ENTREPRENEURSHIP EDUCATION - A WAY TO BRING SOCIAL CHANGE

Dr M. Maria Saroja

Dr. A. Nirmala Devi

ABSTRACT

This paper deals with entrepreneurial education for the younger generation towards setting up small business concerns. Their self-development and the development of industrial economy assume prime focus. The most important part of the entrepreneurial environment is culture/values and education. Entrepreneurship development could be improved through the setting up of small scale industrial units, especially in the backward regions. Entrepreneurship education is mandatory to equip the youth with functional knowledge and skill to build up their character, attitude, and vision. It has a vital role in developing an eco-system that promotes innovation. Entrepreneurship education - A way to bring social change.

Keywords:**Entrepreneurship, Self-development, Industrial Economy**

Introduction

Education has been the axle for social, economic and political transformation in all societies. It acts as an integrative force in society, imparting values that foster individual excellence, social cohesion, and national development. It is a multifaceted phenomenon. Gangaiah and Viswanath (2014) explained the genesis of the term 'entrepreneurship' from the french word 'entreprendre' which originally means the organizer of musical or other entertainments. According to Gautam& Singh (2015), entrepreneurship is not just a venture creation process; its essence goes beyond contemporary times with maturity and serves as an agent of change. It is universal and is reflected in all major dimensions of civilization viz. social, political, and economic, etc. across the globe. Gangaiah and Viswanath (2014) argued that entrepreneurship is a key facet of any nation's economy and is the crucial driver for employment and economic growth. It touches human lives through the introduction of new technologies, products, and services. Entrepreneurs, through their creativity and dogmatic approach, to overcome failure, improve the world by innovation and help to build a society that is richer, socially adoptive and technically advanced. The article also tries to facilitate an understanding of 'entrepreneurial teacher training institution' and emphasizes the active role of the teacher as a 'facilitator'

Characteristics of Entrepreneurship education

The basic characteristics of entrepreneurship education as a discipline obtained from the critical review of the works related to it, have been identified by the authors as follows:

- ❖ It is a function of innovation (Vesper & William, 1997)
- ❖ It is a function of fostering leadership (Kuratka&Harnsby, 1996).
- ❖ It is an organizational building function (Vesper & William, 1997).
- ❖ It is a function of high achievement (Vesper & William, 1997).
- ❖ It involves the creation and operation of an enterprise (Kuratka&Jenning, 1999).
- ❖ It is a process of creating value for customers by exploiting untapped opportunities (Robert, 1998).
- ❖ It is a strong and positive orientation towards growth in wealth, knowledge and employment (Robert, 1998).

❖ It is concerned with attitudinal change, risk-taking abilities and turning an idea into actions (Gundary&Kickul, 1998). Thus as a discipline, entrepreneurship education always tries to inculcate some skill so that one can play a role of catalyst for socio-economical change. It gives force to shape the future society and one's own life simultaneously.

Entrepreneurship in India

In India, over 300 million people are living below the poverty line (Planning commission, June 2012). It is simply impossible for any government to provide means of livelihood to everyone suddenly. Therefore, to meet the challenge, the Indian government has launched a "Skill India" programme in March 2015. Its primary objective is to foster entrepreneurial skills in youth. This scheme also wishes to support the 'Make in India' campaign by producing skilled manpower. In India, there is a dearth of quality people in the industry, which demands a high level of entrepreneurship development programs throughout the country for the growth of the Indian economy. The scope of entrepreneurship development in a developing country like India is tremendous. Besides other things to ensure entrepreneurship with adequate education as a part of a sustainable employment generation strategy to accommodate 540 million youths for national development. Recently on 3rd March 2015, Amway India in association with Indicus Analytics released the India Entrepreneurship Report (2014). They ranked Gujarat, Delhi, and Himachal Pradesh as the most entrepreneur-friendly states as reflected by the Current Entrepreneurial Confidence Index. These three states also offer the most conducive environment for future entrepreneurs as revealed by the Future Entrepreneurial Readiness index of the report. However, from a global perspective, India has been placed very low on entrepreneurship with rank 74 among 79 countries.

Roles and Responsibilities of Social Entrepreneurs towards Indian Society:
The roles and responsibilities of social entrepreneurs are given below with reference to Indian society

❖ Social entrepreneurs have the capacity to influence society through their unique product/service aimed at social upliftment. Their role begins with identifying the social problem which concerns everybody rather than a certain sect of people in society. So identifying an appropriate social issue/problem is very important.

❖ Social entrepreneurs in India face certain problems related to the mindset of people who do not want to change their way of doing things. The biggest role of social entrepreneurs is pursuing them to make fundamental changes, which will reflect in overall society.

❖ Social entrepreneurship depends upon social innovations; the challenge is to create such innovations that can resolve the social problem completely by using minimum resources.

❖ Social entrepreneurs have the role to reach the remotest corner of the country for targeting the social sections, which are deprived of basic facilities. The responsibility of social entrepreneurs is to reach such people and serve them positively.

❖ Social entrepreneurs are supposed to provide employment as well with their unique approach. Providing employment to local people having minimum skills and qualifications is the biggest responsibility of social entrepreneurs.

❖ One of the important roles which social entrepreneurs have to play in Indian society is to make visible changes with the social balancing approach.

Challenges Faced by Social Entrepreneurship in India

According to Gautam& Singh (2015), the following are the challenges faced by social entrepreneurship in India.

Confusion with social work- Social entrepreneurship mostly in India is confused with social work; hence it is unable to make a mark as an individual entity in India. This is the starting of challenges for social entrepreneurship.

The problem of creativity- The next problem which is faced by social entrepreneurship is the lack of creativity regarding thinking great ideas for the betterment of society and earning profits as well. This fusion is very hard to think and implemented particularly in India.

Arranging finance- One of the challenges for entrepreneurship in India remains the lack of financial sources. The social entrepreneurs offering a unique product and set of services make it even harder to get financial aid from the established financial institutes. This is a very dire situation and a considerable reason for the under development of social entrepreneurship in India.

Shortage of talented/dedicated workforce- This is a very unique challenge faced by social entrepreneurship exclusively. Generally, people get into jobs to get a handsome salary and perks, but with social entrepreneurship, this becomes a bit hard. Since the prime objective of social entrepreneurship is to get social gains/benefits rather than personal gains/benefits. Under this condition, it is very hard to get people to work for the firm.

Setting and communicating value objectively- The important challenge of social entrepreneurship is to setting and communicating values clearly. Usually what happens is, the value may differ from society to society based upon their exclusive needs. But social entrepreneurs have to set common values, which can be communicated easily.

Elevating the individuals- The most prominent and visible challenge before the social entrepreneurship is to elevate people from their current place of standing by making positive and substantial opportunities. In this process, each individual must be catered to their individual requirement rather than as a society as a whole. This poses a different type of challenge for social entrepreneurs.

Lack of an ethical framework- Since social entrepreneurs are very much concerned about the societal changes and upliftment of people, sometimes they adopt a less ethical way of conducting their business. This challenge is very rarely visible yet exists in some extreme cases in India. Since society to society the ethical parameter shifts.

The commercial assumption- Social entrepreneurship does not take commercial viability or assumption as their priority. This is one of the biggest challenges when it comes to the commercial assumptions of facts and ideas. Since socially things may be accepted but financially/commercially they may not. This creates a dilemma for social entrepreneurship in India. Commercial non- viability also makes firms less motivated for getting into social benefiting projects.

Lack of evidence- Unlike economic entrepreneurship, social entrepreneurship has fewer evidence of changes they have pioneered in society. Such changes are very hard to keep a track of, as people move from one place to another frequently for several reasons.

Lack of planning and appropriate structure- This is the challenge which is haunting the entrepreneurship for many decades and still does to some extent. Lack of planning is very crucial and it is normally the cause of failure of social enterprises. The proper and adequacy of infrastructure including the training, finance, consultation, and research are not

in place for social entrepreneurship in India.

Entrepreneurship Education and the New Role of the Teacher

Entrepreneurship education includes all activities aiming to foster entrepreneurial mindsets, attitudes and skills and covering a range of aspects such as idea generation, start-up, growth and innovation (Robert, 1998). The key to successful entrepreneurship education is to find the most effective way to manage the teachable skills and identify the best match between student needs and teaching techniques. Michaelsen&Sweet (2008) categorized entrepreneurship education in the following three different ways:

1. Education 'about' enterprise (Awareness creation),
2. Education 'for' enterprise (The preparation of aspiring entrepreneurs for innovation); and
3. Education 'in' enterprise (The growth and development training for established Entrepreneurs).

The development of the entrepreneurship key competence is not simply a question of knowledge acquisition. Since entrepreneurship education is about developing the ability to act in an entrepreneurial manner, attitude and behaviors are perhaps more important than knowledge about how to run a business. They are difficult to teach through traditional teaching and learning practices in which the learner tends to be a more or less passive recipient. They require active, learner-centered pedagogies and learning activities that use practical learning opportunities from the real world. Furthermore, since entrepreneurship education is a transversal competence it should be available to all students and be taught as a theme rather than as a separate the subject at all stages and levels of education (ECOTEC, 2010). Thus to develop above

entrepreneurial competencies in youth, the role of teachers has to change (European Commission, 2004). Clearly, the implication of these changes for teachers is substantial. The new role of Teacher Educators (TE) has to be visualized in light of expectations from teachers in achieving goals of entrepreneurship education. Here, the field of Teacher Education has a real challenge.

The Implications for Teacher Education

Entrepreneurial learning and teaching have become more relevant issues in the field of entrepreneurship education research. Implicitly, the field of Teacher Education has to be geared up by teacher educators to handle this issue and meet the challenge of developing teachers to perform the above mentioned new roles in the classrooms and school. As rightly acknowledged by Jaana et al. (2010) that teachers have an essential role to play in enhancing student's entrepreneurial learning. Regarding the teaching method, there is an accepted view that entrepreneurs are action-oriented and that learning occurs through experience and discovery. Specifically, entrepreneurs learn by doing, by experimenting, by copying, and by problem-solving. Recently, researchers have suggested that entrepreneurs learn and act using a prediction approach called "effectuation" reasoning rather than the conventional strategies or causal reasoning used by managers and business people.(Michaelsen& Sweet, 2008)Thus the entrepreneurial teachers have to be ready for the encounter with these challenges. This can be effectively possible in two ways namely

❖ Strengthening of teacher education for pre-service training of entrepreneurial future teachers; and

❖ Continuing professional development for fostering entrepreneurship competency of in-service teachers

Conclusion

Entrepreneurs need the indefatigable energy and incurable optimism that enables them to take the road less traveled and convert their dreams into reality. It is a force that beckons an individual to pursue countless opportunities. Entrepreneurs must learn how to overcome the risk of failure, or of vulnerability. Entrepreneurship education can give them valuable insights and also support them in this. The active role of the teacher as a 'facilitator' has been focused. For these new teachers must be ready to participate in pre-service training and professional development programmes while in-service.

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Dr.M. Maria Saroja
Research Director& Associate Professor of Biological Science
St.Ignatius College of Education
Palayamkottai
Dr.A. Nirmala Devi
Principal
St.Ignatius College of Education
Palayamkottai

A STUDY ON ENVIRONMENTAL AWARENESS OF HIGHER SECONDARY STUDENTS IN TIRUVANNAMALAI DISTRICT

Dr. P. Karpagam

ABSTRACT

Environmental Awareness provides the people of the world with opportunities to acquire the required knowledge, skills, attitudes, and values needed to protect, conserve and improve the environment for their present and future generations. The investigator has adopted a survey method and a simple random sampling technique to select the sample for the present investigation. The represented sample consists of 250 higher secondary school students. The data are analyzed using percentage analysis and 't' test. The findings revealed that there is a significant difference between male and female higher secondary school students in their Environmental Awareness.

Keywords: **Environmental Awareness, Attitudes, Skill**

Introduction

Environmental education is an integral process which deals with man's inter relationship with his natural and manmade surroundings, including the rate of population growth, pollution resource allocation and depletion, conservation technology and urban and rural planning to the total human environment. Environmental education is a study of the factors influencing ecosystems, mental and physical health, living and working conditions decaying cities and population pressures. Environmental education is intended to promote among citizens the awareness and understanding of the environment, our relation to it and the concern and responsible action necessary to assure our survival and to improve the quality of life. Environmental awareness is the ability to understand the problems of the environment through relevant experiences and the assistance extended to the society and its individuals to solve these environmental problems. The government and various non-government organizations are adopting different strategies to promote awareness of the environment in the country. Non – governmental organizations also play a critical role in advancing environmental awareness through research, publications, training, funding and other activities. Organizations like the National Council for Educational Research and Training (NCERT) also play a crucial role in promoting environmental awareness.

Significance of the study

The world of today is prone to many environmental hazards including pollution, depletion of the ozone layer etc. These are the result of mechanization and increasing population. This has resulted in global warming – which is a dangerous challenge to the whole world. It can be said that these problems are the result of the carelessness and selfishness of the people. Due to the industrial revolution, many environmental problems arise. It is essential to give awareness to people to decrease the effects of environmental problems. Every individual should feel responsible and committed to eradicating environmental pollution. Awareness related to environmental problems can be given to the school children, which will produce great results. So it is necessary that environmental awareness should be nurtured to the school children. Hence the investigator has decided to conduct a study on environmental awareness of the higher secondary school students.

Objectives of the study

1. To find out the significant difference between male and female higher secondary students in their environmental awareness and its dimensions namely air pollution, water pollution, land pollution, noise pollution, and general environment.

2. To find out the significant difference between rural and urban higher secondary students in their environmental awareness and its dimensions namely air pollution, water pollution, land pollution, noise pollution, and general environment.

Hypotheses

i. There is no significant difference between male and female higher secondary students in their environmental awareness and its dimensions namely air pollution, water pollution, land pollution, noise pollution and general environment.
ii. There is no significant difference between rural and urban higher secondary students in their environmental awareness and its dimensions namely air pollution, water pollution, land pollution, noise pollution, and general environment.

Limitations of the study

i. The study has been limited to only Tiruvannamalai district
ii. Only questionnaires were used in the study to assess environmental awareness
iii. The sample for the study is limited to 250 higher secondary students from the Tiruvannamalai district.
iv. Only five dimensions of environmental awareness have been studied by the investigator.

Testing of hypotheses

Hypothesis: 1: There is no significant difference between male and female higher secondary students in their environmental awareness and its dimensions namely air pollution, water pollution, land pollution, noise pollution, and general environment.

Table -1. Difference between Male and Female Higher Secondary Students in their Environmental awareness

Dimensions of environmental awareness	Male (N=120)		Female (N=130)		Calculated 't' Value	Remarks at 5% Level
	Mean	SD	Mean	SD		
Air Pollution	6.71	1.55	7.36	1.49	3.395	S
Water Pollution	3.83	0.97	3.98	0.87	1.310	NS
Land Pollution	6.73	1.56	7.52	1.66	3.838	S
Noise Pollution	4.54	1.26	4.76	1.10	1.472	NS
General environment	3.23	0.93	3.41	0.90	1.582	NS
Environmental awareness	25.03	4.55	27.02	4.14	3.619	S

(At 5% level of significance the table value of 't' is 1.96)

It is inferred from the above table that there is significant difference between male and female higher secondary students in their awareness of air pollution, land pollution and environmental awareness in total. But there is no significant difference between male and female higher secondary students in their awareness of water pollution, noise pollution, and general environment.

Hypothesis: 2. There is no significant difference between rural and urban higher secondary students in their environmental

awareness and its dimensions namely air pollution, water pollution, land pollution, noise pollution, and general environment.

Table -2.Difference between Rural and Urban Higher Secondary Students in their Environmental Awareness

Dimensions of environmental awareness	Rural (N=130)		Urban (N=120)		Calculated 't' Value	Remarks at 5% Level
	Mean	SD	Mean	SD		
Air Pollution	6.98	1.58	7.12	1.52	0.673	NS
Water Pollution	3.96	0.94	3.84	0.89	1.034	NS
Land Pollution	6.98	1.61	7.31	1.70	1.547	NS
Noise Pollution	4.75	1.20	4.56	1.17	1.257	NS
General environment	3.24	0.90	3.41	0.93	1.470	NS
Environmental awareness	25.92	4.35	26.23	4.56	0.564	NS

(At 5% level of significance the table value of 't' is 1.96)

It is inferred from the above table that there is no significant difference between rural and urban higher secondary students in their awareness in air pollution, water pollution, land pollution, noise pollution, general environment, and environmental awareness in total.

Findings

i. There is significant difference between male and female higher secondary students in their environmental awareness.

ii. There is no significant difference between rural and urban higher secondary students in their environmental awareness.

Interpretations

The 't' test result revealed that the female students are better than male students in their awareness of air pollution, land pollution and environmental awareness in total. This may be due to the fact that the girls are aware of the environment by engaging themselves with so many activities regarding the environment. They work to keep the surroundings clean and they want hygienic environment where they live. The environment awareness of girls may be due to their eager participation in environment awareness programme much more than the boys.

Conclusion

Environmental awareness programmes should be enriched so that we can nuture the higher secondary students who are the pillars of future India. It should be given to each and every one of the society. The awareness programmes should not be in the light of programmes alone, but the follow up programmes should also be undertaken. The steps to eradicate the risk should be taken seriously and they should not be in words alone but have to be put into action. Awareness programmes should motivate the students and the society. The success of the programme lies on the follow up work and actions. The students should be indulged in the awareness programmes. They can be motivated to plant trees. Also they can be given stimulation to take steps to eradicate pollution. They should go towards the society to save it. It brings out the real success of the awareness programme. It starts from the individual's commitment towards the environment.

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Dr. P. Karpagam
Principal
Sri Renugambal College of Education
Thiruvannamalai

EMOTIONAL INTELLIGENCE OF UNDERGRADUATE STUDENTS IN TIRUNELVELI DISTRICT

Dr. M. Maria Saroja

E. Michael Jeya Priya

ABSTRACT

Emotional intelligence is a gateway to balanced-life. It is an ability to understand, interpret one's own emotions and as well as others' and responding appropriately to them. It allows the individual to communicate, lead and negotiate with others. A person with emotional intelligence is able to understand his or her own emotions and also the emotions of others. It actually enables a person to gain more in an educational setting since the individual is able to integrate well both socially and academically. A person with emotional intelligence is a team player and gains a lot from positive interaction with lecturers and other students. The main objective of the study is to find out the emotional intelligence of undergraduate students in the Tirunelveli district. The survey method was adopted in this study. The sample consists of 400 college students in the Tirunelveli district. Emotional Intelligence Scale developed by Maria Saroja, M & Michael Jeya Priya, E (2019), has been used for collecting data. Percentage analysis &'t'- test were used for the analysis of data. The present study revealed that there is a significant difference among undergraduate students in their emotional intelligence.

Keywords: **Emotion, Intelligence, Educational setting**

Introduction

Emotional intelligence (EI) can be defined as the ability to monitor one's own and other's emotions to discriminate between different emotions and label them appropriately and to use emotional information to guide one's thinking and behavior. According to Schulte et al (2001) people with high emotional intelligence also have been found to have high levels of interpersonal skills. Emotional intelligence also reflects abilities to join intelligence, empathy and emotions to enhance thought and understanding of interpersonal dynamics.It is believed that emotional intelligence plays a very important role in leadership, work life and career development. IQ predicts only about 20 percent of career successes, which leave the remaining 80 percent to other factors such as emotional intelligence (Ahmad, Bangash and Khan,2009). Gross and John (2003) pointed out that emotional literacy, is having the skills to understand and manage emotions, to communicate effectively in order to become an autonomous person. Emotional Intelligence is the capacity to recognize and convey emotions, to utilize emotions to enable thinking, to comprehend and infer with emotions, and to handle emotions efficiently within oneself and in interactions with others.Goleman (1998) pinpointed four components to EI, namely self-awareness, self-management, social awareness, and relationship management. Emotional maturity and social skills along with intelligence bring adjustment and success in one's life.(Sharad V.,&Sawalkar, 2015) An emotionally intelligent person can manage his/her feelings in a better way and cope with stress, with the effective ability to solve problems. An emotionally intelligent person is well adjusted and more successful in various areas of educational and other professional fields. The aim of the present study is to know about the Emotional Intelligence of undergraduate students in Tirunelveli district.

Significance of the study

Emotional intelligence is the ability to manage and regulate emotions.Emotional intelligence reflects not a single trait or ability but rather a composite of distinct emotional reasoning abilities like perceiving,

understanding and regulating emotions. It helps to increase the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions. It influences learning and a range of behaviours, such as helping, negotiating, altruism, risk taking and compliance. Emotions such as anger, anxiety and sadness have the potential to distract students' learning efforts by interfering with their ability to attend tasks at hand. Emotional Intelligence not only brings psychological wellbeing by making students good at interpersonal relationships, resiliency and stress management, but also enhances their creativity, which flourishes their academic success. The aim of the present study is to enlighten the students about emotional intelligence.

Objectives of the study
- To find out the level of emotional intelligence among undergraduate students.
- To find whether there is any significant difference between undergraduate students in their emotional intelligence with reference to the following background variables
  (i)Gender
  (ii) Type of college
  (iii)Locality of college
  (iv) Internet Usage

Hypotheses of the study
- Emotional intelligence among undergraduate students is moderate.
- There is no significant difference between undergraduate students in their emotional intelligence with reference to the following background variables.
  (i)Gender   (ii) Type of college
  (iii)Locality of college
  (iv)Internet usage

Population
The population consists of undergraduate students in Tirunelveli district.

Sample

The investigators have applied simple random sampling technique and selected 400 undergraduate students in Tirunelveli district.

Statistical techniques used in the present study
Emotional Intelligence Scale was developed by Maria Saroja, M and Michael Jeya Priya, E (2019) Percentage analysis & "t" test were the statistical techniques used for carrying out the analysis of the data collected.

Table.1. Showing the Level of Emotional Intelligence among Undergraduate Students

Variables	Low		Moderate		High	
	N	%	N	%	N	%
Emotional intelligence	99	24.8	204	51.0	97	24.2

Figure.1. The Level of Emotional Intelligence among Undergraduate Students in Tirunelveli District
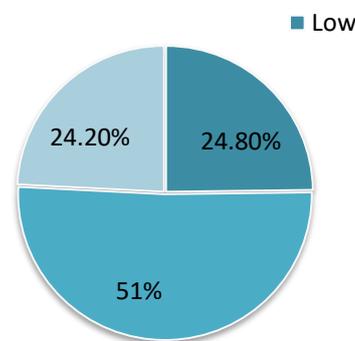
Interpretation
It is revealed from the above table that among the college students of Tirunelveli district24.8% have low, 51.00% have average and 24.20% have high level of emotional intelligence.

Table-2.Difference between Male and Female Undergraduate Students in their Emotional Intelligence

Variable	Categories	N	Mean	SD	Calculated 't' Value	Table Value	R
Gender	Male	225	31.00	4.287	4.73	1.96	S
	Female	175	28.90	4.556			

(At 5% level of significance the table value of 't' is 1.96)

Interpretation

There is significant difference between the male and female undergraduate students in their emotional intelligence. In the present study the mean of emotional intelligence scale value of male students (31.00) is greater than that of female students (28.90). This may be due to the fact that male students are primarily dealt with managing and expressing one's emotions as well as social skills. It means that men show more assertiveness and self-recognition. They show more independence in managing the situations than women. Normally male students have the capacity to control their emotions. They have more chance to express their emotions through proper channel. Independent impulsive assertiveness is usually observed among men. One of the reasons for this is that men are treated as powerful member in our society. Similar findings were noticed in the studies conducted in Pakistan by Ahmad et al. (2009) in their study they showed that males have high emotional intelligence as compared to the female.

Table-3.Difference between Aided and Self-Financing Undergraduate College Students in their Emotional Intelligence

Variable	Categories	N	Mean	SD	Calculated 't' Value	Table Value	R
Type of college	Aided	300	15.85	2.713	1.72	1.96	NS
	self	100	16.38	2.561			

(At 5% level of significance the table value of 't' is 1.96)

Interpretation

There is no significant difference between the aided and self-financing undergraduate college students in their emotional intelligence.

Table-4.Difference between Rural and Urban Undergraduate Students in their Emotional Intelligence

Variable	Categories	N	Mean	SD	Calculated 't' Value	Table Value	R
Location of college	Rural	300	22.24	4.505	2.62	1.96	S
	Urban	100	20.90	4.186			

(At 5% level of significance the table value of 't' is 1.96)

Interpretation

There is significant difference between the rural and urban students in their emotional intelligence. The mean score value of rural students (22.24) is greater than urban students (20.09). It may be due to the fact that rural students are trained in their family from the young stage. The joint family system and co-curricular activities in the rural areas help the students to have high emotional intelligence. Schools and NGO's in rural areas provide soft skill training and developmental programmes which help them to enhance their emotional intelligence. Rural students are trained by their family members to face all the situations in their life. Their family practices help them to control their emotion. Similar findings were noticed in the studies conducted Sharad V., & Sawalkar.(2015) The Mean score value of rural area students (63.43) is greater than urban area students (59.77).

Table-5.Difference between Internet Users and Nonusers Undergraduate Students in their Emotional Intelligence

Variable	Categories	N	Mean	SD	Calculated 't' Value	Table Value	Remark
Internet usage	Yes	360	29.82	4.713	0.82	1.96	NS
	No	40	30.45	3.707			

(At 5% level of significance the table value of 't' is 1.96)

Interpretation

There is no significant difference between Internet users and nonusers in their emotional intelligence.

Conclusion

Students are the wealth and future of a nation. It is essential that they must have good emotional intelligence. Students with high Emotional intelligence can handle emotions and execute positively without hurting others. Emotional intelligence plays a vital role in their personality development. Proper training should be given to the students about the methods to enhance EI competencies. Execution of emotions towards the right channel can make a productive change in individual's life and help him/her to adjust to his/her surroundings. The Emotionally stable person can take right decision. Emotional intelligence and emotional maturity are the key skills for a balanced personality and a successful career. As undergraduate students hail from different socio-economic and educational backgrounds, they may be given orientation with regard to the importance of self-motivation through informal addresses, guest lectures, seminars and workshop. Special address and periodical seminars by eminent educationist and psychologists would yield fruitful results in this regard.

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Dr. M Maria Saroja
Research Director &
Associate Professor of Biological Science
St. Ignatius College of Education
Palayamkottai
E. Michael Jeya Priya
Assistant Professor of Biological Science
St. Ignatius College of Education
Palayamkottai

STATUS OF WOMEN IN INDIA: A HISTORICAL PERSPECTIVE

Dr. N. TheresitaShanthi
M. KrishnaveniDivya

ABSTRACT

In ancient times women were deprived of social and religious rights. They were not allowed to participate in social and religious functions. Gradually the position of women fell down to the extent that the birth of a girl was regarded as a curse in the family. But today, women are conscious of their rights and freedoms and they are politically, socially, economically and educationally not backward anymore. Nowadays woman is independent, takes correct decisions boldly, stands up for her rights and walks in a path of success. Women are well educated and their presence can be felt in many male dominated areas. Hence this paper focuses on overview of women roles in various Indian periods, traditional times, modern times, socio-economic development and empowerment.

Keywords: **Status of women, Women empowerment, Women rights**

Introduction

In the Vedic times, women were given lots of respect and honour in the Indian society. They were equally given opportunities like men, to develop socially and academically. They were totally free to select their own path in the life and choose their life partner. They were getting holistic education before marriage as well as armed training for their own safety. But women status in the Indian society got declined in the Middle Ages because of various bad practices against women.

The position of women became lower when they are supposed to be toy of man and decoration of drawing room. They lost their rights of education and property. Again in the independent India, women are enjoying perfect equal opportunity with men. They are lifting their voices and help in shaping the future of the country.

Position of Women in Various Indian Periods

Vedic Period

In the Vedic period women enjoyed all the religious rights and privileges, which men possessed.Women were educated and they could perform Vedic hymns. The Samahymns were recited bywomen. Women's cooperation was absolutely necessary in religious rituals and ceremonies. This naturally improved her religious value. It was said that a man could not become a spiritual whole,unless he was accompanied by his wife. It was believed that God did not accept the oblation presented by a bachelor. Wife was thus very important from the spiritual and religious points ofview. So, her religious position was as high as that of her husband. There were special sacrifices like Seetayagna,Rudrabali and Rudrayaga which were entirely performed by women.

Post Vedic Period

In the Post Vedic period, women were deprived of social and religious rights. They were not allowed to participate in social and religious functions. Gradually the position of women fell down to the extent that the birth of a girl was regarded as a curse in the family.

Buddhist Period

The position of women improved a little during the Buddhist period though there was no great change. Some of the rigidities and restrictions imposed by the caste system were relaxed. The Vedic tradition of giving education to women was encouraged by Buddha. Buddhism exposed many faults that existed in the Brahmanical society but failed to eliminate the existing social order.

Buddhism enhanced the position of a section of women who embraced that

religion but the majority of women at that time lived in miserable subordination, under the controls imposed by Brahmanical customs. Buddha urged equality and he tried to develop the cultural, educational and religious positions of women.

Medieval Period

The Medieval period proved to be highly disappointing for the Indian women, for their position further declined during this period. Indian women were suppressed to be inactive politically, socially and economically except for those occupied in farming and weaving. Polygamy further strengthened the subordination of women. Social inequity and female infanticide also existed in medieval India. Dowry system became a common occurrence. The situation of Hindu widows became more wretched during the medieval period. Inhuman treatment was presented to the widow. She was imposed to lead a life away from society as well as family and was asked to shave her head. The feudal society of the time even encouraged 'Sati'. Even the child widows were not exempted from this inhuman ritual.

After Independence

After independence, the position of Indian women has changed. Both structural and cultural changes offered equality of opportunities to women in education, employment and others. The Government of India has already created various policies and programmes in all aspects like education, social, economical, political etc. for the betterment of women.

Women in Indian Traditional Times

Traditionally, women were considered to be care takers of the home. They had to look after the functioning of the family efficiently, they had to manage the expenses in the most inexpensive way possible, they had to look after aged in-laws, raise the children etc. They were expected to obey commands of the husband, the elders of the family but kept in separation when it came to major decisions related to the family.

Women were not too educated in the olden ages. But there were women in olden days too, who were well educated and led paths of success in many fields of life because of support from their families. These women brought about a change in the way people viewed women in the society.

Role of Women in Modern Times

In the modern times, woman has changed from being a simple homemaker to the multitasking woman, handling responsibilities without fear. She has taken on the world with confidence. Women of today manage their duties and chores at home, handle a career outside their homes, raise their children and balance their family lives with their professions. Nowadays woman is independent, takes correct decisions boldly, stands up for her rights and walks a path of success. In the developing economy of today, women are well educated and their presence can be felt in many male dominated areas. Women of today select the right career paths that decide their future.

Women in oppressed areas and rural backgrounds have to still struggle a lot in terms of their urban counterparts. Women from urban or rural backgrounds, still face harassment and degradation in domestic as well as professional circles. However high they reach in their lives, women are still made to feel helpless when men behave badly in front of them.

Women may be forced to earn a livelihood out of immoral practices which makes women helpless and want to choose easy, but wrong routes to earn money. So the requirement of the modern times are a strong legislation and most significantly, education and empowerment of women that will take them away from being part of these dark areas of the country.

Role of Women in Socio-Economic Development

Women have played vital role in working together to form harmonyand

unity among themselves. Together they have been able to influence the performance of laws that protect and promote the rights of women. Women became an energetic force of the socio-economic development of the country after the independence. Huge networks of women groups such as NGOs, associations and co-operatives at the grassroots level have played a crucial role in providing empowerment ideas which resulted in socio-economic development and income making activities. This, in turn, paved the way for sustainable development and economic growth of the country.

Violence against Women

For centuries women all over the world have not only been denied justice, either in the social, economic or political level but as the weaker sex they have been abused and demoralized in various ways. There are different types of violence that women of our country regularly face in their day to day domestic life, social life or at their working places, educational institutions or in the modern world of internet through cyber crimes against women. Men who do any kind of harassment or offence to women should be strictly punished under law.

Domestic Violence

The home is a place where individuals seek love, safety, security and shelter. For some women, the home is a place that endangers lives and breeds some of the most extreme forms of violence committed against girls and women. Violence is due to committed by males who are, or who have been in places of trust and intimacy and power e.g. husbands, fathers, fathers-in law, stepfathers, brothers, uncles, sons, or other relatives.

The Protection of Women from Domestic Violence Act (PWDVA), 2005defines domestic violence as any act, omission or commission or conduct of the respondent, which includes threat or actual abuse.

Honour Killings

Honour killing is a murder of a family member who has been measured to have brought dishonour and shame upon the family. Examples of reasons for honor killings include the refusal to enter an arranged marriage, committing adultery, choosing a partner that the family disapproves of, and becoming a victim of rape. The most well-known areas where honour killings happen in India are northern regions. Honour killings have especially increased in some Indian states which have led to the Supreme Court of India, in June 2010, issuing notices to both the Indian central government and six states to take preventive actions against honour killings.

Acid Attack

Acid throwing, also called an acid attack, an anger attack is a form of violent assault against women in India. Acid throwing is the act of throwing acid or an alternative onto a person's body with the intention to disfigure, injure, torture, or kill. Acid attacks are usually aimed at a victim's face which burns the skin causing damage and often exposing or dissolving bone. Acid attacks can lead to permanent scarring, blindness, as well as social, psychological and economic difficulties. The Indian legislature has regulated the sale of acid.

Raping

Rape is one of the most common crimes against women in India.

Ways to Stop Violence against Women

- Create laws and impose existing laws that protect women from prejudice and violence, including rape, beatings, verbal abuse, mutilation, torture, honor killings and trafficking.
- Educate community members on theirresponsibilities under international and national human rights laws.
- Encourage the peaceful resolution of disputes by including the perspectives of women and girls.

- Strengthen women's ability to earn money and sustain their households by offering skills training for women.
- Sensitize the public to the drawbacks of early and forced child marriages.
- Emphasize the value of girl's education and of women's participation in economic development.
- Promote women to participate in the political process and educate the public about the value of women's votes.
- Increase public awareness of the poor conditions some women face, particularly in rural areas.

Women Empowerment

Women's day is celebrated to bring about awareness among the public concerning women's safety. Women require strengthening themselves by build up their inner strengths. They should work on enhancing their moral strengths and face the world without fear. Women are trained to be bold and sociable in these days of modernism. They should take independent decisions about their careers, professions, choices in matters of life partners, etc.

Thus to empower women in the real sense is to enable them to bloom their talents, facilities, abilities and capacities, and to recognize their full potentialities, and true identity as also freedom of thought, expression and action, and strength to handle every field of their lives. It is not only to make them conscious of their capacities, but also to afford them with the opportunities, facilities, and external and internal environment to use their innate qualities and to develop in them self-confidence, self-esteem and social-psycho-economic, self-reliance and self –dignity and the ability to raise a voice and fight against injustice, exploitation and violence done against her

Conclusion

The modern day woman is more aware of the society around her and believes in her strengths, manages her weaknesses with charm, identifies the goodness in things and is socially responsible towards her duties. Women get into many roles and manage them with grace. There is no occupation that does not have women enrolment.The government has implemented many schemes especially for the empowerment of women. Many seats are held in reserve in parliament to promote women participation. Through all these measures women must reach a high status in the Indian society.

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Dr. N. TheresitaShanthi
Assistant Professor of Physical Science
St. Ignatius College of Education
Palayamkottai
M. Krishnaveni Priya
M.Ed Scholar
St. Ignatius College of Education
Palayamkottai

SOFT SKILLS OF HIGHER SECONDARY STUDENTS IN RELATION TO THEIR ACADEMIC ACHIEVEMENT IN BOTANY

A. Nancy

ABSTRACT

This research article focuses on the soft skills of higher secondary students and its influence on the achievement in botany. In order to achieve this, the investigator adopted survey method. Higher secondary students in Tirunelveli district formed the population of the present study. From the population, the investigator randomly selected 245 students using simple random sampling technique. Self-constructed questionnaire was used to measure the soft skills of higher secondary students. Percentage analysis, 't' test, ANOVA and product moment correlation were used to analyze the data. The findings revealed that the soft skills of higher secondary students are significantly correlated with their achievement in botany.

Keywords: **Soft Skills, Achievement in Botany**

Introduction

Soft skill is a term often associated with a person's "EQ" (Emotional Intelligence Quotient), the cluster of personality traits, social graces, communication, language, personal habits, friendliness, managing people, leadership, etc. that characterize relationships with other people. Soft skills are in contrast to hard skills, which are generally easily quantifiable and measurable. A person's soft skill is an important part of his individual contribution to the success of an organization. Particularly those organizations dealing with customers face-to-face are generally more successful, if they train their staff to use these skills. Screening or training for personal habits or traits such as dependability and conscientiousness can yield significant return on investment for an organization. For this reason, soft skills are increasingly sought out by employers in addition to standard qualifications.

Significance of the study

Today the society is at the crossroads where the explosion of technical and job oriented education neglects life oriented education. There is revolution of knowledge at one end and increasing inability to assimilate it. Hence, there is a need for a shift in our education to increase the capability of the individuals to deal with changes and friction, since education is the only essential means for formation and development of the individual and nation. A healthy system of education would be one, which ensures physical, mental, economic development and sensitivity of the students.

The extent to which a child will be able to acquire the necessary skills to interact successfully with his surroundings is mainly determined by two factors viz., heredity and environmental conditions. Genetic endowment provides a range of development to the child. Position of a child in the given range is determined by opportunities and exposure given to him. Enriched environment compels the child to remain at the lowest level of the range. It has been observed that despite the rich heritage, children from deprived background fail to actualize their potential to the highest possible level. Family plays a very vital role as an agent of providing a secure and stimulating environment where a child can acquire as well as practice necessary skills required for harmonious development.

The younger generation especially the school students are in paramount need of these skills, because these soft skills may promote their learning in a better manner. With this broad outlook, the investigator

conducted a study on the soft skills of higher secondary students and their achievement in botany.

Definition of the key terms

Soft Skills-Soft skills are personal attributes that describe an individual's ability to interact with others. Soft skills are often described in terms of personality traits, such as optimism, integrity and sense of humor. These skills are also defined by abilities that can be practiced, such as leadership, empathy, communication and sociability. Soft skills include Self-Management Skills, People Skills and Tribal skill.

Self-Management Skills-Self-confidence, Self-awareness, Resilience, Stress management, Persistence and perseverance, Patience, Perceptiveness and Skills to forgive and forget.

People Skills-Teamwork skills, Presentation skills, Facilitating skills, Management skills, Mentoring/ coaching skills, Communication, Interpersonal relationship skills, Meeting management skills, selling skills and Leadership skills

Tribal Skills-Self-promotion skills, Skills in dealing with difficult personalities, Skills in dealing with difficult/unexpected situations, Savvy in handling office politics, Influence / persuasion skills, Negotiation skills and Networking skills

Higher Secondary Students- The investigator refers to the students studying standards XI and XII in the higher secondary schools in Tirunelveli District.

Achievement in Botany-The investigator refers to the marks obtained by the higher secondary students in the subject Botany in the half-yearly examination.

Objectives

1. To find the level of soft skills of higher secondary students.
2. To find the level of achievement of higher secondary students in botany.
3. To find the significant difference in the soft skills of higher secondary students with regard to background variables such as gender, type of school and medium of study.
4. To find the significant difference in the achievement of higher secondary students in botany with regard to background variables such as gender, type of school and medium of study.
5. To find the significant correlation between soft skills of higher secondary students and their achievement in botany.

Method and Procedure

The investigator used survey method. All the higher secondary students studying in the higher secondary schools in Tirunelveli district formed the population of the present study. From the population, the investigator randomly selected 245 students using simple random sampling technique. Self-constructed questionnaire was used to measure the soft skills of higher secondary students. For measuring the achievement in Botany, the investigator used the Botany marks obtained by the students in the Half yearly examination.

Analysis and Findings

Mean, Standard Deviation, 't' test, ANOVA and Product Moment Correlation were used to analyze the data.

Hypothesis - 1

The level of soft skills and achievement of higher secondary students in botany are not high.

Table–1.Level of Soft Skills and Achievement of Higher Secondary Students in Botany.

Variable	Low		Average		High	
	N	%	N	%	N	%
Soft Skills	47	19.18	85	34.69	113	46.12
Achievement in Botany	50	20.41	98	40.00	97	39.59

From the above table, it is inferred that 19.18% of higher secondary students have low, 34.69% of them have average and 46.12% of them have high level of soft skills.

It is also inferred from the above table that 20.41% of higher secondary students have low, 40% of them have average and 39.59% of them have high level of achievement in botany.

Hypothesis – 2

There is no significant difference between male and female higher secondary students in their soft skills.

Table - 2.Difference between Higher Secondary Students in their Soft Skills with regard to gender

Gender	N	Mean	SD	Calculated 't' Value	Table Vale	Remark
Male	122	66.49	17.30	3.18	1.96	S
Female	123	73.41	16.75			

Since the calculated 't' value is greater than the table value for 243 degrees of freedom at 5% level of significance, the null hypothesis is rejected.

Hypothesis – 3

There is no significant difference among government, aided and unaided higher secondary students in their soft skills.

Table-3.Difference among Higher Secondary Students in their Soft Skills With Regard to Type of School

Type of chool	Mean	SSb	SSw	Df	Calculated 'F' Value	Table Value	Remark
Government	66.05						
Aided	69.87	1920.90	71447.77	2,242	3.25	3.04	S
Unaided	73.45						

Since the calculated 'F' value is greater than the table value for 2, 242 degrees of freedom at 5% level of significance, the null hypothesis is rejected.

Hypothesis – 4. There is no significant difference between English medium and Tamil medium higher secondary students in their soft skills.

Table - 4.Difference between Higher Secondary Students in their Soft Skills with regard to Medium of Instruction

Medium	N	Mean	SD	Calculated 't' Value	Table Vale	Remark
Tamil	103	67.66	18.02	1.76	1.96	NS
English	142	71.63	16.69			

Since the calculated 't' value is less than the table value for 243 degrees of freedom at 5% level of significance, the null hypothesis is accepted.

Hypothesis–5. There is no significant difference between male and female higher secondary students in their achievement in botany.

Table - 5.Difference between Male and Female Higher Secondary Students in their Achievement in Botany

Gender	N	Mean	SD	Calculated 't' Value	Table Vale	Remark
Male	122	119.37	30.78	4.93	1.96	S
Female	123	137.89	28.00			

Since the calculated 't' value is greater than the table value for 243 degrees of freedom at 5% level of significance, the null hypothesis is rejected.

Hypothesis–6. There is no significant difference among government, aided and unaided higher secondary students in their achievement in botany.

Table-6.Difference among Higher Secondary Students in their Achievement in botany with regard to Type of School

Type of School	Mean	SSb	SSw	Df	Calculated 'F' Value	Table Value	Remark
Government	118.57						
Aided	124.27	24977.04	206331.18	2,242	14.65	3.04	S
Unaided	143.33						

Since the calculated 'F' value is greater than the table value for 2, 242 degrees of freedom at 5% level of significance, the null hypothesis is rejected.

Hypothesis – 7. There is no significant difference between English medium and Tamil medium higher secondary students in their achievement in botany.

Table-7. Difference between Higher Secondary Students in their Achievement in botany with regard to Medium of Instruction

Medium	N	Mean	SD	Calculated 't' Value	Table Vale	Remark
Tamil	103	116.92	32.54	5.20	1.96	S
English	142	137.19	26.47			

Since the calculated 't' value is greater than the table value for 243 degrees of freedom at
5% level of significance, the null hypothesis is rejected.

Hypothesis – 8

There is no significant correlation between soft skills of higher secondary students and achievement in botany.

Table - 8. Relationship between Soft Skills of Higher Secondary Students and their Achievement in Botany

Variables	N	Calculated 'r' Value	Table Value	Remark
Soft Skills and Achievement in Botany	245	0.552	0.127	S

Since the calculated 'r' values are greater than the table value for 243 degrees of freedom at 5% level of significance, the null hypothesis is rejected.

Findings

1. 19.18% of higher secondary students have low, 34.69% of them have average and 46.12% of them have high level of soft skills. 20.41% of higher secondary students have low, 40% of them have average and 39.59% of them have high level of achievement in botany.
2. The male and female students differed significantly in their soft skills. The female students have better soft skills.
3. The students studying in government schools, aided schools and unaided schools differed significantly in their soft skills. The unaided school students have better soft skills.
4. There is no significant difference between English medium and Tamil
5. The male and female students differed significantly in their achievement in botany. The female students have better achievement in botany.
6. The students studying in government schools, aided schools and unaided schools differed significantly in their achievement in botany. The unaided school students have better achievement in botany.
7. The students studying in Tamil medium and English medium differed significantly. The English medium students have better achievement in botany.
8. The soft skills of higher secondary students are significantly correlated with their achievement in botany.

From the findings of the study, it is concluded that the female students studying in unaided schools have better soft skills and achievement in botany. The English medium students have better achievement in botany. The soft skills of higher secondary students are significantly correlated with their achievement in botany. Hence, it is the right time to educate the higher secondary students of the present era with adequate in-house training to develop soft skills, and then only they can score very good marks in the educational portfolio.

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A. Nancy
Ph.D,Research Scholar
Mother Teresa Women's University
Kodaikanal

HAZARDOUS EFFECTS OF CARBONATED SOFT DRINKS ON HUMAN HEALTH

E.Michael Jeya Priya

S.Davasuba

ABSTRACT

Carbonated soft drink is the most consumable drink worldwide. Soft drink consumption has become a highly visible and controversial public health issue. It affects many-body systems such as the locomotor system, gastrointestinal system, circulatorysystem, central nervous and even reproductive system, and simply it affects all the body structures. Diabetes, heart diseases, bones and teeth disorders are frequently induced due to excessive consumption of soft drinks particularly among children and aged persons. Extensive and attractive advertisements of soft drinks companies and inadequate awareness toward its hazardous effects on community health and the national economy encourage more investors to invest their money in soft drinks factories. This present study deals with the hazardous effects of carbonated soft drinks on human health.

Keywords: **Soft drinks, Locomotor system, Gastrointestinal system, Disorder**

Carbonated soft drinks contain sugar, high-fructose corn syrup (HFCS), fruit juice, sugar substitutes, or some combination of these. Soft drinks may also contain caffeine, artificial colorings, preservatives, and other ingredients. Soft drinks are also widely available at fast- food restaurants, movie theaters, casual dining restaurants, soda stores, and bars and also from soda machines. There are clear association of soft drink intake with increased sugar and body weight (Rapuri et al.,2001). Soft drink intake also was associated with lower intakes of milk, calcium, and other nutrients and with an increased risk of several medical problems (e.g., diabetes). (Soft drink consumption has become a highly visible and controversial public health and public policy issue. Soft drinks are viewed by many, as a major contributor to obesity and health problems. Reduction in soft drink consumption has consequently been targeted as means to help curtail the rising prevalence of obesity, particularly among children and teenagers (Bray, Nielsen, &Popkin,2004)

The negativeeffects of these drinks on bone health were reported in many studies in animals and humans. The sugar, used in sweetening of these drinks had a strong effect on the bone turnover. Intake of high fructose, used instead of sugar to sweeten these drinks were found to cause depression of calcium balance, particularly with low dietary magnesium, and greater losses of phosphorus, with an adverse impact on bone health (Milne Nielsen, 2000). CSDs are acidic and it was reported that acid-forming diet increased urinary calcium. High dietary acid load produce low-grade, subclinical acidosis and may be detrimental to bone. Caffeine, a mildly addictive psycho-active flavor additive in most soft drinks was found to have no flavor activity but in duced a physiological and psychological desire to consume the drink (Keastand and Riddell, 2007) and its high intake (>300 mg/d) caused higher rates of bon e loss in elderly postmenopausal women (Rapuri, et al.,2001), despite the proved detrimental effects of CSDs in the bone metabolism.

Toxicity of additives in the soft drinks

Carbonated soft drinks can lead to long-term medical problems, increased health care costs for society, and a variety of social problems, not the least of which is the "pushing" of these harmful substances unto children in public schools, in exchange for making up for budget shortfalls. Additives used in the carbonated soft drinks are:

Bisphenol A or BPA-A known hormone disruptor, bisphenol A, a chemical used to line soda cans for the sake of preservation have been linked to an amount of public health and medical problems, including a negative effect on fetuses and the proper development of children.

Phosphoric acid - Among other things, phosphoric acid interferes with the body's ability to use calcium, Toxic level of soft drinks and sports drink on health status leading to osteoporosis (weakening of teeth), and works to neutralize hydrochloric acid in the stomach, thus interfering with the proper digestion of nutrients in food. (Rajput &Das ,2013)

Caffeine - Caffeine in the carbonated drink is more readily absorbed than any other drink (like coffee, chocolate, etc.). Caffeine disturbs sleep by stimulating the nervous system. It also makes the premenstrual syndrome worse, causes dehydration and induces the stomach to produce acids, aggravating hyperacidity. Since caffeine disturbs sleep, the body is more likely to produce C - reactive protein, which plays an important role in heart disease. Caffeine has been linked to birth defects, some forms of cancer, insomnia, irregular heartbeat, high blood pressure, high cholesterol, breast lumps, and depletion of some nutrients.

Harmful sweeteners -Whether it is high fructose corn syrup or unnecessarily high amounts of sucrose, carbonated sodas provide more calories than are generally needed by the average drinker. All this sugar can cause people to gain weight, to develop a high number of cavities, and, in the case of people with ADD or ADHD, to exhibit out-of-control behavior.

Carbon dioxide- The gas used to make soda bubbly is the same poison we eject out of our bodies through our lungs. This gas is great for plants, but it is a hazard for human beings.

Citric acid - This component of some sodas may contain monosodium glutamate(MSG) a known neurotoxin.

Artificial flavours - These somewhat mysterious substances may also contain traces of MSG and other chemicals.

Contaminated water - The carbonated-drink-producing industry uses huge amounts of water; like all other industries, they use product-ingredient sources that are least expensive.

Dangerously high acidity - In addition to phosphoric acid, sodas can contain acetic, fumaric, and gluconic acids. High acidity in processed foods and drinks erodes the enamel on teeth, worsens the effects of GERD (gastroesophageal reflux disease), and leads to gastric lining erosion. In addition to the acids formed by bacteria in the mouth, when they feed on sugar, the Paediatric Dental Health site advises most carbonated beverages contain phosphoric acid, citric acid or carbonic acid. Any of these can erode tooth enamel. According to Delta Dental, the calcium in saliva works to remineralizes teeth after exposure to small amounts of eroding acid, but with the increased consumption of carbonated beverages, it's not enough. Even diet soft drinks contain damaging acids. People often consume many soft drinks over the course of a day, which means tooth enamel is exposed to the acids over several hours.

Sugar-There are naturally occurring bacteria in everyone's mouth. The bacteria feed on sugar, forming acids that can harm teeth. Fructokinase activity is not regulated by metabolism or hormones and proceeds rapidly after the intake of fructose. While the intermediates of fructose metabolism are similar to those of glucose, the rates of formation are excessive. This fact promotes fatty acid and triglyceride synthesis in the liver, leading to the accumulation of fat throughout the body.

Table:1-Artificial Low calories Sweetener
(FAO Nutrition Meetings Report Series, WHO/Food Additives)

Low-calorie sweetener	Acceptable Daily Intake Level
Acesulfame-K	0-15 mg/kg body weight per day
Aspartame	0-40 mg/kg body weight per day
Cyclamate	0-7 mg/kg body weight per day
Saccharin	0-5 mg/kg of body weight per day

Pharmacological effects of soft drinks-

Soft drink consumption is a growing health concern. The excess calories and sugar that soft drinks contain are linked to a number of adverse health effects. The pharmacological effects of soft drinks are

Malnutrition- Some people who are addicted to soft drinks deprive themselves of food until they become victims of malnutrition. Since gastrointestinal disturbance of these drinks leads to poor appetite thus surviving on soft drinks and little amounts of food will cause malnutrition, retarded growth, and other physiological problems.

Effect on the gastrointestinal system - When we open the bottle of a soft drink, bubbles and fizz are immediately emitted out. This is due to phosphoric acid and carbon dioxide (CO_2) content, which make these drinks highly acidic. The pH of soft drink ranges from 2.5-3.4 which generates a highly acidic environment in the stomach. Throughout the digestive system, that starts from the mouth and ends up at the anus only the stomach can resist an acidic environment up to pH 2.0. But before the acidity of soft drink reaches the stomach it passes through all the other organs involved in the digestive system thus causing an abnormal acidic environment. Hence the linings of the mouth, pharynx, and esophagus are highly sensitive to acids. Also, there is a very common practice of taking soft drinks when a person suffers from acidity or after having a heavy meal. The phosphoric acid present in soft drink competes with the hydrochloric acid of the stomach and

affects its functions. When the stomach becomes ineffective, food remains undigested causing indigestion, gassiness or bloating (swelling of the stomach). Thus, people who are suffering from acidity should not be drinking soft drinks because actually, it increases acidity further. (Marshall et al.,2003)

Effect on kidneys- Kidneys are less able to excrete high level of phosphoric acid. Soft drinks remove calcium from the body, causing an excess amount of calcium that tends to be deposited in kidney, resulting in nephrolithiasis (kidney stones).

Effect on skin-Acidic blood affects the action of glutathione, which is an antioxidant enzyme. In addition, these drinks lack vitamins and minerals. By taking these drinks, people cut their intake of fresh juices, milk and even water and deprive themselves from essential vitamins and minerals that are mandatory for the skin. Thus, the skin becomes more prone to wrinkles and aging.

Obesity and weight-related diseases: Many of these experiments examined the influence of sugar-sweetened soft drinks on weight gain in children and adolescents. In one experiment, adolescents replaced sugar-sweetened soft drinks in their diet with artificially sweetened soft drinks that were sent to their homes over 25 weeks. Compared with children in a control group, children who received the artificially sweetened drinks saw a smaller increase in their BMI (by $-.14$ kg/m2), but this effect was only statistically significant among the heaviest children (Who saw a benefit of $-.75$ kg/m2) (Malik et al., 2006).

Bone loss: Phosphoric acid, present in carbonated drinks is violently poisonous, it de-oxidizes blood. In detergent manufacturing industries, phosphoric acid is used to produce water softener. A water softener removes Ca^{2+} and Mg^{2+} ion from hard water. In the human body, the function remains the same by removing Ca^{2+} from bones causing osteoporosis (porous bones). Phosphorus, a

micronutrient, can be found in cola-type beverages, but there may be a risk in consuming too much. Phosphorus and calcium are used in the body to create calcium-phosphate, which is the main component of bone. However, the combination of too much phosphorus with too little calcium in the body can lead to a degeneration of bone mass. There have been a handful of published reports describing individuals with severe hypokalemia (low potassium levels) related to chronic extreme consumption (4-10 L/day) of colas (Tsimihodimos et al., 2009).

Soft drinks and bone density: Research suggests a statistically significant inverse relationship between consumption of carbonated beverages and bone mineral density in young girls, which places them at increased risk of suffering fractures in the future. The phosphoric acid contained in some soft drinks (colas) displaces calcium from the bones, lowering bone density of the skeleton and leading to weakened bones or osteoporosis.

Tooth Decay: All soft drinks are acidic which corrodes the teeth by eroding its enamel. The high amount of sugar consumed through soft drinks leads to the development of bacteria that attack the teeth thus aggravating dental problems. Therefore, soft drinks contain acid and sugar that corrode and destroy the teeth in one shot. Most soft drinks contain a high concentration of simple carbohydrates: glucose, fructose, sucrose and other simple sugars. Oral bacteria ferment carbohydrates and produce acid, which dissolves tooth enamel during the dental decay process; thus, sweetened drinks are likely to increase the risk of dental caries. The risk is greater if the frequency of consumption is high (Marshall et al., 2003).

Conclusion

The additives of soft drinks and sports drinks were found to have adverse effects. Both drinks are most favourable in the summer season but regular usage may degrade the health. Soft drinks are more harmful in comparison to sports drinks. The carbonated soft drinks were found to show more toxic effects on health status. The pH level of soft drinks was less, and they were more acidic in nature than sports drinks. High consumption of carbonated soft drinks by young children is a risk indicator for dental care in the primary dentition and should be discouraged. Soft drinks can make children hyper, irritable, and unable to focus, especially compared to their non-soda drinking peers. Sugar-filled beverages can also make children aggressive, violent and even suicidal, altering brain chemistry, and disrupting the normal physiological balance. It affects liver, kidney and bone function. Soft drinks increase oxidative stress, which is represented by an increase in malondialdehyde and a decrease in antioxidant levels. SDC affected serum mineral levels, particularly calcium and phosphorus. Hence it is advisable not to consume carbonated drinks from a health point of view.

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E. Michael Jeya Priya
Assistant Professor of Biological Science
St. Ignatius College of Education
Palayamkottai-2
S.Davasuba
Assistant Professor of Mathematics
V.O.C.College of Education
Thoothukudi-8