving role expectations and renewed ideas about motherhood and fatherhood”.

Single parent families would then be one of India’s altered forms of families. According to Nieuwenhuis and Maldonado (2018), “the terminology of single parenthood is complex, and what it means to be a single parent has changed over time and varies across the single parents’ life course.” The term ‘single parent’ (or single-parent household) refers to those parents who raise their children independently; they do not reside in the same household as their partner. This term is not used to differentiate single parents from those who separated or were bereaved when they had their child. The authors also state that “Single parents can live with other adults in the same household, such as grandparents, but not with a (new) partner. We refer to ‘coupled parents’ (or coupled-parent households) to reflect that either or both of the adults in the household are the biological parent of the child or children and to include re-partnered parents”.

A study conducted in the UK by the collaborative efforts of an organisation called Gingerbread and the University of Sheffield stated, “Experiencing single parenthood is more common than typically reported. While surveys typically suggest that a single parent heads one in four families with children at any time, longitudinal data suggests that one in three families with children will have been a single-parent family over six years” (Rabindrakumar, 2018). The study attempted to acknowledge the significant numbers of single-parent families in the UK and to do away with the perception that belonging to a single-parent family should be viewed as a “problem”.

The same study, for which data was collected in the UK between 2009 and 2017, also analysed the impact of single parenthood on children’s wellbeing. They measured wellbeing by looking at life satisfaction, feelings about their family, and the

quality of relationships with peers. One of the study's main findings was that no evidence of a negative impact of living in a single-parent household on children's wellbeing was found in self-reported life satisfaction, quality of peer relationships, or positivity about family life. Children living or living in single-parent families score as highly, or higher, against each measure of wellbeing than those who have always lived in two-parent families (Rabindrakumar, 2018).

Single-parent families do not function in isolation. Various entities help them fill the gaps in their functioning. Grandparents often serve as a positive influence in the lives of their grandchildren by taking on various roles such as caregiver, playmate, adviser, and friend (Attar-Schwartz, Tan, Buchanan, Flouri, and Griggs, 2009). Wan Chi Chen (2015) also states that "intimate relationships" with grandparents are positively linked with adolescents' "levels of happiness". The positive impact is more prominent in single-parent families. The active involvement of grandparents or co-residence also improves the relationship the single parents share with their children; for example, they get more time involved in their children's lives and interact more with them.

Institutions in the larger society also have a role in recognising the different needs of single-parent families. Stefanski, Valli, and Jacobson (2016), in their study of the role of the family in school-community partnerships, found that much research indicates that a close relationship between the schools and the larger community helps in student learning, improved schools, and stronger families and neighbourhoods. The school and the larger community have an essential role in single-parent families. According to Oyebade (2013), whose work centred on the necessity for building healthy and supportive environments for single-parent families, "School culture and climate must be welcoming to diverse family structures and accommodating to their families".

### **Theoretical Framework**

The *Social Capital Theory* of James Coleman is critical to studying human relations, especially in the context of their social network or social ties. Coleman defined *social capital* as "a variety of entities with two elements in common: They all consist of some aspect of social structures, and they facilitate certain action of actors-whether persons or corporate actors-within the structure" (Coleman 1988a: 98; 1990: 302). Coleman's theory has a structural-functionalist base. Tzanakis (2013), in his article, says, "For Coleman, social capital is *productive*, i.e., it is used so that actors can achieve particular ends that would have been impossible without it. So it

has a clear instrumental purpose. In lines similar to Bourdieu (one of the first theorists to systematically analyse social capital), Coleman defines *social capital* as “a collective resource utilisable by actors who are goal-oriented”. Social capital requires an element of *embeddedness* in the social structure (Granovetter, 1985). Also similar to Bourdieu is Coleman’s idea that social capital essentially resides in the “social structure of *relationships* among people”. This dimension sets it apart from financial and human capital (Tzanakis, 2013). Coleman differs from Bourdieu only in his view of social capital as a *bonding* mechanism that adds to the *integration* of social structure. For Coleman, social structure predates the agent who can use embedded social capital as a resource (Tzanakis, 2013).

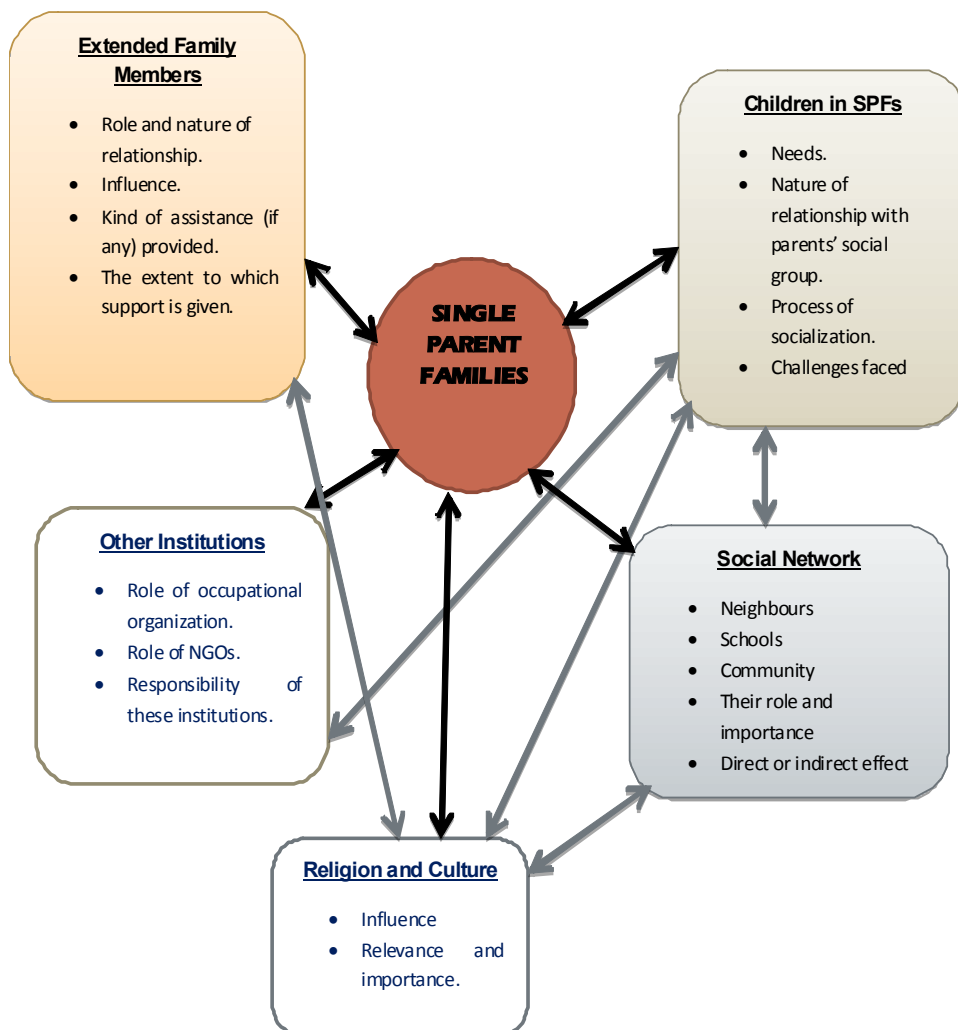
Within the single-parent family, the social capital of its members can be studied at various levels. For the children, their parents’ physical presence and attention will be crucial social capital for them. Social capital would also include a relationship with members of the extended family. The single parent’s social circle beyond the extended family would also count as their social capital. Therefore, the social capital theory creates a strong base for studying single-parent families’ social ties and networks and how they positively influence them.

The Ecological Systems Theory developed by American psychologist Urie Bronfenbrenner explains how human development is influenced by different types of environmental systems (Ettetal & Mahoney, 2017). This theory stressed the importance of studying a child in multiple environments, also known as ecological systems, to understand his development. A child typically finds himself simultaneously enmeshed in different ecosystems, from the most private home ecological system moving outward to the more extensive school system and the most comprehensive society and culture system. Each of these systems inevitably interacts with and influences each other in every aspect of the child’s life. There are four interrelated types of environmental systems in Bronfenbrenner’s classic rendition of ecological systems theory, namely, the (1) micro-, (2) meso-, (3) exo-, and (4) macro systems. These levels range from smaller, proximal settings in which individuals directly interact to more extensive distal settings that indirectly influence development.

Thus, one can place the single-parent family and the relation between the parent and children within the micro system for this research. In the mesosystem, one can place the extended family members, school, teachers, classmates, friends, neighbours, and religious groups. In the exosystem, the employers of the single parent can be placed. In the macro system, the focus would be on the popular beliefs about single-parent families, government policies for single-parent families, and the class and

economic status of the single-parent family. These are some of the critical aspects that affect single-parent families on which the research study shall be focusing. It is explained more clearly in the Concept Map given below. Therefore, the ecological systems theory of Bronfenbrenner provides an essential base for conducting the present research on single-parent families and their social ties, especially in surmising how the children in these families perceive these relationships.

### CONCEPT MAP





### **Objectives of the Study**

- To study the role of other family members in single-parent families.
- To understand the role of the other social ties of single parents beyond their extended family.
- To understand the kinds of relationships the children of single parents have with these additional adults.

### **Methodology**

The research study undertaken was qualitative. The data was collected using qualitative methods. The research focused on an in-depth study of 5 single-parent families. The sampling method used for selecting the five single-parent families was purposive snowball sampling. The criteria for choosing the participants for the sample were any individual who is a single parent. The ideal tool for this study was considered to be an unstructured in-depth interview guide with open-ended questions. No particular order of questions was followed during the interviews.

### **Key Findings**

#### **Profile of research participants**

The findings of the research study were categorised based on the conceptual framework. As mentioned before, the data collected from the multiple cases, being contextual, were compared and analysed. The following are the major findings from the five cases.

Among the extended family members of the single-parent families under study, the parents and siblings of the single parent had the most important role to play. One of the research participants shared, that her cohabiting with her parents was an important source of support in managing her professional and familial responsibilities. She also felt a sense of responsibility in caring for her parents as they were helping her cope with being a single parent. For one research participant, the role of his deceased spouse's parents and sisters was crucial in the rearing and caring of his son. The assurance of their assistance was crucial in the research participant's ability to maintain the balance between his work and home life. For the research participants under study, monetary support was also mostly received from their family members and the other forms of support they could provide. Therefore, immediate family members were deeply involved in four out of five of the cases in providing support to the single-parent family in managing the challenges of their situation.

Beyond the extended family, the school, the neighbours, the employers, and the religious affiliations of the single parents had an important role to play in the functioning of their families. For one of the research participants, their relationship with their religious group and “guru” helped them cope with the trauma of divorce and fight to survive for their children. For two of the research participants, their employers were important in providing them with financial support.

The neighbours of some of the research participants were crucial entities for providing emotional and physical support in times of crisis and being important participants during times of joy. The social network that the single parents have built through their daily associations with their neighbours, colleagues, employers, and religious groups has helped them access important resources, whether financial, emotional, physical, or psychological.

The children of the single parents had extremely close relationships with their grandparents (in cases where there was direct involvement) and parents’ siblings. In one case, the research participant’s son was extremely close to the parent’s sister and the sister’s husband, going as far as calling them “Maa” and “Papa”. For one research participant, her close association with her children’s school helped her teachers and headmistress play a crucial role in providing psychological and emotional support to the children due to their awareness of the family’s circumstances.

The neighbours were also an important group that had close relationships with the children of the research participants. One research participant shared that she was secure in knowing that if she had to go somewhere, she could keep her son with them. The social network that the single parents have built plays a crucial role in the socialisation of their children as well as their upbringing and the shaping of their worldview.

## **General findings**

### ***Concern about children’s future***

One of the most common factors across all the five cases was the overriding concern of the single parents to settle their children. Almost all their worries and stress, whether economic or otherwise, are related to their children’s future. The parents are focused and dedicated to earning money to ensure a proper education for their children, which they feel will assure them a good job. This is in the larger hopes of their children leading independent lives and not having to rely on anyone else for their sustenance.

### ***Fear of society's judgement***

All the single parents interviewed expressed a need not to create any instance where people in the society could judge them negatively. They felt that being single parents opened them to a lot of scrutiny and criticism, which generally would not have happened if they had been a two-parent family. They stress a lot about their children behaving appropriately and performing well in academic and extra-curricular activities. This is to ensure that the people in the society do not judge them for not fulfilling their children's needs.

All the research participants stressed that they did not want society to raise any questions about the way they conducted their familial and professional duties. This is why they feel a constant need to be in an equal setting as two-parent families.

### ***Conscious maintenance of relationships***

Another common factor among the five cases was the awareness of their status as a lone parent. The research participants mentioned that they are conscious of the need to maintain good relationships with their extended family members, neighbours, and friends because they were very intrinsically aware that they needed the support that these individuals could provide them. This is not a calculated move but a passive acceptance of the lack of other support mechanisms in their lives. This prompts them to maintain relationships with people in their social networks and groups. Therefore, their social network and groups are the most essential point of contact for support in all its forms.

### ***The key role of social groups in providing social support***

The support the single parents are receiving from the different social groups varies across the five cases. For example, some of the research participants shared the support they receive from their neighbours in times of crisis. They feel strengthened by the mere assurance that their neighbours will be with them through the difficult times even though they cannot help them financially. Financial support is primarily given by extended family members or the single parents' employers.

The important point to note here is that no group exclusively provides a particular type of support. It is very subjective to the context of each family. It is also possible for one social group to provide multiple types of support to the single-parent family.

### *Conclusion and Discussion*

The focus of the study was on five single-parent families in Kolkata. Each case was carefully studied, keeping the standard parameters in mind. These parameters included the job status of the single parent, the economic condition of the family, the reason behind them being a single parent, their relationship with their extended family and their spouse's extended family, role in the larger community, their children's school and the single parent families' coping mechanisms. The research study also focused on the single-parent families' neighbourhood, area of residence, and proximity to extended family. What emerged from collecting and analysing this data were the common struggles of single parenthood, the immense attention that single parents gave to their children, the almost obsessive need to not let society's perception of them be negative, and the focus on securing their children's future. These were the common threads between the five case studies.

Despite the struggle being the same for all the single parents, the five cases also presented many instances of diversity. All the five research participants have engaged in different occupations, and the family income of all the participants varied greatly. However, even in the case where the monetary conditions were stable, there was still a fear of not having enough to provide for their children. The fear was the same across the cases, but the coping mechanisms for dealing with the stress were different. For someone, it was being closely involved with their faith, conducting activities related to their faith, exploring their interests, or engaging in recreational activities with their children and other family members.

As mentioned, many times before, the main concern for all the single parents was to protect and provide for their children till they were settled. They felt a deep sense of duty and responsibility. One can assume that this need to see their children well settled comes from the fact that they do not want to provide society a chance to question their ability to care for and provide for their children. This is due to their status as single parents, which is considered inadequate by a large majority of the people even today, stemming from the belief that every child requires two parents. But through the course of this research study, the one thing that has been proven is that there are a lot of people involved in providing a child with the most productive environment to grow and develop. So, it does take a village to raise a child.

In the study conducted, one of the major things that emerged from the findings is the sense of fear and the constant pressure the single parents feel with regard to the stability of their life. Despite having jobs and being able to provide for their family,

they are extremely conscious of the consequences of suddenly finding themselves without any source of income. In a situation such as this, it is important to have mechanisms that could act as a safety net for single parents and help reduce their anxiety and stress.

However, India does not have policies, schemes, or programmes specifically for single parents. Apart from the Widow Pension Scheme, which provides a very minimal sum of money, there are no other assistance programmes that could potentially benefit single parents. There is a dearth of data on single parents in the country in terms of their number. There is no separate data collected on the total number of single-parent families in the country, and they are therefore invisible. This does not insinuate that they are less in number in India. It shows that their needs and requirements have not been given separate recognition.

Not a lot of studies have been conducted on single-parent families in India either. Neither the single parents nor the children from single-parent families have found adequate representation in the research studies undertaken in India so far. There is a need to encourage more research on the lives of single-parent families because if we are not aware of their lifestyles, it will be difficult to understand their needs and provide for them. It is also important to put their stories forward to realise that they are not alone in their struggle and that a platform can be created for single parents to collaborate and share their experiences with another.

In the study conducted, the researcher has aimed to understand the social network of single-parent families and their support systems. Single parents are largely able to form such networks naturally; it is done most of the time unconsciously. However, they need to be aware that this is a positive thing for them to do. Of course, they have to be careful about which persons they can trust. However, that mistrust of the unknown should not act as a barrier to their socialisation with the world and then negatively impact their children's socialisation process. The importance of social networks and social support systems must be made known to all single parents.

The media also has a vital role in giving adequate representation and visibility to single-parent families and their problems. The movies and series we watch and are exposed to do not adequately represent single-parent families, nor are they being mainstreamed. The notion of single-parent families continues to be as a rare occurrence. Other countries have been documenting single-parent families for decades, and in India, it is not even being discussed in the larger scope of things. It is then the responsibility of the media to refine the content they are sending out to people and ensure that single-parent families are not looked at as the exception.

Most research studies have looked at single-parent families from a very negative lens. A lot of the focus has been on the negative impact it has on the children who belong to single-parent families and how single parents are not able to cope with the responsibilities alone. But this is not the truth in so many cases, as “most single parents are able to provide the structure, values, and nurturance their children need despite the challenges and criticisms they face from society” (Quinn, 2011; Hawkins & Eggebeen, 1991). A lot of the research conducted on children from single-parent families has shown that they are eventually able to develop despite the crisis type situation like divorce or death of a parent might create. Although the incident remains a traumatic experience, the children have shown resilience in coping with the situation positively.

There is much scope in terms of studying single-parent families. There are so many aspects of their lives that need to be explored and looked at in detail. Close attention needs to be paid to the children of single parents. There are no particular trend within the society that can be attributed to them like it is done in other countries, as there is no data or information on them. The development and growth of the children in single-parent families are affected by a multitude of things and these need to be studied and analysed; the findings will add to the knowledge in the sphere of child development. It is important to focus on the attributes, problems and needs of children of single parents and understand their perceptions and ideas.

The experiences of single parents and their children need to be given a voice and must be studied in greater detail. Their problems and needs cannot and should not be ignored any longer. Combined efforts of non-governmental organisations and governmental institutions are required to understand and provide assistance to single-parent families in India. This is the only way single-parent families will get the recognition and representation that has been denied to them for so long.

### **Recommendations**

Four different stakeholders like policy makers, researchers, schools and civil society organisations need to play their roles that would enhance the wellbeing of single parent family. The areas of their engagement and contribution respectively are as below.

#### **For policymakers**

Recognising that single parenthood is shared and consciously works towards addressing their needs through policies and schemes targeted towards helping them;

to think beyond the household, and to work towards creating networks of single-parent families so that they can connect and form support systems of their own.

### **For Researchers**

They are providing more data on single-parent families and creating awareness regarding their lives and the different mechanism they use to manage their day-to-day lives. Increasing the visibility of the single-parent families through wider representation in the media and studies and reports focused on them. They are acknowledging and addressing the needs of the children of single parents. Extensive longitudinal analysis of children living in single-parent families should be done to understand long-term outcomes and the effect of other additional factors.

### **For Schools**

Identifying the needs of the children from single-parent families and recognising the difficulties of the single parents and working with them in the child's best interest.

### **For Civil Society Organisations**

Recognising single-parent families as a vulnerable and marginalised group, especially the children, and working towards their empowerment. Creating avenues for single-parent families with meagre incomes to sustain themselves without compromising their children's future.

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## **Effectiveness and Health Challenges of Online Education faced by College Students in COVID-19 Pandemic**

• Asha George<sup>1</sup>

• Aneesh M S<sup>2</sup>

### **Abstract**

The physical “brick and mortar” classroom is starting to lose its monopoly as the place of learning. The Internet has made online learning possible and many researchers and educators are interested in online learning to enhance and improve student learning outcomes while combating the reduction in resources, particularly in higher education. It is imperative that researchers and educators consider the effectiveness of online learning compared to traditional face-to-face format and the factors that influence the effectiveness of online courses. Technology is a proven teaching aid, and online teaching has facilitated teaching across borders; however, although technology has proved to be an effective teaching aid, it cannot replace a teacher. There are many reports that discuss the constraints of only using online classes, and, as a result, the use of both online and face to face classes has been advocated. The COVID-19 pandemic, however, has forced teachers and lecturers to rely solely on online classes. This study attempts to find out the effectiveness and health challenges which include the physical, psychological and social health of the college students in time of COVID-19.

**Keywords:** *effectiveness, Online education, health challenges, COVID-19.*

### **Introduction**

The physical “brick and mortar” classroom is starting to lose its monopoly as the place of learning. The Internet and the World Wide Web have made significant changes to almost all aspects of our lives ranging from a global economy, personal, and professional networks to sources of information, news, and learning. The Internet

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<sup>1</sup>**MSW Trainee**, Centre for PG studies in Social Work, University of Calicut. Wayanad.

✉ ashageorge018@gmail.com

<sup>2</sup>**Assistant Professor**, Department of Social Work, Sree Sankaracharya University of Sanskrit, MC Kalady. ✉ aneeshmsmadhu@gmail.com.

has made online learning possible, and many researchers and educators are interested in online learning to enhance and improve student learning outcomes while combating the reduction in resources, particularly in higher education (Nguyen, 2015). Moreover, there have also been increases in demand for online learning from students from all walks of life. Given the exponential some would say precipitous growth of online education and its potential in higher education, it is imperative that researchers and educators examine the effectiveness of online learning in educating students compared to traditional face-to-face learning. Thus, the question of “To what extent does the body of work on online learning indicate that online learning is as least as effective in educating students as the traditional format. The COVID-19 pandemic has resulted in schools to shut all across the world. Globally, over 1.2 billion children are out of the classroom. As a result, education has changed dramatically, with the distinctive rise of e-learning, whereby teaching is undertaken remotely and on digital platforms.

### **Research Suggests Online Efficacious**

Learning has been shown to increase retention of information, and take less time, meaning the changes coronavirus have caused might be here to stay. While countries are at different points in their COVID-19 infection rates, worldwide there are currently more than 1.2 billion children in 186 countries affected by school closures due to the pandemic. In Denmark, children up to the age of 11 are returning to nurseries and schools after initially closing on 12 March 2019, but in South Korea students are responding to roll calls from their teachers online. With this sudden shift away from the classroom in many parts of the globe, some are wondering whether the adoption of online learning will continue to persist post-pandemic, and how such a shift would impact the worldwide education market. Even before COVID-19, there was already high growth and adoption in education technology, with global edtech investments reaching US\$18.66 billion in 2019 and the overall market for online education projected to reach \$350 Billion by 2025.

Whether it is language apps, virtual tutoring, video conferencing tools, or online learning software, there has been a significant surge in usage since COVID-19. The World Health Organization has declared COVID-19 as a pandemic that has posed a contemporary threat to humanity. This pandemic has successfully forced global shutdown of several activities, including educational activities, and this has resulted in tremendous crisis-response migration of universities with online learning serving as the educational platform. The crisis-response migration methods of universities, faculty and students, challenges and opportunities were discussed, and it is evident that online learning is different from emergency remote teaching, online learning will be more sustainable while instructional activities will become more hybrid provided the

challenges experienced during this pandemic are well explored and transformed to opportunities. In this study, the researcher explores the effectiveness of online classes for college students and what are the challenges faced by them, which can be physical, psychological and social challenges.

### **Review of Literature**

About online education, Harasim (1996) commented that human communication over distributed computer networks, developed in the early 1970s has within its short history contributed to launching a new environment for educational delivery and interaction: Online Education. Computer networking and conferencing have found important practical application in education with such innovative developments as online delivery of courses, networked classrooms, and knowledge networks linking peers and experts. The benefits have been powerful and compelling and have contributed to a paradigm shift in education. This shift is especially evident in higher education. This chapter examines key dimensions of the online educational paradigm shift and explores the implications for the future of educational computer networking.

Harasin (2000), addresses a paradigm shift: online education as a new paradigm in learning. It begins by presenting an overview of the history of online education as a context and framework for understanding the state of the art today, especially the use of network technologies for collaborative learning in post-secondary education. Beginning with the innovations of early pioneers as contributing to the paradigmatic shift, it provides a framework for understanding this new field. The article then focuses on the Virtual-U, a Web-based environment especially customised to support advanced educational practices. The Virtual-U research team hosts the largest field trials in post-secondary education in the world with empirical results and insights generated from over 439 courses taught by 250 faculty to 15,000 students, attesting to what works in online education. This article concludes by discussing the signposts to future advances that these data suggest.

Mashile and Pretorius (2003) present the challenges of online education in a developing country: research in higher education. A case study is presented of endeavours to forge ahead with online education, given the constraints of the digital divide. The results of this case study indicate that digital divide considerations can undermine the provision of enhanced pedagogies in distance education programmes and thus contribute to non-development of individuals from low socio-economic backgrounds. Consequently, it is proposed that online education should be incorporated in distance education programmes should the need arise, in part to address the digital divide and in part to enhance learning.

Palvia et al., (2017), online education: Worldwide status, challenges, trends, and implication. Online education in its various modes has been growing steadily worldwide due to the confluence of new technologies, global adoption of the Internet, and intensifying demand for a workforce trained periodically for the ever-evolving digital economy. Online education is on track to become mainstream by 2025. This presents country-level factors that impact quantity and quality of online education. Such factors include industry (business); governments at local, state, and federal levels; country laws; ICT capacity; Internet/mobile technology diffusion; and income and digital divide. We provide implications for country and world organisations concerning online education.

Baber (2020) discussed determinants of students' perceived learning outcome and satisfaction in online learning during the pandemic of COVID-19. The COVID-19 pandemic has disrupted the normal functioning of various activities across the world, including learning and education. The shift towards online education during the pandemic of COVID-19 has led many studies to focus on perceived learning outcomes and student satisfaction in this new learning environment. This study aims to examine the determinants resulting in students' perceived learning outcomes and their influence on student satisfaction. The data was collected from undergraduate students in both South Korea and India to gain a cross country study. The study found that the factors—interaction in the classroom, student motivation, course structure, instructor knowledge, and facilitation positively influence students' perceived learning outcome and student satisfaction. There is no significant difference in the students' perceived learning outcome and student satisfaction in the two countries. The study will be helpful for the educationists and academics to identify the factors which will enhance student learning outcome and satisfaction level in online classes during the coronavirus pandemic.

Muthuprasad et al., (2021), describes students' perception and preference for online education in India during COVID-19 pandemic. Educational institutes across the world have closed due to the COVID-19 pandemic jeopardising academic calendars. Most educational institutes have shifted to online learning platforms to keep the academic activities going. However, the questions about the preparedness, designing and effectiveness of e-learning is still not clearly understood, particularly for a developing country like India, where the technical constraints like suitability of devices and bandwidth availability poses a serious challenge. In this study, we focus on understanding Agricultural Student's perception and preference towards online learning through an online survey of 307 students. We also explored the student's preferences for various attributes of online classes, which will be helpful in designing an effective online learning environment. The results indicated that majority of the

respondents (70%) are ready to opt for online classes to manage the curriculum during this pandemic. Majority of the students preferred to use smartphones for online learning. Using content analysis, we found that students prefer recorded classes with quizzes at the end of each class to improve the effectiveness of learning. The students opined that flexibility and convenience of online classes makes it attractive option, whereas broadband connectivity issues in rural areas makes it a challenge for students to make use of online learning initiatives. However, in the agricultural education system where many courses are practical oriented, shifting completely to online mode may not be possible and there is a need to devise a hybrid mode, the insights from this article can be helpful in designing the curriculum for the new normal.

### **Research Methodology**

The study is based on data collected from Don Bosco Arts and Science College and De Paul Arts and Science College in Kannur district, Kerala. The study is in quantitative in nature and the information is collected through self-made questionnaire. The study mainly examines the effectiveness and health challenges of online education faced by college students, who are the final year undergraduate students in the time of COVID-19 pandemic. The selected descriptive research design describes events, phenomenon and situations. This method is used for fact finding. The researcher used stratified random sampling techniques to identify the final year undergraduate students. The sample size of the study was 80 and the researcher collected the information from the unaided management colleges of Kannur district. The researcher collected the consent from each respondent before filling the questionnaire. The responses were then represented as percentages, and statistical analysis was conducted to find the degree of agreement. The data has been analysed with the help of SPSS.

### **Effectiveness of Online Classes**

The study examined the effectiveness and health challenges of online education faced by the college students during the COVID-19 pandemic. The respondents attended the online classes through Zoom and Google Meet. While assessing the effectiveness of online education, researcher found that the students were not very satisfied with the online classes and they are not willing to attend the classes due to lack of exploration and they developed boredom quickly. Most of the students put more efforts towards online classes comparing to the regular offline classes, the reason was that they did not have any previous experience of attending online classes and they were worried about their future. Around 76.3 percentage of the students have network issues during the classes, so they are unable to watch the classes

properly. While assessing the level of understanding online classes, students were unable to understand and follow the classes properly, because they were unable to receive the education completely in an online mode. Students also felt exhausted while attending the online classes because they did not have any exploration and were unable to interact with their teacher and friends and they missed interpersonal interaction which was enjoyed in college with their friends. The students are not satisfied with classes and class materials provided through online medium; they are unable to understand the classes and class materials provided by the teachers. As a conclusion, one can say that the online classes are not significantly effective for the students, as evident in the table below.

**Table-1: Efficacy Levels of On-line Classes**

Variables	Frequency	Percentage
Effectiveness of online classes	18	22.5
Satisfaction of online classes	27	33.8
Willingness to attend classes	36	45

### **Health Challenges due to Online Classes**

Health challenges faced by college students due to online classes include physical health, psychological health and social health. Online classes effect the health of students negatively. When discussing the physical health challenges, 67.5 percentage of the students have physical health challenges due to online classes. The continuous use of mobile phones, the sitting position while attending the classes, the effort they take for the online classes leads to these health issues. The respondents mentioned suffering from headaches, vision problems, neck pain, back pain due to online classes. Headache and vision problems are major two physical health challenges due to online classes. The online classes lead to loneliness, depression, anxiety and moods changes. The students experienced loneliness during the COVID-19 pandemic as the colleges were closed and they felt trapped or locked in confined in their rooms and did not have any exploration, interaction with teachers or friends and which led to loneliness and sometimes this loneliness led to depression.

Another issue was the feeling of anxiety and worry for the future. They became anxious and worried about their future, which is due to pending classes and exam and also due the current situation. Some students faced mood changes due to online classes, it's pressure and fear of future. The mood changes can be anger and worry with any reason and tiredness and dysthymia. These are the psychological health challenges due to online classes. The online classes create social health challenges, such as losing interaction with families and friends. They were always in front of the mobile phone for attending the classes and after that they have plenty of work to

complete so they do not get time to spend with their families and friends. Lack of communication is another social problem faced by college students. Sometimes online classes lead to phone addiction among students. These are the health challenges faced by the college students during COVID-19 pandemic are evident in the table below.

**Table-2. Health Challenges of College Students in COVID-19 Situation**

Variables	Respondents	Frequency	Percentage
Headache & vision problems	80	72	90
Depression	80	53	66.3
Anxiety and worry	80	51	64.4
Loneliness	80	73	91
External disturbance	80	53	66.3
Phone addiction	80	57	77
Social isolation	80	75	93.8

### **Evaluation and Suggestion for Online Classes**

While evaluating online education, 78 per cent of the students are not satisfied with online classes. They are not happy or interested in attending the online classes, but they attended the classes only because of the pandemic scenario. They wished to go back to colleges and explore their college life and have fun with their friends. Some students have an opinion that online classes may lead to professionalism loss, because the classes are not structured as compared to regular classes and they cannot be so attentive in online classes. When the students evaluated the education of Kerala during the COVID-19 pandemic, they felt that education was pathetic or pared down in the given conditions. They opened up that the education was below the line due to lockdown and closing of educational institutions and the launching of online classes was not very effective for them. On the other side, odd family attitude toward the online classes is not encouraging. They are not impressed with online education. Suggestion for online classes is to be more effective and in attractive way.

### **Conclusion**

Education provides knowledge and training for the future. Education plays an important role in the development of person's career. Technology plays a vital role in education now. With the help of technology, regular classes changed to online classes or distinct education. In online classes the students can access information from anywhere in the country. Education is a process of learning and knowing, which is not restricted only to textbooks. It is a quiet process and continues throughout our life. Online education is an education that takes place over the Internet.

It is often referred to as ‘e-learning’ among other terms. Computer based training, web-based training, internet-based training, e-learning (electronic learning), m-learning (mobile learning), computer based aided distance education. We all know that COVID-19 pandemic has affected educational systems worldwide, leading to the near total closure of schools, universities and colleges. Most governments around the worlds have temporarily closed educational institutions in an attempt to reduce the spread of COVID-19. Globally, over 1.2 billion children are out of the classroom. As a result, education has changed dramatically, with the distinctive rise of e-learning, whereby teaching is undertaken remotely and on digital platforms. Online learning has been shown to increase retention of information, and takes less time, meaning the changes coronavirus have caused might be here to stay. With this sudden shift from the classroom in many parts of the globe, some are wondering whether the adoption of online learning will continue to persist post pandemic, and how this shift would impact the worldwide education market.

Due to the sudden shift to online education, students faced many difficulties such as physical health problems, psycho-social problems among others. This study attempted to understand the effectiveness and health problems of online education among college students in Kannur district. Findings show that online education does not make an indelible impact on the students, the effectiveness of online education is not very successful and the students undergo many health problems which can be physical health problems such as headache, back pain, vision problems, sleeplessness and psycho social problems which can be stress, tension, anxiety, depression, social isolation and social distraction. The suggestion is to make online classes more effective and attractive, and ensure that everyone has the facilities to attend the classes. The institutions also need to provide recreational programmes to the students to overcome stress or other psychological problems faced by them.

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## **Optimism, Religiosity, Coronavirus Anxiety and Death Anxiety among Adults**

• Yashna C Tulsiani<sup>1</sup>      • Vedika Shewakramani <sup>2</sup>      • Divya Dovina<sup>3</sup>

### **Abstract**

The purpose of this research is to study the influence of religiosity and optimism on Coronavirus Anxiety and Death Anxiety among adults. The need for this paper stems from the existing unavailability of adequate empirical evidence on the relationship between an individual's belief in a religion, their tendency to be optimistic, and their levels of anxiety towards the prospect of contracting the coronavirus and death in the Indian context. The sample for this paper includes 230 individuals above the age of 18 from different religions in India. Life Orientation Test-Revised, The Centrality of Religiosity Scale, Coronavirus Anxiety Scale and Death Anxiety Scale are the tools used to collect data. The results of this study indicate that there exists a relationship between Religiosity and Optimism, and Death Anxiety and Coronavirus Anxiety.

**Keywords:** *optimism, religiosity, Death anxiety, Coronavirus anxiety.*

### **Introduction**

The global scenario since the commencement of the pandemic has become such that the novel coronavirus has become a part of every human being's life to a large extent. It presents itself as an unprecedented challenge to everyone's livelihood and health—a challenge that we don't fully comprehend to the depth of its impact. Like most things new, there can be a tendency for every individual to feel uncomfortable or afraid of the novel coronavirus. And this could lead to some stress/unsettling around the virus. Hence, understanding the factors associated with coronavirus and its consequent anxiety is much needed. Coronavirus anxiety comprises extreme psychological and physiological stress caused by the virus, whether in terms of

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<sup>1</sup>**Psychotherapist & Health Coach**, Phablecare, Santhome High Road, Chennai

✉ [writetoyashna@gmail.com](mailto:writetoyashna@gmail.com)

<sup>2</sup>**Counsellor & Psychotherapist**, MBACP, Kilpauk, Chennai. ✉ [vekareshewakramani@gmail.com](mailto:vekareshewakramani@gmail.com)

<sup>3</sup>**Asst professor**, Department of Psychology, Stella Maris college, Chennai.

✉ [divyadovinapsychology@gmail.com](mailto:divyadovinapsychology@gmail.com)

contracting the virus or its impact on one's health or its consequences in different dimensions, such as financial, social, etc. **Coronavirus Anxiety** is the term used to describe dysfunctional anxiety associated with the coronavirus crisis.

Another related fear that people often have could be associated with their mortality or the prospect of facing death, which in these times could also be the result of the aforementioned coronavirus-related anxiety. Death anxiety is a feeling of dread or discomfort due to the constant worry associated with the thought of dying or losing a loved one.

**Death Anxiety** is a collection of death attitudes characterised by fear, threat, unease, and discomfort with death (Neimeyer, Moser, and Wittkowski, 2003). Lonetto & Templer (1986) defined death anxiety as an individual's unpleasant thoughts and feelings about his/her death. Khalek and Neimeyer (2017) describe it as a relatively stable personality trait referring to a negative attitude towards and negative affect and cognitions concerning death and dying, whether of self or significant others or the idea of death in general.

**Coronavirus anxiety** and **Death Anxiety** are not inherent characteristics or concepts. They are a product of societal influence and the information acquired via various means, such as the press, film and television, social circles, and to a large extent, social media. The intensity of these two concepts and their perceptions varies from person to person and mainly revolves around fear.

Optimism is a trait that can be a protective factor and coping mechanism. Religiosity can be a source of hope and strength for those who practice the same. Optimism can be either dispositional or situational. We will be focusing on dispositional optimism as a whole. Dispositional optimism is a generalised expectancy of positive future outcomes (Scheier & Carver, 1985). It has proven to be of value for individuals suffering from a variety of mental health issues.

Religiosity is a multi-layered notion consisting of motivational, emotional and behavioural characteristics as well as different religious activities, commitments, beliefs and religious practices in organised institutions such as masjid, church, mandir, etc. Religious belief may provide greater purpose and believes in immortality. Religious texts and leaders often discuss those topics in great detail, guiding religious followers. There are several ways to assess the level of religiosity in different religious individuals. Glock (1962) proposed a multidimensional model of religiosity, which includes: Ideological (belief), Intellectual (knowledge), Ritualistic (religious behaviour, e.g., church attendance), Experiential (feeling, emotion), and Consequential (the other

four dimensions' secular effect) dimensions. Huber later revised this model. This model included dimensions of **Intellect, Ideology, Public Practice, Private Practice and Religious Experience**.

According to Huber & Huber (2012), the Centrality of Religiosity Scale makes use of these dimensions. The dimension of **Intellect** refers to “the social expectation that religious people have some knowledge of religion, and that they can explain their views on transcendence, religion and religiosity”. The dimension of **Ideology** refers to “the social expectation that religious individuals have beliefs regarding the existence and the essence of a transcendent reality and the relation between the transcendence and human”. The dimension of **Public Practice** refers to “the social expectation that—religious individuals belong to religious communities. And this is manifested in the public participation in religious rituals and communal activities”. The dimension of **Private Practice** refers to “the social expectation that religious individuals devote themselves to transcendence in individualised activities and rituals in private space”. The dimension of **Experience** refers to “the social expectation that religious individuals have “some direct contact to an ultimate reality which affects them emotionally” (Huber & Huber, 2012).

Most of the existing literature covers these variables extensively on an individual basis or in different combinations. Some literature state that optimism has a negative relationship with death anxiety (Brown, 2011). Previous research has also established that optimism is associated with adaptive outcomes and well-being and that optimism would mediate the negative impacts of coronavirus stress on adults' optimism and pessimism. This could indicate the reason that people with high levels of coronavirus stress report greater psychological problems is because they have high levels of psychological inflexibility and lower levels of optimism. The theoretical underpinnings of this prediction are that stress may lead to greater psychological inflexibility and pessimism. Lower optimism may lead to greater psychological problems (Barnett et al., 2018). Previous research also states that age, gender and religiousness were significant predictors of death anxiety. Besides the literature we have reviewed, there doesn't seem to be much research that studies all four variables together which further contributes to the need to conduct this study.

The *purpose of this research study* is to investigate the influence of religiosity and optimism on Coronavirus anxiety and death anxiety. With levels of global anxiety on the rise since the spread of the novel coronavirus (Salari, et al., 2020), the need for this study is to identify if traits like optimism or belief in and practising religion can help individuals deal with adverse/unforeseen situations like the pandemic and/or death.

This emergence of the unforeseen pandemic is a phenomenon that affects everybody, regardless of their age or gender. Therefore, we also wanted to examine whether, in this situation of an imminent coronavirus pandemic, participants would find themselves thinking about death (more than usual). And we wanted to investigate if that could lead to having anxiety around the potentiality of dying.

## **Method**

### **Objectives**

- To explore the relationship between optimism, religiosity, death anxiety, and Coronavirus anxiety.
- To study the influence of optimism and religiosity on death anxiety and Coronavirus anxiety.

### **Hypotheses**

- H1:** There would be no significant relationship between an individual's optimism and religiosity.
- H2:** There would be no significant relationship between an individual's optimism and death anxiety.
- H3:** There would be no significant relationship between an individual's optimism and Coronavirus anxiety.
- H4:** There would be no significant relationship between an individual's religiosity and death anxiety.
- H5:** There would be no significant relationship between an individual's religiosity and Coronavirus anxiety.
- H6:** There would be no significant relationship between an individual's death anxiety and Coronavirus anxiety.

### **Tools Used**

1. Life Orientation Test-Revised (Scheier, Carver & Bridges, 1994)
2. The Centrality of Religiosity Scale (Huber & Huber, 2012)
3. Coronavirus Anxiety Scale (Lee, 2020)
4. The Death Anxiety Scale (Templer, 1970)

### **Methodology**

The data for this research study was collected online. The criteria included individuals above the age of 18, inclusive of all genders. A Google form consisting of

the participants’ consent, a basic demographic details sheet, and questions from the previously mentioned tools was circulated. Data was collected from two hundred and thirty individuals above the age of 18 via the convenience sampling method. The responses were scored and then analysed using Pearson’s Product Moment Correlation, independent sample t-Test, and One-Way ANOVA, with the help of SPSS software.

**Results and Discussion**

**Table 1. Correlation between Religiosity, Optimism, Death Anxiety, and Coronavirus Anxiety**

	Optimism	Coronavirus Anxiety
Religiosity	0.176**	-0.104
Death Anxiety	-0.059	0.369*

\*\* . Correlation is significant at the 0.01 level (2-tailed).

**Table 2. Correlation between Optimism and Dimensions of Religiosity**

	Religiosity	Intellect	Ideology	Public Practice	Private Practice	Experience
Optimism	176**	121	.177**	.118	.057	.250**

\*\* . Correlation is significant at the 0.01 level (2-tailed).

This study aimed to investigate if optimism and religiosity can help individuals in dealing with the anxiety that is experienced with regard to adverse or unforeseen situations like the coronavirus pandemic or death. Most of the existing literature covers these variables extensively on an individual basis or in different combinations. There is not much research that studies all four variables together, thus the need to conduct this study. Analysis of the data collected has provided us with results that leave room for several interpretations and a wide range of possibilities to carry this study forward.

As per the results of the correlation, it is indicated that there is a significant relationship between optimism and religiosity. So, H1 is not accepted. These findings corroborate with previous theoretical and empirical work which suggests a positive association between optimism and religiosity (Mattis et al., 2004). The study adds further proof to the existing literature. This finding enhances that optimism cultivated

from and combined with religiosity conveys protection. It could help the individuals foster positive orientations thereby nurturing personal growth through an optimistic outlook. The assuring believers of a particular religion could have a sense of consolation that they receive from following the said religion. They could have a sense of community that could foster this tendency to have a positive expectation of future success.

As per the results of the correlation, there is no significant relationship between **Optimism** and **Death Anxiety**. So, H2 was accepted. This result also echoes those of the other studies whose results suggest that death anxiety is not strongly associated with optimism (Barnett, 2018). This finding could enhance the inevitability of death. And this could indicate that an individual's death anxiety level is not contingent on or influenced by the individual's tendency to have a positive outlook on life.

As per the results, there is no significant relationship between **Optimism** and **Coronavirus Anxiety**. So, H3 was accepted. There is no significant relationship between **Religiosity** and **Death Anxiety** and there is no significant relationship between **Religiosity** and **Coronavirus Anxiety**. So, H4 and H5 were also accepted.

Previous literature has indicated that higher optimism may lead to better functioning in the face of negative or unforeseen life events or changes like the pandemic or death (Nes, 2016; Taylor and Armor, 1996). However, the results of our study were not congruent with previous research. It is also expected that those who engage in religious practices might have lower levels of death anxiety or fear of death because of their strong beliefs or enlightened mindsets, our findings did not indicate the same. When it comes to religiosity and Coronavirus anxiety, there are many ways that the two might be interlinked. But primarily, those who are religious and believe in God might perceive the pandemic as the wrath of God on humanity, or as a test even, which in turn, might keep their anxiety at bay.

However, the scores from the findings indicate no relationship between the two variables, thus implying that this association does not necessarily exist. The above-mentioned findings of the study could be due to the timing in which the research was conducted. The study was conducted at a time when India was experiencing a rapid spread of the coronavirus and the death toll was shooting up. So much so, that almost every family had people who had died due to the virus or were affected by it. On a daily basis, they were hearing of friends, well-wishers and acquaintances losing their lives. So, at a time like this when coronavirus disease and death was all around and it was a universal phenomenon that they were witnessing, they were quite anxious about it. They were grateful about being fine today but uncertain as to what tomorrow

may bring. Though they resorted to divine intervention, they were still anxious about the disease and death as these were incomprehensible and unintelligible.

And finally, we sought to understand the relationship between **Death Anxiety** and **Coronavirus Anxiety**. As per the scores, there is a significant relationship between these two variables and hence H6 was not accepted. This is most likely because the coronavirus has brought about feelings of doom and despair all around the world, with its rate of infection and the initial lack of knowledge surrounding this. Considering that it is an infection that grossly affects one's physical health condition, it only makes sense that it would make people fear for their lives and the lives of their loved ones.

### Implications of the Study

- This area of research has great potential to be explored further. The data surrounding the combination of these four variables is inadequate and adding new contextual and relevant findings can help to understand a presently under-investigated theme.
- In a world where mental health plays an important role, exploring traits, states, and other concepts that may aid in psychological well-being could help. Thus, further digging into the variables touched upon in this paper could yield information that benefits society in the form of theories, interventions, and numerous opportunities and possibilities for individual and social welfare.
- The interventions that aim at reducing the anxiety of individuals may focus more on cognitive and behavioural aspects where they are provided with scientific evidence on how to combat the disease.

### Conclusion

To conclude, the results of this study indicate that there is a relationship between optimism and religiosity and between Coronavirus Anxiety and Death Anxiety. These results suggest that the levels of Coronavirus Anxiety and Death Anxiety in a person are independent of their belief in a religion or their tendency to be optimistic.

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## **Stress of Parents with Differently Abled Children in Kolkata District of West Bengal**

• Subrata Sen<sup>1</sup>

• B. P. Sahu<sup>2</sup>

### **Abstract**

The present study deals with the identification of stress levels of parents with differently abled children ('Divyang') in greater Kolkata District, West Bengal. The conceptual framework of the study was based on two theories of stress: General Adaptation Syndrome (GAS, Hans Selye, 1956) and Appraisal Theory of Stress (Lazarus and Folkman, 1984). The investigators have adopted Proportional Stratified Simple Random Sampling Technique for the purpose of the sample. The sample size was restricted to 400 parents raising four types of differently abled children (ID, VI, HI and ASD). The study found that among the five sub-scales of parental stress of parents with differently abled children, stress in daily hassles was highly significant ( $p=0.004^{****}$ ), followed by stress in Family Functioning ( $0.012^{***}$ ), stress in Social-Support ( $0.028^{**}$ ), Parent-Related Stress ( $p=0.040^{**}$ ) and Child-Related Stress ( $p=0.049^{**}$ ). Statistically significant differences were also observed in Parental Stress Levels among the different groups of parents with differently abled children (ID, VI, HI and ASD).

**Keywords:** *Autism, Disability, Hearing Impairment, Intellectual Disability, Visual Impairment, and Stress.*

### **Introduction**

The birth or diagnosis of a differently abled child in a family leads to a situational crisis. The parents face a great challenge in tackling the problems associated with disabilities in their children. It creates an unanticipated, traumatic event beyond the parents' control (Hoff, 1978). They suffer from emotional disturbances, physical and psychological stress and anxiety, and subsequently develop depressive symptoms.

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<sup>1</sup>**Assistant Professor**, Dr B.R. Ambedkar Institute of Education, Kolkata. ✉[subratalit3@gmail.com](mailto:subratalit3@gmail.com)

<sup>2</sup>**Head**, DACE, NEHU, Shillong. ✉[bishnusw@gmail.com](mailto:bishnusw@gmail.com)

Emotional pressure, depressive symptoms, and stress have been cited by WHO (2001) as having the highest burden among parents having differently abled children impairing their psycho-social and physical functioning. These even lead to panic situations such as suicide, parental separation, increased health care costs, morbidity, and mortality.

Parents with differently abled children also experience fatigue in family life, low satisfaction in professional and social life, and resign in the early phases of career (Krauss, 1983). They experience great physical as well as psychological stress as they demand various psychological strategies for effective coping. Stress levels of the parents also increase because of elevated medical expenses, time demands, physical care, and worry about the child's future (Brehaut et al., 2011; Weiss, 2002).

Further, increased exposure to stress can exhibit serious health threats and potentially increase the risk of poor health outcomes for parents (Hung et al., 2010; Thurston et al., 2011; Witt, 2009). Studies also have reported that Parents with differently abled children experience higher level of stress, anxiety, depression, stigma, guilt, shame, etc. and have lower levels of self-confidence, self-esteem and harmony in marriage than parents who do not have any differently abled child (Glidden and Schoolcraft 2003, With et al., 2003, Uguz et al., 2004, Ali et al., 2012, Cantwell et al., 2015). The mental health of the parents of children with intellectual disability has higher stress level than the parents of children without a disability.

In addition, parents of the children with autism have also reported higher stress levels in several studies. Moreover, mothers of the children with a disability have been reported greater stress level than their husbands since mothers demand more social-support and improve relationship coping (Romans-Clarkson, Clarkson, Dittner et al., 1986). A study again noted that children with severe behaviour problems and poor communication skills place a very high demand on the parents as well as on the family members, and the care load falling substantially on the mother rather than their fathers (Sanders and Morgan, 1997). Marital problems such as divorce or separation creep in a greater degree due to the lack of time for nurturing their sexual life as well as for maintaining the needs of the children with disabilities.

Another source of tension is that single parents or divorced parents are often plunged into a typical situation in handling the abnormal behaviours of children with disabilities. Tension may have arisen from socio-economic hardship. A significant stressor is a challenge of finding a proper service that is flexible by nature and offers them enough time to maintain their children with disabilities. Sometimes chronic

stress may arise from the disruptive behaviours of the differently abled children (e.g., tantrums, aggression anxiety, including fearfulness, obsessions, and trauma-related anxieties). In fact, stress may be accompanied by depression and it causes high levels of irritability, communication difficulties, and self-absorbed behaviours in the parents with differently abled children.

### **Conceptual Framework of the Study**

General Adaptation Syndrome (Selye, 1956) and Appraisal Theory of Stress (Lazarus and Folkman, 1984) serves for the conceptual framework of the study. Selye (1956) in his GAS model considers stress as a dependent variable as well as a physiological response pattern. It also hypothesises that stress is a defensive mechanism and it follows the three stages of alarm, resistance, and exhaustion. According to Appraisal Theory, there are two types of appraisals: 'Primary Appraisal' and 'Secondary Appraisal'. Primary Appraisal determines the severity. It is the individual's evaluation of an event or situation as a potential hazard to his or her well-being. Secondary Appraisal is the individual's evaluation of his or her ability to handle the event or situation. Finally, 'Reappraisal' effectively controls the aversion effects of the stressors.

The Parental Stress Index (PSI) was developed on the theory that the total stress a parent experiences is a function of certain salient child characteristics, parent characteristics, and situations that are directly related to the role of being a parent. The PSI identifies dysfunctional parenting and predicts the potential for parental behaviour problems and child adjustment difficulties within the family system. Although its primary focus is on the preschool child, the PSI can be used with parents whose children are 12 years of age or younger.

### **Objectives of the Study**

1. To explore the stress levels of parents with Differently Abled Children with respect to:
  - i. Child-Related Stress
  - ii. Parent -Related Stress
  - iii. Stress in Family Functioning
  - iv. Stress in Social-Support
  - v. Stress in Daily Hassles

## **Hypothesis**

The following null hypothesis was formulated for conducting the study:

H<sub>0</sub>1: There exist no significant differences in Parental Stress Levels among the different groups of Parents with differently abled children (ID, VI, HI and ASD).

## **Research Design**

### **Population and Sample**

The population of the study comprised of parents of students with disabilities enrolled in eight (8) special schools in Kolkata, West Bengal (India), including Asutosh Institution for Mentally Retarded, Behala Bodhayan, Calcutta Blind School, Voice of World, Calcutta Deaf and Dumb School, Ideal School for the Deaf, Pradeep Kendra, and Mentaid Special School. The total number of population comprised of 826 sets of parents (both father and mother), a total of 1652 respondents. Parents of four (4) types of differently abled children (MR, VI, HI and ASD) was enlisted in the population. The children were studying in class-IV to X in different special schools in greater Kolkata. Single parents and orphan children were excluded from this study. For the purpose of the sample, the investigator adopted 'Proportional Stratified Simple Random Sampling' method. The total sample size was restricted to 400 parents only. (Parentswith ID/MR children - 36, Parents with VI Children: 46, Parents with HI children: 83, Parents with ASD children: 35). By following Yamane (19670: 886-87) formula, the sample size 322 or more was enough for conducting the aforesaid survey.

$$N = \frac{N}{1 + n(e)^2}$$

### **Tools used - Revised Parenting Stress Index (Abidin, 1983) and its Construction Process**

To explore the Stress Levels of Parents having differently abled children, the researcher adopted the revised version of Parenting Stress Index (Abidin, 1983). The Parental Stress Index-Long Form (PSI-LF) consisted of 120 items representing child and parent characteristics domains (101 items) and an optional stressful life events scale (19 items). AMOS-21 version was used in this study because it is quickly emerging as a powerful approach to measure unobserved variables using the Structural Equation Modelling (SEM). The researcher calculated Exploratory Factor Analysis

(EFA) to summarise data by grouping together variables that were inter-correlated. Confirmatory Factor Analysis (CFA) necessitates the estimation and specification of one or more hypothesised models of factors structure, each of which proposes a set of latent variables (factors) to account for covariance among a set of observed variables. Referring to Table 1, we can see the accounted cumulative variance with the 72 items PSI scale.

As directed by Munro (2005), the researcher utilised the Kaiser–Meyer–Oklin (KMO) test to compare the zero-order correlations to the partial correlations between pairs of variables. Kaiser (1974) argued that if KMO is greater than 0.50, it is acceptable. The KMO in EFA in the study model was 0.91. The closer the KMO to one (1), the better the correlations between pairs of variables that can be explained by the other variables. The Cronbach's alphas for the 72-items eleven-factors model of PSI scale in the current study were estimated as equal or higher than the 101-item.

To examine the multivariate normality of the data Analysis of Moment Structure (AMOS, version 21.0) software was utilised (Arbuckle 2012). Normality assessment was usually rejected on the ground that the ratio of skewness was higher than -1 and/or, kurtosis was higher than -2 (Nunnally and Bernstein, 1994). The 72 items' distribution in the current study was accepted as none of them departed from normality. Following the guideline of AMOS analysis (Arbuckle 2012), items (observed indicators) were enclosed in rectangles. Factors (latent variables) were enclosed in circles, whereas measurement errors were enclosed in ellipses. The structural model is identified by eleven interrelated constructs, connected to each other with double-headed arrows representing a pattern of inter-correlations. The single-headed arrows leading from the circles to the rectangles are regression paths representing the link between the factors and their respective set of observed variables; these coefficients represent factor loading. Moreover, the single-headed arrows from ellipses to rectangles represent measurement error associated with observed variables.

Confirmatory factor analysis was performed using the estimation method of the Maximum Likelihood over the variance-covariance matrix for the three-factor model through the AMOS 21.0 statistical package (Arbuckle, 2012). To achieve model identification, regression coefficients of the error terms over the endogenous variables were fixed to 1. The CFA was performed in order to determine whether the hypothesised statistical model fits the actual data set.

A number of 'goodness-of-fit' statistics were used on the three-factor models derived by means of EFA. It is recommended to consider a variety of fit indices so that the weakness of a particular index is counteracted by the strength of another

(March et al., 1996). The commonly used fit statistics include the comparative fit index (CFI), goodness-of-fit index (GFI), and incremental fit index (IFI), all with a range 0–1 and with values greater than 0.90 indicating a good fit (Wang et al., 1996). The root means square error of approximation (RMSEA) of 0.05 or less indicates a ‘close fit’, while values of more than 0.1 justify rejecting the model (Browne and Cudeck, 1989). The goodness-of-fit indices of the 72-item model were exceeding the 101-item model in most of the indices (See Table 2).

**Table 1. Cronbach’s Alpha, Reliability for the 2 Sub-Scales in 72 Items and 101 Items**

Model	Child-related Stress	Parent-Related Stress	Total Scale
101 items	47 items: 0.89	64 items: 0.92	90.5
72 items	35 items: 0.91	37 items: 0.94	92.5

**Table 2. Goodness-of-Fit Indices for Two Models**

Model	X <sup>2</sup> *	d.f.*	P*	X <sup>2</sup> /d.f.*	GFI*	AGFI*	CFI*	IFI*	RMSEA
101 items	3486.7	1784	<0.1	1.954	0.87	0.94	0.92	0.79	0.07
72 items	2445.8	1202	<0.01	2.034	0.92	0.98	0.96	0.87	0.07

\* x<sup>2</sup>/d.f.: relative chi-square.

*GFI, Goodness-of-fit index; AGFI, Adjusted GFI; CFI, Comparative fit index; IFI, Increment fit index; RMSEA, root mean square error of approximation.*

**Parental Stress Index (PSI) Administration and Scoring**

The PSI can be administered and scored by individuals without professional training, but interpretation of the measure should involve an individual with graduate-level training in tests and measurement. Most parents completed the questionnaire in about 20 minutes, though no time limit was given. Respondents were asked to read the instructions on the first page of the item booklet and then respond to each item by circling SA (strongly agree), A (agree), NS (not sure), D (disagree), or SD (strongly disagree) on the answer sheet. The respondent’s answers are recorded on the scoring sheet via carbon transfer (if the EZ score form is used). The Child Domain sub-scale and the Parent Domain factor scores are calculated by summing the appropriate sub-scales within each domain.

To obtain the Total Stress score, users sum the Child Domain score and the Parent Domain score. Percentile scores corresponding to each of the sub-scale raw scores are provided on the profile page. Percentile scores are derived from the frequency distribution of the normative sample. Sub-scale scores may be interpreted individually; however, scores are best considered in relation to each other. The Total Stress score can be used to gauge whether professional intervention might be warranted. Total Stress raw scores greater than 60% suggests a need for referral to an appropriate professional for consultation. The revised PSI consists of 72 items. It yields a Total Stress Score, plus scale scores for both child and parent characteristics, which pinpoint sources of stress within the family. The child characteristics are measured in six sub-scales: Distractibility/Hyperactivity, Adaptability, Reinforces Parent, Demandingness, Mood, and Acceptability. The parent personality and situational variables component consists of seven sub-scales: Competence, Isolation, Attachment, Health, Role Restriction, Depression, and Spouse.

### **Family Adaptability and Cohesion Evaluation Scales III:**

To assess the stress in Family Functioning of Parents having differently abled children, Family Adaptability and Cohesion Evaluation Scales III (Olson, Bell, and Portner, 1982) was also attached to the revised PSI scale. This scale composed of 20 items, each measured using a 5-point Likert scale, that covered parental perception of the degree of emotional cohesiveness and the degree of adaptability within the family, with higher scores indicating greater amounts of the descriptor. (Almost never=1, Once in a while=2, Sometimes=3, Frequently=4, and Almost always=5). FACES-III obtained enough internal/consistency values that are fairly high ( $r=0.68$ ) as well as high test-retest reliability ( $r=0.80$ ). The very low correlation between scales ( $r=0.03$ ) provided that it has sufficient validity to utilise in measuring family functioning in parents having differently abled children. Over 500 research projects had already adopted the FACES scales.

**Stress in Social-Support-** To assess the stress in Social-Support, an Interview Schedule had been administered, including two sub-domains: Helpfulness of the Network (Qs No-1- 7) and Size of Network (Qs.No.8-13). This Interview Schedule followed the following five points scoring system: 5=Strongly Agree, 4= Agree, 3=Undecided, 2= Disagree, 1=Strongly Disagree.

**Stress in Daily Hassles-** To identify the stress in Daily Hassles in Parents with differently abled children, an Interview Schedule had been administered including 15 items. This Interview Schedule followed the following five points scoring system: 5=Strongly Agree, 4= Agree, 3=Undecided, 2= Disagree, 1=Strongly Disagree.



### Statistical Procedure

To understand the Stress Level of Parents with Differently Abled Children, the investigators calculate Mean and SD value of each item of research question, Percentage of Means and SDs and p-values. Minitab-20 version has been applied to find out the statistical scores rapidly. The test is statistically significant if the calculated p-value is  $\leq 0.05$  (5% level of significance). Statistically low significant level (i.e., \* $p \leq .1$  or, 10% level of significance) is also reflected in the analysis of the data. Each sub-scale of Parental Stress in the Parents with differently abled children has differently criteria for measuring their stress values and significance of each sub-scales is estimated through their PMS values and p-values, not on the basis of total Mean scores. In the study, Mean scores reflect the average responses of parents having children with disabilities with reference to their stress level. On the other hand, converting Mean scores to percentages indicates the average percentage of the score relative to the total score.

### Analysis and Interpretation of Data

Parental stress scores are represented under the five sub-scales of the Parenting Stress in parents with differently abled children: Child-Related Stress Scale, Parent-Related Stress Scale, Family Functioning Scale, Social-Support Scale and Stress in Daily Hassles.

Referring to Table No. 3, we can observe the stress levels of parents with differently abled children. The study reveals that majority (54.5%) of parents raising differently abled children have experienced severe parental stress (total Mean score  $438.70 \pm 194.60$ , PS 72.60), 30.5 % have moderate parental stress (mean score  $418.20 \pm 178.46$ , PS= 58.34) whereas only 12 % of parents have mild parental stress (total mean score is  $398.04 \pm 165.00$ , PS =40.44). Roughly, 3% of the Parents with differently abled children do not have experienced stress in their parenting process (total mean score  $230.60 \pm 78.28$ , PS = 31.60).

**Table 3: Levels of Stress among Parents with differently abled children**

Levels of Stress	% of Parents with differently abled children	Mean (Total Sample)	SD (Total sample)	Percent Score
Severe	54.5%	438.70	194.60	72.60
Moderate	30.5%	418.20	178.46	58.34
Mild	12.0%	398.04	165.00	40.44
Nil	3.0%	230.60	78.28	31.60

Referring to Table 4, we can see that parents with autistic children experience a higher level of stress (PMS = 69.64), followed by parents with ID children (PMS = 65.50), parents with VI children (PMS = 58.45) and parents with HI children (PMS = 54.73). The total mean value of all five sub-scales of parenting stress among parents with autistic children is significantly higher than other three types of parents with differently abled children (ID, VI and HI).

Referring to Table 4, we can claim that the highest type of Child-Related Stress among the parents with differently abled children falls into Distractibility (PMS = 68.12), followed by Demandingness (PMS=66.50), Reinforces Parents (PMS=56.80), Adaptability (PMS = 59.22), Mood (PMS=46.05±12.27) and Acceptability (PMS = 42.86).

The Mean and SD values of different parameters of the Child-Related Stress Scale of the parents with differently abled children are as follows: (i) Distractibility (26.60±11.60) (ii) Demandingness (25.06±11.90) (iii) Adaptability (23.70±9.20) (iv) Reinforces Parents (19.80±7.58) (v) Acceptability (17.15± 10.20) and 6. Mood (16.56±8.80). Thus, the highest Mean value goes to Demandingness of the Parents with differently abled children and lowest Mean value goes to their Mood.

The total percent score of the Child-Related Stress of Parents with differently abled children is high (PMS=52.48) but not more than the Parent-Related Stress (PMS = 56.40) (See Table 4.49-4.50). The large value of SD (Total Mean = 63.28) of the Child-Related Stress indicates that responses are more spread out over the Mean as four types of Parents with differently abled children are included in the study based on their different criteria.

Now, p-values of different parameters of Child-Related Stress sub-scale reflect the statistical level of significance. As mentioned in the following table, the lowest p-value falls into Distractibility of Parents with differently abled children, which is statistically significant at near about 0.8% level of significance ( $p = 0.008^{****}$ ). Demandingness of Parents of children with a disability is statistically significant at nearabout 7% level of significance ( $p=0.07^{**}$ ). Both Adaptability ( $p=0.024^{**}$ ) and Reinforces Parents ( $0.09^{**}$ ) are statistically significant at the 5% level. But, Acceptability ( $p=1.008$ ) and Mood ( $p= 1.78$ ) of Parents having differently abled children are found to be statistically not significant. The Child-Related Sub-Scale of Parents with differently abled children is statistically significant at 5% level of significance ( $p = 0.049^{**}$ ).

**Table4. Mean, SD and Percent Score of Means and p-value of the Child-Related Sub-Scale of Parental Stress among the Parents with Differently Abled Children**

Child-Related Stress	M ±SD (128.87± 63.28)	Percent Scores of Means and SD (52.48± 19.70)	p-value (0.049**)
1.Acceptability	17.15± 10.20	42.86±21.80	1.008
2.Adaptability	23.70± 9.20	59.22±12.27	0.024**
3.Demandingness	25.06±11.90	66.50±26.70	0.07**
4.Distractibility	26.60± 11.60	68.12±23.34	0.008***
5.Mood	16.56± 8.80	46.05±12.27	1.78
6.Reinforces Parents	19.80± 11.58	56.80±22.38	0.09**

Statistically significant at \*\*p ≤ .05, \*\*\*p ≤ .01, \*\*\*\*p ≤ .005

As illustrated in Table No. 5, the highest stress in Parent-Related Stress Scale of Parents with differently abled children is identified as Sense of Competence (PM =66.20), Relation with the Spouse (PMS= 61.50), Restrict Role (PMS =56.35), Depression (PMS =54.29), Attachment (PMS = 52.20), Parents Health (PMS= 50.90), and Social Isolation (PMS =39.56).

From this table it is also evident that Parent-Related Stress (Total Mean = 137.71, total PMS = 56.40) of the parents with differently abled children is statistically higher than their Child-Related Stress (Total Mean= 128.87, PMS = 52.48). With respect to Mean scores of Parents with differently abled children, we find that Sense of Competence is identified as highest Mean value (30.56), Relation with the Spouse (22.28), Depression (PMS =22.80), Restrict Role (19.60), Parents Health (17.40), Social Isolation (12.87) and Attachment (12.20). The total SD values of the Parent-Related Stress among the Parents with differently abled children is estimated at 68.30 which was higher than children-related stress sub-scale.

The lower p-value of Parent- Related Stress Sub-Scale of the Parents with Differently Abled Children indicates that it was statistically significant at the 5% level (p = 0.04\*\*). Among the seven parameters of Parent-Related Stress, Sense of Competence is identified as lowest p-value (0.002\*\*\*) and it is statistically significant at the 0.5% level of significance. Depression is identified as statistically significant at the 5% level (p= 0.04\*\*). Relation with the Spouse is identified as statistically significant at the 1% level (p= 0.018\*\*\*). Statistically not significant results are found with respect to Attachment (p= 2.78), Parent Health (p= 1.18). Social Isolation (p = 1.68) and Restrict Role (p= 1.28) of Parents raising children with disabilities.

**Table 5. Mean, SD, Percent Score of Means, and p-value of Parent-Related Stress Sub-Scale of Parental Stress among the Parents with Differently Abled Children**

Parent-Related Stress	Mean $\pm$ SD) (137.71 $\pm$ 68.30)	Percent Score (56.40 $\pm$ 23.44)	p-value (0.04**)
1.Attachment	12.20 $\pm$ 7.78	52.20 $\pm$ 28.78	2.78
2.Sense of Competence	30.56 $\pm$ 10.12	66.20 $\pm$ 22.28	0.002****
3.Depression	22.80 $\pm$ 10.50	54.29 $\pm$ 17.34	0.04**
4.Parent Health	17.40 $\pm$ 9.58	50.90 $\pm$ 23.30	1.18
5.Social Isolation	12.87 $\pm$ 9.78	39.56 $\pm$ 16.60	1.68
6.Restrict Role	19.60 $\pm$ 12.28	58.35 $\pm$ 18.40	1.28
7.Relation with the Spouse	22.28 $\pm$ 8.26	61.50 $\pm$ 20.15	0.018***

Statistically significant at \*\* $p \leq .05$ (5%), \*\*\* $p \leq .01$ (1%) \*\*\*\* $p \leq .005$

As mentioned earlier, Family Functioning Sub-Scale was also attached to the framework of Parental Stress Scale of the Parents with differently abled children. It can provide us the more accurate picture of their stress level.

Referring to Table 6, we can claim that among the two parameters of the Family Functioning sub-scale of Parental Stress, Cohesion represents highest stress (PMS = 69.80) and it is statistically significant at the 1% level ( $p = 0.010$ \*\*\*). Contrary to this, Family Adaptability of Parents raising children with disabilities falls into second position and it is statistically significant at the 1% level ( $p = 0.016$ \*\*\*). The SFS sub-scale is statistically significant at the 1% level ( $p = 0.012$ \*\*\*).

The large Percent Scores of Mean (59.07) represents that Family Functioning is one of the significant burdens among the Parents with differently abled children, that leads to several types of stress in their family life. The total Mean value of SFF sub-scale is estimated at 82.81. The Mean score of Cohesion is comparatively higher than Adaptability (52.75  $\geq$  30.06).

Another important aspect of the Family Functioning Stress scale of parents with differently children is that the total SD scores (17.06) are more spread out over the Means. It indicates that Family Functioning in Parents with differently abled children depends on the category of Parents, types of disability as well as severity of disability among the children.

**Table 6. Mean, SD, Percent Scores of Means, and p-value of Family Functioning Sub-Scale of Parental Stress among the Parents with Differently Abled Children**

Stress in Family Functioning	Mean ± SD (82.81±17.06)	Percent Scores (59.07±7.24)	p-value (0.012**)
Cohesion	52.75±10.02	69.80±9.60	0.010***
Adaptability	30.06±7.04	52.10±6.82	0.016***

Statistically significant at \*\*\*p ≤ .01 (1%)

Referring to Table 7, we can demand that the Social-Support sub-scale of Parental Stress among Parents with differently abled children is statistically significant at the 5% level (PMS = 54.62, p = 0.028\*\*). It is evident that Helpfulness of Network of Parents with differently abled children is statistically significant at the 5% level of significance (PMS = 57.60, p = 0.026\*\*). But, Size of Network is statistically not significant (PMS=42.10, p = 1.68).

The total Mean and SD scores of the Social-support sub-scale of the Parental Stress Scale was estimated at 37.90 and 11.70, respectively. The small percent score of the SD (15.37) of SSS sub-scale of the Parents with differently abled children indicates that Parental Social-Support System scores are not significantly spread out over the Means.

**Table 7. Mean, SD, Percent Score of Means and p-value of Social-Support Sub-Scale of Parental Stress among the Parents with Differently Abled Children**

Stress Related to Social-Support	Mean ± SD (37.90 ± 11.70)	Percent Score (54.62 ± 15.37)	p-value (0.028**)
Helpfulness of Network	28.8±8.30	57.60±22.36	0.026**
Size of Network	9.10±5.40	42.10±12.38	1.68

Statistically significant at \*\*p ≤ .05

Referring to Table 8, we can claim that the Daily Hassles Sub-scale of Parental Stress among the Parents with differently abled children was statistically highly significant at the 0.5% level (p = 0.004\*\*\*\*). The total Mean and SD scores of the SDH sub-scale was estimated at 54.31 and 28.41, respectively. The PMS value of the SDH sub-scale of the Parental Stress was estimated at 66.08. Among the 21 items of SDH sub-scale, we find that only nine (13) items are statistically significant. Other 8 items of the SDH sub-scale of Parental Stress of Parents with differently abled children are statistically not significant. As investigated by Kanner et al., (1981), daily hassles are a source of stress that include irritating, frustrating and distressing

demands that people face on a day-to-day basis. In the current study, examples of daily hassles of Parents with differently abled children could include frequently talk about family problems ( $p=0.002^{****}$ ), problems associated with the child's school ( $p=0.043^{**}$ ), lack of confidence ( $p=0.058^{**}$ ), too much responsibilities ( $p=0.006^{****}$ ), rising price about the common goods ( $p=0.007^{****}$ ), concern about owing money ( $p=0.009^{****}$ ), worry about the sexual satisfaction with the spouse ( $p=0.028^{**}$ ), worry about property, investment and taxes ( $p=0.019^{***}$ ), home maintenance ( $0.038^{**}$ ), problems arises due to using alcohol/tobacco ( $p=0.039^{**}$ ), health of a family member ( $p=0.038^{**}$ ), thinking about the future of differently abled children ( $p=0.016^{**}$ ), etc. As reflected on the study, the *hassles scale* was mainly focused on daily annoyances and frustrations. However, the theoretical problems have not gone away. Someone may argue that the items on the scale remain rather vague and arbitrary and more likely to assess neuroticism rather than stress. In turn, this leads to problems in how to properly interpret the results of such a scale. The discussion on the results may justify this problem elaborately, suggesting possible interpretation to minimise this vagueness.

**Table 8. Mean, SD, Percent Scores of Means and p-value of Daily Hassles Sub-Scale of Parental Stress among the Parents with Differently Abled Children**

Daily Hassles	Mean $\pm$ SD (54.31 $\pm$ 28.41)	Total Percent Scores	p-value (0.004 <sup>****</sup> )
1.Frequently talks about family problems	4 $\pm$ 1.2	66.08	0.002 <sup>****</sup>
2. Problems associated with child's school	3.2 $\pm$ 1.3		0.043 <sup>**</sup>
3. Lack of confidence	2.57 $\pm$ 0.8		0.006 <sup>****</sup>
4.Misplacing/losing things	2.1 $\pm$ 1.5		1.860
5. Too much responsibilities	4 $\pm$ 2.3		0.006 <sup>****</sup>
6. Inability to express yourself	2.4 $\pm$ 0.6		1.060
7. Lack of confidence	2.0 $\pm$ 1.06		0.058
8.Rising price about common good	4.3 $\pm$ 2.6		0.007 <sup>****</sup>
9.Concern about owing money	4.04 $\pm$ 2.8		0.009 <sup>****</sup>
10.Having to wait	2.6 $\pm$ 1.05		1.006
11. Laid off or out of work	1.0 $\pm$ 0.6		2.350
12. Thinking about the future of the Differently abled child	4.0 $\pm$ 2.2		0.016 <sup>***</sup>
13. Worry about the Sexual satisfaction with the spouse	2.8 $\pm$ 1.2		0.028 <sup>**</sup>
14.Crime	1.9 $\pm$ 1.6		2.380
15.Home maintenance	3.2 $\pm$ 2.3		0.038 <sup>**</sup>
16.Traffic jam			3.040
17. Health of a family member	3.0 $\pm$ 2.2		0.038 <sup>**</sup>
20.Worry about property, investment and taxes	2.6 $\pm$ 0.9		0.019 <sup>***</sup>
19. Dependency of using tobacco/alcohol	2.2 $\pm$ 1.5		0.046 <sup>**</sup>
21.Problems arises due to using alcohol/tobacco	1.8 $\pm$ 0.7		0.039 <sup>**</sup>

Statistically significant at \*\* $p \leq .05$ , \*\*\* $p \leq .01$ , \*\*\*\* $p \leq .005$

Referring to Table No. 9, we can see that Stress in Daily Hassles represents highest Percentage of Means (Total Mean 54.31, PMS = 66.08) among the five sub-scales of Parenting Stress in Parents with differently abled children, followed by stress in Family Functioning (Total Mean 82.21, PMS = 59.07), Parent-Related Stress (Total Mean =137.71, PMS= 56.40), stress related to lack of Social-Support (Total Mean = 37.90, PMS = 54.62) and Child-Related Stress (Total Mean = 128.87, PMS= 52.48). The Mean total of each sub-scales of the Parenting Stress Scale denotes the values inscribed into the total number of questions. Here the total number of questions as well as the procedure of inscribing values was different for each sub-scale of Parenting Stress.

The lowest p-values falls into Stress in Daily Hassles and it was statistically significant at 0.5% level of significance ( $p = 0.004$ ). Stress in Family Functioning was statistically significant at the 1% level ( $p = 0.012^{***}$ ). Parent-Related Stress of Parents raising children with disabilities are statistically significant at the 5% level of significance ( $p = 0.040^{**}$ ). Stress in Social-Support of Parents with differently abled children are statistically significant at the 5% level of significance ( $0.028^{**}$ ). Lastly, Child-Related Stress of Parents with differently abled children was also statistically significant at the 5% level of significance ( $p = 0.049^{**}$ ).

These results are based on a statistical level of significance only, not in a practical sense. In other words, we may claim that the statistically significant level of measurement with respect to stress in Daily Hassles, Family Functioning, Social-Support, Parent-Related and Child-Related aspects of the Parents with differently abled children are ‘determined’.

**Table 9: Mean Differences among the Five Types of Parental Stress Sub-Scales for Parents with Differently Abled Children**

Sub-scales of Stress	Mean ± SD	Percent Score of Means (Total Sample)	p-values	Ascending order based on p-value and Percent Scores of Means
<b>Child-Related Stress</b>	128.87± 63.28	52.48	0.049**	5
<b>Parent-Related Stress</b>	137.71±68.30	56.40	0.040**	4
<b>Family Functioning</b>	82.81 ± 17.06	59.07	0.012***	2
<b>Social-Support</b>	37.90 ± 11.70	54.62	0.028**	3
<b>Daily Hassles</b>	54.31 ± 28.41	66.08	0.004****	1
<b>Total Stress Score</b>	<b>435.79 ± 187.75</b>	<b>58.90</b>		

*Statistically significant at \*\* $p = \leq .05(5\%)$ , \*\*\* $p = \leq .01(1\%)$ , \*\*\*\* $p = .005(0.5\%)$*

## 7. Hypothesis Testing

Referring to Table 10, we can see that Parents with Autistic children experience higher level of stress (PMS = 69.64), followed by Parents with ID Children (PMS = 65.50), Parents with VI Children (PMS = 58.45) and Parents with HI Children (PMS = 54.73). The total Mean value of all five sub-scales of Parenting stress among Parents with Autism children was significantly higher than other three types of Parents with differently abled children (ID, VI and HI).

**Table 10. Distribution of Stress among the different types of Parents with Differently Abled Children**

Types of Parents	% of Parents with Differently Abled Children	Mean± SD	Percent Score
Parents with ID Children	18	452.69 ± 185.25	65.50
Parents with VI Children	23	429.90 ± 188.72	58.45
Parents with HI Children	41.5	413.20 ± 169.19	54.73
Parents with Autistic Children	17.5	474.11 ± 198.54	69.64

As highlighted in Table No. 11, Parents having children with autism experience more Parenting Stress for all five sub-scales than other three type of Parents with differently abled children and it was statistically significant at the 6% level of significance ( $p=0.006$ ). Parents with Intellectually differently abled children also experience much Parenting Stress and it was statistically significant at the 1% level of significance. ( $p=0.18$ ). The Parenting Stress scores of other two types of Parents with differently abled children (VI and HI) are statistically significant at the 5% level of significance. The p-value for Parents with VI and HI children are 0.025 and 0.031, respectively.

With respect to Child-Related Stress, Parents with Autistic children rank the first (Mean= 134.07), followed by Parents with ID Children (Mean = 131.70), Parents with VI children (Means = 125.80), Parents with HI children (Mean = 122.80). With respect to Parent-Related Stress, Parents with Autistic children experience much stress (Mean= 145.75), followed by Parents with ID Children (Mean = 142.74), Parents with VI children (Mean= 135.61), and Parents with HI children (Mean= 131.25). With Respect to Stress in Family Functioning, highest stress falls into Parents with Autism children (Mean = 86.70), followed by Parents with ID Children (Mean = 82.81), Parents with VI children (Mean = 81.20), and Parents with HI children (Mean = 76.60). Concerning Stress in Social-Support, highest stress score falls into



Parents having children with Autism (Mean= 42.05), followed by Parents with ID Children (Mean = 39.26),

Parents with VI children (Mean = 35.05) and Parents with HI children (Mean = 32.65). Finally, with respect to Stress in Daily Hassles, the highest stress score falls into Parents with Autism children (Mean = 58.54), followed by Parents with ID Children (Mean = 56.18), Parents with VI children (Mean= 52.24) and Parents with HI children (Mean = 49.90).

**Table 11. Comparison of Total Score of Stress and Different Aspects of Parental Stress among the Three Main Groups**

Types of Parents	CRS	PRS	SFF	SSS	SDH	p-value
Parents with ID Children	131.70±60.13	142.74±70.10	82.81 ± 16.06	39.26± 10.70	56.18± 28.26	.018*
Parents with VI Children	125.80± 64.50	135.61±66.40	81.20 ± 18.26	35.05 ± 12.50	52.24± 27.06	.025**
Parents with HI Children	122.80± 56.40	131.25±62.90	76.60 ± 15.28	32.65 ± 9.05	49.90± 25.56	.031**
Parents with Autism Children	134.07± 65.35	145.75±70.60	86.70 ± 18.70	42.05 ± 14.05	58.54± 29.84	.006****

Statistically significant at \*\*p= ≤ .05(5%), \*\*\*p=≤ .01(1%),\*\*\*\*p=.005(0.5%)

(The p-values are related to comparing the mean score of total stress and different aspects of parental stress among the four Parental groups).

From the above-mentioned analysis and interpretation, Null Hypothesis-1(N<sub>0</sub>1) has been rejected with respect to all five sub-scales of Parenting Stress as the test statistics are below the critical values in upper tailed tests for all cases. Thus, we can claim that there are significant differences in Parental Stress Levels among the different groups of Parents with Differently Abled Children (ID, VI, HI and ASD).

### Discussion on the Findings

The study confirms that the highest type of Child-Related Stress among Parents with differently abled Children fell into Distractibility (PMS = 68.12), followed by Demandingness (PMS=66.50), Reinforces Parents (PMS=56.80), Adaptability (PMS = 59.22), Mood (PMS=46.05±12.27) and Acceptability (PMS = 42.86). In this case, the parents’ cognitive appraisal towards their children characteristics may become

the determinants of their Parenting Stress. However, considerable research elucidates that parenting stress is related to the child's temperament (such as demandingness, adaptability, acceptability, mood, hyperactivity/distractibility), often appears to be higher in the families with a differently abled child (Dyson, 1997; Barker et.al., 2002). McBride, Schoppe, and Rane (2002) highlight another significant way in which child characteristics, particularly temperament, may influence parents through increased or decreased parenting stress. By following Belsky's (1984) model of the determinants of parenting, Mash and Johnston (1990) propose that child characteristics such as temperament have an influence on parent-child interactive stress.

In this case, the parents' cognitive appraisal towards their children's characteristics may become the determinants of their stress. However, considerable research elucidates that parenting stress, especially stress related to the child's temperament (such as demandingness, adaptability, acceptability, mood, hyperactivity/distractibility), often appears to be higher in the families with disabled child (Dyson, 1997; Barker et.al., 2002). Another study by McBride, Schoppe, and Rane, 2002 highlighted another significant way in which child characteristics, particularly temperament, may influence parents through increased or decreased parenting stress. In a model of parenting stress analogous to Belsky's (1984) model of the determinants of parenting, Mash and Johnston (1990) proposed that the child's characteristics such as temperament have an influence on parent-child interactive stress. In support of this notion, research indicates that mothers of temperamentally difficult children report higher stress levels of parenting stress (Gelfand, Teti, and Radin Fox, 1992) more psychological problems including doubts about their parenting competence and feelings that are parenting restrictive (Sheeber and Johnson, 1992) and higher levels of depression.

The results show that the highest stress in Parent-Related Stress Scale of Parents with differently abled children was identified as Sense of Competence (66.20), Relation with the Spouse (PMS= 61.50), Restrict Role (PMS =56.35), Depression (PMS =54.29), Attachment (52.20), Parents Health (50.90), and Social Isolation (39.56). As stated by Abidin (1995), beside child characteristics and situational life stress as sources of stress, parent characteristics in which parents' personality, competency, and other dimensions as measured by PSI also may link to the parenting stress. High scores in Parent domain imply that the sources of stress and potential dysfunction of the parent-child system may be related to the aspects of parent's functioning. McBride (1989) illustrates that fathers having children with disabilities experience less stress when they feel more competent in their parenting role. In support of this notion, research indicates that mothers of temperamentally difficult children experience higher stress levels (Gelfand, Teti, and Radin Fox, 1992) as well as more psychological

problems including doubts about their parenting competence and feelings that parenting restrictive (Sheeber and Johnson, 1992) and higher levels of depression.

As stated by Abidin (1995) beside child characteristics and situational life stress as sources of stress, parent characteristics in which parents' personality, competency, and other dimensions as measured by PSI also may link to the parenting stress. High scores in Parent domain imply that the sources of stress and potential dysfunction of the parent-child system may be related to the aspects of parent's functioning. In a study based on 94 fathers, Mc Bride (1989) illustrated that these parents experienced less stress when they feel more competent in their parenting role. On the other hand, wives' employment was linked to the higher levels of stress, as related to the Role Restriction, Depression and Demandingness sub-scales score. The fathers' depression and their perception of their children as demanding were the best predictors of parental competence (Abidin, 1995).

Results from the study have led to deeper understanding about the role of Family Functioning among Parents having children with disabilities. Among the two parameters of the Family Functioning sub-scale of Parenting Stress, the current study shows that Cohesion represented highest stress (PMS = 69.75) and it was statistically significant at the 1% level ( $p = 0.010^{***}$ ). Contrary to this, Family Adaptability of Parents raising children with disabilities fell into second position and it was statistically significant at the 5% level ( $p = 0.016^{***}$ ). Family resilience research (e.g., McCubbin and McCubbin, 1996; Patterson, 2002; Walsh, 1998) provides a broad framework for understanding the protective factors that enhance families' adaptation to difficult life experiences. Many researchers (e.g., Beavers and Hampson, 1990; Patterson, 2002; Walsh, 1998, 2003) emphasise that one of the most essential factors that contribute to family resilience is connectedness or family cohesion.

According to Walsh (2003), family resilience is strengthened by mutual support, collaboration, and commitment in the face of stressful life events. Family cohesion has been found to be significantly related to the adjustment of the individuals who experience a major life crisis (e.g., Friedman et al., 1988). Although it has been reported in the previous literature that family cohesion is related to increased life satisfaction in fathers (Boyras and Sayger, 2009), it appears that there is no study in the literature examining the role of family cohesion on the well-being of the fathers of children with disabilities. Because family cohesion is one of the key protective factors in the family, it may be an important variable that contributes to well-being of fathers in both groups.

In addition to family cohesion, family adaptability is considered one of the core processes of resilience. Walsh (1998) suggests that families may not return to normal life easily after a major life crisis. Indeed, having a child with a disability may require major changes in the roles of parents as well as siblings. According to Patterson (2002), it is important for families to find a balance between maintaining a stable family structure while also allowing for change in response to developmental and environmental demands. In other words, while accommodating to new circumstances, families should retain their stability through maintaining a healthy balance between changed routines and the prior stable routines and rituals.

Family resilience theories suggest that family crises can become an opportunity for reappraisal of priorities and the development of meaningful relationships and personal resources (McCubbin and McCubbin, 1996; Patterson, 2002; Walsh; 1998). Parents' initial reactions to having a child with a disability is usually associated with negative feelings such as anxiety, shock, despair, avoidance, anger, guilt, and helplessness (Fortier and Wanlass, 1984). However, long-term impact of a highly challenging event, such as having a child with disability on a family depends on several factors including the characteristics of the event, prior stressful events that the family experienced, internal and external resources that the family has, and the meaning ascribed by the family members to the event (Cmic, Friedrich, and Greenberg, 1983; McCubbin, 1979; McCubbin and McCubbin, 1996; McCubbin and Patterson, 1982). Several factors including the family members' reactions to the additional stressors of having a child with a disability and the communication patterns of the family members play a crucial role in determining whether the family will derive benefits from this experience or will disintegrate (e.g., Dickman and Gordon, 1985).

The present study also shows a significant negative relationship between social-support and parental stress, where higher level of social-support resulting in lower level of parental stress. This result is consistent with many previous studies as social-support has long been recognised as an important component in stress process and a predictor of psychological well-being (Cohen and Wills 1985; Pearlin 1989). Social-support is believed to help parents in coping with the hardship of raising their children with disabilities (Abidin, 1992). SimanTov and Kaniel (2011) view social support as one of the personal resources that can predict the adjustment of parental stress among parents of autistic children. Their study showed that social-support increases parents' ability to cope with parenting stress. Similarly, Lai (2013) in her study among parents of children with autism in Taiwan shows a strong negative correlation between social-support and parental stress.

Lai (2013) reports that her findings support Lazarus and Folkman's (1984) model of social-support, which suggest that social-support provides a buffer against stressful life events and is related to well-being for individuals under stress. The result also contradicts to the findings of Tehee et al., (2009). They view that larger support networks can expose parents to more information, and more information can educate parents on how to obtain support that can help them to cope effectively and mitigate the negative effects of stress.

Parents of children with ASD experience tremendous pressures from the demands of child rearing and require support for their overall well-being. Past studies have showed that social support can moderate the negative impact of crisis and change on individuals and has been included in studies of adaptation in parents of children with ASD (Boyd, 2002; Meadan, Halle, and Ebata, 2010). Pain (1999) claims that information helped parents of children with disabilities to adjust emotionally, to access services and benefits, and to improve overall management.

A study by Tehee and colleague (2009) shows a significant positive relationship between support and information, where a greater support network may expose parents to more information, and more information may educate parents on how to obtain support to aid effective coping and reduce negative effects of stress (Tehee, Honan, and Hevey, 2009). Moreover, Siman-Tov and Kaniel (2011) view social-support as one of the personal resources and predictors in the adjustment of parental stress. The path analysis from their study shows that social-support increases parent's ability to cope with the stress in parenting a child with autism (Simon-Tov and Kaniel, 2011).

In the current study, the daily hassles Sub-scale of Parental Stress among Parents with differently abled children was statistically highly significant at the 0.5% level ( $p = 0.004^{***}$ ). The irritating and annoying demands of everyday life, termed daily hassles, seem small in isolation but are cumulative in their impact (Kanner et al., 1981). Researchers have documented a link between elevated daily hassles and lower perceived marital quality (Harper, Schaalje, and Sandberg, 2000). Crnic and Greenberg (1990) find that the heightened occurrence of minor parenting hassles among parents of typically developing young children predicted less positive family well-being.

Although the relationship between daily hassles and marital adjustment has not been studied among families of children with disabilities, associations have been found between daily hassles and lower mental health (Wallander, Pitt, and Mellins, 1990) and between stressful life events and marital adaptation (Florian and Findler,

2001) for mothers of children with disabilities and between general parenting stress and negative marital adjustment for both mothers and fathers of children with disabilities (Fisman et al., 1989). The result of the study indicates that heightened daily hassles would be associated with lower marital adjustment in mothers and fathers of young children with disabilities.

### **Delimitations**

1. This study only includes such type of Parents who had Children with ID, VI, HI and ASD. Results may differ among Parents of Children with Down Syndrome, Multiple Disabilities, Physical Disabilities, etc.
2. Single parents of differently abled children were excluded from the study as different studies have already identified their severity of stress level and useful coping strategies.
3. Due to the complex nature of Stratified Proportional Simple Random technique, sample characteristics for comparison groups (i.e., parents having children with ID, VI, HI and Autism) could not be precisely matched to minimise secondary influences from demographical variables.
4. Null Hypothesis Significance Testing (NHST) has been criticised for using arbitrary cut-off levels. Many of the null hypothesis tested in the research literature is false only in the statistical sense of the word, but as a practical matter could be treated as if they were true with little likelihood of any negative consequences. Most of the experts agreed with the fact that it is the size and direction of observed differences that ought to be reported not only p-values (level of significance). McKeachie (1997) reported that effect sizes are mostly useful for directing toward decisions with some immediate practical consequences. Nickerson (2000) rightly added that the researcher should not be bounded by the claim of  $\alpha = .05$ .

### **Suggestions**

The following suggestions are given on the basis of objectives of the study as well as well on the basis of the problems realised by parents with differently abled children:

1. Family Counselling Programme need to be handled carefully with special emphasis on identifying the problems of all family members. Parents as well as all family members may be aware of the merits and demerits of disability in the family. Parents may be encouraged in maintaining equality in caring for the child with disability without any gender bias. Focus should be given on Problem-Focused Coping strategies and various ways in solving problem

and family conflicts' resolution rather than exchanging blame between parents for insufficient performance in caring the child with disability.

2. In order to minimise the 'internal stress', parents with differently abled children must learn how to develop realistic expectations about their life and how to recognise when negative self-talk defeats effective coping. Father of the differently abled children must be sympathetic towards his wife as she is experiencing more stress as revealed in the study. They must boost their own self-confidence by noting and using personal strengths and talents. In addition, parents with differently abled children can identify and list their own self-defeating assumptions and think of alternative messages. They may renounce love, affection, and approval from children as needs rather than bonuses. They may be encouraged to see the positive sides of stress. They may control anger by controlling wishes and try to use to it constructively. Different Family magazines may be read time by time in to understand the significance of marriage life and family planning. Positive thinking by daily affirmations need to ushered. Developing a positive belief can control their destiny. They should be healthily selfish, free from needing outside approval. They may try to develop a support system by sharing honestly their feelings of frustration and anger. They may cope with a situation in the presence of imperfection. They must learn to tolerate change as children change often.
3. Both Parents and differently abled children should change their moods and feelings. Dealing with external forces may lead to 'external stress' in the parents with differently abled children, that is very difficult to overcome sometimes. Neighbours, friends, and relatives don't understand why such a normal-acting man /women behave cruelly towards them. Teachers frequently don't fully comprehend the ramifications of a differently abled child's problem. Parents are called upon by the school to help make decisions about their differently abled child's school programme. Parents often feel helpless as the child's advocate because of their own lack of understanding. External Stress Factors may be resulted from dealing with school about child's placement or programme, coping with difficult child behaviours, helping siblings understand the problems associated with disabilities, educating neighbours and relatives about the child's problems, getting child in right school, helping child with homework, working with spouse on child management and financial pressures in the family. The following guidelines may be helpful for the parents with differently abled children to overcome their 'external stress':

4. As external stressors are situational by nature, and often involve relationships with others, parents with differently abled children are advised to develop assertiveness skills. Problem-solving techniques, time management, and goal setting are helpful while dealing with external stressors. Since coping with a differently abled child is so emotionally draining, parents are encouraged to develop intimacy skills as well as a support system.
5. Analysing problems thoroughly may help the parents with differently abled children to overcome their external stress in the family. They may describe the problem with a specific statement, state how it could be worse and how it could be better. They need to determine what is keeping it from getting better. Propose solutions for the things over which they have control. Proper planning can also help them tackle the difficult situation.
6. Time management is also another strategy to fight with external stress. Parents with differently abled children may list priorities both short and long terms. They can do a time using audit. 'Compare time use with priority of goals' is also another strategy by which they can effectively manage the time.
7. Developing an assertiveness can also help them to tackle the external stress while raising a differently abled child in the family. Parents should know their limits and be realistic about what they can accomplish. They must neglect unreasonable demands.
8. They may learn about their differently abled child's problems and needs so that they can be an active participant in meetings with school personnel. The schools may encourage the parents to offer their suggestions to teacher and coaches. In order to replenish energy, parents with differently abled children need to be sure they get sufficient rest, eat well balanced meals, and exercise vigorously. They may practice meditation or relaxation techniques when they feel stressed, anxious, or fatigued. Physiological Stressors can be minimised with the help of proper diet, exercise, rest and recreation.

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## **Mobile Phone Applications addressing Mental Health Literacy: A Systematic Review**

• Aprajita Sharma<sup>1</sup>

• Aparna Khanna<sup>2</sup>

### **Abstract**

The aim of this paper is to systematically review literature based on Information and Communication Technologies (ICTs) and Mental Health Literacy with the objective of understanding the uses of ICT-based technologies, like mobile phone applications, in promoting mental health literacy. To conduct this review of literature, the authors systematically searched relevant databases with the key terms such as mental health literacy, ICT-based interventions, mHealth, mobile phone applications and mental health in India. The articles were filtered based on their relevance and access. This paper highlights the concept of mental health literacy and its promotion in using ICT-based interventions, ICTs in health and specifically in mental health, mHealth, specifically mobile phone applications in mental health literacy, advantages of mHealth and mobile phone applications and the limitations of the same in mental health literacy.

**Keywords:** *Mental health literacy, Information and Communication Technologies (ICTs), mHealth, Mobile phone applications.*

### **Introduction**

The World Health Organization (2001) defines Mental Health as “a state of well-being in which the individual realizes his or her own abilities, can cope up with the normal stresses of life, can work productively and fruitfully, and is able to make contribution to his or her community” (as cited in Gaur & Ram, 2016). Mental health is the maintenance of daily activities that are productive for the person and relationships with people around the individual. One is said to be mentally healthy if he/she is able to manage the stresses and adapt to the change around them. Promotion of well-being, preventing mental health disorders and the treatment of people suffering from mental health disorders – this is what mental health comprises of (Sharma & Srivastava, 2013).

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<sup>1</sup>**Ph.D. Scholar**, Department of Development Communication and Extension, Lady Irwin College, University of Delhi, Delhi. ✉ [aprajita\\_sharma11@hotmail.com](mailto:aprajita_sharma11@hotmail.com)

<sup>2</sup>**Professor**, Department of Development Communication and Extension, Lady Irwin College, University of Delhi. ✉ [aparna.khanna@lic.du.ac.in](mailto:aparna.khanna@lic.du.ac.in)

Mental Health Literacy refers to “knowledge and attitudes regarding mental health that aid in recognition, management and prevention of mental health issues” (Jorm, Korten, Jacomb, Christensen, Rodgers & Pollitt, 1997). According to Jorm et al. (1997), mental health literacy includes knowledge related to prevention of mental disorders, recognition of when a mental disorder is developing, knowledge of self-help strategies for mild mental disorders, knowledge of help-seeking and treatment options available and skills for providing first aid to people who are developing a mental health problem or are going through a mental health crisis.

Jorm et al. (1997) present seven attributes of mental health literacy – knowing ways to seek mental health information, ability to recognise specific mental disorders, knowledge of risk factors and causes of mental disorders, knowledge of self-help strategies, knowledge of available professional help and treatment and attitudes that promote recognition and help-seeking for specific mental disorders (as cited in O’Connor and Casey, 2015). Further, the concept of mental health literacy may also include right to a conducive environment for recovery from a mental disorder, respect for self-determination in treatment, freedom from degrading and inhuman treatment, freedom from exploitation, abuse and violence as well as to be able to live independently and be socially included in their communities (Mathur-Gaiha, Sunil, Kumar & Menon, 2014).

People with limited mental health literacy showcase limited understanding of mental disorders, lack of skills for prevention as well as indecisiveness for accessing treatment for mental disorders (Ogorchukwu, Sekaran, Nair & Ashok, 2016). Numerous studies have stated that having a de-stigmatised society, where people do not discriminate against a person with a mental illness and mental health is a topic for open dialogue and conversation. This will ultimately increase help-seeking behaviour for appropriate treatment as well as lead to a society with better mental health. Thus, there is a need to increase mental health literacy of the society at large. This will help in increasing the demand for mental health care services, increased support for persons with mental illnesses, overall increase in the knowledge around mental health, increased sensitivity towards mental health and ultimately upholding the rights of persons with mental illnesses (Mathur-Gaiha et al., 2014; Ogotchukwu et al., 2016; Kermode, Bowen, Arole, Pathare & Jorm, 2009). It would further help in assessing improvement of individual and population mental health outcomes (Kutcher, Wei & Coniglio, 2016).

Armstrong, Kermode, Raja, Suja, Chandra & Jorm (2011) state that many studies have observed that India needs an intervention for increasing mental health literacy due to poor knowledge and understanding of mental disorders in many communities. Information and communication technologies (ICTs) are a promising

way of providing mental health literacy to people due to easy accessibility, acknowledging privacy and confidentiality, cost-effectiveness and ability to reach a large group of people at the same time (Tennant et al., 2015; as cited in Tay, Tay & Klainin-Yobas, 2018). Videos, PowerPoint slides, online websites, information through online medium, and courses and games were some of the ICT-based interventions that have contributed to increased levels of mental health literacy for specific disorders. Having reduced levels of stigma as well, informational ICTs were proven good for increasing mental health literacy around Anxiety whereas videos and quizzes were proven effective for increasing mental health literacy around Depression (Tay et al., 2018).

### **ICTs in Health in India**

Kharade and Sharma (n.d.) state that the public health system in India is overburdened and collapsing. Many factors such as poverty, lack of resources, lack of funds in the healthcare department, illiteracy, inaccessibility, lack of transport facility and increased population density have been responsible for the pressure on the Indian public health system. Thus, the government has also incorporated ICTs to strengthen its healthcare system. Web services for organization of healthcare facilities, increase in the awareness level of citizens of the country by providing them with information about their own health and healthcare system and communicating important health-related messages to people are some of the uses of ICTs in the healthcare system.

The Ministry of Health and Family Welfare, Government of India, in collaboration with Ministry of Communication and Information Technology have created a national infrastructure for gathering information on health and then disseminating it to the people. The Government of India recognizes ICT as the most efficient tool for enabling achievement of the health goals of the country. It has the desired trickle-down effect and several state governments have taken up e-Health monitoring and reporting systems for their public health programmes (Kharade & Sharma, n.d.). The increase in the ICTs has led to rapid improvements and innovations in the behavioural healthcare system (Breslau & Engel, 2016). Telepsychiatry has been found successful in places which have a low population density. It helps in crossing geographical barriers, lack of a communication system and the professionals who would want to travel to remote areas (McLaren, 2005).

### **ICTs in Mental Health**

ICTs in mental health care can be used to give information to the patients for the

treatment process, provide therapy and moreover, help in adhering to the treatment provided. There has been an increasing number of innovations in the field of ICTs for mental health, which had expanded its reach to a large number of people and added facilities such as improving the quality of mental health service provided, reducing stigma around mental health and increase access to knowledge regarding mental health (Breslau & Engel, 2016).

According to Breslau and Engel (2016), there are mainly two types of ICTs in the field of mental health – ICTs for prevention and ICTs for clinical treatment. ICTs for prevention use features such as educating users online, provide therapies, using email or text for communication and using multi-media as support tools. ICTs for clinical treatment are used for educating patients, improving decision making of doctors, providing therapy to patients, monitoring and adherence to the treatment, among other features. ICTs are a promising solution to the address the mental health issues faced by people. It can facilitate communication between the patient and the doctor and provide internet-based therapy. ICTs represent a strategic opportunity to improve the mental health services and the access to information regarding mental health (Breslau & Engel, 2016). ICTs have the potential to deliver mental health services and interventions, which would decrease the amount of face-to-face interaction needed for the completion of the treatment (McLaren, 2005). It is also found that ICT-based therapy of depression and anxiety showed superior results in comparison to people who did not receive the ICT-based therapy (Shen, Levitan, Johnson, Bender, Page, Jadad, & Wiljer, 2015).

### **Challenges faced by ICTs in Health**

As stated by Breslau and Engel (2016), ICTs are a medium to extend healthcare services in the world, but it has a few challenges associated with it. One of the major challenges with ICTs is that they are large in number, and there is no guidance provided to the user so as to choose the most promising one out of the ones available.

A growing gap exists between the availability of ICTs and scientific evidence to inform the use of these tools in mental health service delivery (Breslau & Engel, 2016). Divisions between health professionals, the levels of government and the cultural communities of the country are another set of challenges that are faced by ICTs (Kharad & Sharma, n.d.).

### **mHealth – Mobile Healthcare Facility**

A smartphone gives its users access to mobile applications that can generate,

reward and maintain strong habits in people, due to its accessibility and influence. According to Bakker, Kazantzis, Rickwood, & Rickard (2016), a smartphone is an advanced mobile phone whose function is same as of a handheld computer capable of running software applications. There has been a significant increase in the usage of smartphones in the world. Smartphone usage in India has been increasing rapidly and might cross the United States in the coming years, with respect to the smartphone usage (Yellowlees & Chan, 2015).

Smartphone technologies enable transfer and tracking of information, quick and easy access as well as interactive displays (Boudreaux, Waring, Hayes, Sadasivam, Mullen, & Pagoto, 2014). The portability of smartphones and its capabilities (such as its sensors, cameras, etc.) enhance the healthcare services provided through the smartphone (Stoyanov, Hides, Kavanagh, Zelenko, Tjondronegoro, & Mani, 2015). Smartphones and applications provide all facilities comparable to computers with the advantage of portability (Mani, Kavanagh, Hides, & Stoyanov, 2015).

The development of devices such as smartphones and tablets has led to a rapid growth in the field of mobile health (mHealth), the use of mobile applications for healthcare information and data (Sama, Eapen, Weinfurt, Shah, & Schulman, 2014). Sood, Chadha, & Singh (2016); East and Havard (2015) state that mHealth is a part of e-health. It is supported by mobile devices such as mobile phones, patient monitoring services, patient digital assistants, etc.

Price, Yuen, Goetter, Herbert, Forman, Acierno, & Ruggiero (2014) state that mHealth relies on mobile applications for delivering health care services. Mobile phone applications for health (mHealth) can be used for user engagement, means to facilitate treatment process, maintain anonymity and most importantly, be accessible to any individual who has a smartphone. The potential for mobile phone applications to impact populations has increased, due to the increase in smartphone ownership and number of health applications (Payne, Lister, West, & Bernhardt, 2015).

WHO have stated that mobile technologies have the “potential to transform the face of health service delivery across the globe”. The mHealth report of WHO indicates the application of mobile phone technologies in diseases, access to emergency and general health services and treatment enhancement. The report also mentioned that mHealth has been included as a key innovation for women and children’s health programmes of the United Nations (as cited in Shen et al., 2015).

Mendiola, Kalnicki, & Lindenauer (2015) state that mobile applications on health should have three important features, namely, autonomy, competence and relatedness.

Autonomy refers to the individual's desire to modify their behaviour based on their own interests and values. Competence refers to the need of an individual to feel confident and able to change or modify their behaviour. Relatedness refers to connectedness that individual feels with others.

### **Advantages of mHealth**

Donker, Petrie, Proudfoot, Clarke, Birch, & Christensen (2013); Giota and Kleftras (2014); and Grist, Porter & Stallard (2017) list out some of the advantages of using mHealth. It helps in improving the accessibility of the treatment to the user, monitoring the activity of the user, tracking treatment progress, ensure anonymity, provision of personalized feedback and motivational support. Apart from these, mHealth has the advantage of portability and flexibility of use.

Yellowlees and Chan (2015) mention that mHealth services are cheaper in comparison to the traditional facilities. Wang, An, Lu, Chen, Li, & Levkoff (2014) discuss about the economic benefits that mobile technologies have to the people who live in remote areas. As mobile technologies require low level of infrastructural provision, it enables the usage of these technologies in remote areas of the country. Sama et al., (2014); Shen et al., (2015); Grist et al., (2017) observe that mobile phone applications provide an opportunity to customize and tailor the features of a mobile phone application, according to one's needs and issues.

The National Mental Health Survey (NMHS) of India, conducted by Ministry of Health and Family Welfare, Government of India and National Institute of Mental Health and Neuro Sciences (2016), states that technology-based application can be used to follow-up on the patients going under treatment, evidence-based clinical support systems and home-based care using smartphones. It was suggested that it could be done by aligning it to campaigns such as Digital India. Yellowlees and Chan (2015) maintain that India has an added advantage to deliver health services, especially mental health services, through mHealth. They state that as most of the population in young, they are technologically sophisticated and are equipped with using the smartphones for handling such applications.

### **Mobile Phone Applications on Mental Health Literacy**

Over the last few years, numerous mental health applications have been developed to improve mental health of its users and their well-being. Under mHealth, mental health services are being primarily expanded through mobile phones (Sood et al., 2016). According to Donker et al., (2013), as of 2012, 6% of the applications on the

Apple AppStore were on mental health and 18% were on related health issues such as sleep, relaxation, etc. These applications on mental health can serve as the first step towards getting treatment for people who are not quite ready to seek medical help (Anthes, 2016).

Payne et al., (2015) stated that interventions as part of the mobile phone applications addressing the depression-related issues saw a significant decrease in the depression levels of the people who used it, at the follow-up, with better stress ratings and life satisfaction. One of the two applications addressing addiction showed a significant improvement in the drinking pattern of its users. Shen et al., (2015) comment upon the user behaviour when it comes to choosing an application. Consumers look at their own experiences and information rather than ratings and reviews when it comes to choosing an application that is paid. They highly consider complaint reviews and low ratings when they have to pay for an app.

### **Uses of Mobile Phone Applications on Mental Health Literacy**

Mental health applications can act as a communication medium between patients and doctors, can help in extending treatment services and can monitor relapse, symptoms and activities of users (Yellowlees & Chan, 2015). They help in the recovery of the person to encouraging habits that promote well-being. It makes mental health more accessible and reduces barriers for seeking help (Bakker et al., 2016; Grist et al., 2017). Barriers that are overcome by mobile phone applications include geography, treatment costs, low mental health literacy, cultural beliefs and socioeconomic status (Shen et al., 2015).

Applications on mental health promote self-management in individuals, a component of mental health literacy, who face any mental health problem. It not only helps people to seek help, it also helps in making people understand the problem by giving them information on the disease (Bakker et al., 2016), thereby promoting mental health literacy. Mobile phone applications on mental health are useful for enhancing monitoring and self-help for individuals suffering from mild to moderate common mental health disorders (Donker et al., 2013). But Giota and Kleftras (2014) state that new technologies cannot replace the face-to-face interaction between the doctor and the patient. The technology can expand this service and improve the quality of the service.

But more importantly, in a country like India where the providers of mental health services are scarce, mobile applications can connect patients with other patients,



families and supporters, through social networks, and improve medication adherence and provide social support and therapy (Yellowlees & Chan, 2015).

Sama et al., (2014) highlights that the greater user engagement provided by mobile applications is a critical feature for behaviour change that is required for improved outcomes. These applications are capable of implementing behaviour change interventions, which also leads to improving users' physical health (Bakker et al., 2016). The apps not only provide information to its users but ensure symptom monitoring, tracking treatment progress, training and two-way communication with health providers (Hind & Sibbald, 2015).

The users wanted the mobile phone applications on mental health to be discrete in terms of the interactions on the application. This was due to the stigma attached around mental health. Also, users wanted applications that were fast, easy to use, raise awareness of certain behaviours, and should provide potential cues to action (Payne et al., 2015; Giota & Kleftras, 2014). Games are used in mobile phone applications on mental health for more than entertainment purposes. It helps people get information on mental health and help them cope up with their mental health issues (Giota & Kleftras, 2014).

### **Limitations of Mobile Phone Applications on Mental Health Literacy**

The applications on mental health have the potential to create a significant improvement in the effectiveness and accessibility of treatment. However, the majority of the applications do not provide the source of their information, thus lacking 'evidence' about their efficacy and credibility. The users need to be made aware on how to identify the applications that cater to their needs and are accurate in terms of the information they provide. The digital-placebo effect is one of the reasons why people continue to download applications even without the evidence-based information (Donker et al., 2013; Boudreaux et al., 2014; Shen et al., 2015; Bakker et al., 2016; Price et al., 2014; Stoyanov et al., 2015; Anthes, 2016; Grist et al., 2017).

Healthcare organizations and providers need guidance on identifying and understanding applications that provide accurate information, are user-interactive and are effective (Boudreaux et al., 2014). The developers of the mental health applications rarely conduct or publish an experimental validation of their applications. Due to this, many applications lack the features that would improve their functionality (Bakker et al., 2016). Also, there are a lot of applications on mental health that are developed by institutions or individuals who are not mental health researchers or professionals (Giota & Kleftras, 2014).

Technically, mHealth can have a few shortcomings. Battery failure, lack of network connections, data breach, privacy and security of the patient and spontaneous management of crisis are some of the issues that need to be kept in mind while designing an application (Donker et al., 2013; Sood et al., 2016; Giota & Kleftaras, 2014). Hind and Sibbald (2015) talk about the issue of long-term adherence. Many of the interventions in mobile applications were short-term and thus, experienced high dropout rates. Arean, Hallgren, Jordan, Gazzaley, Atkins, Heagerty, & Anguera (2016) note that the dropout rates for applications on mental health has been high as the application did not dynamically adjust to the users' needs and interests. Thus, engagement to the applications on mental health are highly dependent on whether the needs of the users are satisfied or not.

Despite the increase in the mobile phone applications on healthcare, a gap still exists between available applications and the demands of the user. The developers of these applications do not make quick informed decisions, which leads to wasted time and resources on the part of the developers of the applications (Wang et al., 2014). Anthes (2016) states that the mobile phone applications need to be translated in local languages, keeping in mind the local culture of the area, so as to make them ethnographically relevant to the users.

But for a country like India, these applications offer the option of accessing mental health care over many hurdles and of substantially improving the mental health of the country, and in particular of the youth of the nation (Yellowlees & Chan, 2015).

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## **Academic Stress, Depression and Wellbeing among Students Pursuing Higher Education: A Cross Sectional Study**

• Anjana<sup>1</sup>

• Tatini Ghosh<sup>2</sup>

### **Abstract**

The purpose of the present study is to examine academic stress, depression and wellbeing of students pursuing higher education. The study also attempts to assess the link between academic stress, depression and wellbeing of the students and to ascertain whether academic stress and depression are correlated with each other or not. The study was conducted in Tripura state and the students were selected purposively from various Govt. higher educational institutions of Agartala, the capital of Tripura. The sample consisted of 285 students and all of them were in the age group of 18-22 years. Academic Stress Scale, the Satisfaction with Life as a Whole and PWI Scale (Written Format) and Depression Anxiety and Stress Scale (DASS) were used to measure academic stress, depression and wellbeing of the students. The findings reveal that male and female students differ significantly in their feeling of depression and wellbeing. Further, academic stress and depression are negatively correlated with wellbeing of the students, indicating that students with more academic stress and depression have low wellbeing. The findings also indicate that with the increase in depression, there is also an increase in the academic stress of the students and vice versa. The present article highlights the importance of studying academic stress, depression and wellbeing among the students pursuing higher education particularly in the Northeastern region of India, as there is scarcity of research work in this area. Further, the study lays emphasis on introducing a positive approach towards exams, taking up effective learning feedback, and having open communication with the students for improving overall wellbeing of the students.

**Keywords:** *academic stress, depression, wellbeing, students, higher education.*

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<sup>1</sup>**Assistant Professor**, Tripura University (A Central University), Tripura – 799022.

✉[anjanabhattacharjee@tripurauniv.in](mailto:anjanabhattacharjee@tripurauniv.in)

<sup>2</sup>**Research Scholar**, Tripura University (A Central University). ✉[tatini.psychology@tripurauniv.in](mailto:tatini.psychology@tripurauniv.in)

## Introduction

Mental health issues are increasing day by day among the student population, especially adult students, because it is a transitional stage from academic life to work life. This period brings a lot of emotional turmoil among the youths, causing various severe mental health issues like stress, depression, anxiety, etc. Stress can lead to many serious mental issues as well as physical issues, if not managed effectively (Auerbach and Grambling, 1998). Over emphasis on high academic achievement can lead to academic stress among the students (Sasilumar and Bapitha, 2019). Studies showed that half of the mental health disorder begins in adolescence and early adulthood (14 to mid-20s), i.e., the transitional period of life (Kessler, et al., 2007; Fusar-Poli, 2019). That is why, suicide is the second leading cause of death among youths (Centers for Disease Control and Prevention, 2018; WHO, 2019). Academic stress is one of the main reasons behind such alarming scenarios (Reddy, et al., 2018). Academic stress has become a matter of serious public concern globally and it is increasing day by day (Sangma, et al., 2018). Previous studies indicated that academic stress led to depression, anxiety, stress and poor academic performance (Pascoe, et al., 2020; Subramani and Kadhavarivan, 2017). Not only this, moderate to high academic stress was found to hamper the wellbeing of the students (Glozah, 2013). High parental expectations, fear of failure, comparing one's achievement with others, unhealthy grade competition, excessive academic tasks are the leading causes of academic stress among the adolescent students (Subramani and Venkatachalam, 2019).

Hence, academic stress and mental health issues go hand in hand, which requires further preventive measures and therapeutic intervention to boost their well-being and that would further promote mental health of the students (Pedrelli, et al., 2015). Academic stress is one of the chief risk factors of heightened anxiety and depression among students, whereas parental support acts as a protective factor against it (Leung, et al., 2010).

## Review of Related Literature

Academics is an essential part of the students pursuing higher education and having a negative attitude towards it can cripple the students with academics-related stress, depression and other mental health issues (Kumaraswamy, 2013). The prevalence rate of stress was found to be 38.58% among students of higher education in Saudi Arab, and 85% of the students reported it as academic-related stress. Beiter, et al. (2015) revealed in their study that around 38% of college students have significant amount of stress and the main cause was academic stress. Similar studies in India

showed that the main cause of stress among the medical students was academic stress (Abraham, et al., 2009; Sivan and Rangasubhe, 2013).

Academic stress can be defined as the body's reaction to extreme pressure pertaining to excessive demands in academics and high achievements (Lee, et al., 2011; Wilks, 2008). Depression is a severe problem among the students pursuing higher education (Sarokhani, et al., 2013). Numerous studies have consistently proved that prolonged academic stress is highly associated with negative emotions like depression, anxiety and even addictive behaviours among the college and university students (Alsulami, et al., 2018; Barker, et al., 2018; Jun and Choi, 2015; Schraml, et al., 2011).

According to Bhujade (2017), at any point of time, there are always at least 10% to 20% students of higher education suffering from depression and stress. Taneja, et al. (2018) found that there was a prevalence rate of 32% depression, 40% of anxiety and 43.8% of stress, respectively among the medical students of India. Similar studies have found higher than average prevalence of depression, i.e., 27.79% and 26.9% among students pursuing higher education in India (Raghunathan, et al., 2019; Dave, et al., 2018). Liu and Lu (2012) in their study highlighted that 90% students had academic stress, followed by depressive symptoms, which immensely affected their well-being. Higher level of academic stress among the students is accompanied by academic burnout, which further leads to higher level of depression (Jiang, et al., 2021). Again, depression also adversely affects the academics of a student and can lead to academic stress and diminished overall health and well-being of students (Bernal-Morales, et al., 2015).

It is clearly evident that there is an association between academic stress and the severity of depressive symptoms (Romo-Nava, et al., 2016). Recently, a study involving 72 countries by Organisation for Economic Co-operation and Development (OECD, 2017) revealed that around 66% of students worldwide worry about their exam and grades, and suffer from academic stress and anxiety. Girls seem to have greater exam related anxiety in comparison to boys. It portrays a clear picture of how academic stress is disastrous for the mental health of the students and their well-being (OECD, 2017; Pozos-Radillo, et al., 2014). Ribeiro, et al. (2017) revealed that students pursuing higher education have higher level of academic stress and poorer overall well-being. Studies further revealed a strong negative relation between academic stress and well-being of the students (Bernstein and Chemaly, 2017; Zhang, et al., 2016; Poots and Cassidy, 2020). Similarly, depression and any kind of stress found to take a lot of tolls in the well-being of students (Alorani and Alradaydeh, 2017; Areba, et al., 2018; Yu, et al., 2014).

It is clearly evident from the previous studies that academic stress, depression and well-being of a student are correlated. Therefore, to uplift the careers of the students pursuing higher studies, who constitute the future of a nation, it is important to study the role of academic stress and depression in their overall well-being so that suggestions can be made in order to protect them from any menaces of mental health issues.

**Problem**

Academic Stress, Depression and Wellbeing among Students Pursuing Higher Education: A Cross Sectional Study

**Objectives of the Study**

- To study academic stress, depression, and well-being of the adult students of Tripura.
- To understand the gender difference of the students in their academic stress, depression and well-being.
- To assess the relationship between academic stress and well-being of the adult students.
- To determine the association between academic stress and depression of the adult students.
- To ascertain the link between feeling of depression and well-being of the students.

**Hypotheses of the Study**

Ha<sub>1</sub>: Male and female students differ significantly with respect to (wrt)their academic stress.

Ha<sub>2</sub>: Male and female students differ significantly wrt their depression.

Ha<sub>3</sub>: Male and female students differ significantly wrt their well-being.

Ha<sub>4a</sub>: Academic stress is significantly correlated with well-being among the adult students.

Ha<sub>4b</sub>: Academic stress is significantly correlated with depression among the adult students.

Ha<sub>5</sub>: Depression is significantly correlated with well-being among the adult students.



## **Methodology**

- ***Sample***

The current study consisted of 285 students and they were selected using purposive sampling technique from different higher educational institutions of Agartala, the city of Tripura. Out of the 285 students, 100 were male students and 185 were female students. All of them were in the age group of 18-22 years.

- ***Tools Used***

1. *Academic Stress Scale*: It was developed by Kim (1970) originally. The scale was adopted later on to the Indian conditions by Rajendran and Kaliappan (1990) and Rao (2012) and the Indian version has been used in the current study to estimate the source of stress. The test-retest reliability of the test was found 0.799.

2. *The Satisfaction with Life as a Whole and PWI Scale (Written Format)*, developed by International Wellbeing Group (2013) has been used in the study. The validity of the scale was found to be 0.84 and validity was estimated as well.

3. *Depression Anxiety and Stress Scale (DASS)*: The scale was developed by Lovibond and Lovibond in 1995. For the current study, only the depression subscale has been used. Cronbach internal consistency of the entire scale was 0.89. The DASS scale has been established as valid and reliable instrument.

- ***Methods and Procedure***

First, permission was taken from the authorities of the educational institutions. Then rapport was established with the students and the objective of the study was explained. Then, the questionnaires were given to the participants and they were requested to fill the form. All the ethical concerns were followed during data collection.

## **Results and Interpretation**

For statistical analysis and interpretation, independent t-test and Pearson product-moment correlation coefficient has been calculated using IBM SPSS version 24.0.

The data was analysed through percentages and the statistical results obtained was tabulated and interpreted as follows:

From Table 1, it is apparent that out of 285 PG students, 35.1% were male and

the rest 64.9% were female; 48% were tribal and rest were non-tribal. 40% PG students live in rural areas whereas 60% live in urban areas. 47.7% of students are Hindus, whereas the rest are Muslims, Christians and other religions. Most of the student's family income is Rs. 10,000/- per month. 62.5% has nuclear families. Most of the students' parents studied till school level. The demographic parameters of the PG students of Tripura are given below:

**Table 1: Demographic parameters of PG students of Tripura**

Characteristics of Students		Total = 285	
		Frequency (n)	Frequency (%)
Gender	Male	100	35.1
	Female	185	64.9
Community	Tribal	140	48
	Non-tribal	145	51
Area of Living	Rural	115	40
	Urban	170	60
Religion	Hindu	136	47.7
	Muslim	83	29.2
	Christian	56	19.6
	Others	10	3.5
Family Income	Below Rs. 10,000	135	47.4
	Rs. 11,000 – Rs. 20,000	89	31.2
	Rs. 21,000 and above	61	21.4
Type of Family	Nuclear	178	62.5
	Joint	107	37.5
Father's Educational Qualification	Illiterate	76	26.7
	School Education	158	55.4
	Higher Education	51	17.9
Mother's Educational Qualification	Illiterate	89	31.3
	School Education	150	52.6
	Higher Education	46	16.1

**Table 2. Comparison between male and female students wrt their academic stress**

Variable	Gender	N	Mean	S.D.	t
Academic Stress	Male	100	62.18	27.42	
	Female	185	65.6	26.48	-1.05

\*p>0.01

From table 2, it is revealed that the mean score of academic stress of students is 62.18 and for female students, it is 65.6. It is quite evident from the mean values that there is no significant difference between male and female students in terms of their academic stress. Hence, the 1<sup>st</sup> hypothesis has been rejected. However, from the mean value it can be said that female students have more academic stress than their counterparts.

**Table 3. Comparison between male and female students wrt their depression**

Variable	Gender	N	Mean	S.D.	t
Depression	Male	100	16.72	8.28	
	Female	185	22.09	8.01	-5.34

\*p<0.01

Table3 showed that the mean depression score for male respondents was 16.72, while for female respondents, it was 22.08. The results clearly show that female students have higher level of depression in comparison to male students. The t-value was -5.34 (with df= 283) which was significant at 0.01 level. Therefore, as per the data in Table 3, the 2nd hypothesis has been accepted .

**Table4. Comparison between male and female students wrt their well-being**

Variable	Gender	N	Mean	S.D.	t
Well-being	Male	100	63.13	12.95	
	Female	185	58.76	12.94	-2.719

\*p<0.01

Table 4 narrated the descriptive statistics and t values for wellbeing of male and female students. The results showed that male respondents had better well-being (63.13) than their female counterparts (58.76). The t-value was significant at 0.01 level of significance and so hypothesis 3 has been accepted.

**Table 5. Correlation between academic stress, well-being and depression**

Academic Stress	Well-being	Academic Stress
r	-.597	.547
p	p<0.01	p<0.01
N	285	285

Table 5 highlighted the correlation between academic stress, well-being and depression among the students of Tripura. The result indicates that there is a significant negative correlation between academic stress and well-being among students, which means that with increase in academic stress of the students, their well-being would decrease. Hence, the 4a hypothesis has been accepted. The results further reveal that there is significant positive correlation between depression and academic stress among the study subjects. So, hypothesis 4b has been accepted. From the result, it can be said that with the increase in depression, there is also an increase in the academic stress of the students and vice versa, as evident from Table 5.

**Table 6. Correlation between depression and well-being**

Depression	Well-being
r	-.687
p	p<0.01
N	285

Table 6 shows that there is significant negative correlation between depression and well-being among the students. So, the 5<sup>th</sup> hypothesis has been accepted.

## Discussion

Academic stress among students has been researched quite well since decades by the researchers and if the intricate environment in colleges and universities are not dealt with properly by the authorities, it can lead to severe mental and physical health problems among the students (Agolla and Ongori, 2009; Misra and Castillo, 2004).

The present study revealed that male and female students do not differ significantly in terms of their academic stress. However, from the mean scores it is evident that female students have higher academic stress compared to the male students. There are innumerable studies which are contradictory to the current results (Dhulland Kumari, 2015; Karaman, et al., 2019). However, there are also a few studies which reveal that there is no difference in academic stress between male and female students (Calaguas, 2011; Khan, et al., 2013; Madhyastha, et al., 2014; Reddy, et al., 2018).

The present study shows that male and female students differ significantly in their feeling of depression. It further reveals that female students feel more depressed compared to male students. The prevalence rate of depression or anxiety among UG and PG students were found to range from 13% to 15.6% (Eisenberg, et al., 2007). There have been numerous studies which also revealed that female students have higher prevalence rate of depression in comparison to male students studying in both college and universities (Dahlin and Runeson, 2005; Ibrahim, et al., 2013; Roberts, et al., 2010; Song, et al., 2008).

Well-being is a psychological state of being happy and satisfied in our own life, with lower levels of stress and an overall good quality of life. When we talk about adult students, they basically undergo a transitional stage and it becomes very important for them to maintain a good health and wellbeing (Ullah, 2017). Several previous studies have revealed that gender is strongly associated with the well-being of the students and there is a noteworthy difference between male and female students in their well-being. However, male students always tend to have better wellbeing in comparison to their female counterparts (El Ansari, et al., 2013; Ludban, 2015; Ridner, et al., 2015; Skromanis, et al., 2018). The previous findings corroborate with the results of the current paper.

Findings of the present study reveal a negative correlation between academic stress and well-being of the young students. Preoteasa, et al. (2016) mentioned that students who had higher academic stress not only scored poorly in their exams, but they also had poor mental health. Similarly, many other studies have highlighted that academic stress has significantly decreased the mental, spiritual and emotional well-being and deteriorates the overall mental condition of the students (Javeth, 2018; Ofori, et al., 2018; Preoteasa, et al., 2016; Yovita and Asih, 2018; Zhong, 2009).

Depression is considered as the negative aspect of well-being and the results of this study revealed that there is a negative correlation between depression and well-being. It signifies that if someone has depression, then he/she will have poor well-

being. Previous studies also supported the same trend among students pursuing higher studies (Alorani and Alradaydeh, 2017; Lee, 2014; Tiwari and Tripathi, 2015; Yüksel, et al., 2019; Zheng, 2016).

Students with academic stress have a high risk of suffering from depression by 2.4 times more than those who don't have any academic stress (Jayanthi, et al., 2015). Similarly, depression among the students can also produce academic stress (Barker, et al., 2018; DeRoma, et al., 2009; Iorga, et al., 2018; Kamble and Minchekar, 2018). The current study has also backed the results found in previous studies among adult students.

### **Conclusions and Implications**

The findings of the study indicated the importance of studying academic stress, depression and wellbeing among the students pursuing higher education. It underlines the need to study the relationship between these three mental health variables among students, as well as the importance of examining gender role in academic stress, depression and well-being of students. It revealed significant gender difference in depression and well-being indicating poorer mental health status of female students. When it comes to academic stress, the study showed no significant difference among the students. Finally, the present study showed significant relationship between academic stress, depression and wellbeing and how academic stress and depression negatively affect the wellbeing of students of higher institutions.

Based on the current findings, it is suggested that the policy makers, educational authorities, and teachers must organize more and more training programmes and sensitize the students about academic stress and depression. Introducing a positive approach towards exams, taking up effective learning feedback, and having open communication with the students can improve their overall wellbeing. Different intervention and relaxation techniques should be introduced to reduce stress and promote positive mental health and for that every academic institution should have proper arrangement for mental health screening and counselling for each and every student of that institution.

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## **Human Rights Awareness among Undergraduate Students of General and SC Category**

• Rakshita Kandpal<sup>1</sup>

• Anita Joshi<sup>2</sup>

### **Abstract**

Human rights awareness through education is the ultimate solution against human rights abuses. In the present scenario, human rights is a burning issue, as corruption and crime are increasing day by day. People cannot raise their voice against violence due to lack of awareness. The present study about human rights awareness of undergraduate (UG) students will help to understand and to expand the knowledge up to their progeny. The study was conducted to investigate the awareness of human rights among UG students of General and Schedule Caste (SC) category. 80 UG students were selected as sample through stratified random sampling method from the Campus colleges of Kumaun University, Nainital. They were identified on the basis of academic and socio-economic factors i.e., gender, area of residence, academic stream, and family income. For data collection, a standardised Human Rights Awareness Test by Vishal Sood and Arti Anand (2012) was used, and data was analysed through mean, standard deviation and t-test. The finding of the study reveals that majority of the students in both the category (Gen-65 percent and SC-85 percent) fails to be in average category. So there is a need to provide human rights education in schools and colleges.

**Keywords:** *Human rights, human rights awareness, undergraduate students.*

### **Introduction**

Human rights have been a burning issue around the globe for the last few years. With time, the need for protection of human rights became persistent and for achievement of the same, various steps were taken and human rights were declared

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<sup>1</sup>**Research Scholar**, M.B.Govt.P.G College, Haldwani, Nainital, Uttarakhand.

✉ [rakshitakandpal5@gmail.com](mailto:rakshitakandpal5@gmail.com)

<sup>2</sup>**Associate Professor**, Department of Teacher Education(B.Ed.), M.B.Govt.P.G College, Haldwani.

✉ [dranita.tc.mbgpg@gmail.com](mailto:dranita.tc.mbgpg@gmail.com)

legal. The present study sheds light on human rights awareness, need and awareness among UG students. Human beings possess certain basic and inalienable rights which are commonly known as human rights. There are numerous theoretical debates surrounding the origins, scope and significance of rights in political science, moral philosophy, and jurisprudence. Roughly speaking, invoking the term “human rights” (which is often referred to as human rights discourse or human rights talk) is based on moral reasoning (ethical discourse), socially sanctioned norms (legal/political discourse) (Marks, 2016). Human rights are essential for all the human beings because these are consonant with their liberty and dignity and are conducive to moral, social and physical welfare (Agarwal, 2014). According to Prabhakaran and Shrivankumar (2020), these rights cover all men and women across the globe. These are the basic rights that protect a human from inhuman behaviour of others and are helpful in the survival of every human being.

Human rights approved by the Declaration of the UN General Assembly are comprehensive and detailed. This declaration starts with the Preamble and has 30 articles. The rights included in the declaration are universal in nature. Every individual without any discrimination of caste, colour, creed, religion is entitled to enjoy these rights. The purpose of these rights is to protect human beings living in every corner of the world from exploitation and to create necessary conditions for their development (Nivedita and Rani, 2015).

According to the Vienna Declaration and Programme of Action, World Conference on Human Rights, 1993, all human rights are universal, indivisible and interdependent and inter-related.

The international community must treat human rights globally in a fair and equal manner, on the same footing, and with the same emphasis. Education is a source through which values of human rights awareness can be imparted directly or indirectly. So, education for human rights awareness is of great importance. All human beings are equal in self-respect. Education is the only means for self-realisation. An educated person in the true sense will always make an effort to educate others. Being educated does not only mean having formal degrees from educational institutes. Even a person without any formal education, who is aware of himself is also an educated being (Padmavathy and Pallai, 2015).

Amnesty International defines Human Rights Education as a “deliberate, participatory practice aimed at empowering individuals, groups and communities through fostering knowledge, skills and attitudes consistent with internationally

recognised human rights principles”. It explains that the goal of Human Rights Education is to “empower yourself and others to develop the skills and attitudes that promote equality, dignity and respect in your community, society and worldwide.”<sup>3</sup> It refers to the fundamental freedoms and basic liberties without which men, women and children cannot live with self-esteem and pride. Human rights are the natural rights of a human being which means the right to guarantee dignity as a person. Most of the human rights violation cases are seen in case of deprived sections of society (Padmavathy and Pallai, 2015). The main reason for occurrence of incidents of exploitations is the lack of awareness among large masses about their basic human rights (Sood and Anand, 2012). All human rights are equal in importance and are inherent in all human beings.

The Universal Declaration of Human Rights enumerate that human rights are of two types — Civil and Political Rights and Economic, Social and Cultural Rights<sup>4</sup> (Agarwal, 2014).

**(i) Civil and Political Rights:** Civil and Political Rights (First Generation Rights) are mentioned to be those rights which are related to the protection of the right to life and personal liberty. These are essential for an individual to live a dignified life. Such rights include right to life, liberty and security of persons, right to privacy, home and correspondence, right to own property, freedom from torture in human and degrading treatment, freedom of thought, conscience and religion and freedom of movement. Political rights refer to those rights which allow a person to participate in the government of a state which are, right to vote, right to be elected at genuine periodic elections and right to take part in the conduct of public affairs<sup>5</sup>.

**(ii) Economic, Social and Cultural Rights:** Economic, Social and Cultural Rights are related to the guarantee of minimum necessities of life to human beings. Right to adequate food, clothing, housing and adequate standard of living and freedom from hunger, right to work, right to social security, right to physical and mental health and education are included in this category of rights. These rights are included in the international covenant on economic, social and cultural rights.<sup>6</sup>

All rights and responsibilities have been given to man in a democratic system that are not being followed by man. It seems that man has become lax about his

<sup>3</sup><https://www.amnesty.org/en/human-rights-education/>

<sup>4</sup><https://www.un.org/en/about-us/universal-declaration-of-human-rights>

<sup>5</sup><https://www.coe.int/en/web/compass/the-evolution-of-human-rights>

<sup>6</sup><https://www.ohchr.org/en/instruments-mechanisms/instruments/international-covenant-economic-social-and-cultural-rights>

rights. On one hand, corruption and crimes are increasing day by day. Even children and women are not safe in their homes. In such a situation, people are not conscious of the violence being committed on themselves, because they are unable to raise their voice due to lack of awareness of human rights. The most disadvantaged groups are women and children who have been compelled to face exploitation and violation<sup>7</sup>. Their awareness for the human rights is important in transferring the same to the future citizens. Hence adequate awareness can help to create a sensitive, informed and enlightened society.<sup>8</sup>

### **Studies on Human Rights Awareness**

Katoch (2011) conducted a study on college students' human rights awareness and found that there was a significant difference on the level of human rights awareness among the college students with regard to gender and locality. The study also revealed that male and urban college students were found to be more aware about human rights. Sarate (2011) in his study on senior secondary school students based on Gender, Area, Academic stream and personality make up found out that senior secondary students possessed an average level of human rights awareness. A study to compare the human rights awareness among the tribal and nontribal senior secondary school students was conducted by Barwal (2014) on a sample of 200 secondary school students from five senior secondary schools of district Kinnaur and Mandi. It was found that there was no difference in human rights awareness between tribal boys and girls, and non-tribal boys and girls at the senior secondary level. There existed significant differences in human rights awareness among tribal science students and tribal arts students and nontribal science students and non-tribal arts students of senior secondary schools.

Nivedita and Rani (2015) compared the level of human rights awareness among B.Ed and B.A students of Sirsa district. A non-significant difference was reported between awareness among B.Ed. and B.A. students regarding human rights awareness.

Humtsoe et al. (2019) attempted to find out the level of human rights' awareness among the post graduate students studying in Assam Don Bosco University. It was found out that the majority (61.73%) of the students possess average and below average level of human rights awareness, and only about 3.70 % of students have a high level of human rights awareness. No significant difference was found in relation

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<sup>7</sup>[https://www.unodc.org/lpo-brazil/en/frontpage/2019/12/corruption-and-gender\\_-women-and-men-affected-differently-by-corruption--but-no-evidence-women-or-men-are-less-corruptible.html](https://www.unodc.org/lpo-brazil/en/frontpage/2019/12/corruption-and-gender_-women-and-men-affected-differently-by-corruption--but-no-evidence-women-or-men-are-less-corruptible.html)

<sup>8</sup>[https://www.ohchr.org/sites/default/files/Documents/Publications/ConstitutionMaking\\_EN.pdf](https://www.ohchr.org/sites/default/files/Documents/Publications/ConstitutionMaking_EN.pdf)

to gender and place of residence, but significant difference was found in relation to stream of study.

In Guwahati, Balgari (2021) found that secondary school students had no in-depth knowledge of human rights, its broad areas as well as applicability. This was in spite of the fact that 40% of the students had Human Rights as a subject and 51% of the students have Human Rights Education in Syllabus.

### **Objectives of the Study:**

- To study the level of human rights awareness among UG students of General and SC category of college campuses of Kumaun University, Nainital.
- To compare the human rights awareness along with its various dimensions among students of General and SC category.
- To study human rights awareness among UG students of General and SC category on the basis of academic and socio-economic factors.

### **Hypothesis of the Study**

- There is no significant difference between UG students of general and SC category, regarding various dimensions of human rights awareness.
- There is no significance of difference in human rights awareness among students of general category and SC category on the basis of gender, academic stream, area of residence and family income.

### **Methodology**

The present study adopted a descriptive survey method of educational research as the purpose of the study is to find out the present status of human rights awareness among the UG students. The study is quantitative in nature. A standardised Human Rights Awareness Test (HRAT) developed by Vishal Sood and Arti Anand (2012) was used to measure the level of awareness of UG students. The test was classified into three dimensions: (i) Knowledge of Human Rights related documents, (ii) Knowledge and Understanding about Human Rights Concept, (iii) Understanding of Situations involving Human Rights Violation/ Non-Violations consisting of 50 statements with three alternatives i.e., true, undecided and false. A sample of 80 UG students, from both the campus of Kumaun University (40 students from DSB Campus and 40 from Sir J.C. Bose campus, Bhimtal) was selected by using simple random sampling technique. Both descriptive and inferential statistical techniques were used to analyse the data such as mean, standard deviation and t- test.



**Results and Discussion**

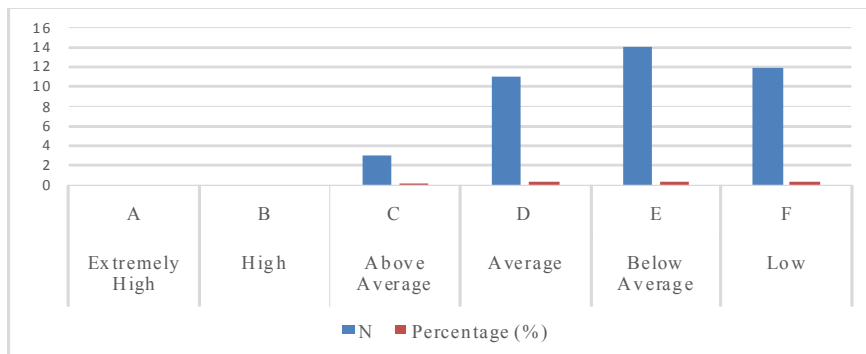
After analysing the data, the level of human rights awareness among UG students of General category is presented in Table-1.

**Table -1: Human rights awareness level among UG students of General category**

S. No.	Degree of Human Rights Awareness	Grade	N	Percentage (%)
1	Extremely High	A	Nil	0%
2	High	B	Nil	0%
3	Above Average	C	3	7.5%
4	Average	D	11	27.5%
5	Below Average	E	14	35%
6	Low	F	12	30%

Table-1 reveals that none of the students fall in category A (Extremely high degree of HRA) and category B (High degree of HRA). Only 7.5% of the general students classify under the above average level of human rights awareness. 27.5 % students fall in the average level of human rights awareness category.

Maximum number of students, i.e. 35% come under the below average category (E), while 30% of the students displayed low level of human rights awareness with F grade.



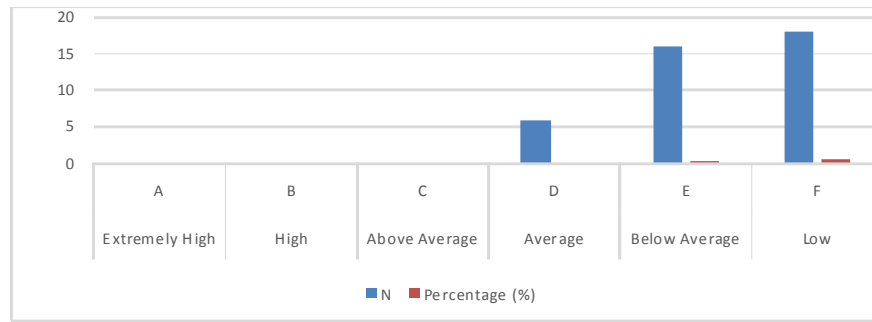
**Fig.1 Human rights awareness level among UG students of General category.**

Level of human rights awareness among UG students of SC category is presented in Table 2.

**Table- 2: Human rights awareness level among UG students of SC category**

S. No.	Degree of HRA	Grade	N	Percentage (%)
1	Extremely High	A	Nil	0%
2	High	B	Nil	0%
3	Above Average	C	Nil	0%
4	Average	D	6	15%
5	Below Average	E	16	40%
6	Low	F	18	45%

Table-2 shows that none of the UG students of SC category came to the level that could be categorised as having extremely high, and high and above average degree of human rights awareness. Only 15% students have an average level of awareness about human rights. It is also clear from the table that 40% of the students of SC category displayed a below average level of awareness. In the category of low degree HRA, maximum number of students, i.e., 45% qualified in F grade.

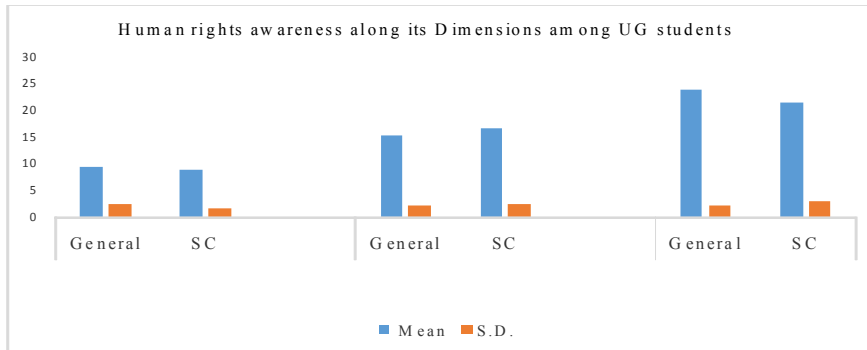
**Fig.2. Human rights awareness level among UG students of SC category.**

Dimension-wise Human Rights Awareness among General and SC category students is presented in Table-3

**Table -3: Dimensions of Human Rights Awareness among General and SC category students**

S.N	Dimensions of Human Rights awareness	Categories	N	Mean	S.D.	t-value
1	Knowledge about human rights Documents	General	40	8.67	1.80	0.41
		SC	40	8.75	1.55	
2	Knowledge and understanding of human rights concepts	General	40	15.22	2.29	0.01
		SC	40	16.62	2.68	
3	Understanding of human rights violations/non – violations	General	40	23.9	2.35	0.46
		SC	40	23.85	2.32	

Analysing data on different dimensions of human rights awareness, it is found that computed t-value for first dimension is 0.41, for second dimension is 0.01 and, for third dimension is 0.46, which is lesser than the table value (1.98). Therefore, the computed t-value for all the dimensions, as presented in Table 3 and Figure 3, has not been considered significant. As per formulated hypothesis, there is no significant difference on human rights awareness among UG students.



**Fig. 3 -Dimensions of Human Rights awareness among General and SC students**

Based on gender, it was found that the mean score of general male UG students is greater (58.64) than male UG students of the SC category (56.5). The standard deviation of the general male is calculated at 5.87 and the value of SD for SC males was found 5.9. t-value is 0.20, which is not significant. On the other hand, the mean value of general females is greater (59.09) than SC females (56.07). The standard deviation of general females is 7.08 and 6.32 is the SD value of SC female students. The calculated t-value is 0.05. This is lesser than the table value (1.98), and therefore, it has not been considered significant.

Based on the area of residence of UG students, the mean score of general urban UG students is greater (59.14) than SC urban UG students (57.29). The standard deviation of general urban was calculated at 6.26 and the value of SD for SC urban was found at 5.51. Calculated t- value is 0.22, which is lesser than the table value (1.98) and not been considered significant. On the other hand, the mean value of general rural students is greater (60.25) than SC rural students (56.07). The t-value is 0.06 is not found significant.

Awareness level of General and SC category UG students on human rights on the basis of gender, area of residence, academic stream and family income is presented in the table below.

**Table -4: Awareness level of General and SC category UG students on human rights**

S.N.	Category	Sub-Categories	N	Mean	SD	t-test
1	Gender	Male (General)	11	58.64	5.87	0.2
		Male (SC)	12	56.5	5.9	
		Female (General)	29	59.09	7.08	0.05
		Female (SC)	28	56.07	6.32	
2	Area of residence	Urban (General)	17	59.14	6.26	0.22
		Urban (SC)	20	57.29	5.51	
		Rural (General)	23	60.25	7.29	0.06
		Rural (SC)	20	55.15	6.4	
3	Academic stream	Arts (General)	13	59.56	6.65	0.32
		Arts (SC)	20	56.36	6.26	
		Science (General)	22	60.23	6.39	0.41
		Science (SC)	10	57.36	6.4	
		Commerce (General)	5	58.5	8.85	0.64
		Commerce (SC)	10	53.83	3.19	
4	Family Income Group (Per month)	Low-income group (General) -1000-20,000)	17	58.36	7.59	0.35
		Low-income group (SC) -1000-20,000)	27	56.14	5.64	
		Middle-income group (General) - 21,000 -50000)	18	58.64	6.2	0.52
		Middle-income group (SC) -21000 - 50,000)	5	54.86	7.24	
		High-income group (General) - 51,000 -100000)	5	63.4	3.71	0.46
High-income group (SC) - 51000 - 100000)	8	58.8	6.69			

While comparing human rights awareness based on different academic streams, it was found that general category of Science stream students had more awareness with mean value 60.23, which was highest among Arts and Commerce stream students of general and SC category. The t-value came out 0.41, which is lesser than the table value (1.98). Therefore, the computed t-value (0.41) has not been considered significant between General Science students and SC category students. Likewise, General Arts and SC Arts students' t-value was found 0.32. Students of the General category in the Commerce stream were found to be more aware with a mean value of 58.5. The calculated t-value (0.64) is not significant.

Students of the general category who belonged to the low-income group, scored a mean value of 50.36 which is greater than students of the SC category from the low-income group of families (56.14). The calculated t-value was 0.35; it was lesser than the table value (1.98). So, it was not found significant. In the second family income group, i.e., the general middle-income group, t-value was 0.52 and it was

found to be non-significant. The high family income group of general category students scored 63.40 as a mean value which was greater than the mean value (58.28) of students of the SC category. The calculated t-value (0.46) was also found to be non-significant.

### **Findings**

- It is found that the maximum number of General category students (35%) have a below average level of awareness while 7.5% students have an above average level of awareness. On the other hand, 40% students of SC category have low level of awareness and only 15% students have average level of human rights awareness.
- There is no significant difference between General and SC category students in awareness regarding different dimensions of human rights.
- It is found that in comparison to the General male and SC male, general female and SC female UG students do not differ significantly in their human rights awareness. This finding is similar to that of Padmavathy and Pallai (2015).
- There is no significant difference among students of General urban and SC urban, General rural and SC rural students in their human rights awareness. This finding is similar to the studies of Sasikala and Francisca (2016), Vimal Kumar (2014), Baljit Singh and Tirath Singh (2012).
- Between the General and SC category of students, in respect of human rights awareness, there is no significant difference in the Science courses, Arts and Commerce courses. This finding is similar to the findings of Padmavathy and Pallai (2015).

### **Conclusion**

An educated person in the true sense will always attempt to educate others. Even a person without any formal education, who is aware of his self is also an educated being (Nivedita and Rani, 2015). The 1986 National Policy on Educational (NPE) suggested various measures to bring equality through the system of education. It recommended the reshaping of the curriculum, textbooks, training of teachers and administrators to remove gender bias from textbooks and bring change in the status of women and educational development of the SC/ST population at all stages and levels of education (MHRD, 1986). Educational activities can endow approaches and provide long-lasting solutions for any problem. Knowledge on human rights can develop awareness and sensitivity in terms of the rights and responsibilities among all

individuals. The knowledge of human rights makes them well fortified to face the challenges of future too. Hence, human rights awareness through education is the ultimate solution to achieve long-term and permanent solution against human rights abuses and establishing peace all over the world (Dayal and Kaur, 2015).

From the above findings, it is clear there is a need to promote and create human rights awareness among the UG students. The result of the present study shows that majority of the students' awareness level on human rights was below average and low. Hence, the curriculum planners should review the curriculum of the entire discipline so that contents on human rights education can be integrated into the teaching-learning process. The gap between theory and practice should also be evaluated so that human rights education will find its rightful place in the curriculum of UG programme as well as in other levels of education and bring transformation in the movement of 'all human rights for all' for excellence of life and peaceful cohabitation for all human family through education.

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## Digital Technology among Students: Issues and Concerns

• Surendra Kalet<sup>1</sup>      • Saswat Chandra Pujari<sup>2</sup>

### Abstract

The advancement of digital technology is one of the greatest gifts to the modern world. Although technology could have a good influence on the planet, it is also an indication of its ability to cause detrimental impacts and its abuse. Overuse of digital technology can cause major behavioural problems and extend difficulties in concentrating on crucial activities. It also has a greater influence on growing children and teens. Thus, this paper attempts to highlight how the internet plays a key factor in encountering students in a state of deprivation. It is mainly focused on to show how these technical gadgets are used during the time of online classes, and being used for playing online video games, it become the prime reason for committing suicide among students.

**Keywords:** *Technology, students, depression, suicide.*

### Introduction

Access to digital technology has become a necessity in students' daily lives. This seems to be the sole means to reach children throughout lockdown, but it also presents its own set of issues. Students and instructors have faced difficulties owing to poor internet and communication concerns (Mitra, 2020). As the usage of computers and internet networking grows and becomes more integrated into everyday life, it may also be harmful to one's health and well-being (Haythornthwaite, 2005). Smartphones, televisions, game consoles, media players, and other devices waste the time of majority of individuals. Many young minds are technologically obsessed. As a result, it has caused a distraction in learning and working, diverting individuals' attention away from their hopes and aspirations. Furthermore, excessive usage of technology may

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<sup>1</sup>**PhD Scholar (UGC-NFSC Fellow)**, Department of Sociology, Sambalpur University, Odisha-768019  
✉ surendrakalet123@gmail.com

<sup>2</sup>**Assistant Professor**, Department of Sociology, Sambalpur University. ✉ saswat.samaya@gmail.com



cause social exclusion and alienation among relatives and lead to depression. Depression covers a wide spectrum of emotions, including mild melancholy to compulsive suicidality, and is also a significant cause of mortality globally. It is a part of the growing problem of a reduction in social, vocational, and psychological relationships (Kaur et al., 2014).

Following the COVID-19 epidemic, children all across the world were pushed to transition to a digital type of education. While the transition has always been relatively simple for wealthy students, it creates issues for the majority of our society, as they are unable to access the proper internet due to a lack of infrastructure facilities and digital gadgets to attend online classes (Jain, 2020). Also, instructors are indeed having trouble producing everyday tutorial videos. Due to unanticipated technological encounters, many people are concerned that the situation will worsen during the rainy season, resulting in the maintenance of fallen power lines, inverters, and power poles being delayed (Reporter, 2021). Moreover, conducting exams, on the other hand, has become more difficult. The majority of certification and entrance exams have been extended or cancelled, disrupting the educational schedule. Children who are certainly scheduled to take the board examinations this year or next, for example, have already wasted class time (Sudevan, 2020). On account of this situation, children of this generation have come to their senses in the age of digital innovation, surrounded by laptops, computers, touch-screen smartphones, and tablets, which enable the students to play console games to keep them busy. It is difficult to protect children from these devices. Their entire focus shifts away from schoolwork and toward gaming, and this over-addiction to gaming and technology can sometimes ruin their lives and become the prime cause of suicide among them.

### **Theoretical Framework**

According to Emile Durkheim's theory of suicide, individuals who are not fully integrated into society commit egoistic suicide. Social relationships are weak, and individuals feel excluded and as if they are not a part of the community, which also implies that the community is not a part of the person. Individuals who are overly integrated commit altruistic suicide. It is a part of traditional civilizations that have a high level of mechanical solidarity. Anomic suicide occurs whenever social control fails and people fail to adhere to norms and ideals. Anomie is caused by abrupt shifts that lead to circumstances of distress or depression. People are no longer subject to social control. Fatalistic suicide is the outcome of general societal excess influence over a person, which is an act of overregulation. Individual abuse results in suffocation and weakness. Thus, according to Durkheim, people's emotions forcibly crushed by

repressive regulation are more inclined to commit suicide (Coser, 1977). The altruistic theory of suicide is more relevant to the present type of technological suicide. It has been observed that students have committed suicide as a result of the over addicted to online gaming activities. Students are deeply immersed in technology and devote a significant amount of time to it. As a result, it has a significant influence on their health.

Furthermore, mostly the games like PUBG and Free Fire have had both direct and indirect effects on the individual. They are spending and losing money on it, which becomes a factor to make them feel depressed; further, it turns into a leading cause of suicide among students. Also, during the time of COVID-19, the sudden transition from the physical mode of teaching to the online mode of teaching creates suicidal tendency among the students. This is because the students from the lower economic class could not afford to buy a smartphone to attend the online class, and it became the reason for committing suicide among them. Furthermore, the over-addiction to this leads to several health hazards and risks to the students. According to Leiss (1994), Ulrich Beck's theory of risk society contends that the inherent danger in contemporary society will eventually lead to the establishment of a global risk society. There is technical progress in human civilisation. And, as technology develops, new types of dangers emerge, and we must continually adapt and adjust to these developments. He claims that society encompasses a wide range of interconnected changes in modern society, not just environmental and health problems. In the modern era, students have become the sole reason for their existence. They have spent significant time in the technological field without contemplating its effect, which has further resulted in depression and put them into several diverse behavioral disorders.

### **Internet and Connectivity: Reason for Depression Triggers**

Nowadays, social networking raises students' depression (Krishnamoorthy, 2020). Gambling, particularly among teens, is becoming a significant cause of depression and suicide, compared to other sources of addiction.

The internet is a new and exciting platform that is quickly becoming an indispensable part of students' daily lives all across the world. It has created a new arena in social interaction with the potential to increase efficiency and identify common ground through specifically designed tools to aid research, information seeking, interpersonal connection, and economic transactions. Excessive internet use is now becoming increasingly common in humanity as the internet's relevance grows and online usage grows dramatically. Dr. Ivan Goldberg coined the term "Internet addiction" (Nalwa & Anand, 2003).

Further, depression is quite common among students. Engineering students have a greater prevalence of depressive symptoms than medical students. Children who have unsupportive families, do not comprehend their difficulties, and have parenting disagreements that are more likely to have depression. Not following a path of one's own choosing and discontent with one's existing path predisposes to sadness (Kaur et al., 2014). Moreover, based on the geographical region, those who live in the hilly area are unable to reap all the benefits of internet connectivity. Due to a lack of infrastructure, students are having difficulty accessing the internet, are unable to attend online classes, and must travel outside of their home region to obtain adequate connectivity. But simultaneously, the majority of the students who are from a good social class are nowadays getting more and more addicted to the use of the internet. Consequently, internet addiction can be detrimental to some mental diseases and addiction issues, such as sadness, low self-esteem, and isolation.

As India battles the long-term COVID-19 epidemic, the enormous impact on the psychological health of young people aged 15 to 29, who make up approximately 27.5 percent of our population must be addressed. According to the National Crime Records Bureau, one-third of all suicides in the country in 2020 will be committed by young people. The disturbance to their lives resulted in the loss of in-person schooling, routines, and social events, which led to high-stress levels, sadness, and the integration of illnesses. As per the 2021 State of the World's Children Report, 1 in 7 youth aged 15 to 24 in India revealed getting upset during the epidemic (Chauhan & Bhan, 2022).

### **Technology-driven Suicidal Tendency**

In the COVID-19 pandemic, the teaching-learning process has been moved to an online platform, but the majority of students do not have reliable internet service or access to digital gadgets. As a consequence of the scarcity of these materials, many students are still unable to attend lessons, thus lagging behind in being awarded a degree. Another leading issue, PUBG, is a South Korean company's game mode in which gamers are placed upon an island and must exterminate each other. Since its initial release in 2017, it has amassed a massive worldwide audience across PCs, consoles, and mobile applications. Due to not being able to attend online classes during the COVID-19 pandemic, and online gaming factors have become a major aspect among the students who have committed suicide in recent years, which has been highlighted below-

A student committed suicide in Kerala and was reported on 2<sup>nd</sup> June, 2020. An academically inclined 15-year-old girl in Grade X who also had achieved a school

award for her “academic brilliance” attempted to commit suicide as she was unable to participate in courses online or watch TV lectures due to a broken television set in the family home and a lack of access to a smartphone. Her father was a daily wage labourer who had not received any money for two months. Thus, it put their children in economic difficulty. According to media sources, the girl attempted suicide herself because she believed her educational attainment would suffer as a result of missing class lectures owing to her difficulty in accessing the internet or broadcasting learning materials. Before finishing online classes, she became depressed and died by suicide. This circumstance, i.e., a lack of knowledge owing to a lack of adequate infrastructure, is far from uncommon, and it highlights the necessity for preventative measures to stop similar incidents from happening again in the future (Lathabhavan & Griffiths, 2020).

In one terrible example, a 15-year-old girl deceptively struggled herself because she could not have a cellphone to pursue online classes. On September 23, the tragedy occurred at Ond village, 10 kilometers from Karad town in Maharashtra’s Satara district. The victim was studying in a high school and had been told to attend online tutorials in view of the Corona virus epidemic for the previous several months, the District Attorney Balkrishna Jagdale told IANS. The deceased minor’s mother, a local farm labourer, couldn’t even obtain a cellphone for her child since the family income seemed scarcely enough to subsist (Desk, 2020).

A 16-year-old class 10 student is alleged to have committed suicide after missing online lessons due to the absence of a mobile device. The tragedy occurred in the Nischinda region of West Bengal’s Howrah district. There was no suicide note found in the suspect’s room. The youngster went to an English-medium school. Following the lockdown in response to the coronavirus outbreak, most schools throughout the country have begun offering online lessons (Mirror now digital, 2020).

A Class 11 student in Tamil Nadu committed suicide because he was unable to handle the stress of online lessons that were still running owing to the coronavirus-induced shutdown. The youngster was attending school in Trichy but came home to the Theni area during the COVID-19 lockdown. As per *India Today*, he began having trouble grasping online lessons following the beginning of his online learning. As per the statement, he informed his family about his struggles with virtual classrooms and how challenging it was for him to follow lessons. As per the report, the boy had been having “severe difficulties” understanding its online courses. He gradually became concerned that he was unable to realise his parents’ expectations of schooling him. When he couldn’t deal with the pressure, he wanted to hang himself while his parents

were at work, according to the story. His siblings hurried him to the clinic, but he just could not be rescued (Money Control News, 2022).

A boy's death in southern India after his mother chastised him for enjoying a popular internet game has sparked a nationwide discussion over whether the game should be banned. According to Indian news sources, the 16-year-old father urged a ban on Player Unknown's Battlegrounds, or PUBG, after his son hung him from a ceiling fan at their Hyderabad house after becoming reprimanded for squandering time online rather than preparing for an English test. Parents want their children, many of whom remain with them long into adulthood, to focus on schooling and practical endeavours. In March, two men in their twenties were killed by an oncoming train while enjoying the game on smartphones along railway lines in Maharashtra state (Gulfnews, 2019).

In Joda, Odisha's Keonjhar district, a class VIII boy hanged himself, after his parents reprovved him for spending a long time playing computer games for huge sums of cash. According to authorities, the parents gave him a smartphone for an online course during the COVID-19 confinement period. He did, however, spend much of his time on the smartphone enjoying a game online termed "Free Fire." While enjoying the sport a few days ago, he lost a total of Rs 96,000, including Rs 61,000 from his father's account and Rs 35,000 from his mother's account. When he inquired at the bank, the bank officials informed him that the money had been withdrawn from his account as a result of online games played on his mobile phone. Because of his father's unpleasant response to his son's conduct, the tiny boy hanged himself inside the toilet. The kid was retrieved by close relatives and brought to a nearby hospital, where he was pronounced dead. "His parents gave him a phone for educational work, but he largely used it to play online games." Thus, his parents lost around Rs 1 lakh from their account. They learned about it from the bank and questioned him about it as well. "He turned really distraught and took his own life," his father explained (Sahoo, 2020).

In a terrible and terrifying incident, a 13-year-old boy is accused of committing suicide after suffering from depression related to a cellphone game. According to authorities, the boy hanged himself to death in Madhya Pradesh's Chhatarpur district on Saturday, dipping under a suicide letter in which he stated that he was taking dramatic action after losing Rs. 40,000 on an internet platform (Zee Media Bureau, 2021).

A boy disappeared from his home on Tuesday evening. His parents reported it to the police as a consequence. The police launched an inquiry and started searching for

him. On Wednesday, investigators reportedly located the boy's shoes and bicycle near the pond in that location. A second scan assisted authorities in retrieving his corpse from the pond. According to the *New Indian Express*, his father chastised the boy, who had been in class IX, over wasting the cash on mobile games such as "Free Fire." Given this, the youth chose the dangerous option. According to some sources, the boy lost a substantial amount of money on the smartphone version and chose to terminate his existence out of regret (Online Desk, 2021).

A young man is allegedly killed in Kuttichal, Kerala, after incurring massive debts as a result of his addiction to an online game. According to authorities, the victim was recognised as an ISRO contract worker. On December 31, he was discovered dead. His father said that his son was hooked on an online rummy game. He acquired more than 20 LPA from his pals to play it (Reporter, 2021).

A 25-year-old boy said in his suicide letter that he had been hooked on the online video game Teen Patti. To obtain 'quick money in order to relieve his family from the poverty line, he took out loans through an internet app and gambled on an internet game called Teen Patti. But he was defeated. He would be unable to repay the loan. "They are harassing me with frequent WhatsApp calls. They are said to have begun sending threatening texts to others on his contact list," in the suicide letter, he stated. As per the initial investigation by the police, the boy bought over one lakh rupees via the Loan App and lost almost all the money in the game. According to the examining officer, Vaskale, a native of Bistan in Khargone district, was taking PGDCA from a state college and sleeping in a boys' hostel in Indrapuri Colony. He was discovered hanging from the stairwell railing. He has also been employed as a security guard somewhere in town. In the suicide letter, the boy apologises to his mother for playing an internet game. He said that he hoped to earn enough money to buy a house for his parents. He further asked the cops to make sure his parents were not mistreated because of the outstanding debt (Reporter, 2022).

According to authorities, an 11-year-old kid from Madhya Pradesh's Bhopal allegedly killed by hanging himself with both strings from a punching bag erected on his home's rooftop. The Additional Commissioner of Police in Bhopal released a statement wherein he claimed that a teenager was recovered dead in his home following a suicide. As per the statement by his parents, the boy spent over sixty thousand on online video games, which is beyond their capacity. Parents have previously uninstalled the app. The investigation still seems to be underway. As per authorities, no suicide note was discovered at the scene of the boy's home. The boy was a class 5 student from Shankaracharya Nagar, Bajaria. His father informed investigators that his son

was hooked on an internet game on Wednesday afternoon. According to the police, his relatives took him to a private hospital, but the doctor confirmed his death after a serious examination (APN Live, 2022).

A 14-year-old Mumbai youth is accused of committing suicide on February 13, 2022 when his parents declined to fulfil a task in the Garena Free Fire game. According to ANI, the crime is being investigated by the Bhoiwada police. The youngster was addicted to the online game Garena Free Fire, as per investigators. "A further investigation revealed that the boy was addicted to the Free Fire online game, but what exactly pushed him to execute such a severe step remains uncertain," police said in the report (Yadav, 2022).

On January 12, 2022, a 12-year-old boy committed suicide at the end of his addiction to the game Free Fire. In view of this occurrence, the Madhya Pradesh government has decided to pass an act governing online gaming shortly. Not just the 12-year-old, but many more youngsters keep on losing their lives as a result of playing online games. As per the IANS report, the government will soon introduce legislation to limit internet gambling (Edex Live, 2022).

A 13-year-old boy obsessed with the gaming console Free Fire committed suicide in his Dadar home, exposing the hazards of playing online games once again. He had supposedly spent the previous two to three months playing these games, which were again prohibited in India on the day following his death, with six of his school buddies.

The authorities reportedly enlisted the help of cyber specialists to check his smartphone. According to the Bhoiwada police, Tirthesh Chetan Khanolkar's death had nothing to do with Free Fire, but his mobile phone has been transferred to cyber specialists for a thorough examination. They now record the remarks of Tirthesh's six pals who were also participating in the event (Vaktania, 2022).

On March 1, 2022, a 19-year-old and two young boys were detained in connection with the killing of his 22-year-old friend in an incident over the online computer game PUBG. On Monday, at 9 p.m., the trio stabbed their friend to death with a sharp knife at the Little Flower School in Vartak Nagar. Locals reported seeing the four companions near the school numerous times in the preceding several days. They used to drink alcohol, play online games, and argue frequently. On Monday night they all got into a fight about the game after drinking, and the three mates, including the two minor lads, allegedly stabbed their friend with a sharp weapon (Singh, 2022).



Another heartbreaking incident occurred in Lucknow on June 8, when a 16-year-old boy became deeply addicted to online gaming, specifically PUBG, and as a result, he shot his mother ever since she denied him from playing the video game, and he chose to keep her mother's body in their own Lucknow home for two days by terrifying and locking up his younger sister in the room to ensure she did not notify anyone at all (HT Correspondent, 2022).

### **Need for Reform**

Many students lag behind because of the lack of facilities that are needed to teach digitally. If we want to close the digital gap, we need to offer greater facilities to children like continuous web access and technological gadgets (Jain, 2020). Certain elements, such as parenting and educational counselling should be prioritised among students in order to reduce the frequency of anxiety among children.

New policies and initiatives must be implemented, focusing on a certain group based on their needs. Special consideration should be paid to family connections and enabling one to adopt a path of one's own choosing (Kaur et al., 2014). There is a general lack of understanding of anxiety. Stigma over psychological health exists not just in the general public but also in the medical community. Additional difficulties, such as the scarcity of skilled mental health practitioners cause depression to remain unnoticed and untreated in India.

Technologies have several great effects because when it comes to detrimental consequences, they may be quite detrimental to a human's life and should not be ignored. It could completely detach the children from the use of innovation. Instead of doing this, make them well aware about their present predicament, caution them about its limited use, and do not even over depend on them. Instead of engaging them in the online service, start engaging them in the exercise that can temporarily differentiate them from the use of technology. They are also relieved of stress and tension by engaging in well-planned exterior action. It is extremely beneficial to all individuals when they use a beneficial method (Suri and Ramnath, 2021).

Playing outdoors will divert their attention away from these internet games and redirect them to more creative endeavors. Otherwise, consult a psychiatrist or a psychologist. They may assist these children and persuade them to participate in outside activities, which may change their positive approach. However, regular access to these mobile games is harmful, not only for children but also for families, since the influence of certain games is horrific.



## **Conclusion**

The advancement of technology has already dominated several sections of human beings, and its influence has been felt mostly among the student category. Children of today have gone through the digital age, and by the time they hit adulthood, they are typically addicted to these electronic tools, which only further expose individuals to a variety of bad repercussions. The concept of a digital divide also develops, although a lot of students can enjoy all of the benefits of technology while another lot of students cannot because of inadequate basic infrastructure. It further pushes them towards deprivation. Additionally, owing to poverty, some children were unable to access it, which is also a leading reason for committing suicide. Besides, the gaming aspect has been identified as a significant way for students to commit suicide. They left their family and world before enjoying it. So it is up to parents, instructors, and, most importantly, the peer group to engage them with both the beneficial aspects of these technological advancements and help them escape the harmful ones.

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## **Book Review**

***“Blended Learning”*: A Model for Developing Entrepreneurial Skills**, by NavnathTupe, Pune: Universal Prakashan Press, 2022.

### **Pooja More<sup>1</sup>**

The book under review - *Blended Learning Model” for Developing Entrepreneurial Skills* -provides a new vision, and an innovative drawing on the new intellectual framework of Techno-Pedagogy for improving entrepreneurial capabilities for learners. The main focus of the publication is to present and discuss ways in which to use to Technology with the open and flexible means of delivery to help learning in different settings and enhance learning opportunities, highlighting the need for successful entrepreneurship development.

A blended approach to learning which is the need of the art is about the design that enhances the teaching and learning experiences for students, teachers, instructors, entrepreneurs, e-learning developers, designers, lifelong learners, trainers, and trainees, by combining face-to-face learning activities with online learning components.

The author has conducted extensive research and has proposed the blended learning model for entrepreneurship which provides women with the opportunity to enjoy the models of learning. For example, a student might attend classes in a real-world classroom setting and then supplement the lesson plan by completing it on online multimedia coursework.

Studies have shown that because blended learning incorporates multiple methods of instruction from an assortment of perspectives, it proves to have an effective learning outcome for most involvement. By incorporating technology into classroom instruction, teachers can reach more students.

The overview offers that in the age of Science and Technology and with Innovation made in the multifaceted society, women empowerment plays an important role in

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<sup>1</sup>**Programme Coordinator**, Skill Development Center Savitribai Phule Pune University, Pune  
✉ [pmore@unipune.ac.in](mailto:pmore@unipune.ac.in)

the development of the nation. There is a need to change the perception, attitudes, behaviors, social norms and stereo types towards women in society. This book through blended learning provides women entrepreneurs with the skills, resources and networks needed to start and scale successful businesses. The delivered online and face to face mode of two phases are designed to fit the demanding schedules of entrepreneurs. It allows participants : to develop the skills and tools to adapt their business to changing conditions; ensure profitability; connect to a network of regional and global stakeholders; gain access to local talents; and showcase their business attitude.

Blended learning helps students to explore technology and use different tools or techniques for learning, like, PowerPoint, Virtual classrooms, Video lectures, etc. Blended learning improves the quality of education and information assimilation while making teaching more efficient and productive. It gives students more flexibility to customize the learning experiences.

Dr. Navnath has constructed the Entrepreneurial Skill Matrix, which not only benefits in organizing the various entrepreneurial skills but also facilitates in developing a pedagogical base for learning the entrepreneurial skills. HE tried to develop skills for creative entrepreneur through the theories of creativity, along three essential elements, viz., Expertise, (knowledge & skills), Intrinsic Motivation and Thinking Style.

Creative Entrepreneurs	Managerial Skills			Employability Skills			Evaluating Skills
	Communication	Decision-Making	Self-Awareness	Organization	Team Work	Problem Solving	Market Evaluating
↓ Expertise	Knowledge of content	Reducing wastage	Self-Development	Ethical Practices	Dynamic Leadership	Problem Realization	Market Trend
	Multimedia skills	Scrutinizing Alternatives	Self-Actualization	Maintaining Control	Sense of Responsibility	Generating Potential Solutions	Analytical Skill
Intrinsic Motivation	Keeping active	Initiative Tendency	Self-confidence	Resourceful & Persevering	Emotional Stability	People Concern	Influential Ability
	Readiness for conversation	Risk taking	Self-Commitment	High Expectation	Work ownership	Setting goal and interests	Customer Satisfaction
Thinking Style	Interaction for solving problems	Exploiting opportunities	Divergent thinking	Raising Financial Capital	Synergic Approach	Ignition for Execution	Reflective Marketing
	Feedback	Conflict Resolution	Flexibility	Social Capital	Division of Labour	Testing of effectiveness	Branding

As mentioned in the book Figure N0.3. 4: Entrepreneurial Skills Matrix (p. 76), Entrepreneurial skills are shown in columns and Expertise, Intrinsic Motivation and Thinking Styles are the three layers of each entrepreneurial skill are shown in the Rows. All the aspects of entrepreneurial skills of girl students were assessed through

self-assessment scale based on entrepreneurial Skills Matrix in the present study. Blended Learning Model explores the entrepreneurial skill matrix which provides an authentic and reliable pedagogy to develop entrepreneurial skills among learners (p.77).

Rapid technological, environmental, social and workplace changes require innovative responses towards workplace skills and business development. Transformative entrepreneurial skills and competencies are important for entrepreneurship qualities like problem solving, initiative, teamwork, creativity, emotional intelligence and other soft skills, along with generic skills.

This book emphasizes the teaching of entrepreneurial skills in the mindsets to prepare modern employees and potential future entrepreneurs. A main challenge for embedding entrepreneurial learning is the development of curricula that provide students with real life, active learning experiences to acquire entrepreneurial skills. Market evaluation skills and Managerial skills for work progress act as catalyst in entrepreneurship development.

The case studies demonstrate some of the ways in which different entrepreneurs in civil society are using technologies and methods to increase the reach to become successful and motivate others to become entrepreneur. With improved learning outcomes and their services, a new paradigm is established and an environment favorable for developing the knowledge and skills is built, as required for tomorrow's world of work.

Empowering and encouraging entrepreneurship is one of the most impactful steps we can take in addressing some of the disparities we see today. Steps are needed for empowering women to become not only to be wage earners but also job creators as well as expanding the pool of human resources and talent available. Take the risk and invest money, time and passion to empower to be entrepreneurs. The shared experiences and recommendations for promoting and motivating women to become entrepreneurs is very inspiring. It is becoming increasingly clear that women are and will continue to be powerful drivers of development.

Employing these technologies in the structures optimally and effectively also requires teachers and trainers who can apply appropriate technologies in the facilitation of training and teaching of curriculum, while also fostering their own professional learning. Thus, any substantive value addition requires that the appropriate technologies be fully integrated in the curriculum design, pedagogy, and learning and assessment.

Entrepreneurial competences can be viewed as a mix of knowledge, skills and right attitudes, including self-confidence, networking, understanding risk, working with others, creativity, a sense of initiative, problem-solving, the ability to marshal resources, and financial and technological knowledge. A case study of the competency of Mrs. Suman (p. 114) revealed that in order to achieve the goal, one must possess the highest quality, competency, responsibility, and professionalism in performing their duties.

The author should be congratulated for commending the “Blended Learning Model” for the development and enhancement of entrepreneurship skills which consists of seven chapters and provides a vision for creative design with entrepreneurial skill matrix. There is a wealth of information presented in an engaging and thought-provoking style. A few minor quibbles include no obvious description of the terminologies and definitions of Concepts by different researchers for comparative purposes and easier reading, and the unavoidable typos. One of the more interesting and useful aspects of this book that I found was the highlighting of gaps in our traditional learning system. Rethinking traditional pedagogical approaches and practices is needed to making teaching and learning entrepreneurship practical and relevant to real life. It will not be realistic to shape the minds of future generations using traditional methods and settings. Innovation is a must, particularly in education.

Academic scholars and professionals will, undoubtedly, find this book a necessary addition to their library.



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## Panel of Peer Reviewers

**Professor N. K. Ambasht**, Former Chairman, National Institute of Open Schooling, NOIDA, U.P.

**Professor K. Parthasarathy**, Former Vice Chancellor, Tamil Nadu Open University, Chennai, Tamil Nadu.

**Professor Vandana Chakrabarti**, Former Pro-Vice Chancellor, SNDT Women's University, Mumbai, Maharashtra.

**Professor L. Raja**, Dean, School of Health Sciences and Rural Development, Gandhigram Rural Institute - Deemed to be University, Gandhigram, Madurai, Tamil Nadu.

**Professor P. A. Reddy**, Former Head, Department of Adult Education, SV University, Tirupati, A.P.

**Professor Anita Dighe**, Former Director, Campus of Open Learning, University of Delhi, Delhi.

**Professor Asoke Bhattacharya**, Former Director, Bangladesh Institute of Lifelong Learning, Dhaka, Bangladesh.

**Professor J. P. Dubey**, Former Dean, Faculty of Social Sciences, University of Delhi, Delhi.

**Professor Rajesh**, Head, Department of Adult, Continuing Education and Extension, Faculty of Social Sciences, University of Delhi, Delhi.

**Professor V. K. Dikshit**, Former Dean, Faculty of Social Sciences, University of Delhi, Delhi.

**Professor E. Jyrwa**, Department of Adult and Continuing Education, North-Eastern Hill University, Shillong, Meghalaya.

**Professor M. A. Khader**, Former Head, Curriculum Group, National Council of Educational Research and Training, New Delhi.

**Dr. Anita Priyadarshini**, Professor, Staff Training and Reserach Insititute of Distance Education (STRIDE), IGNOU, Maidan Garhi, New Delhi.

**Dr. Lakshmidhar Mishra**, Former Union Labour, Employment and Parliamentary Affairs Secretary, Government of India, New Delhi.

**Dr. K.V. Easwara Prasad**, Process & Institutional Development Consultant & Evaluation Specialist, Bangalore, Karnataka.

**Dr. V. Mohankumar**, Former Director, Indian Adult Education Association, New Delhi.

**Dr. A. Mathew**, Former National Fellow, National Institute of Educational Planning and Administration, New Delhi.

**Dr. Ajay Kumar**, Associate Professor, Group of Adult Education, Jawaharlal Nehru University, New Delhi.