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M.V.MUTHIAH GOVERNMENT ARTS COLLEGE FOR WOMEN

(Affiliated to Mother Teresa Women's University, Kodaikanal)
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Research emerges through systematic process of enquiry or investigation. It aims to either find out something very new or verify the existing knowledge.

Nowadays, Research has become an important component of higher education institutions. The academic fraternity should dwell into various research activities both to rejuvenate and update them and to bring laurels to the parent institution.

To facilitate this, the institution should provide a genuine platform for both the budding researchers and the experienced academicians to bring out their research outputs in a concrete shape for societal improvement and knowledge.

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- To provide an opportunity to the academics i.e. Students, Research Scholars and Faculty members of M V Muthiah Govt. Arts College for Women, Dindigul to publish their research findings.
- To increase the visibility and impact of research productivity of MVM academics through print and online version of the journal.
- To share knowledge in the form of high quality research works in varied domains.

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different and distinct phase which is valuable and insightful. Our journal works as a

window to the world of research. It is a reflection of the sparkling enthusiasm, passion,

intensity and dedication of the researchers for the discipline they have chosen. The

compiled current edition is the result of the team work of our editorial board which

cherishes the fruits of labour and sincerity in the consequent publications of our journals.

One of the most interesting things about the journal is the broad diversity of its brain

power. The Editorial Board is grateful to the honourable Principal Dr. D. Lakshmi, the

meritorious faculty and resourceful reviewers of the External Advisory Board for their

uninterrupted support and encouragement which propel us to work with more engrossment

and enjoyment.

December 2021

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Dindigul

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The Internet of Things and its proliferating potentials to enhance the Readership in the Libraries

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Abstract

The Technology evolves each day with new paradigm arising at dawn which multiplies the efficiency of the people and devices .The invention of computer, internet, high speed Wi-Fi connectivity ,smart phones have changed the life style of even laymen due to its availability in affordable prices. Followed by these is the next strategy, IoT, Internet of Things. The IoT is nothing but gaining access to analog and digital entities through internet with help of minute devices. Analog Entity refers to the Objects like Thermostat, Car Tyre, Washing Machine or it could be anything. IoT provides data about the object to which it is attached with help of sensors and networking. IoT has the capability to provide real time data which in turn helps in Transparency, Improved Efficiency and accountability to the system in which it is used. Libraries being the forerunner in technology upgradation have already embraced the IoT in the form of RFID technology. The functioning, characteristics and potentials of IoT in Libraries is discussed in detail in this paper.

Keywords – IoT, Technology, RFID, Internet, Libraries, Analog Entities

Introduction

Internet of Things (IoT) can be said as a yet another technology paradigm which has already made its way in to the libraries in its precursor form, RFID. The Internet of Things may be said as the linking of physical /Analog objects to the internet and gather data about the condition of the object or monitor its functioning. The data thus obtained

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can be manipulated to derive results. IoT has been utilised in corporate business, Health sector, Environment, Education, Insurance and Logistics sector. Experts expected that by 2020, nearly 50 billion devices/entities would have been linked to internet which refers to the exorbidant use of IoT in all the sectors in the near future.

Definition

As per Gartner the concept of IoT is "The network of things which contain embedded technology for conversation and interaction with their internal states or the external environment.

CISCO defines IoT as simply the point in time when more things or objects are connected to the internet than people. It refers to IoE or Internet of Everything, which brings together people, process, data and things to make networked connections more relevant and valuable, turning information into actions, new capability building, rich experiences and enormous economic opportunities for individuals and their countries.

According to Whatis "The internet of things is a scenario in which objects, animals or people are provided with unique identifiers and the ability to transfer the data over a network without requiring human-human or human-machine interaction.

Genesis and Development of IoT

Kevin Ashton of P&G in 1999 tried to connect the RFID data to the internet in supply chain management for his project and coined the concept of IoT. In January 2000 LG brand introduced the first internet linked refrigerator.

In 2005, Telecommunication Union Report the mention of the IoT concept was done by International Telecommunication Union (ITU).IPSO formed an alliance in 2008 to promote the use of Internet Protocol(IP) linked devices in energy, healthcare, consumer and Industrial Applications.

The year 2012 was a landmark for IoT as the IPv6 – Internet Protocol version 6 was launched which helped to assign infinite objects with IP address. The success and growth in utilisation of the IoT concept is rendered by various timely factors like decreasing internet connectivity cost, support of major network providers.

The Fundamental Technology

Identification – Each object is assigned a unique IP address as innumerable devices are connected through Internet.

Sensing - The object are attached with sensors. Eg- RFID tags,

Communication- The objects should be connected to any networks like internet to communicate the extracted data. WSN –beacons are also employed

Collection, Process& Delivery/Actuators – The data is then collected or directed to Central server which manipulates the data and helps the users to control the linked object. Cloud Computing is mostly utilised for this process.

Blue Tooth Technology (NFC) is utilised in some sectors to transfer the data. Energy efficient technologies are used to save power. Smart Phones are the gadgets utilised in interaction between human and objects or in delivery of the data.

Characteristics of IoT

Dynamic and self Adapting –IoT devices can adapt themselves with changing contexts and act based on operating system condition, User's context or sensed environment.

Self Configuring – Self Configuration is one of the capabilities of IoT devices which is done in association with infrastructure set up and the networking .It also fetches latest software due to its real time internet connectivity.

Unique Identity and Inter Operability – Each and every object is issued a unique IP address or unique identifiers (URI) to differentiate it from others. It facilitates the users to monitor the status, query the device or control it remotely with the help of infrastructure. The interoperable communication protocol helps interoperability with other networks and devices without any hassles.

Integration with Information Networks – To facilitate exchange of data and communication the IoT devices are integrated with information network. IoT devices can be discovered in the network which helps them to describe their own characteristics to other devices or user application.

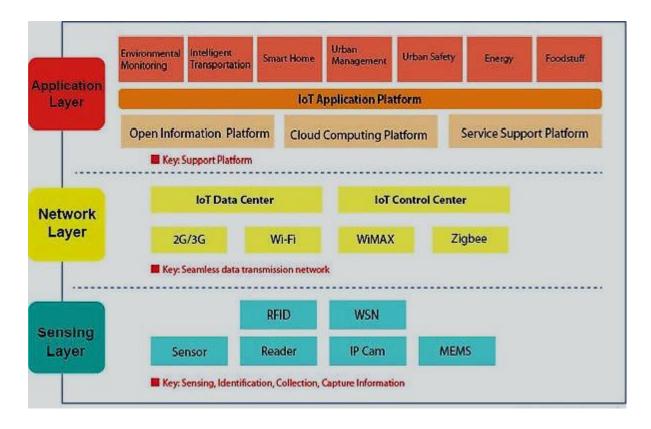


Figure 1: Structure of IoT

Source: https://www.ctimes.com.tw/art/2014/12/111910233230/p1S.JPG

IoT and its Tools in Library Environment

The RFID

RFID is the first tool of IoT to be brought in use in Library Environment. It has tags in the objects or the things like books, containing transponders which give signal that are read only by specialized RFID readers. The tags have identification code, A reader can retrieve the details of the identification code from the database and use it accordingly. Tracking of the tagged item is possible.

Cloud Computing

Cloud Computing is the storage and processing of data in an external environment, like internet. It may also be said as the group of soft ware's and services



being provided on Internet. The speciality is the ability to use by multiple persons in real time, online storage space, processing and evaluation of the data is possible through cloud computing.

Magic Mirror

This comprises of a camera and WI-Fi enabled sensors which help in interaction between computers and people. This assists in location of the books and the required materials, Review of the content can be shared and also the User's Review about the material can be made available in the Internet.

Pressure Pad Sensor

Pressure pad sensor is used to recognize the passages or the areas with high footfalls to increase the collection of the books in that section, where the usage of the books is good. It is nothing but a sheet of sensor pad with Wi-Fi connected to dispensation unit. The dispensation unit controls the system. It can also be connected to electrical energy system to minimize the electrical usage in the Library premises.

Wireless Sensor Network

Remote sensing applications have grown highly due to the availability of tiny devices at low cost and low power, which in turn is result of advances in wireless communication and technology. The collection, processing and dissemination of Information has also been eased.

IoT to Improve the Readership of the Libraries

Internet of Things has reached the libraries long before. Following the Automation of Libraries is the Digitization. Next advancement is the RFID, Cloud Computing which are the components of the Internet of Things.

Inventory Control

The stock of the Libraries can be well managed by attaching sensors to every material in the library. This helps in immediate alert if the material is moved away from the premises of the Library. The maintenance of stock is a herculean task for the librarians,



which can be eased by IoT and help the librarians in helping the patrons more efficiently and effectively. Thereby improve in the readership of the Libraries.

Circulation

By integrating Library cards with RFID tags through Internet apps it helps to identify the status of each material in Library. The overdues are easily followed and IoT helps in registration of the Items in need by the patrons. (Pujar and Sathyanarayana, 2015) The circulation is one of the prime functions of the Libraries. IoT is much helpful in fetching the required materials to the patrons and in easing of process of issuing and also record its return. Once the process is made has sle-free there will surely be an increase in the circulation of the materials.

Increased Readership/Patron visits

Customized services multiply the client numbers in any organization and Libraries are no exception. The Readership multiplies with implementation of IoT technology which identifies the most and the least used areas of Libraries. The most used aspects can be improved in quality and quantity. With the help of smart shelves technology the Library administrators can identify the most used section and improve the collections.

User Education

Self-Guided Virtual tour of the Libraries are possible with the help of IoT. The user's can get the information on how to utilise a digital facility (Pujar and Sathyanarayana, 2015) Vitual and Augmented Apps of IoT can be of added help to give user Education. (Massis, 2015).

Challenges of IoT in Libraries

Implementation of IoT requires high financial commitment and the Libraries, as said in the fifth Law of Library Science by Dr S.R Ranganathan, are "Growing Organisms". They are always in need of Increased budgets and an additional burden is least accepted by the parent administrators. yet if the Librarian is smart enough to convince the financial bearers by explaining the outcomes, The Library may opt for the Technology.



There is high chance of theft of the Information/Particulars of the Readers by hacking the Apps and softwares implemented. This is common in all service organizations. This can be handled with proper plan for security of the Information about the patrons.

IoT devices are vulnerable as any other ICT devices and the data may be inaccurate at times. The inaccuracy and system failure may contribute severe financial and administrative issues. So the IoT can be implemented only by tech savvy professionals to deal with the system issues or failures immediately and efficiently.

Conclusion

The IoT is yet another advancement of technology which can be utilised by financially sound libraries with Tech Savvy Librarians. The benefits are highly rewarding as it improves the Readership of the Libraries in every possible way. The Library professionals can utilise the open access Applications available and try to improve the User's Experiences which in turn increases the footfalls in the Library.

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The Burden of Cerebrovascular Disease in India –The primary survey of Causes, prevention, Health care services, and Rehabilitation

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Abstract

As the second-largest populated country, India has been facing many challenges in various sectors such as economic development and health care. Since independence, India's people have made enormous strides in terms of health. Controlling communicable diseases has taken a lot of work. But with a population of over 1.3 billion people, India's burden of Non-Communicable Diseases (NCD) is enormous. In India, NCDs were responsible for 6.8 million deaths in 2019, accounting for 67.6% of all deaths. Among all NCD-related deaths in the same year, ischemic heart disease was the leading cause of death, followed by COPD, stroke, and diabetes. This paper aims to survey, one of the leading mortality Disease-Stroke in India.

Introduction

According to a recent survey, the Tamil Nadu health ministry reported that six lakh people are affected by stroke in India every year and one and a half Lakh people die due to the illness [1]. Stroke is becoming a major cause of early mortality, owing to changing demographics and the rising incidence of key modifiable risk factors. It is also called a cerebrovascular accident is a dangerous medical condition that leads to death and long-term disability. This long-term disability may be a partial or full-body disability(paralysis) that destroys human life and its surroundings. In 2019 Indian Health department reported that the incidence of stroke in India ranges from 116 to 163 per 100,000 people. According



to the ICMR's "India: Health of the Nation's States" report, stroke was the fourth-largest cause of mortality and the fifth major cause of Disability Adjusted Life Years (DALY) in 2016 [2]. So it is important to prevent the patient before it occurs.

Stroke Definition Types and Symptoms

A stroke is a medical emergency that affects the artery's blood flow, which passes the blood to the brain. Due to this blockage, the brain cells are unable to get oxygen and get damaged and begin to die. The interruption of blood flow is caused by some of the reasons such as blood clots, the rupture in the artery, etc., There are three main types of stroke: (i) Transient ischemic attack also called mini-stroke is a temporary period of symptoms similar to a stroke. It may consider a warning sign of stroke. (ii) Ischemic Stroke is caused by a clot in the artery. (iii) Hemorrhagic stroke involves leakage or rupture in the blood artery. Stroke does not occur suddenly. It shows several symptoms before a month or a couple of months. Some of the common symptoms of a stroke are trouble in speaking, trouble in understanding others speech, slurred speech, numbness in the arm, leg, or face, vision problems, walking trouble, loss of balance, dizziness, severe headache, etc.,

Causes of Stroke in India

Some disorders that increase the risk of having a stroke can be treated. Other factors that put patients in danger are beyond control. Hypertension is the medical term for high blood pressure. It is the most common cause of strokes in India[2]. Tobacco Usage increases the chances of having a stroke taken in any form (chewed / smoked). Nicotine causes an increase in blood pressure. cigarette smoke generates a fatty accumulation in the primary neck artery, It also causes blood to thicken and clot more easily. The public could be affected by secondhand smoke as well. Heart disease includes defective heart valves as well as atrial fibrillation, or irregular heartbeat, which causes a quarter of all strokes among the very elderly. Patients may also be affected by clogged arteries from fatty deposits. People who have diabetes are more likely to be overweight and have high blood pressure. Both increase the risk of a stroke. Diabetes affects blood arteries, increasing the risk of a stroke. The damage to the brain is worse if patients have a stroke when their blood sugar levels are high. Being overweight is also a major reason for patients in India to get

Stroke. Some medications can increase the risk of having a stroke. viz., Blood-thinning medicines, which doctors recommend to prevent blood clots, can occasionally increase the risk of a stroke by causing bleeding. Apart from the above-mentioned risk factors family history, lifestyle-related factors such as unhealthy diet, lack of physical activity, stress,

excessive alcohol consumption are also the causing factors of stroke in India.

Prevention of Stroke

"Time is brain" is the term used to define the importance of time when a patient is affected by stroke risk factors. As age is the main factor for stroke, no one can reverse the age and family history but other risk factors can be controllable if aware of them. Blood pressure is the foremost risk factor of stroke so that maintaining the blood pressure will avoid the cause of stroke. The prevention measures of blood pressure are diet, exercise, and avoiding smoking. Obesity is another risk factor that can be controlled by keeping BMI in control. Atrial fibrillation is a type of irregular heartbeat that leads to the formation of blood clots in the heart. These clots can move to the brain and cause a stroke. Stroke risk is nearly fivefold higher in people with atrial fibrillation. Immediate doctor examination is needed to avoid these stroke symptoms. In India, the prevention measure is divided into two categories, Mass(population-wide) strategy and High-risk strategy [3]. In Mass strategy, population-based screening has been done by the Government in order to find the people at risk of stroke. In a high-risk strategy, the Government has taken the action that aware the people to reach the hospital immediately finding the symptoms of a stroke.

Health care services in India

When a stroke patient arrives at the hospital, a comprehensive physical examination and blood tests confirm the diagnosis. CT scans are highly useful in detecting the type of stroke and the location of the bleed or blockage in the arteries. Imaging tools such as the MRI can be used to detect the extent of brain tissue damage. The fundamental goal of stroke treatment is to reduce brain damage while also restoring blood flow. TPA (tissue plasminogen activator), a medication that breaks down blood clots within three hours after an ischemic clot, is used in some of India's leading stroke treatment hospitals. Blood thinners like warfarin and aspirin may be prescribed. Surgery to open up the blocked or narrowed artery may also be a possibility. For hemorrhagic strokes, surgical treatment



methods are preferred. The number of individuals suffering from and dying from stroke is rising in low- and middle-income countries (LMICs), such as India. India now has the third-highest rate of stroke deaths among all countries. Indians also have strokes at a younger age than individuals in affluent countries like the United Kingdom, in their 50s rather than their 70s[4]. This frequently causes individuals and their families great difficulty. In the last 20 years, there has been significant progress in stroke audit and research in the United Kingdom, resulting in significant advances in stroke service organization and care. Stroke-related death and disability have decreased as a result of these advancements.

The burden of stroke is increasing in India as a result of changing demographics and increased longevity, while the burden of stroke is decreasing in developed countries as a result of better control of risk factors, community-level stroke awareness, and well-organized acute stroke care settings, and rehabilitative centers. Many projects to improve stroke care have recently sprung up around the country, including the development of the "spoke and hub model" and the use of smartphone apps to relay brain imaging. Ambulance services have been established in 29 states by the Indian government in collaboration with the private sector. The "dial 108" model is the most popular. The government provides this ambulance service at no cost. In India, work has also been done in the field of family-led rehabilitation for post-stroke care, as well as improvements in smoking cessation initiatives (anti-smoking laws and public education in theaters).

Rehabilitation of Stroke in India

The purpose of stroke rehabilitation is to assist the patient in relearning skills that were lost due to a stroke that impacted a region of the brain. Rehabilitation after a stroke can help the patient to regain independence and enhance the quality of life. Stroke consequences vary in severity, as does each person's ability to recover. Researchers discovered that persons who participate in a focused stroke recovery program outperform the majority of people who do not. Rehabilitation involves motor-skill exercises-improves muscle strength, mobility training-learn to use a walker, wheelchair, etc., Technology-assisted physical activities such as functional electrical stimulation which involves the application of electricity to weakened muscles to improve the function, Robotic technology assist diminished limbs with carrying out repetitive motions, helping the limbs to regain power

and function. Cognitive and emotional activities like Therapy for cognitive disorders, Therapy for communication disorders, Psychological evaluation and treatment, and Medication improves problem-solving, social skills, listening skills etc., In developed countries like America and Russia supports the need for stroke patients to receive an early, organized, interdisciplinary approach to their initial stroke rehabilitation, with inpatient rehabilitation facilities being preferred to provide this level of care for patients who have sustained stroke-related impairments and have a prognosis that warrants this type of treatment plan [5].

In India, the main problem is a lack of knowledge about stroke and how to manage strokerelated problems. The cost of providing therapeutic care and support to stroke patients and their families becomes an extra burden for both survivors and their families [6].

Conclusion

The paper concludes that stroke is the third leading morbidity and disability disease in India followed by Heart- attack and COPD. Hypertension is the main cause of stroke which affects men in high percentage than women. The notion of prevention measures is lacking because of unawareness. Further research is needed to identify the health care measures taken by the Indian Government. After spending a lot of money on treatment, rehabilitation will be an extra burden to the family members. Genuine steps have to be taken in order to implement the guidelines of stroke management in India.

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Preservation of Library Books

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Prelude

Books and printed materials are the basic carriers of knowledge for many centuries. The history, the past and the glimpses are preserved in it. The Golden rule "Books are for use", to be in use they need to be preserved with proper preservation methods.

Preservation of library materials is a challenge from the creation of the library. Deterioration and decay are part of natural factors affecting all materials. In order to transfer the knowledge of past generations to the future readers and researchers, preservation steps slows down degradation processes. A good preservation method is essential in order to preserve the materials.

Factors affecting books

Various factors affects the books and printed materials like Biological factors, Physical factors, Chemical factors, Human factors.

Biological factors

Biological factors like humidity and climate, weather conditions helps living organisms (bacteria, fungi, rodents and reptiles) to grow and affect the materials. This is bio-deterioration. This problem of bio-deterioration higher in tropical-humid climate which accelerates the growth and multiplications of living organisms.

Physical factors



Physical conditions like room temperature of library, humidity, lighting, arrangements of racks and reading tables, poor maintenance of the materials are sources of physical factors which affect the library books & the materials.

Chemical factors

The impurities in the atmosphere like hydrogen Sulphide, Sulphur dioxide, carbon monoxide, ozone, moisture, dust and other susceptible impurities in gaseous form are the main chemical factors. These materials deposited over the books will degrade the books. The Acidic form of Sulphuroxide and atmospheric moisture forms acidity in the library materials. The acidity break the cellulose bonds and makes the paper brittle which changes colour and affects the ink and all the other coloured drawings. Paste and glue made from flour (wheat or rice) and substance of animal origin which attracts insects.

Human factors

Rough handling and improper use of books other reading materials makes them to become weak. Crumpling of paper develops tears and covers gets damaged or lost.. Creases produced by folding and papers pressed hard will be torn. The theft and tearing needed pages by readers is greatest loss to the books. Every reader must think himself as a conservator instead of a reader alone which is the beginning of preservation.

Remedies to overcome factors affecting books

Biological factors

Insects and pests cause much anxiety to librarians. Here are some methods of controlling common varieties of insects.

- Fungi & Mildew/Moulds Brushing them off and removing the books to dry in well ventilated place. Thymol fumigation has proved a satisfactory method.
- Book worms, termites, cockroaches, silverfish, firebrats, book lice, mud wasps and
 moths have to be treated preventive as well as curative Sprinkling of borax,
 coating of copal varnish, avoiding damp and dark condition in the room and use of
 naphthalene in regular interval and space will reduce the chances of insect's attack.
- Termites/White ants wood work should be painted with creosote oil at least every six months and wooden bookshelf should be kept six inches' distance from the



walls and the legs of the book shelf painted with coal tar or creosote oil once before the rains. Proper pest control mechanisms both inside and outside the library should be carried out.

 Rats/Mice – Use of traps, baits scented coconut oil, caustic soda, scattering of quick lime cantharidine, oil of rhodium, Camphor will make them leave the library.

Physical factors

- Books and documents should never be stored in direct sunlight, stored under unshielded fluorescent tubes – Special Ultra Violet filtering materials, such as UF-3 Plexiglas or Acrylite OP-2 may be used to shield windows or fixtures.
- Ultra Violet (UV) lights caused serious chemical deterioration of organic materials and should therefore eliminated or in any case reduced.
- By Humidity control measures taken humidity should be kept within reasonable limits i.e. 45% to 65% or 50% ± 5 desirable. Humidity can be controlled in winter by using dehydrating agents like anhydrous calcium, silica gel, carpet, dehumidifier, electric fans with heater to maintain required condition.
- In seasons when the Relative Humidity is very high the judicious use of some chemicals such as sodium dichromate, calcium chloride, potassium carbonate, etc.,
- The control of heat and moisture needs a compromise for conditions in storage areas can generally be found in the temperature or indoor temperature must be kept between 65^{0} F to 75^{0} F. The ambient condition of temperature is 22^{0} C $\pm 4^{0}$ C.
- Moisture control to be done by proper ventilation, water disaster may be avoided by checking the water connection and sewage pipes in and around the library to avoid water seepage.
- Fire preventive mechanisms with different type of extinguishers for appropriate type of fire need to be installed in accordance with the requirements and advice of the local fire authority and proper training for the library staff need to be provided to face the fire fighting process if happens.

Chemical factors

• The effects of chemical factors largely eliminated through air-conditioning the stack rooms where books, manuscripts and documents are stored. It can solve many



- problems of preservation of old and rare materials and money spent on this item is served many times over in the saving in repairing and rebinding expenses.
- The process of neutralizing the acidity is called de-acidification, which prolong the potential life of paper need to be evolved. Restoration process which strengthens the paper is done by mending.
- Air pollution commonly controlled by air filtration as part of full ducked air conditioning system.
- Dusting and cleaning of books with vacuum cleaner, which can suck in the flow out dust from all corners and racks is better than manual dusting, were dust cleaned from a rack get deposited on the other.

Human factors

- The unnecessary and over use of books may be restricted by controlling the access.
- Usage of steel paper clips, pins and stapler may be replaced with brass or plastic which prevents damages caused by them.
- Theft and pilferage need to avoid by security measures like vigilant security
 officers, electronic systems and secreting or deposit of bags. The usual precautions
 are either bag check, nowadays electronic tagging of books.
- Rare documents access may be restricted to general display but with authentic access, and may be kept in lockable cupboards.
- Book trolleys need to be used for Handling of books from one place to other. Too
 weak, weak by constant use, documents should not be used until they are
 consolidated and covered.
- Very rare and valuable document's microforms such as microfilms and microfiche, micro card may be used instead.(Fig.1)
- In the process of collating, cataloguing, accessing and stamping of books also causes damage, proper care therefore be taken.
- Less the marking, less the danger of deterioration, marking should not be done in the books. (Fig.2)



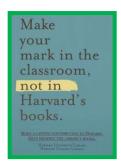


Fig1: Microfilming library materials.

Fig 2: Do not mark or highlight library

materials

• Do use bookmarks that are thin, clean, non-acidic, and will not damage or distort bindings. Do not use post-it notes, paperclips, pressure sensitive tape, or rubber bands on library materials. .(Fig.3) .(Fig.4) .(Fig.5)



Fig 3: Use thin bookmarks Fig 4: Do not use paperclips Fig 5: Do not use rubber bands

- Shelving with appropriate number of books with proper book support should be stored on shelves, special care to be accorded to miniature, over-sized and abnormal size books.
- Never overstuff or under fill the storage boxes may lead to cramps and creases and allows sagging and bending.
- A Book should be removed from the shelf by grasping firmly the center of the spine (Fig.7) and not by pulling at the top of the spine (Fig.6), which is vulnerable part that spine can tear or go to wrack and ruin.





Fig 6. Wrong

Fig 7. Right

• While photocopying, the spine of the book should not be pressed down which affects the book (Fig.8), should be placed gently (Fig.9).





Fig 8. Wrong

Fig 9. Right

• Support book spines and covers when holding books open (Fig.10). Keep work surfaces clean and uncluttered (Fig.11). Do not "dog ear" a page (Fig.12). Never force a book open







Fig 10. Support book spines Fig 11. Clean work surfaces Fig 12. No "dog ear" a page

- Handling of books with care acid free paper to be used to mark or flag pages, wet
 fingers should not be used to turn pages, hands should be clean otherwise both skin
 oil and perspiration stain paper, books should not be left open face down, which
 creaks the spine.
- Encapsulate brittle maps or pages of heavily illustrated books between two sheets of polyester (Mylar). The sealed Mylar envelopes can be bound together into a book that can be handled safely. (Fig.13).



Fig 13. Encapsulation Fig 14. Artifact boxes Fig 15. Polyethylene bags



Protect books by placing them in metal edge boxes or artifact boxes, which are acid- and lignin-free, (Fig.14).which will prevent light and other damaging elements from coming into contact with your books. If you're very concerned about keeping your rare or sentimentally/monetarily valuable books safe, it is always recommend to go the extra mile by placing them in unsealed individual polyethylene bags (unsealed so the books can "breathe") (Fig.15).which can further protect books and bindings from dust, moisture and various household pollutants.

Ancient preservation technique

The Thanjavur Maharaja Serfoji's Sarasvati Mahal Library at Thanjavur use a mixture of the following in powder form: Black cumin 4 parts, Sweet flag 4 parts, Cloves 1 part, Pepper 1 part and Bark of Cinnamon 4 parts, 20 grams of camphor is to be added with the powder mixture and wrapped in a small cloth as bundle. These bundles are kept in the cupboards as insect repellent, which has an effect for six months. This information is itself recorded in the documents in the library which is followed even now. Dried Neem leaves and Neem seed powder, Tobacco, Snake slough, Peacock feathers was also used as insect repellents. Same ingredients should not be used continuously since the insects get acquainted to it and will not have result.

Preservation technique in GVG College

In our Sri GVG Visalakshi College for Women's college's GVG Govindasamy Library books and palm leaf manuscripts are preserved under organic method, which is practiced in Saraswathi Mahal Library, Thanjavur. This method is followed since the inception of Saraswathi Mahal Library, Thanjavur by Serfoji the Maratha King. The Ingredients: Cinnamon, Clove, Sweet Flag (Vasambu), Turmeric powder (Fig 15) are filled into small cloth packets and are kept in every racks and replaced in uniform interval of time which prevents organisms grow due to biological factors (Termite, bugs, rodents etc.,).



Fig 15. Ingredients: Cinnamon, Clove, Sweet Flag (Vasambu), Turmeric powder





Fig 16. Palm Leaf script as received from donor

Fig 17. After preservation

Palm Leaf scripts donated by donors are preserved by cleaning the dust sediments and coating with organic paste and let it dried and preserved. (Fig 16.) & (Fig 17.)

Finale

All the reading materials, are paper based in the form of manuscripts, books, periodicals, reprints, pamphlets, leaflets, maps, etc., which are organic in nature subject to deterioration if not properly manufactured, stored and handled. Atmospheric pollution, radiation from light and heat, moisture and growth of micro organism, physical, chemical and human factors is major cause of deterioration. It is better to protect the materials from this degradation by ways of using some preservation methods. Preventive measures be formulated in systematic way and conservation system should be applied to protect library materials from deterioration.

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WOMEN EMPOWERMENT IN BAPSI SIDHWA'S THE PAKISTANI BRIDE

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Abstract

The paper throws its light on the themes such as struggle for freedom, gender discrimination, culture displacement, women empowerment, female identity and so on. The study focuses on the empowerment of the women protagonists Zaitoon and Carol of the novel *The Pakistani Bride* by the empowering writer Bapsi Sidhwa. It also exposes how the women protagonists struggle to overcome from their oppressed state and emerge as empowered women, who are able to take decisions on their own and make choices in life. The women characters Zaitoon and Carol reveal the pathetic condition of women in the rigid patriarchal society of Pakistan, where women are expected to act according to the words of men and they are considered subservient and fragile. Each and every decision in women's life is taken by men and she does not even given the liberty to choose her spouse and also women are denied of basic education with the thought that they does not need education as they are only meant to satisfy men and serve him and his family throughout her lifetime. Thus, the study reveals how the women protagonists Zaitoon and Carol overcome repression and emerge as empowered women amidst patriarchal norms in Pakistan.

Key Words: Gender discrimination, patriarchy, women empowerment, oppressed state.

The bridesZaitoon and Carolin *The Pakistani Bride*, though they belong to different backgrounds they both suffer due to the rigid patriarchal norms laid by men to enslave women. Both of them suffer under the hands of their husbands, who ill-treat their wives and does not care and show love and respect. So they both took courageous decision of escaping from their husband's house and take decisions on their own and choose their own

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path after a long period of resistance. At some point they are not able to tolerate their oppressed status and they want to free themselves from the clutches of patriarchal society.

Zaitoon, the chief character in the novel is trapped in marriage to a man of Kohistan culture and she undergoes physical and mental torture at the hands of her husband Sakhi, who ill-treats Zaitoon and uses her only for sexual gratification. He does not consider her as a human being who has emotions but exploits her and expects her to act according to his words like a slave who obeys his master without neglecting. She is unable to tolerate her oppressed status for a very long period and so she takes a powerful and courageous decision of escaping from her husband's house and to lead her own way of life without restrictions. As Gerda Lerner rightly says,

"At certain level women make the shift from androcentric city, in which they have been schooled, to woman centeredness" (243)

Zaitoon in *The Pakistani Bride* upraises from her captivity of marriage. She seeks self-liberation. Her spirit of sovereigntyinspires her to breakdown the traditions at two ranks. In the first level, the Pakistani woman is always expected to narrow her physical movement within the zenana, whether in her parent's house or in her husband's house. At the second level, as a wife to a Kohistani tribal man, Zaitoon is expected to be submissive and reliant. She differs from her mother-in-law Hameedha and other tribal wives who symbolizeunquestioninglife style and who are habituated to the programmed norms of the society. Zaitoon's arousal for freedom has been hindered because of her deprived education background. She reassesses the choice she has made formerly to continue as Sakhi's wife. Her displacement to an unknown place does not oppress her spirit of independence. Instead, she is self-inspired and she initiates her journey towards her deliverance.

Zaitoon oversees her handicapped positions in order to move ahead and to achieve emancipation. Her fortitude for revolution to a new level discloses that she is a goal setter. With strength of mind and audacity she plans her audacious journey with ultimateexcellence. The revelation that she perceives from within her own self encourages her towards the path of a new and sovereign status. Sakhi threatens Zaitoon not to go near the stream since he worries that she may find achance to escape from the mountains. But



she violates his command and visits the stream. When he finds her near the stream once, he blows her up exhaustively and Zaitoon is substantially distressed. This episode makes a turning point in her life. She is not only prompted to rebel against Sakhi's brutal behaviour but is also stirred to free herself from her enslavement by Sakhi. While recovering, she ponders over this event again and again and gradually arises as an empowered woman.

Carol, an American woman fights to create her own identity and individuality and emerge as an empowered woman. She is married to Faruque, a Pakistani soldier and so she quits her job in California. She is substantial and she helps people around her. She acquaintances herself with her husband kinsfolk's with compassion and reverence. Though Carol is from different social and cultural background, she associates herself with others freely. But her husband Faruque comes from the background of patriarchal Pakistani society that upraises male honor and lays a lot of limitations for women. So, he is impotent to admit his wife's act of liberally moving and communicating with other men. He starts doubting her friendliness.

Carol is subjugated by her husband, in spite of her faithfulness to him; she is being condemned that she has no decent behaviors and goodpersonality. Being disrespected and degraded by her husband often, she pursuesliberation for her sensations. Thus, she takes freedom with Major Sahib when her husband is away in the expeditions. The narration of Bapsi Sidhwa shows that Carol's renovation from the role of wife to mistress has been triggered by the suspicion of Farukh. It is to be noted that the protagonists of Bapsi Sidhwa are either a Pakistani or an Indian. They are very subservient because of colonial inheritance and they have deficiency of awareness to proclaim their uniqueness. But Carol comes from America that has already struggled to launch women's sovereigntyethically as well as officially. Women's education and employment have paved means to modify gender discrimination. New theoretical attitude of the feminists and action plans of the women's movements have had optimisticinfluence in the minds of women. Thereby, women have succeeded over patriarchal supremacy and restored their independence.

Carol is made to prove that she is not like the other protagonists of Bapsi Sidhwa's novels. Bapsi Sidhwa makes with solid potentiality of mind and wide superiority of knowledge. So Carol takes decisions rapidly. Her consciousness about her self-esteem makes her cut both the relationships as a wife and mistress. She retains the state of

independence. She ranks her own self. Carol's fortitude to go back to America is a twofold purpose. Her valiantencounter against social and patriarchal beliefs for women anticipates her. Sidhwa's feminist perception helps Zaitoon's emancipation from the restraints of encoded rules and patriarchal persecutions. Zaitoon may take accommodation in America with the help of Carol. Simon de Beauvoir says,

"Sexually and emotionally most wives and mistress are radically frustrated. These difficulties are more obvious for the independent woman, because she has chosen not acquiescence but combat" (743).

Carol exposes her female individuality when she ends her relationship with Farukh and a mistress with the Major. She gets back her vigor to battle against patriarchy. Carol gives significance to her selfhood and autonomy in the end. In order to comprehend that status, she is ready to lose both the men in her life. Through the struggles she faces, she is able to arise as an independent woman.

Bapsi Sidhwa's women protagonists come under two different categories: the privileged and the underprivileged. Women of the deprived sections of the society are deprived of the basic rights such as right to education, freedom to choose life partners, right to have apart in family properties and so on. The honored women acquire education, employment and other social statuses. Either section of women endures persecution in a similar way in the hands of men. Hence, opposition and predicaments are unavoidable for both sets of women to attain the ideal status. The thought of empowered women is exemplified through the depiction of women protagonists. As far as Carol is concerned, she seeks for unrestricted and blissful lives. Being educated and employed, she has the consciousness and intellect to contemplate and find a way out promptly at any acutecircumstances. But, Zaitoon who is not as educated as Carol do not have the wakefulness like her, hence her accomplishment of liberation has been delayed.

Thus the endings of Sidhwa's novels show that her women protagonists overthrow patriarchal subjugations and free themselves: they affirm their self-identities, uniqueness, and autonomous thinking.

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DO ONLINE E- RESOURCES SUPPORT COLLEGE STUDENTS DURING COVID-19 PANDEMIC PERIOD? : AN EMPIRICAL ANALYSIS

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Abstract

The unexpected Covid-19 pandemic has changed the life of man in every part of the world. Colleges were locked down with the introduction of the work at home option. Libraries quickly moved to providing library services virtually. Within a short span of time several means of information distribution have been put to application. Though restrictions were eased these applications have become part of the academic scenario and will remain embodied to it for a long time to come. An online survey using Google Forms was conducted among students of St Xaviers College, Thumba Trivandrum. 10 questions related to information dissemination during the lockdown period such as the several means used, the innovative methods, their growth, their effectiveness, the means preferred by the academics, and the adaptation of the academics to the several means in this scenario is circulated. Responses collected from 308 students revealed that during the pandemic the bulk of the academics looked to Google search regularly for their information seeking and that the online resources found, mainly ebooks and that too the ones freely downloadable satisfied in fulfilling their syllabus needs. Online e-journals also served their syllabus based research. The study ironically revealed that even with all the latest online innovations available, the students still preferred visiting the college library and availing its physical resources mainly printed books and print journals rather than using the online e-resources that took the centre stage during the pandemic.

Keywords: Pandemic, e-resources, college library, print resources

Introduction

The sudden and unexpected Covid-19 pandemic has changed the life of every man no matter what country, race or economical standing. The rich or poor, black or white, young or old, have had their lives drastically affected by the pandemic. Governments worldwide were forced to place their countries in full or partial lockdown to contain the spread of the virus. Universities quickly responded and modified operations, services and procedures, which included University and Scientific Libraries quickly closing and moving to providing library services virtually. Several measures have been experimented in the educational scenario to counter this standstill brought about by the pandemic. reported its first positive case of the Covid 19 virus on 30 January 2020, with a student, who was studying in Wuhan University and had travelled to India. As part of precautionary measures to contain the spread of the virus, Government of India declared closure of all educational institutions across the country from 16 March 2020. During the lockdown period of the Covid-19 Pandemic colleges were locked down and the work at home era evolved. Educational institutions ranging from crèches to Research centers have been put through a lot of confusion till the utilization of the internet and World wide web and related Social media was approached to bring about an effective solution to counter the standstill. The sudden developments of lockdown for almost six months forced dislocation of many students leaving them with lack of course materials to prepare for the examinations. This situation challenged the ways academic libraries used to function. The suspension of direct services and loss of access to physical collections at the institutions libraries left the students, faculty and library professionals to consider adopting the online resources and services mode that was gaining popularity. Thus emerged the era of the Work from home and dependence on the internet and social media. Educational institutions that were large classrooms are capsuled into simple mobile phones. Educational life to students became online centered or rather mobile phone centered, with students attending classes through a mere mobile phone and institutions looking to sources such as Meet apps, Whatsapp, livestreams and even television broadcasts for their classes to reach the students. Students are more dependent on what is available to them online. College libraries also simultaneously put up their own efforts and distribute information through Whatsapp groups, Meet apps and other e-resources. Social media platforms amongst the most widely used sources of information in the World, the easy and



inexpensive access to the internet and a large number of registered users in these platforms made them one of the easiest and most effective ways to disseminate information. Library users sought the help of library resources that were in electronic aka digital form. Online resources that were earlier seldom looked to became part and parcel of very library users routine. Google searches, e-books, e-journals, external links proved fruitful to the users. Even syllabus based data was sought through Google searches and other online resources. E-books could even be downloaded for further reference. How far this transition has been accepted by the users and to what extent e-resources has satisfied the needs of library users is yet to be studied. Students who looked to books in the library shelves sought e-books available online. They looked to online journals in place of print journals. Though it caused a lot of confusion initially, the online transition have now become part of everyday student life. As time went by and restrictions were eased, several academic libraries opened to students with strict adherence to Covid 19 protocols of social distancing and preventive measures enforced in these libraries. The situation created by COVID-19 has forced institutions to make short-term changes with an emphasis on overcoming what has been considered to be a temporal situation, which will be reverted once normalcy is returned to the traditional college system. For academic librarians involved in the delivery of information skills/literacy training, a renewed mission is emerging, addressing access and connectivity to resources, designing for online education and fostering the development of digital literacy of students.

The Covid 19 pandemic

Covid 19 also known as Coronavirus all of the world in every part. It has hit the world in all sectors. The first case was reported in China in November and since then it is affecting almost all the countries in the world. It is supposedly to have originated from Wuhan in china. The first case of the COVID-19 pandemic in India was reported on 30 January 2020. The spread of the virus in and alarming rate and increasing mortality rate caused great alarm among nations leading to lockdowns declared eventually nation by nation. And the first lockdown was declared in India from 25 March to 14 April 2020, and it was extended further two times from 15 April to 03 May and from 04 May to 17 May 2020. It is a pandemic in our generation that caused even the educational scenario to come to a



sudden halt and a slow gradual transition to online means of information dissemination. There is an uncertainty, and no one knows how long the COVID-19 crisis will last.

Sudden transition and confusion

The sudden and unexpected transition from physical classrooms and libraries to digital virtual portals caused much confusion among students who were yet to learn the usage of the digital means and meeting rooms.

Circulation of Books a cause of concern; could become circulator of the virus.

Researchers looking for answers searched high and low with new views of the virus being revealed day by day and it was seen that books changing hands could help spread the virus. Books come in contact of many persons at a time, therefore, the chances of virus transmission can occur by direct contact with infected user and indirect contact with surfaces in the library or with objects used by the infected user/staff. Libraries were closed down and books back to the shelves.

Work from home librarians

To librarians, the only option to overcome the lockdown was to adopt the Work from home option. They sought ways and means to reach out to users from the four corners of their homes. The only other option was to remain locked down and locked out. Several libraries at the international, national and academic level have remained closed with zero activity and enforcing staff cuts, while those opting the virtual way rise back to survival. In the event of even print journal publishers suspending publications, those opting for virtual publications continued undisturbed by the pandemic.

Resources readily charted by librarians

The technological advancements and innovations have transformed the traditional libraries to the present smart Libraries. Today's Libraries offer wide range of innovative services to the users for their information need in the pandemic situation. Libraries are the store houses of knowledge recorded in physical/digital medium. The application of Information



and Communication Technologies (ICT), the Internet and particularly the World Wide Web have revolutionized library activities, hence there has been changes in the normal functioning of Libraries in the digital world. The present trend of library resources includes e-books, e-resources, digital library, e- services etc. Librarians charted out action plans and online resources were sourced for users. Google searches, e-books links, ejournals were scrutinized and links distributed through chat rooms and other social media applications.

Setbacks due to poor internet or poor gadgets

Though the masses began to cope with the new system, many were still faced with the problems due to poor internet bandwidth or poor quality gadgets such as Tablet pc's, mobile phones etc. This discouraged most users who faced this challenge. Even before COVID-19, there was no guarantee that students or even staff, who studied or worked oncampus, would have a stable or reliable access to the Internet or the necessary digital technologies at home that would allow them to switch to a complete remote way of working or learning.

Surge in dependence on Digital resources

Digital services that was just a part of physical libraries before the pandemic, have now become the primary source of information dissemination. Digital repositories, Social networking components, Online journals, e-books, etc have now become and unavoidable part of academic libraries.

Importance of library websites

The pandemic brought to light the importance of library websites in the field of information services. It became a primary source of library information services with two way transaction between the library and the users. Library websites that were just namesake websites have now become treasure chests of information attracting library users who rarely looked to websites for their information.

Mobile phone usage once a hazard now a blessing

Use of mobile phones that was earlier becoming a hazard has now become a necessity due to the changes brought about by the pandemic. Anyone who was not accustomed to using a mobile was almost out of the classroom or library. Meet applications that were just used for video conference meetings became part of everyday life a every academic.

Physical disorders due to excessive online dependency

Students of all ages encounter various physical and mental disorders due to the transition to virtual classrooms and libraries. Academic calendars have been re-written now and again with syllabuses cut short to ease the problems faced by students.

Gradual return to normalcy

With the easing of restrictions and return to physical libraries, the masses and returning to the luxury of physical books and resources that still remain their primary and best sought source of information.

This study focused on researching the effectiveness of online information dissemination among college students during the Covid era.

Operational Definitons

Pandemic : A pandemic is defined as "an epidemic occurring worldwide, or over a very wide area, crossing international boundaries and usually affecting a large number of people. The classical definition includes nothing about population immunity, virology or disease severity. By this definition, pandemics can be said to occur annually in each of the temperate southern and northern hemispheres, given that seasonal epidemics cross international boundaries and affect a large number of people. However, seasonal epidemics are not considered pandemics (Bulletin of the World Health Organization, 2011)

E-resources : An electronic resource is defined as a resource which require computer access or any electronic product that delivers a collection of data, be it text referring to full text bases, electronic journals, image collections, other multimedia products and numerical, graphical or time based, as a commercially available title that has been published with an aim to being marketed. These may be delivered on CD ROM, on tape, via internet and so on. Over the past few years, a numbers of techniques and related

standards have been developed which allow documents to be created and distributed in electronic form. Hence to cope with the present situation, librarians are shifting towards new media, namely electronic resources for their collection developments that the documents of users are better fulfilled. The e-resources on magnetic and optical media have a vast impact on the collections of University libraries. These are more useful due to inherent capabilities for manipulation and searching, providing information access is cheaper to acquiring information resources, savings in storage and maintenance etc. and sometimes the electronic form is the only alternative.

E-resources (electronic resource) is that, "Information (usually a file) which can be stored in the form Electrical signal usually, but not necessary on a computer.

Types of e-resources: The e-resources are basically divided in two major types are:

- **1. Online e-resources,** which may include:
- E-journal (Full text & bibliographic)
- E-books
- Online databases
- Web sites
- 2. Other electronic resources may include:
- CD ROM
- Diskettes
- Other portable computer databases.

Review of Literature

Muhammad et al. (2021)

Globally, the COVID-19 pandemic negatively affected all sectors including the education system, forcing all the academic institutions and libraries to be closed for safety. Scholarly communities voiced that aftereffects of this pandemic situation are far wider than before. However, this emergency brought many opportunities and calls for a digital shift.

It has been observed that some institutions had the infrastructure to shift to digital classrooms, however, others couldn't manage and declared summer vacations. Online provision of reference services is not a new concept, however, before the pandemic this



was a less used service as people can visit physically. COVID-19 closure created more awareness about library online collection and services.

University web portals were not used widely by the users in this pandemic. Similar feedback was about social media channels such as Facebook, Twitter, etc. The reason may be low internet penetration and slow internet connectivity in rural areas. Nevertheless, telephone, email, and WhatsApp emerged as the most effective channels to communicate, contact, and engage with the user. Google Meet and Zoom were also used for conducting staff meetings. Such revelation illuminates the need of redesigning the library and information services with the help of such tools that may have an extended reach and impact. Moreover, it also emphasizes the need for high-speed internet connectivity not only in major cities and towns but also in rural areas.

Pooja and Dubey (2020)

Role of libraries in proliferation of knowledge got more consolidated by activities and webinars conducted by libraries in this crisis time. It was found that various topics of deliberations in these webinars were very relevant and apt going in line with 'making a difference' in providing something to everyone in an easy and convenient manner.

The Internet and web technologies have created a new and unparallel environment and enabling the libraries to enhance and strengthen the research, teaching and learning even in this difficult and uncertain time. The concept and practice of providing remote access of e resources by libraries is not new, but the user friendly way adopted by many libraries and the number of resources made available by them during the pandemic is exemplary.

Daniel and Leonardo (2020)

Social media platforms are amongst the most widely used sources of information in the World, the easy and inexpensive access to the internet and a large number of registered users in these platforms make them one of the easiest and most effective ways to disseminate information.

Konstantina (2020)

However, it has also been a catalyst for change and resifting of priorities. For academic librarians involved in the delivery of information skills/literacy training, a renewed mission is emerging, addressing access and connectivity to resources, designing for online education and fostering the development of digital literacy of students.

The COVID-19 pandemic stressed even more the important role of academic librarians in helping students to develop information, digital and media literacy skills so that they can be in a position to independently select, access and use accurate, reliable, trustworthy and credible sources of information, not only for their studies but also for their own wellbeing. During COVID-19 the surge of circulating false claims and information online via social media and fake news made it equally difficult for students to decipher misinformation/disinformation from accurate and reliable information.

Melendez (2020)

Though, due to social-distancing measures currently in place due to the coronavirus pandemic, thousands of libraries across the country are closed but even when shuttered, many libraries are finding creative ways to provide vital services, information, and entertainment to their patrons, from repurposing 3D printers to providing Wi-Fi and social events online. They are making sure that e-books, online magazines, and other digital materials should be available for the users.

More importantly, from the learner's point of view, the sudden shift to this online learning reality could be described as a "forced migration" to online learning design and pedagogy. What this means is that, whereas before, on-campus provision of learning and teaching experiences would be, in most cases, just enhanced or supplemented by off-site online provision, with the effects of COVID-19, there has been a complete and involuntary shift, reversing priorities and the positioning of online provision in universities.

Baloch and Musyani (2020)

The university libraries, most developed segments of academic libraries in the country, face a number of social, financial, and technical challenges. Lacking in wide-scale



technological applications, off-campus access to subscribed resources, large scale digital initiatives, institutional repositories, and collaborative projects make them special cases to study in this pandemic. Moreover, low internet penetration and mobile broadband access in small towns greatly affects the ability of students to efficiently access online classes and information resources

Adil (2020)

Librarians should support library users by compiling list of online resources on library websites, delivering online information literacy instruction through social media, and developing online institutional repositories/library guides.

Objectives of the study

- 1. To highlight the means available to college students during the lockdown period.
- 2. To find out innovative ways to reach out library users
- 3. To highlight the growth of online resources from the beginning of the pandemic.
- 4. To find the effectiveness of these means in comparison to what was available to them before the pandemic.
- 5. To know the preferences of academics on the means available in libraries.
- 6. To learn the knowledge seeking behavior of students.
- 7. To learn the adaptability of students to the new sudden transition.

Methodology

An online survey using Google Forms was circulated among students of St Xaviers College, Thumba Trivandrum with 10 questions related to information dissemination during the lockdown period. Responses were collected from 308 students and question based analysis was done to observe the outcome. The outcome is recorded in pie charts.

Findings

1.Dependence on Google search for information seeking during pandemic

Of the 308 respondents surveyed, 52.9% looked to Google search regularly for their information seeking during the pandemic, and 43.5% depended on it occasionally, while a meager 3.6% looked to it only on a monthly basis for information.[Fig 1].

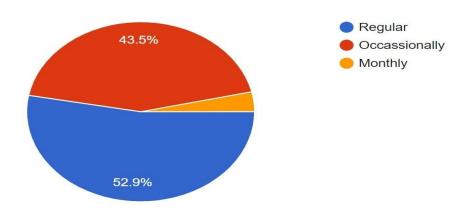


Fig. 1 Dependence on Google search for information seeking during pandemic.

2. Syllabus related information needs satisfied

59.3% said they got enough information related to their syllabus from online sources during the pandemic and 30% said they may have got it, while only 10.7% said they did not get information related to their syllabus from online sources. [Fig. 2]

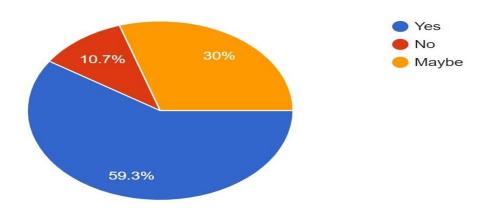


Fig. 2 Syllabus related information needs satisfied

3.Access to syllabus based ebooks

The majority of students; 45.3% said they got access to syllabus based ebooks online and 39.1% felt that they may have got it, while 15.6% said they did not get access to any syllabus based ebooks. [Fig. 3]



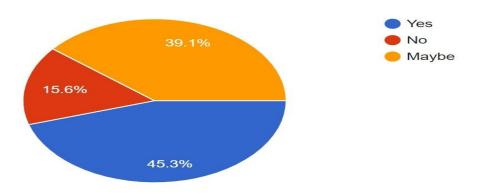


Fig. 3. Access to syllabus based ebooks

4.Dependence on Syllabus based ebooks freely downloadable

Only 26.4% agreed that syllabus based ebooks were freely downloadable while a 15.8% disagreed and a majority of 57.8% stayed neutral on the fact. [Fig. 4]

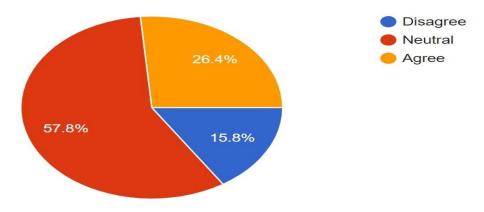


Fig. 4. Dependence on Syllabus based ebooks freely downloadable

5.Preference of printed books over e-books

But even after the world being introduced to the latest in digital technology, ironically the majority of students surveyed still preferred to walk into a library and look to printed books at the library that seek information in e-books and resources. The chunkier part of almost 85% library users still preferred Printed books over e-books. [Fig 5]

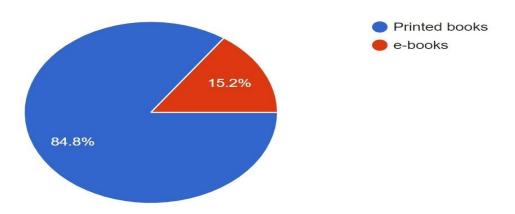


Fig 5. Preference of printed books over ebooks.

6.Dependence on freely available e-journals

Of the 308 students the 30.9% said they made use of the freely available e-journals. 42.3% were not sure while 26.7% said they did not make use of these journals. [Fig. 6]

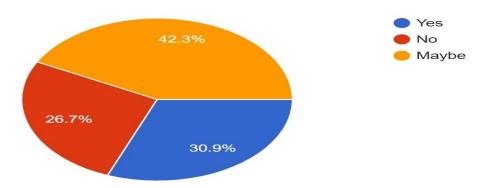


Fig. 6 Dependence on freely available e-journals

7. Preference of Print journals over e-journals

And in a similar trend the majority of students preferred Prin journals over e-journals. 77.2% said they preferred print journals while only 22.8% were happy with e-journals. [Fig7]

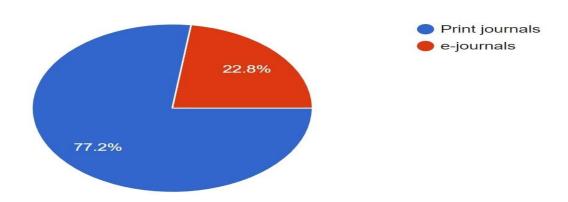


Fig 7. Preference of Print journals over e-journals.

8.Dependance on Google search for syllabus related information

As to the use of Google search service, the majority of 45% admitted that their syllabus based information search. Google search did meet their syllabus based information requirements. 39.1% said it maybe so, while only 16% said that Google search did not meet their syllabus related information requirements. [Fig8]

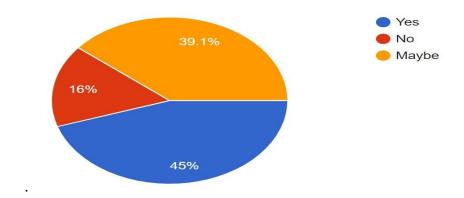


Fig. 8. Dependance on Google search for syllabus related information.

9. Physical library satisfied all information needs before the pandemic

With every student now aware of the innovative technologies in online teaching learning process, the students still saw the physical library as the backbone of their information search. 80.1% of the students still looked to the facilities at the library. A meager 2.6% said the physical library did not satisfy their information requirements. [Fig 9]

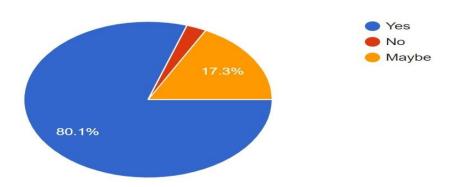


Fig 9. The physical library satisfied all information needs before the pandemic.

10.Preference for the college library over e-resources

All the latest online innovations available, the students surveyed still said they still preferred the college library over online e-resources. 68.2 % percent say they prefer the College library and 31.8% said they preferred e-resources.

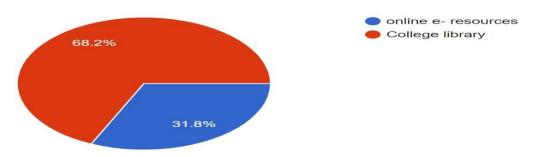


Fig 10. Preference for the college library over e-resources.

Recommendations

Based on the results of this study, the following recommendations are provided:

- (1) Alongside online information dissemination, libraries should consider opening up libraries with monitored restrictions such as social distancing and other safety measures such as limiting users per day, sanitizing material and rooms, etc to permit students to access the library on a controlled manner rather than a complete shutdown of libraries. This will certainly be well entertained by those who find it difficult in depending on online resources alone.
- (2) Students need to be given awareness of the use of the various online means of information dissemination and the various authentic digital resources.

- (3) Library websites need to be periodically updated to keep the users informed about the resources and technology at hand.
- (4) It also seems important to re-prioritize library budgets to increase the e-resources and e-services. Libraries need to invest in getting new technologies, infrastructure, systems, and staff development to be able to serve their users in emerging online environments.
- (5) Libraries need to prepare their resources, services, systems, and staff to effectively help the online students.

Conclusion

The emergence of COVID-19 has affected global educational activities. The pandemic is now changing the way we live, the way people interact, associate and conduct research and studies. Online networks became the primary tutor in 2020, with most college libraries opting for remote services via Social networking platforms and Meet platforms like Zoom, Google Meet, Microsoft Teams platform classes, that evolved from video conferencing from the late-1990s. Never before in human history has it been possible to communicate so quickly during a pandemic, social media platforms have been a key piece for the dissemination of information. The pandemic and successive developments in the teaching learning process makes it imperative for college leaders and the policymakers to make digital transformation and technology a priority in the educational scenario. It has emphasized the need and importance and ease of use of digital technology in the field of education. Though, online services are a better option for the libraries because no personal contact is made in such services but it is not feasible to provide such online services to the remote users and those are not very much familiar with the online environment. And this may be one good reason as to why users with limited resources prefer traditional libraries over online ones. Academic libraries have a renewed mission to help learners in the online space to empower them to overcome digital divides and inequalities. Academic libraries are also well positioned to increase awareness in academic staff of current information and digital literacy related issues faced by students and, in the post-COVID-19 new information realities, become changing agents in the ways in which students learn, engage, interact and create with online information.

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SEARCH FOR IDENTITY IN EMMA DONOGHUE'S ROOM

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Abstract

This study is devoted to explore the multilayered influence dispensed by imprisonment through illuminating Emma Donoghue characters Jack and Ma. The characters thirst for identity and physical confinement brought about psychological issues, which had mentally and psychologically detained them and kept them away from connecting appropriately to their free world upon their release. Self Identity is the best chance to re-correct our mistakes. Throughout this novel Ma and Jack want to reach an identity in the society. This article exposes a child perspective and feministic psychological analysis of search for identity in Emma Donoghue's novel *Room* which is published in 2010, it is a celebration of silence and love between parent and child through the impact on the lives of Jack and Ma.

Keywords: *Maternity*, *Existentialism*, *Isolation*, *Freedom*, *Family Ties*.

The spread of world economy and cosmopolitan cultures have resulted in the emergence of different communities and identities. With the result of this immigration and fast growing world the marginalized people are suffers a lot. They do not know who they are? The dominant culture creates a gap between developed and the developing, the dominant and the dominated, the colonizer and the colonized. The dominant people always represent and suppressed the marginalized. The people who are marginalized are not allowed to show their face to the outside world. They always hide their face behind the thoughts of the society. Most of the people in the world are having the zealous to win their life but some of them are search their identity till the end of their life.



The question of Who am I? Is always a problematic question with different types of possible solutions. Now a day's quest for identity and longing for survival is one of the important problematic situations in our country. The problem arises because of too much of migration and immigration of man for their better living. Therefore, they face a lot of difficulties to adopt a new circumstance. It causes the struggle for survival and searches their identity.

Emma Donoghue is an Irish-Canadian writer who is well known for her novel *Room* published in 2010, which expresses the joys and sorrows and traumatic experiences of narrator Jack and his mother. This novel casts light on the overwhelming experience of captivity that the characters "Jack" and "Ma" go through. Donoghue successfully used a global themes and regional views in her fictions. The author is skilled in laying her stories in different parts of the world like the USA, UK and Ireland. She has introduced a new and fresh form of mixing the voice of women in modern fictions which was produced by women. Her novel *Room* expresses her personal view on the traumatic lives of Jack and his mother in captivity. It is a celebration of silence and the love between parent and child.

A People live without an identity is equal to a boat which is swimming on the sea without any supporting handle. Once in the life time every person should have the opportunity to prove their identity Likewise, In *Room* Jack and his Ma suffers a lot to overcome their struggle.

In the beginning itself Jack thinks that he and his mother are the only creaters in the world. All that Jack sees in TV and reads in books are the only real things he believes in. Ma's reality is her child Jack and accordingly his reality is Ma. Ma has a high longing she always ponder about her child because, she doesn't need her child live in a limited world, she realize that her child is a shrewd kid Ma needs to save him. Ma makes a plan to escape from room. She helps Jack her kid to practice each day to get away from dark life until they escape from that place. The portrayal makes us roused and propelled, how is it possible that she would make due in the most exceedingly awful condition. She does it single handedly in a limited world.

Women's struggle is an effort undertaken by women to get their identity and equal rights in society. Likewise, Ma is one such character who struggles to survive with her

child Jack, who is lived in a narrow world. Ma has to live in a single *Room* which is a narrow world. She is not allowed to go outside and she did not have the knowledge about outside world. With the help of TV only Ma knows the current affairs about society.

Every night Ma is forced to sleep with the man who broke her life is Old Nick he kidnapped her at the age of nineteen. Not only Ma leads her life in a limited room but also her dream, her goals and her future is also abduct by man for his cruelty. One day Ma burst out of her predicament and vow upon Old Nick

"I swear I'll never be quiet again. You'll have to kill me too to shut me up, I just don't care anymore." (Room, 170)

This attitude shows Ma as a good mother who is stand by her own legs and struggles a lot to give her son a better life although in other side she has a trauma and depression due to her past.

After they rescue from room Ma and Jack is trying to adopt the outside world. It is very hard for him to accept the new surroundings. Ma teaches her son about the meaning of life and survival. After the escapement they start their new life in outside world. Ma promised to Jack

"We can do anything now"

"Because we are free." (193)

With grinning face. That line shows the struggle and painful life of Jack and his mother.

Donoghue points out in several ways that women can solve their problems by her own self. Ma can be a great mother to her son, it is a proof that she give birth to a child without any help of others and she grow up him soon in this manner. That's why Jack reaches an identity by his own self apart from many obstacles.

Through her bestselling novel *Room* Emma Donoghue has reflected the communal problems in our society. And, the novel shows the profound preoccupation with the problems of exile and isolation. Thus *Room* is an awe-inspiring and enthusiastic work and worth to be appreciated. It clearly expresses the life of protagonists who are often busy in

fear of survival and search their way of life unknown to them, and the plight of oppressed in a prominent way.

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WOMAN AS A VICTIM OF DOWRY SYSTEM WITH REFERENCE TO SHOBHAN BANTWAL'S THE DOWRY BRIDE

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Abstract

One of the major predicaments that women face in life is Dowry or Bridal Price. Since medieval times it has been in practice in India. The purpose of giving dowry to a bride by her family has its own reason that she could maintain her independence after marriage. But gradually the system has become an issue in women's lives when it turns to be a compulsory one. Both women who have economic adequacy or inadequacy are targeted often to death. This article exposes a feminist psychological analysis of the phenomenon of dowry, its impact on the life of a bride in Shobhan Bantwal's *The Dowry Bride*, domestic violence against women and need to overcome this issue to make our society a better place for women to live in.

Keywords: Bridal Price, Domestic Violence, Predicaments, Feminist psychological analysis.

Women are the most important part of Indian society. Without women, no society can develop. Because of the Indian tradition and culture, there is always a need for women to prove their self -worth and importance. Their freedom and rights are denied in every aspect of their life. Dowry is a widespread social problem for women around the world. It is more predominant especially in India. Though the word 'Dowry' is not used in the marriages, gifts are exchanged as a token of love and prestige. But at present time it has become mandatory for bride's family. In ancient times the Dowry system does not commence as an impediment to a bride's marriage. But in the medieval period it has



become obligatory for the bride's family to give dowry according to the expectation of bridegroom's family.

The most interesting part is that the bridegroom's family will never accept that any kind of gifts from the bride's family as a part of dowry. They will say that, 'they give it to their daughter and we do not ask anything for us'. Often the parents of the bride are willing to provide a huge sum of money and valuables thinking that their daughter's future will be a pleasant and secured one. In our Indian society there is a false conception that man is a hero, a magnificent object to be admired and praised. Whereas women are dependent on men.

According to the Illustrated Oxford Dictionary dowry is defined as "property or money brought by a bride to her husband on their marriage." This research focuses on the feminist psychological analysis on the phenomenon of dowry, its impact on the life of a bride in Shobhan Bantwal's *The Dowry Bride*, domestic violence against women and need to overcome this issue to make our society a better place for women to live in.

When we examine the psychological causes we would add yet another dimension to understanding and combating the phenomenon of dowry. This article puts forth several psychological based explanations as follows.

In Indian context, a mother-in-law is financially independent in the family but is also put in an emotionally insecure position. Jethmalini and Prasad (1995) opine that in India women place their honour on their partner and male heir in addition they also contribute a copious amount of time and assistance on their life partner and children by sacrificing themselves. In course of time, this sacrifice leads to a mother gaining power within the family. For example, in return her son may consult her on all important issues. After her son's marriage, a mother may no longer feel like she is all important in her son's life. Seeing her source of power slip away, she tightens her grip on power by controlling the bride and new couple's relationship. This issue of possible dissatisfaction with the amount of dowry adds ammunition to a volatile situation.

Moreover, young girls and women are conditioned all their lives to serve their inlaws, without regard of their own needs. Mothers-in-law are in a position to take advantage of this belief system. When a woman becomes a mother-in-law, she is finally in a position



of power after having been controlled throughout her life (Jethmalini and Prasad, 1995, p.146). The abused become the abuser. If there is resistance from the daughter-in-law may turn to verbal abuse that could escalate into physical violence. Another reason for the abuse of the new bride stems from the collective fears of the family. According to Kakar (1988), the family fears that the growing attachment between the new couple will lead the man to neglect his responsibility to the family as a dutiful son, brother, breadwinner and so on.

Therefore, any public expression of affection is actively discouraged through oblique hints or outright shaming. The husband and wife are often allowed to be together only for brief periods at night. As a consequence the intimacy between the husband and wife develops gradually and situates the woman in peril for ill treatment as she has no associates inside the structure.

Megha, the protagonist of the novel *The Dowry Bride* overhears shocking conversations of her husband and mother-in-law, who plots to murder her as she has not produced a child and further her parents also, fails to keep up their promise regarding her daughter's bridal price. Megha comes to be panic-stricken when she becomes conscious that she is the intended victim of the planned murder. Frantically she runs through the deserted streets of Palgaum, her way is lighted merely by the glows that are threaded up for the festivity of Diwali, her one and only goal is to escape from the predators. But fleeing from her predators seems impossible unless she finds help from someone.

Soliciting her bosom buddy will bring dishonor to the family of a virtuous woman and seeking help from to her own firm conventional people is incomprehensible. Instead with an empty hand except the sari she wears, Megha decides to approach Kunal, the man who has shown her concern and reverence. Kunal helps her hiding her in his apartment and becomes her protector. On the other hand the illicit temptation that develops between them can result only in agony and threat.

Megha is trapped between convention and the realities which are concealed in her heart, therefore, the dowry bride will find out the actual price of the only things worth having in life. Megha in the novel *The Dowry Bride* is the victim of patriarchal oppression. She is ostracized on the basis of gender, dual social norms and dowry system. Megha's

birth itself is considered as a burden by her own parents, as she is born as a third daughter to her parents who already have two daughters. Her parents worry as they are already in debt by paying dowries to their two daughters. Megha's arrival into the world has brought not bliss but only disappointment to her parent that is evident through the following lines, "along she came- another infant girl- with all the wants, needs, and tribulations of a female. And all the burdens of a Brahmin woman" (11).

"Dowry was a curse; it had brought her nothing but grief" (223). Thus dowry is practiced by a majority of Indian families. Not all instances of dowry lead to abuse and violence, but it is important to be vigilant. Therefore, the practice of Dowry should not be accepted simply because it is a norm. To combat the negative impact of dowry, it is essential to harness psychological interventions that are informed by gender and culture, along with more commonly attempted legal, social service, and educational approaches. These interventions ought to be widely available in the community.

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STRUGGLES OF A WOMAN IN SHASHI DESHPANDE'S THE DARK HOLDS NO TERRORS

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Abstract

The paper aims to examine the struggles of an educated and career woman Sarita in Shashi Deshpande's *The Dark Holds No Terrors*. Deshpande's novels demonstrate the pathetic condition of Indian women and their struggles in a patriarchal society. Shashi Deshpande's quest for identity, freedom, isolation, women's emancipation and struggles of women, have become part of major themes in literature. She unfolds the problems, struggles and issues of female in a pragmatic manner. She has created such women characters, who sculpts herself for self-identity, self-assertion, independency and freedom. Sarita is also one such women characters of Shashi Deshpande, who has faced a lot of suppression, oppression, struggles and ill-treatments of the male dominated patriarchal society.

Key Words: Suppression, Inequality, Mental Trauma, Frustration and Female Subordination.

The Dark Holds No Terrors is a distinguished novel written by an eminent Indian English writer, Shashi Deshpande. This novel was published in 1980 and translated into Russian and German. In this novel, Deshpande represents the difficult endeavors and struggles of the protagonist Sarita. It visualizes the struggle of a woman's survival, freedom and her search for identity in a patriarchal society. It reflects Sarita's struggle between the traditional values and modern trends. The Dark Holds No Terrors was considered as a favorite work to Deshpande, which she remarks in an interview that, 'It

was simple theme and few characters. It gripped me so much that I whipped through the writing the wife had a better job and there was a very obvious tension between them' (1). She has vividly presented the struggles of women in a conservative society through the female protagonist Sarita.

The title, *The Dark Holds No Terrors* suggests that the life of the protagonist Sarita which seems dark. She had a mother who blamed her for not saving her brother from drowning during her childhood days. She had a husband who was brutal and venomous. Along with all such struggles and barriers she takes care of her father and children. But Sarita who was a strong woman, resolved to make a better life for herself amidst the dark situations, hence the dark holds no terror. She can rise up and bring light to her life instead.

The story of the novel revolves around Sarita, who herself narrate it. Sarita is familiarly known as Saru among her friends and family. She was the daughter of a Bank clerk and a conventional mother. Sarita's problem was that she was a rebel of sorts in a custom-ridden society. Saru was the victim of occurrences and conventions of an orthodox and conservative society. Her family consisted of only four members- her parents, younger brother (Dhruva), and Sarita. In Indian middle class families, son is always treated well and given superior treatment, whereas the daughter is subjected to a strict discipline and patriarchal rules of the society. The protagonist Sarita was also no exception to this general rule of the patriarchal society.

Sarita's life was a series of incidents which came one after the other in order to divest and alienate her from even simplest joys in life. From the beginning of her life, she has been constantly reminded by her mother that she is a 'woman'. So, there are number of do's and don'ts for her. Even from her childhood she was asked to keep her complexion attractive so that she can be easily appreciated by her groom and his mother. Sarita's mother asked her not to go in the sun which made a deep impact in her mind. She admits that: 'Don't go out in the sun. You will get even darker. Who cares? We have to care if you don't. We have to get you married' (9). The statement of Saru's mother shows how women are treated like a marriage property in the hands of their parents in a conventional society.



Even in her early life Sarita was under a serious charge of killing her brother Dhruva, who died accidently by drowning into the water. Saru's mother makes her feel guilty of his death, which leads the relationship alienated. Her friend Smita asked Saru to see the film Rani of Jhansi with her family. Sarita also grew eager to go with her friend, but her parents denied. In order to show her anger, Saru decided to go out of the home for some time without telling her parents. Her brother Dhruva, who insisted on going with her and would not be put off in any way. She went near a pool in which Dhruva drowned. She could not save him in spite of her finest efforts. Sarita's mother was grievously shocked and held Sarita responsible for Dhruva's death. Her mother remarks that, 'You killed him. Why didn't you die? Why are you alive, when he's dead' (191). In fact, Sarita had tried her best efforts to prevent him from going with her and also from going into the pool but Dhruva was self-willed, pampered and unyielding.

Words of Saru's mother made a deep cut in her heart, which bled ever after. It was a child's mistake but it caused harshness between their relationship for the whole life. Both were alienated from each other to the extent that Sarita always referred to her as 'she', and her mother stood against Sarita like a rock. Her mother admits that she has no daughter at all. This bitterness was reflected in all matters of the family. She was never cared by her mother after such heart-breaking issue in their life.

Sarita reveals her plan to go to the Medical College for higher studies but her mother firmly opposes her on various grounds, she just ignores and neglects her views. Even her mother argues that his father was not a millionaire to spend huge amount of money to reach her goal. She further said that they would spend money for her marriage also. She is unwilling to admit her daughter in a Medical College. She remarks that: "Medicine! Five, Six, Seven... God knows how many years. Let her go for a B.Sc... You can get her married in two years and our personality will be over." (144). Saru's mother proves herself as a person who deeply rooted in Indian traditional values and norms, so that she doesn't allow her daughter's wish. After many struggles and problems, she has joined in a Medical College with her father's support.

Sarita get alienated from her family in the name of higher studies, she wants to stay away from her family for some time. She thought that it may lead her to reconcile with her mother, unfortunately it increases their alienation. Saru was hungry for love, who was

actually a girl of great determination and self-restraint. But chance it that she met Manohar and fell in love at first sight. Sarita was very happy when she found that Manohar's was true and innocent love for her.

Sarita's happiness was short-lived. After their marriage, events which hurt the male ego of Manohar took place one after the other. People in their colony began to notice Saru as a Lady Doctor, they smiled and greeted her. The men around her house looked at her lusciously and women said admiringly that she was a Lady Doctor. Whenever Saru closed the door of the room, she overheard the words of 'Lady doctor, Lady doctor'. Growing recognition of Sarita became a cause of discomfiture for Manohar. Whenever they went for out of their chawl for a walk, people greeted her. But such admirations and greetings are all for Saru, there was nothing for him, which kindled his male ego. Manohar has absolutely no limitations and reservations about treating his wife as an equal and as a person. He is shocked very much and wounded deeply by the unexpected question of an interviewer that 'How does it feel when your wife earns not only the butter but most of the bread as well?' (182). Such hurting words of an interviewer, agitates his male pride and confidence completely.

As a result of his inferiority complex, to take revenge, he imposes physical tortureevery night Sarita is raped by him. Consequently, he became a psychopath and started gnawing, biting, beating his wife in a stupor. Manohar would become a normal man, a lovable husband in the morning, because he would not remember what he had done in the night. Sarita finds herself trapped in Manohar's frustrated sexuality. Her limitless agony, oppression, deep psychological trauma, suppression finally prompts her to leave her husband and look forward to her father.

Sarita is proved to be marginalized and suppressed by her husband in terms of resistance because she could not resist or avoid her husband's ill-treatments and brutal tortures. Sarita is silenced by the dominant role of her husband in their private life, which prompts her to react against the patriarchal setup and speak on behalf of herself. The patriarchal society voluntarily provides a superior power to men for use the physical body of woman according to his wish-whether the purpose of love making or it may be consuming her body without her support. So, a woman is recognized as a doubly marginalized one- first because of being a woman, then she is inferior to man.

The character of Sarita can be understood in terms of psychological percepts. During her childhood days she had the clear idea of gender inequality- her mother insisted that boys are 'assets' whereas girls are burdens. This is actually a very stereotypical idea of a gender biased society. It reflects the condition of Indian women who are squeezed between tradition and modernity. Simone De Beauvoir admits that 'one is not born, but rather becomes a woman. It is civilization as a whole that produces this creature which is described as feminine' (146). Deshpande's writings reflect this kind of socialization and impeding effects of culture-based thoughts of marriage and wifehood of Indian women. Our society accepts women as daughters, sisters, wives and mothers, who always forced to take care of others. They never given freedom to recognize themselves as individuals, which is still remain as a question mark. Even women accept this silently because of the literary figures which are given to them are such as Draupadi, Sita, Shakuntala and Gandhari who never asked any questions regarding their individuality and freedom.

At the end of the novel, Saru reacts against the traditional concept of society that single purpose of a woman is to obey and blindly follow the rules of the elders especially the male ones. Through the character of Sarita, the author projects the post-modern dilemma and chaos of a woman who strongly resents the onslaught on her individuality and identity. She sculpts herself to be a strong and powerful woman in all the three aspects like psychological, biological and social. Sarita proves herself with the different roles fulfilled. Sarita decides to give up the traditional and cultural bonds of marriage and home, through which she overcomes the oppression of the menfolk.

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ISOLATION AND CHARACTERISATION OF ANTIBIOTIC RESISTANT BACTERIAL SPP. FROM THE GUT OF HOUSE FLY (MUSCA DOMESTICA)

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Abstract

House Flies (*Musca domestica*) are one of the most abundant and important group of order Diptera serving as vectors for some of the most devastating disease affecting humans. The gut of houseflies is harboured with microbes that act as pathogen in transmitting illness. Antibiotics are used to combat infectious diseases. But gut flora of *Musca domestica* have developed antibiotic resistance property for survival adaptive features. Most commonly found flies were inherited with microbiome showing resistance to antibiotics. Examination of antibiotic resistance bacteria in the gut of *M. domestica* revealed the presence of both Gram positive and Gram negative isolates like Staphylococcus ssp, Escherichia coli, Proteus spp, Bacillus spp, and Klebsiella spp, Analysing the disc potency of antibiotic susceptibility by the isolates recorded a higher range for the antimicrobial agents for Cefotaxime and Amikacin than other antibiotics Ampicillin, Gentamicin and Streptomycin. This was in conformity that houseflies were able to spread diseases showing resistance for antibiotics thereby acting as long term vectors of potential human diseases.

Keywords: Diptera, House fly, Antibiotics, Antibiotic resistance bacteria

Introduction

House flies (*Musca domestica*) are common insects of dipteran order in everyday life of human beings. The higher Dipteran order includes the family Muscidae whose well



known members are commonly termed as Flies. House flies reproduce and develop in dead and decaying organic matter. and many common infections are transmitted by them. Some diseases are very serious and even potentially deadly. They are mechanical carriers of microbial organisms spread infectious diseases and simply act as vector in many instances. There are many pathogens that are associated with house flies such as viruses, bacteria, protozoa and fungal organisms. Unlike other insects, such as mosquitoes or ticks, these insects do not specifically require an endogenous environment to live and reproduce. The gut microbiome of housefly serves as the ways and means for disease transmission. Although it can never be eradicated entirely, reducing fly populations and limiting its contact with food in particular is an important part of hygiene.

Systematic Position of Housefly

Kingdom :Animalia

Phylum : Arthropoda

Class : Insecta

Genus : Musca

Species : domestica

Diarrheal illnesses are some of the more common diseases spread by house flies. The bacterial species such as *E.coli*, *Shigella*, *Campylobacter*, *Enterococcus* which commonly cause diarrheal diseases are found to be associated with gut of houseflies and found in the stool of infected population. More over houseflies have developed antibiotic resistance property in their evolution. Gaining the antibiotic resistance property make them to affect people at any stage of life, as well as the healthcare, veterinary and agriculture industries making it one of the world's most urgent public health problems.

Antimicrobial resistance is the ability of a microbe to resist the effect of medication that once could successfully treat the pathogenic microorganisms. Antibiotics are medicines used to prevent and treat bacterial infections (M. Peteridis et al, 2006). Each year in the India at least 2.8 million people are infected with antibiotic resistant bacterial species and more than 35,000 people are succumbed to death. Antibiotic resistance occurs when bacteria change their response to combat the effects of these medicines.



Therefore analysis of housefly gut flora will give a better understanding to limit the infection.

MATERIALS AND METHODS

SAMPLE COLLECTION

The flies were collected at Dindigul and Vadamadurai including tea shop, kitchens and other public places. The target sites were kitchen area after the preparation of cooking when there is the highest availability of the waste product. A total of 40 flies were collected from these 4 sites during the month of November- December 2021 .Sterile insect collection net without any bait was used to collect the flies. The flies were morphologically identified using the literature. They were transferred to sterile vials aseptically and kept in freezing temperature for couple of hours to anaesthetize.

ISOLATION OF MICROORGANISMS FROM FLIES

Each fly was suspended in 1ml of sterile saline and vortexed gently to remove any adhering debris and microorganisms. Then the flies were surface sterilized in 70 % ethanol for 60 seconds followed by rinse with sterile saline two times. After that each fly was crushed in the saline solution with sterile tips. This suspension was serially diluted from 10⁻¹ to 10⁻⁶ and 100 μl of sample from each dilution was spread on Nutrient agar (pH 7) media through spread plate method for the identification of bacteria. (Table. 1). To culture the bacterial colonies, plates were incubated at 37°c for 24 hours and then observed.

IDENTIFICATION OF ISOLATES

After incubation, according to the dilution factor of the inoculated samples organisms were identified based on the colony morphological characteristics. Representative bacterial colonies were selected and isolated using standard pure culture techniques. These colonies were streaked on nutrient agar plates for pure colony isolation. From the pure culture, bacteria were presumptively identified through a series of conventional morphological, cultural and biochemical tests (Table. 2) according to the criteria described in Bergey's Manual of Determinative Bacteriology (1923).

ANTIMICROBIAL SUSCEPTIBILITY TESTING OF THE ISOLATED ORGANISMS:



To identify the resistance and susceptibility pattern of the isolated microorganisms, antibiotic sensitivity test was performed with selected antibiotics. Single disc diffusion method was performed for this purpose. Standard antibiotics of Ampicillin (10 mg), Amikacin (30 mg), Gentamycin (10 mg), Streptomycin (10 mg), Ceftriaxone (30 mg) and Cefotaxime (30 mg), was placed in the Mueller Hinton agar plates with bacteria inoculated and incubated at 37°c for 24 hours. The diameters of inhibition zones were measured and compared with the standards given by CLSI (The Clinical & Laboratory Standards Institute). The width zone of diameter indicates the ability of the antibiotic to prevent the bacterial growth.

RESULTS AND DISCUSSION

House fly frequently comes into contact with human food and excrement and has been reported to be involved in the dissemination of numerous diseases. The close association of the housefly with bacteria and its role in transmission of pathogens, makes it an ideal model organism to study the importance and variation of the microbiota of vector species.

In the present study, it is observed that the bacteria isolates recovered from *M. domestica* were both Gram positive and Gram negative species like Staphylococcus spp. Escherichia coli, Proteus spp. Bacillus spp. and Klebsiella spp. (**Table. 1**). Our observations goes in accordance with Thomas et al., (2005) where bacterial genera such as *Bacillus* spp. and *Staphylococcus* spp. were found to occur in gut and external parts of house fly. De Jesus AJ et al. (2004) who conducted a study on house flies reported that the most prevalent type of bacteria reported from the gut of the house flies was *E.coli*. However, this finding is not in line with what we observed in the present study. This contradiction can be attributed to the different sampling places from where the flies were captured for analysis. It can be concluded that the type and number of bacteria harboured by house flies differs to a high degree with the sampling areas from where these flies were captured. It was explained by Akhtar M, (2009) that house flies were important vector in carrying of various types of bacteria particularly *Staphylococcus* spp. and *Bacillus* spp. which is in agreement with the results of the present study.

The term antibiotic resistance is a subset of antimicrobial resistance, as it applies to microorganisms becoming resistance to antibiotics. Analyzing the diameter of inhibition



zone in Antibiotics Sensitivity Test by the bacteria isolates from the gut of Housefly revealed that the Ecoli showed susceptible reaction to the exposed antibiotics (Liu Y etal, 2013). Likewise, the staphylococcus spp. recorded the resistance mode of response to the experimented antibiotics (Table. 3). Then the disc potency exhibited by the bacteria isolates from gut environment of flies were found to be higher for the antimicrobial agent Cefotaxime and Amikacin than other antibiotics Ampicillin, Gentamicin and Streptomycin (Fig. 1). The higher disc potency was due to the broad-spectrum antibiotics showing a counter effect to maximum gut isolates.

Houseflies containing bacteria have developed resistance to antibiotics that were once commonly used to treat them. For example, Staphlococcus sp, and Neisseria sp, are almost resistant to benzyl penicillin. In the past, these infections were usually controlled by penicillin. Antibiotic resistance happens when bacteria develop the ability to defeat the drugs designed to kill them (Burrus V and Waldor MK, 2004). The antibiotic resistance property of flies leads to higher medical costs; prolonged hospital stays and increased mortality. However, the important point is that all these studies have emphasized that house flies are important carriers of pathogenic organisms and we should take precautionary and safety measures from housefly infection.

CONCLUSION

Houseflies are perennial organism in transmitting diseases, affecting our health. Analyzing the gut bacteria revealed the presence of cocci bacteria and the bacterial population were able to survive and even multiply in the presence of broad spectrum antibiotics. On conclusion houseflies were found to inherit resistant property for antibiotics thereby they proliferate in large numbers serving as vectors in most of the environment.

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Table: 1. IDENTIFIED BACTERIAL ISOLATES FROM THE GUT OF HOUSEFLY

Sl.No	Spotted pure isolates	Identified organism
1	G1	Staphylococcus spp.
2	G2	Escherichia coli
3	G3	Proteus spp.
4	G4	Bacillus spp.
5	G5	Klebsiella spp.

G- Different bacterial Isolates

Table: 2. BIOCHEMICAL CHARACTERIZATION OF BACTERIAL ISOLATES FROM THE GUT OF HOUSEFLY

S.No	Testes	G1	G2	G3	G4	G5
1	Simple staining	Cocci	Cocci	Cocci	Cocci	Cocci
2	Gram's staining	-ve	-ve	-ve	-ve	-ve
3	Indole test	+ve	+ve	-ve	-ve	-ve
4	Methyle Red	+ve	+ve	-ve	+ve	-ve
5	Catalase test	+ve	+ve	+Ve	-ve	-ve
6	Simmons citrate agar test	+ve	+ve	-ve	+ve	-ve
7	Urease test	+ve	+ve	-ve	+ve	-ve
8	Starch hydrolysis test	+ve	+ve	-ve	+ve	-ve
9	Nitrate test	-ve	+ve	+ve	-ve	+Ve

G- Different bacterial Isolates,

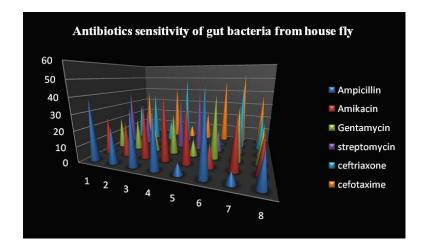
Table 2. ANTIBIOTICS SENSITIVITY TESTING BY DISC DIFFUSION OF BACTERIA ISOLATES FROM THE GUT OF HOUSEFLY.

S.No	Antimicrob	Disc	Staphylo	Escheric	Proteus	Bacillus	Klebsiella
	ial	potency	coccus	hia coli	spp.	spp.	spp.
	Agent	(µg/piece)	spp.				
1	Ampicillin	10	I	S	S	I	R
2	Gentamicin	10	R	S	I	S	NIL
3	Streptomyci n	10	I	I	S	R	NIL
4	Ceftriaxone	30	I	R	R	I	I
5	Cefotaxime	30	R	S	I	R	I
6	Amikacin	30	R	I	R	NIL	S

R= Resistance S= Sensitive, I= intermediate. R,S and I were determined after in vitro susceptibility test

⁺ Positive, -Negative

Fig. 1. ANTIBIOTIC SENSITIVITY TEST OF GUT MICROBES OF HOUSE FLY



ATOMIC ABSORPTION SPECTROSCOPIC STUDY OF HEAVY METAL LEAD AND ITS TOXICITY ON TELEOST FISH Oreochromis niloticus

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Abstract

Lead is a poisonous metal, exhibiting neurotoxicity in mammals and a host of physiological and behavioural changes in fish. Chronic lead exposure results in decreased production of delta-aminolevulinic acid (ALA-D), a critical enzyme in the blood, altered osmoregulation, and severe physical abnormalities in fish such as black tails, lordoscoliosis, muscular atrophy, caudal fin degeneration, and paralysis. Neurological damage and behavioural changes include increased prey spitting, hyperactivity, and decreased reaction capabilities. While fish may be able to adapt to chronic exposures of other metals, for example copper, by producing certain proteins such as metallothioneins, studies have shown that fish do not produce these same physiological adaptive responses to lead, and instead tend to simply increase their body burden of lead^[1]. Selenium and vitamin E are very effective antioxidant agents which play important roles in improving and development of aquaculture sector. This study was conducted to determine the protective and treatment effects of vitamin E and selenium against lead toxicity. Administration of both vitamin E and selenium ameliorated the adverse effects of lead acetate toxicity through significant increase in haemoglobin, packed cell volume, RBC count, WBC count, and lymphocytes compared to lead acetate-exposed groups especially after the 10th week. Also, it is revealed that severe decrease of total protein, calcium, phosphorous, and magnesium in lead acetate intoxicated group. On contrary, significant increase of blood parameters upon addition of vitamin E and selenium combined with/without lead [2]. Metallic lead occurs in nature but is rare, and usually found in ore with copper and occasionally zinc and silver (Samans 1949). Lead pollution in waterways

is a consequence of anthropogenic activities, deposited by industrial effluents and mining. It is one of the metals of highest concern in terms of its effects on physiology (Heath 1995)^[1]. Insignificant decreases of sAST, sALT, urea, and creatinine in group fed on vitamin E and selenium, while increase in lead acetate intoxicated group. Lead acetate caused increasing of lipid peroxidation level (malondialdehyde) and decreasing of superoxide dismutase activity and reduced glutathione level. From these results, it is concluded that exposure to lead acetate is considered as hepatotoxic environmental pollutant. Exposure to lead acetate induced significant effects on antioxidant status. Antioxidants (vitamin E and selenium) showed important roles to protect body against lipid peroxidation, which considered as the first step of cell membrane damage, in addition to the improvement of the endogenous antioxidant enzyme activities ^[2].

Keywords: Neurotoxicity, Delta-aminolevulinic, Hyperactivity, Selenium, Aquaculture sector, Osmoregulation, Peroxidation, Hepatotoxic, Oreochromis niloticus.

Introduction

Lead (Pb) is a highly toxic metal in aquatic environments. Fish are at the top of the food chain in most aquatic environments, and are the most susceptible to the toxic effects of Pb exposure. In addition, fish are one of the most abundant vertebrates, and they can directly affect humans through food intake; therefore, fish can be used to assess the extent of environmental pollution in an aquatic environment. Pb-induced toxicity in fish exposed to toxicants is primarily induced by bioaccumulation in specific tissues, and the accumulation mechanisms vary depending on water habitat (freshwater or seawater) and pathway (waterborne or dietary exposure). Pb accumulation in fish tissues causes oxidative stress due to excessive ROS production. Oxidative stress by Pb exposure induces synaptic damage and neurotransmitter malfunction in fish as neurotoxicity. Moreover, Pb exposure influences immune responses in fish as an immune-toxicant. Therefore, the purpose of this review was to examine the various toxic effects of Pb exposure, including bioaccumulation, oxidative stress, neurotoxicity, and immune responses, and to identify indicators to evaluate the extent of Pb toxicity by based on the level of Pb exposure [3]. Pb and Cd concentrations in fish organs were measured using dry ashing-acid digestion method and analysed by atomic absorption spectroscopy (AAS). The highest



concentrations of Pb were detected in the gills $(0.151 \pm 0.12 \text{ mg/g})$ followed by bones $(0.108 \pm 0.09 \text{ mg/g})$ and the least in muscle tissues $(0.078 \pm 0.05 \text{ mg/g})^{[4]}$.

Heavy metals are common in rocks but due to economic and developing processes, heavy metals currently can be easily found in urban soils yielded from anthropogenic sources such as industrial, urban development and transport activities [5]. These human activities have increased concentrations of heavy metals above normal levels in the environment contributing to serious and widespread environmental issues leading to chronic toxicity. Recently, heavy metal pollutions in aquatic ecosystem are becoming critical issue. In Malaysia, many ex-mining and exlandfill areas that are reclaimed for other purposes such as for agriculture activities, freshwater fish farming area, recreational area, housing area and industrial area have become potential settlement for heavy metals [6]. Bioaccumulation of heavy metals in fish can be biomagnified into human consumption leading to more adverse health effects [7]. Heavy metals poisoning that involves lead (Pb) and cadmium (Cd) are quite common. Many studies have been conducted in Malaysia to assess exposure of Pb as in biological, food or toys samples [8]. Pb has a very long biological half-life, spanning from months to years and chronic exposure could lead to long-term health effects [9]

Methodology

Experimental fish: 64 black Tilapia are taken for experiment. Their body weight ranged from 150 to 160 g and 3 to 4 months ages. All fish were subjected to acclimatization for 2 weeks in prepared glass aquarium ^[2]. The collected fish was measured for the physical appearance; weight and size to ensure that each fish has similar characteristics. The fish were then placed in clean polyethylene bags and put into the icebox. The samples were immediately taken to laboratory where the samples were deep-frozen at -20 degrees C until further analysis ^[4].

Sample analysis: Muscle tissues, gills and bones of each fish were collected by skinning and filleting method. The collected organs were then mixed separately using commercial grade food grinder to produce homogeneous samples. Twenty-five (25) g of wet muscle tissues, gills and bones for each fish sample were weighed and placed into a crucible and was transferred into a furnace with a temperature between 450 degrees C -500 degrees C for overnight. Samples were removed after the furnace process and were left to cool down



at room temperature. Wet dilution was then performed by adding 2 mL of concentrated nitric acid (65%) and 20 mL dilution of hydrochloric acid (10%) to digest 25 g of muscle tissues, 1 g of bones and 1 g of gills in polytetrafluoroethylene (PTFE) beaker followed by heating on a hot plate at 80 degrees C. The mixture was then swirled until a yellowish solution appeared and left to cool at room temperature prior to filtration. The mixtures were filtered using 0.45 lm pore size filter paper to make 50 mL sample solution. Pb was then determined by using atomic absorption spectroscopy (AAS) AA 800 (Perkin Elmer, Foster City, CA, USA).

Human health risk estimation: Various approaches are available to predict the potential risks to human health regarding the consumption of heavy metals in fish. In this study, hazard quotient (HQ) estimation was applied to provide indication level of the human health risk due to Pb exposure ^[10].

HQ = $\frac{EF \ X \ ED \ X \ FIR \ X \ C}{RfD \ X \ WAB \ X \ TA}$ where, EF is exposure frequency; ED is the exposure duration FIR is the fish ingestion rate;

C is the metal concentration in tilapia fish muscle (mg/g); RfD is the oral reference dose; WAB is the average body weight; and TA is the average exposure time for non-carcinogens.

Statistical analysis: SPSS v21 (SPSS Inc., Chicago, IL, USA) was used for data analysis using independent t-test and one-way analysis of variance (ANOVA) followed by post-hoc Tukey test.

Results and Discussion: The low concentration of Pb in the fish muscles, Pb exposure can still be harmful to aquatic animals (e.g. tilapia fish) due to the bioaccumulation process in other parts of the fish. It is because Pb accumulation in fish can cause hypocalcemia by inhibiting the basolateral transport mechanisms of ionocytes in the gill epithelium of the fish. This will disrupt the electrochemical gradient and ion regulation leading to fish death (Lee et al., 2019). Pertaining to that, our results of Pb concentration in gills and bones showed approximately 90% and 40% higher than Oreochromis niloticus muscle tissues (Table-1).



Fish Organ	Pb concentration (mg/g) ±SD	
Muscle tissues	0.078± 0.05	
Gills	0.151±0.12	
Bones	0.108±0.09	

<Table:1;Distribution of Pb concentrations in different parts of Oreochromis niloticus(n=32)^[4].

ANOVA analysis indicated the level of Pb were statistically different in different fish organ (p < 0.05) indicating the importance of fish organ as the bioindicator to measure Pb level in the fish. The highest of Pb in the gills was speculated because of its large surface area which is an essential route of Pb from the surrounding water. The adsorption of Pb is likely to be facilitated into the gills during respiration and osmoregulation processes (Fernandes, 2019). On a second note, metallothionein proteins, a biomarker for heavy metals are normally found in fish gills, thus contributing to the bioaccumulation of Pb in the gills $^{[11]}$. According to report fish's hard tissues were prone to higher accumulation of heavy metal compared to soft tissues and this is in agreement with our finding of higher Pb level in the bones than muscles of Oreochromis niloticus.

Table-2^[4], ANOVA on the concentration of lead

Metal	Treatment	Sum of	Degree of	Mean	Factor	Significance
Metal		Squares	freedom.	Square	ractor	Significance
	Between	0.054	2	0.027		0.038(at a
Pb	samples within	0.737	93		3.383	level of
	samples.	0.790	95	0.008		0.05)

Table-3^[4]; Health risk estimation for lead ingestion from tilapia fish muscle tissue consumption. HQ=Hazard Quotient=

Pb(once in a week)	Pb (7 times in a week)	
0.01	0.10	

In the context of heavy metal contamination in the fish, this study has demonstrated that the metal distribution within an organism is a complex issue due to different affinity of various metals to the different organ of fish. One-way ANOVA indicated statistically significant difference (p < 0.05) in the variation of Pb.

Conclusion

When fish are exposed to lead, the ALA-D enzyme is inhibited. Studies show that a 60day chronic exposures of a freshwater fish lead resulted in a severe reduction of red-blood cell counts, hematocrit (the percentage of blood volume occupied by red blood cells), haemoglobin concentration, and mean corpuscular volume [2]. However, a review of biomonitoring studies of ALA-D levels in fish show that organic lead has little effect on the enzyme, and only inorganic lead is able to inhibit ALA-D (Hodson et al. 1984). Lead negatively effects osmoregulation in fish. An experiment that exposed various concentrations of lead to rainbow trout in slightly hypotonic brackish water for 30 days showed a dose-dependent elevation in plasma potassium (Haux and Larson 1992). A study conducted on fish from a lead-contaminated lake showed a decrease in plasma sodium but no change in plasma potassium (Haux et al. 1985). It is possible that previous or chronic lead exposure has led to physiological adaptations over the generations of fish who have lived in this contaminated environment (Heath 1995). The toxicity of waterborne lead, however, is also affected by the chemical and physical conditions of the water, as well as whether the lead is in dissolved form. Studies have shown that pH, water hardness, and the partial pressure of CO2 (gaseous) largely affect the toxicity of lead. Water that is lower in pH (more acidic) increases the uptake of lead, because acidification increases lead's availability (Campbell and Stokes 1985). Water hardness has a large effect on lead's toxicity (Spehar & Flandt YEAR); lead was found to be more toxic in soft water over hard water.

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இன்றையச் சூழலில் சமய நல்லிணக்கம்

முனைவர் ர.கோரிஜான்

உதவிப் பேராசிரியர், தமிழ்த்துறை, டாக்டர் சாகிர் உசேன் கல்லூரி, இளையான்குடி

சமுதாயமும் மனிதனும்

இனம் தோற்றம் பெறத் துவங்கிய காலத்திலிருந்தே சமய நம்பிக்கைகளும் காரணத்தின் அடிப்படையில் மனித வாழ்க்கையுடன் இரண்டறக் கலந்தே வந்திருக்கின்றன. இதன் காரணமாக மக்களிடையே நிறுவன அடிப்படையிலான சமய நிரந்தரமான நிலைப்பாட்டினைப் பிற்காலத்தில் ஏற்படுத்திக் நம்பிக்கைகள். கொண்டன. மனிதனுக்கும் மனித சக்திக்கும் மேற்பட்டதாக உள்ள இயற்கை ஆற்றல்களுக்கு இடையேயான தொடர்பு பற்றிய கருத்தாக்கங்கள் மனித சமூகத்தில் படைப்பாற்றல் மிக்க இறைவன் ஒருவன் உள்ளான் என்ற நம்பிக்கையை வலுப்பெறச் செய்தது. இதுவே நிறுவன சமய வரலாற்றின் தொடக்கமாகவும் அமைந்தது.

சமயம் என்பது மனிதனைப் பண்படுத்தும் வழித்தடமாக தோன்றியது. இதன் காரணமாகவே மனிதனை ஒழுங்குபடுத்தி ஒரு கட்டுக்கோப்புக்குள் கொண்டு வருவதற்கு பயனாகவே மனித சமயம் முயந்சி செய்கிறது. இதன் சமூகத்தை மேம்படுத்தும் நோக்கிலேயே உலகில் பல சமயங்கள் தோன்றி வளர்ச்சியடைந்துள்ளன. இவ்வுலகில் சமயங்கள் அனைத்தும் ஒருமைப்பாட்டினையே வலியுறுத்துகின்றன. சமயங்கள் சமய தத்தம் மறைவேதங்களின் வாயிலாக மனிதனை நெறிப்படுத்துகின்றன.

நிலையில் உலகில் இன்றைய மக்கள் ஒவ்வொருவரும் ஏதாவது ஒரு சமயநெறியைப் பின்பற்றுபவர்களாக இருப்பினும் அந்தந்தச் சமயம் எடுத்துக் கூறும் மனித மனிதாபிமானம், மனித மேன்மை, மனித நல்லிணக்கம் நேயம், தொடர்பான கருத்துக்களை (முழுமையாகத் தெரிந்து கொள்வதில்லை. இதற்குக் காரணம் சமய மறைவேதங்களின் புரிதல் தன்மையில் ஏற்படும் குறைபாடுகளே ஆகும். இதன் விளைவு நிலையில் இன்றயை சமயங்களின் பெயரால் நிகழ்த்தப்படும் வன்முறைகளும் கொண்டிருப்பதை பயங்கரவாதமும் அன்றாட நிகழ்வுகளாக மாறிக் நாம் ஒவ்வொரு நொடிப்பொழுதும் உணர்ந்து கொண்டிருக்கிறோம்.

உலகம் எத்தனையோ விஞ்ஞான வளர்ச்சிகளையும், அநிவியல் பூர்வமான சிந்தனைகளையும் இன்றயை நிலையில் பெற்றிருந்தாலும் கூட அமைதி என்னும் சொல்லாக்கத்தின் உண்மைப் பொருளைத் தம் வாழ்வில் இழந்து தவிக்கிறது. மனித இனம், மனித நம்பிக்கை, உணர்வு, செயல்பாடு ஆகியன ஏதாவது ஒரு விதத்தில் அவரவர் சார்ந்த சமய நம்பிக்கைகளுடன் தொடர்பு கொண்டுள்ளன.

சமயமும் நல்லிணக்கமும்

மனித சமூகத்தில் மதம், சாதி, சமூக நல்லிணக்கம் நிலவுவதற்கு என்றென்றும் ஒருமைப்பாடும் ஒற்றுமை உணர்வும் அவசியமாகும். மனிதர்களிடையே காணப்படுகின்ற எதிர்பார்க்கப்படுகின்ற ஒருமைப்பாடு மற்றும் ஒற்றுமை உணர்வினை எந்த அடிப்படையில் உருவாக்கிட முடியும் என்பது இன்றைய நிலையில் கேள்விக்குறியாக உள்ளது. மனித சமூக ஒற்றுமையை நல்லிணக்கத்தைச் சீரழிக்கும் இத்தகு காரணிகள் மனித மனங்களை மதத்தாலும், சாதியாலும், இனத்தாலும், நிறத்தாலும், இடத்தாலும், மொழியாலும் துண்டு துண்டுகளாக்கிச் சிதறடித்துக் கொண்டிருக்கின்றன.

மனிதனுடைய பகுத்தறிவு மேம்பாட்டை விட அவனிடமுள்ள மதம், சாதி, இனம் சார்ந்த வேறுபாட்டுணர்வுகள் மேலோங்கி நின்று ஒருவரை பிறிதொருவரிடமிருந்து பிரித்து சமூகச் சூழலில் நல்லுறவையும், நல்லிணக்கத்தையும் இழக்கச் செய்வதன் மூலமாக வேறுபாட்டு உணர்களை வளர்த்துக் கொண்டிருக்கின்றன.

நல்லிணக்கத்திற்கு எதிராக மனித சமூகத்தின் இருந்து சமூக ஒற்றுமைக்குத் தடையாகவுள்ள இனம் மொழி நிறம் தொடர்பான பாகுபாடுகள் இல்லாத ഖகെயில் இன்றைய சமுக அமைப்பு முறையை உருவாக்கிவிட இயலுமா என்றால் அதுவும் நிச்சயமாக கேள்விக்குரியதாய் அமையும். சமயங்கள் எடுத்துக்கூறும் நல்லிணக்கத்திற்கான, நல்லுறவிற்கான கொள்கைகள் சமூகத்தாரால் பின்பற்றப்பட வேண்டும் என்பதையே நோக்கமாகக் கொண்டு இஸ்லாம் மார்க்கம் இவ்வுலகத்தில் தோற்றம் பெற்றது. நலிவடைந்த சமூகத்தாரிடையே அதனைக் கொண்டு செல்லும் முகமாக இசுலாம் மார்க்கம் நல்லிணக்கக் கருத்துக்களை உள்ளடக்கியதாகும்.

காந்தியடிகளின் பல்சமய உறவு

போராட்டத்தின் விரும்பிய சுதந்திர போது காந்தியடிகள் சமயமும் சமய நல்லிணக்கமும் இன்னும் அதன் குறித்த விழிப்புணர்வு மனிதர்கள் மத்தியில் தேவை இன்னும் அதிகம் அதிகமாய் தேவையாய் உள்ளது. சமயங்களுக்கு இடையிலும் சமுதாயங்களுக்கு இடையிலும் நல்லிணக்கச் சூழல் உடனடித் தேவையாக இருக்கிறது. எனவே படிப்பினைகளை சமயம் குறித்த காந்தியின் அணுகுமுறை நமக்குப் பல உணர்த்துகிறது.



இஸ்லாம் மார்க்கம் உணர்த்தும் சகிப்புத் தன்மையை காந்தியடிகள் முழுமையாக ஏற்றுக் கொண்டார். அவரது அஹிம்சை உணர்வு அதனை வெளிப்படுத்துகிறது. அதோடு நின்றுவிடவில்லை. அடிப்படையிலான நேசமும் அவர் அதைவிட ஆழமான, அனுபவ புரிந்துணர்வும் கொண்டவராக இருந்திருக்கிறார்.

இஸ்லாமியர் விசயத்தில் காந்தி சகிப்புத் தன்மையோடு நின்றுவிடவில்லை. அதை விட ஆழமான, அனுபவ அடிப்படையிலான நேசமும் புரிந்துணர்வும் கொண்டவராக இருந்திருக்கிறார். 'பிற சமயங்களைச் சகித்துக் கொள்ளக் கற்றுக் கொண்டால் மட்டும் போதாது' நம் சமயம் போன்றே அவற்றையும் நாம் நேசிக்கக் கற்றுக்கொள்ள வேண்டும். இவ்வுலகில் நிலையான அமைதி நிலவும். மானுடத்தின் அப்போது தான் வழிகாட்டிகளின் வார்த்தைகளை பக்தியுடன் அறிந்துகொள்வது என்பது அத்திசையில் சரியான நடவடிக்கையாக இருக்கும் என்று Saying of (Prophet) Mohamed என்ற நூலில் குறிப்பிட்டுள்ளார்.

பிற சமயங்களைப் பற்றி அறிந்து கொண்டால் மட்டும் போதாது. பிற சமயங்களைச் சேர்ந்தவர்களின் ஆன்மீக சாதனைகளில் நம்மால் பங்கேற்க இயலவேண்டும். அப்போது தான் சமயங்களிடையே நல்லிணக்கம் உருவாகும் என்று தான் காந்தியின் சொந்கள் பொருள்படுகின்றன. இப்படிப்பட்ட ஒரு பரவலான ஆன்மீக அடிப்படையிலான பங்கேந்பே பல்வகைப்பட்ட மக்களிடையே நல்லெண்ணத்தின் அடிப்படையிலான ஒந்நுமையை உருவாக்கும்.

'மார்கரெட் சர்ட்டர்ஜி' பல சமயங்களைக் கொண்ட சமுதாயத்தில் நேய உணர்வுடன் பங்கேற்கும் மனித வாழ்வு முறையே சமயம் சார்ந்த வாழ்வுமுறை. இங்கு அகிம்சை முறையிலும் நியாயமான சமுதாயத்தை உருவாக்கப் போராட்டம் நடக்கிறது. இதுவே வெவ்வேறு நேரடியாக சேர்ந்த பல்வகைச் சமயங்களைத் தோற்றுவித்தவர்களின் நோக்கங்களுக்கு பொறுத்தமாக இருக்கும். இப்படிப்பட்ட ஒரு சமயத்தை முன்னிறுத்தும் போது மனிதர்களைப் பிரிக்கும் சித்தாந்தங்களுக்கும் புற வழிபாட்டுச் சடங்குகளுக்கும் வேலையில்லாமல் போகிறது. சமய வழிபாட்டின் மையம் தனிப்பட்ட பக்கியுணர்விலும் நேர்மையான நடத்தையிலுமே காணப்படுகிறது. காந்தியின் சமய(ழம் அதுவாகவே இருக்கிறது.

காந்தியின் பார்வையில் சமய வாழ்க்கை 'எந்த ஒரு குறிப்பிட்ட சூழ்நிலையிலும் ஒவ்வொரு மனிதர்களுக்கும் தோற்றம் அளித்து அவனுக்குத் தெளிவூட்டும் காட்சிகளைக் கொண்டதாக இருக்கிறது' என்று எழுதுகிறார் லா மக்டோனோ. குறிப்பிட்ட ஒரு சூழலில் திசையும் நோக்கமும் அளிக்கும் கிரியா ஊக்கிகள் என்ற அளவில் சமயச் சின்னங்கள் செயல்படுகின்றன. எனவே காந்தியின் சமயநோக்கு நடைமுறைப் பயனை முன்னிட்ட ஒன்று



வேலை செய்தால் சரி செய்யவில்லை என்றால் சரி விட்டுவிடலாம் என்ற அவரது லௌகீக அணுகுமுறை போலவே ஆன்மீக அணுகலும் இருந்தது. எனவே, காந்தி இந்து மற்றும் இசுலாமிய குறியீட்டு மொழியைக் குறிப்பிட்ட ஒரு போராட்டத்தின் அவசியத்தை உணர்த்தி அதில் மக்களை ஈடுபடுத்தவே பயன்படுத்தினார்.

இளம்பருவத்தில் ஷிப்லி நூமானியின் இசுலாமிய சமய சீர்திருத்த எழுத்தைத் தீவிரமாக வாசித்தவர். இந்தியாவில் உள்ள இசுலாமியர்களிடையே விழிப்புணர்வை காலிப் ஏற்படுத்த முயன்ற அவரது எழுத்து உமர், அபு ്യത്വ முதலானவர்களை, பக்தியும் படைப்பூக்கமும் புதிய புதிய கலந்து, சூழலுக்கான வழிகளைக் கண்டவர்கள் போற்றியது. கசாலி போன்றே காந்தியும் என்று அல் புறப்பார்வையில் ஆன்மீகவாதிகளாக தோற்றம் தந்தவர்களும் சீரழிவுக்கும் வன்முறைக்கும் பலியாகக் கூடியவர்களாக இருந்ததைக் கண்டு வருந்தினார். இதையே 'பரவலான சமூக அமைப்பில் ஆரோக்கியமான, நியாயமான மறுமலர்ச்சியை உருவாக்க தனிமனிதனின் சமய அல்கசாலியும் அடிப்படைக் தேவையாக இருக்கிறது என்பகை உணர்ந்திருந்தார்கள்' என்று எழுதுகிறார் மக்டோனா.

காந்தியின் பார்வையும் செயல்பாடும் இந்தியாவுக்கும் அப்பால் உலக முக்கியத்துவம் கொண்டவை. நவீன அரசியல் மற்றும் நவீன லிபரல் அரசுகளின் இயங்குதலைப் புரிந்துகொள்ள காந்தியம் உதவுகிறது.

வெவ்வேறு சமயங்களைச் சேர்ந்த மக்களிடையே இதய ஒருமைப்பாட்டை அடிமட்ட அளவில் உருவாக்க முயன்றார். இசுலாம் பொய்யான சமயமல்ல. இந்துக்கள் அதை பக்தியுடன் பயிலட்டும் என்னைப் போலவே அவர்களும் அதை நேசிப்பர்.....

நோன்புக்குப் பின்னும் அனைத்து சமயங்களையும் கற்று உண்ணா தன் இறுதி என்று அளவில் மதிக்க வேண்டும் தொண்டர்களுக்கு அவற்றை சம தன் அவர் வலியுறுத்தினார். தன்னைப் போலவே எல்லாரும், அனைவரிடமும் க<u>ந்</u>ஙுக் கொள்ள வேண்டும் என்றார். சமய வேறுபாடுகளை மறந்து அமைதியாக, நல்லிணக்கத்துடன் வாழ வேண்டும் என்று வலியுறுத்தி நல்லிணக்கத்திற்கு வித்திட்டார்.

நிறைவாக

உலகமயமாக்கப்பட்ட இன்றையச் சூழலில் மக்களிடையே கூட்டுறவும் அறிவு ஒருமைப்பாடும் முக்கியமாக உள்ளன. Clash of Civilisations என்று கூறப்படும் சமய இன மோதல்கள் நிறைந்த இன்றைய உலகில் உலகளாவிய அமைப்புகளும் விழுமியங்களும் வலுவாக்கப்பட வேண்டும். சமயங்கள் மற்றும் பண்பாடுகளிடையே நல்லிணக்கம் உருவாக வேண்டும்.

ஐங்குறுநூற்றில் அறம்

திரு.ரா.கனகராஜ்,

உதவிப் பேராசிரியர்,தமிழ்த் துறை, டாக்டர் சாகிர் உசேன் கல்லூரி, இளையான்குடி

முன்னுரை

ஐங்குறுநூறு எட்டுத்தொகை நூல்களில் ஒன்று. அகம் சார்ந்து பாடப்பட்டவை. ஒவ்வொரு நூற்றையும் பத்துப் பத்துப் பகுதிகளாகப் பகுத்து ஒவ்வொரு பத்துக்கும் தனித்தனித் தலைப்புகள் அமைக்கப்பட்டுள்ளது.

ஏனைத் நூல்கள் தொகை நானூறு நானூறு ஆகவும் அதற்குக் குறைந்த எண்ணுள்ளவையாகவும் காணப்படுகின்றன. ஆனால் இ∴து ஒன்று மட்டுமே கூடுதல் தொகையுள்ள ஐந்நூறு பாட்டுக்களைக் கொண்டு வீறு பெற்றுத் திகழ்கின்றது. இயற்கை, நிலவியல், வாழ்வியல் என்று நோக்கும் போது அறமுறைகள் குறிப்பால் உணர்த்தப்படும் நிலை அளவிடற்கரியது. சங்க இலக்கியங்கள் வாழ்வியல் நூல்கள் என்பது செவ்வியல் தன்மைக்குப் பொருந்துவனவாகும்.

மனத்துக்கண் மாசிலன் ஆதல் அனைத்தறன் ஆகுல நீர பிற

என மனத்தூய்மைக்கு அறம் வகுத்திருக்கிறார் வள்ளுவர்.

"அநத்தின் நோக்கம் யாது? எனில் "பிறர் நலம் பேணல்" என்பது பதிலாகிறது. ஒருவர் தம்மால் இயன்றளவு பிறர் துன்பத்தை நீக்க முயலுதலும் தம் எண்ணம், சொல், செயல் இவற்றால் பிறருக்கு நன்மையே நினைத்து தீமையை முற்றிலுமாக அழித்தலும், பிறர் உயர்வினில் பொறாமை கொள்ளாது இன்பம் காண்பதும் நல்வழிப்படுத்துவதும் என இப்பிறர் நலம் பேணல் விரிவடைந்து கொண்டே செல்கிறது. இப்பண்பு சிறிது சிறிதாகப் பெருகும் போது, தன்னலங் காணலும் சிறிது சிறிதாக நீங்குகிறது. அறவாழ்வின் அடிப்படைபிறர் நலம் பேணலில் தொடங்குகிறது."

மேற்கூறப்பட்ட கருத்தின் அடிப்படையில் சங்க இலக்கியங்களில் ஒன்றான ஐங்குறுநூற்றில் எட்டுத்தொகை நூல்களில் கற்பொழுக்கம் பேணப்பட்டு அறம் வழுவாது கூறப்பட்டிருப்பதை விளக்க முற்படுகிறது இவ்வாய்வு.

அழம் விளக்கம்

"எண்ணம் அறத்தின் நிலையமைதி" ஆற்றலாகும். "அறம் என்பது சமுதாய அமைப்பின் ஒழுக்க நெறியையும் தனிமாந்தனின் ஒழுக்க நெறிகளையும் சுட்டுவன என்று கூறுகின்றனர் ஆய்வாளர்கள்.

அறம் இரண்டு வகைப்படும். முதலாவது வகை காலத்துக்கேற்ப மாறுபடும் இயல்புடையது. இரண்டாவது வகை எக்காலத்தும் யாவர்க்கும் பொதுவான அறங்கள். அவை என்றும் மாறுபடுவதில்லை. இவற்றை அடிப்படையான அறங்கள் என்று கூறலாம் என்பது அ.ச.ஞானசம்பந்தனாரின் கருத்தாக அமைகிறது.

அகவாழ்வில் களவின் வழி வந்த கற்பு போற்றப்பட்டது. களவில் ஒருவரை விழைந்து பின் வேறொருவரை மணத்தல் அறக் கேடாகப் பழிக்கப்பட்டது.

"உயிரினும் சிறந்தன்று நாணே நாணினும் செயிர்தீர் காட்சிக் கற்புச் சிறந்தன்று"

என்று கற்பொழுக்கத்தின் சிறப்பினைத் தொல்காப்பியம் சுட்டுகின்றது. களவு வாழ்வைக் கற்பாக ஆக்குவதும், கற்பறத்தை வலியுறுத்துவதும் அறவொழுக்கமாகும்.

மருதத்திணை அறவொழுக்கம்

"வாழியாதன் வாழி யவினி வேந்து பகை தணிக யாண்டு பல நந்துக என வேட்டோளே யாயே யாமே மலர்ந்த பொய்கை முகைந்த தாமரைத் தண்டுறை யூரன் வரைக எந்தையும் கொடுக்க வெனவேட்டோமே"

களவு கால நிலையில் பல நாளொழுகி வந்து திருமணம் புரிந்து கொண்ட தலைமகன் தோழியோடு சொல்லாடி, யான் வரையாது ஒழுகுகின்ற நாள் நீயிர் இங்கு இழைத்திருந்த திறம் யாது? என்ற வினாவிற்கு தோழி சொல்லியது தொல்காப்பியம் கூறும் அறத்தொடு நிற்றல் துறையாயிற்று.

எய்திய தலைவி உனது பிரிவால் துயரத்தை மரைத்து இருப்பவளாக நன்கு வேண்டுவாள் தலைவனின் தனக்கியல்பான நலங்களையே போல, அநச்செயல் சார்ந்திருந்தது அவளது செயல் என்றனள் தோழி. இக்கூற்று அறத்தொடு நிற்றல் என்ற துறையால் சுட்டப்படுகிறது.





''பண்டைத் தமிழ் மக்கள் தனிமனிதனையும் சமுதாயத்தையும் போர்ரி வளர்க்கும் ஒழுக்க நெறியாக அநத்தைக் கருதினர்.

பிரிந்த களவில் தலைவனைப் தலைவி, வேந்தன் பகைமை தணிந்து அறநோக்குடையவனாக அவனது வாழ்நாள் பல ஆண்டுகள் நீளுக என்று தலைவனுக்காக வேண்டி நிற்கிறாள்.

பிரிவினால் உண்டான துன்பத்தைப் பிறர் அறிந்தால் அலர் தூற்றுவர் என அஞ்சி பிரிவுத்துயரைத் தன்னுள் மறைத்து ஒழுகினாள். அவளும் அறவாழ்க்கைக்கு உகந்தவளாகி நிற்கின்றாள். எனவே தலைவன் விரைந்து திருமணம் (முடிக்க வேண்டும் தெய்வத்திடம் வேண்டி நிற்கிறாள் தோழி. இங்கு தோழி தலைவியின் நலம் பேணுதல் அறமாகக் கருத இடமுண்டு.

''கரணம் எனப்படுவது யாதெனின் கொளற்குரி மரபிற் கொடுப்பக் கொள்வதுவே"

மகட்கொடை <u>த</u>லைவியின் **தந்தையும்** 'மநூது உவந்து நேர்வானாக' என்று உரைத்தல் அருத்தின் வலிமையை உறுதிசெய்கிறது.

"வாழி யாதன் வாழி யவினி அறநனி சிறக்க வல்லது கெடுக வெனவேட் டோளே யாயே யாமே யுளைப்பூ மருதத்துக் கிளைக்குரு கிருக்குள் தண்டுறை யூரன் நன்னூர்க் கொண்டனன் செல்க வெனவேட்டேமே"

தோழியின் கூற்றாக ஐங்குறுநூற்றில் அமைந்த மருதத்திணைப் பாடல் இது.

அன்பு முதலிய நல்லறங்கள் அனைத்தும் திருமணம் முடிந்த காலத்து சிறந்து விளங்கவேண்டும். எனவே தனது பிரிவின் துன்பம் பிறர் அறியாமல் மறைத்துக் களவின் வழித்தோன்றும் அல்லவே கெடுக என்றும் தீவினைகள் கெட்டொழிய வேண்டும் என்றும் வேண்டி அறம் காக்க நின்றனள் தலைவி.

தோழி அநத்தொடு நிற்றல்

''உண்டுறை யணங்கிவ ளுறைநோயாயிற் நண்சேறு கள்வன் வரிக்கு மூரற் கொண்டொடி நெகிழச் சாஅய் மென் தோள் பசப்ப தெவன் கொ லன்னாய்"

வருந்தும் நிலையில் மெலிவின் தலைவனைப<u>்</u> பிரிந்து தலைவிக்கு ஏற்பட்ட காரணத்தை அறிந்த தோழி செவிலியினிடத்துக் கற்பின் காரணம் கூறி அறத்தொடு நிற்கின்றாள்.

தலைவியை இற்செறித்த விடத்து அவள் காப்பு மிகுதியாலும், காதல் மிகுதியாலும் ஆற்றாது மெலிந்து காணப்பட்டதால் இம்மெலிவு எதனால் உண்டானது என்று செவிலி வினவ, தெய்வத்தால் உண்டானது என்று துணிந்து வெரியாடுவதற்கு முயலுங்கால் தோழி தலைவி, தலைவன் மீது கொண்ட கற்புத் திறத்தினை செவிலிக்கு உணர்த்தி நின்றாள். இத்தகு செயல் அறத்தொடு நிலை எனச் சுட்டப்படுகிறது.

"எளித்தல் எத்தல் வேட்கை யுரைத்தல் கூறுதல் உசாத லேதீடு தலைப்பாடு உண்மை செப்புங் கிளவியொடு தொகைஇ அவ்வெழு வகைய வென்மனார் புலவர்" (தொல்பொருள்.13)

அநத்தொடு நிற்றல் நிலை தோழிக்கு ஏழு வகையுடைத்து என தொல்காப்பியம் தலைவனைக் சுட்டுகின்றது. இவ்வெழு ഖகെധിത്വள്, தலைவி காதலித்து காணும் பொருட்டு, உடல் மெலிகின்றனள். இம்மெலிவிறிகுக் காரணம் யாது ฤ๗ ഖിത്വഖിധ செவிலிக்கு உணர்த்தும் நிலையில் தோழி அநத்தொடு நிற்கும் நிலை உணர்த்தப்படுகிறது.

தலைவிக்கு இடப்பட்டுள்ள காவல் மீறி தலைவன் தலைவியை எதிர்ப்பட்டமையை அறிந்த செவிலிக்கு அவனது செயலை அறத்தொடு நிலை நிறுத்தினாள் தோழி. இதனை 'வரைவெதிர் கொள்ளார் தமலர் அவன் மறுப்புழித் தோழி செவிலிக்கு அறத்தொடு நின்றது. உண்மையை உரைத்தல் என்னும் அருத்தை வலியுறுத்தி அமைகிறது.

"மாரி கடிகொளக் காவலர் கடுக வித்திய வெண்முளை கள்வ னறுக்குங் கழனி யூரன் மார்புற மரீஇத் திதலை யல்கு னின் மகள் பசலை கொள்வ தெவன்கொ லன்னாய்"

தலைமகள் அறுமுரைத்தல்

"தானு மலைந்தானெமக்குந் தழையாயின பொன்வீ மணியரும் பினவே யென்ன மரங்கொல்வர் சார லவ்வே"

தலைவிக்கு அவளது சுற்றத்தாரிடம் மணம் பேசி வருகின்ற செய்தியையுணர்ந்து தான் ஒரு தலைவனுக்குக் கற்புக் கடம் பூண்டிருக்கும் மறைச் செய்தியைத் தாய்க்குக் கூறுக என்னும் குறிப்புடையவளாய் இந்த மறையினைச் செவிலியும் குறிப்பான் உணரும் பொருட்டு அவள் கேட்கும் பொருட்டு தோழியை நோக்கிக் கூறியது. இங்கு தலைவி அறத்தொடு நிற்கும் தன்மையை அனைவருக்கும் உரைத்திட வேண்டுமென தோழிக்குச் சொல்லியது.

"நனிநா னுடைய னின்னு மஞ்சு மொலிவெள் ளருவி யோங்குமலை நாடன் மலர்ந்த மார்பின் பாயற் நுஞ்சிய வெய்ய ணோகோ யானே"

செவிலிக்குத் தோழி அநத்தொடு நின்றது தலைவன் மீது கொண்டிருந்த களவு காலத்தை உணராது பிநர் ஒருவருடன் மணம் (முடிக்க செய்யும் ஏந்பாடு அநமந்ந செயலாகி இச்செயல் தனக்கும் தன் குடும்பத்திற்கும் கேடு பயக்குமே என்று அஞ்சிப் பெரிதும் வருந்தியிருந்தனள். தலைவியின் வருத்த மிகுதியை அறிந்த செவிலி தோழியிடத்துக் காரணம் கேட்கிறாள். தலைவியின் கருத்தினையும் தோழி உணர்ந்த செவிலிக்கு உண்மையுரைக்கும் நிலையில் தோழி அறத்தொடு நின்றாள். மேற்கூறப்பட்ட அநக்கொடு நிர்ரல் நிலை யாவர்க்கும் பொதுவான அநமாகும். ஒழுக்கம் பேண உண்மையுரைத்தல் அறமாகக் கூறப்படுகின்றது.

பாலைத் திணைப் பாடல்கள், தலைவனுடன் உடன்போக்கு சென்ற தலைவியின் சிறப்புக்களைக் கூறி அவளது பேதமையை நயந்து உடன்போக்குத் திறம் சிறப்பாகக் கூறப்பட்டுள்ளது. தலைவியைக் கண்ட அந்தணர் முதலானோர் தலைவியின் செயல் அறம் சார்ந்தது. இனி அவள் நுமக்கு சொந்தமில்லை. தலைவனுடன் கற்புக்கடம் பூண்டு சிறப்பாய் வாழும் நிலையை சிறந்த அறம் என்று அந்தணர் தலைவியின் இல்லம் சென்று தாய்க்கு உரைத்தல் நிலையில் அறம் பேணப்படுகிறது.

முடிவுரை

தலைவி தலைவனிடத்து அநத்தொடு நிற்றல், பிறர் நலம் பேணுதல் எனும் அறம் சார்ந்து தலைவியின் நலம் பாராட்டல், தோழி தலைவனுக்கு அநமுரைத்தல், தோழி செவிலிக்கு அறமுரைத்தல், தலைவி தோழி வழிநின்று செவிலிக்கு அறநிலை கூறல், தூற்றாது தலைவியின் உடன்போக்குச் செவிலியிடத்து அந்தணர் மற்றும் பிறர் அலர் செயல் அறமுடைத்தது என்று கூறும் வகையான் அறம் என்பது யாவருக்கும் பொதுவாய் ஒரே தன்மையி<u>லு</u>ம் பல்வேறு நிலைகளிலும் பேணப்பட்டு ഖருதலை அறியமுடிகிறது. மருதம், நெய்தல், குறிஞ்சி, பாலை, முல்லை என்ற முறைமையால் ஐந்து திணை ஐங்குறுநூற்றில் கருத்துக்களை ஒழுக்கங்களுடன் கூடிய பாடல்கள் அநம் சார்ந்த முன்வைக்கின்றன.

சங்க இலக்கியத்தில் விழாக்கள் சுட்டும் பண்பாடு

முனைவர் சே.கார்த்திகா

உதவிப் பேராசிரியர், தமிழ்த்துறை, டாக்டர் சாகிர் உசேன் கல்லூரி, இளையான்குடி

முன்னுரை

மக்களின் துன்பத்தை மறக்கச் செய்து அவர்களை இன்பத்துடன் ஒன்றுபடுத்தி ഖെப்பது விழாக்களாகும். இவ்விழாக்கள் மனித மனங்களுக்குப் புத்துணர்ச்சியைத் தருவனவாகும். அத்துடன் ஒரு சமுதாயம் மலர்ச்சி அடைய அடிப்படைக் காரணமாக விளங்குவன விழாக்களாகும். அதனால் தான் வரலாற்று ஆசிரியர்கள் மக்களிடையே நின்று கொண்டே விழாக்களைக் ஒரு சமுதாயத்தின் பண்பாட்டினை காணமுடியும் என்கின்றனர்.

விமாக்கள்

நம்பிக்கையின் விழாக்கள் மனித சமுதாயத்தில் காரணமாகவே தோன்றியிருக்கின்றன. மனிதனது சிந்தனை கொண்டு மீலியல்பு ஆற்றல்களுக்குக் காரணம் காண இயலாத நிலை ஏற்படும் போது மனம் வேறு சில செயல்பாடுகளை நிகழ்த்துவதன் வாயிலாக அவ்வாற்றல்களின் பாதிப்புக்களிலிருந்து தப்பிக்க நினைக்கின்றது. அந்நிலையில் மந்திரங்களும் நம்பிக்கைகளும் தோன்றிவிடுகின்றன. இவை பண்டையச் சமுதாயங்களிடையே விஞ்சி இருப்பதையே சமூக வரலாறுகள் உணர்த்துகின்றன 1 என்று காந்தி கூறுவர்.

பொதுவாக விழாக்கள் சமுதாயம் சார்ந்தனவாகவும், சமயம் சார்ந்தனவாகவும் இருந்திருப்பதை அறியமுடிகிறது. சங்ககாலத்தில் விழாக்களைச் சமுதாய விழா, சமய விழா என்று இருவகையாகப் பகுக்கலாம். இதில் சமுதாய விழா என்பது மன்னனின் பிறந்த நாள் விழாவாகும்.

பிறந்த நாள் விழா

சங்ககாலத்து மன்னர்களின் பிறந்த நாளை விழாவாக மக்கள் கொண்டாடியுள்ளது மக்களுக்கும், மன்னனுக்கும் இருந்த நெருங்கிய உறவுநிலையை வெளிப்படுத்துகிறது. நன்னனது பிறந்த நாளை மக்கள் கொண்டாடியதை மதுரைக் காஞ்சி,

'மன்னு தோறும் நின்ற குரவை சேரிதோறும் உரையும் பாட்டும் ஆட்டும் விரைஇ வேறுவேறு கம்பலை வெளிகாள்பு மயங்கிப் பேரிசை நன்னன் பெறும் பெயர் நன்னாள் சேரி விழாவின் ஆர்ப் பெழுந்தாங்கு²

என்ற பாடல் வரிகளால் புலப்படுத்துகின்றது. இப்பிறந்த நாள் விழாவை, 'வெள்ளணி விழா' என்று அழைப்பர். வெள்ளணி நாள் குறித்து நச்சினார்கினயர்,

'மங்கல வண்ணமாகிய வெள்ளணியும் அணிந்து அவ்வுயிர்க் கண்ணும் அருளே நிகழ்தலின் அதனை வெள்ளணி என்க^{,3}

என்று பொருள் கூறுகிறார். வெள்ளை நிற ஆடை அணிவது மங்கலம் குறிப்பதாக எண்ணியதால் இவ்வாறு செய்தனர் போலும்.

இந்திர விழா

மருத நிலக் கடவுளான இந்திரனுக்காகச் செய்யப்படும் விழா இந்திர விழாவாகும். சங்ககாலத்தில் இவ்விழாவை மக்கள் கொண்டாடிய செய்தியினை ஐங்குறூற்றுப் பாடல் ஒன்றின் மூலம் அறியமுடிகிறது.

'இந்திர விழவிற் பூவி னன்ன புன்றலைப் பேடை வரிநிழ லகவும்'⁴

இந்த ஒரு பாடல் தவிர வேறு சான்று ஏதும் கிடைக்கவில்லை. இவ்விழாவை மிக விரிவாக மக்கள் கொண்டாடியதைச் சிலப்பதிகாரம் விளக்குகிறது. சங்க காலத்தில் மருத நில மக்கள் இந்திரனை மழைக் கடவுளாக வணங்கி இருக்கலாம். அதற்கான சான்றுகள் அதிகம் கிட்டாமையால் அது பற்றிய முழுமையான செய்தியை அறிய இயலவில்லை.

பூந்தொடை விழா

இவ்விழா மறவர்கள் மத்தியில் உருவானதாகும். இவ்விழா குறித்து உரையாசிரியர், 'மறவர் மக்கள் முதன்முதலாக அம்பு தொடுத்தற் பொருட்டு நிகழ்த்தும் திருவிழா' என்று விளக்கம் தருகிறார். அகநானூறு,

'வார்கடில் பொலிந்த வன்கண் மழவர் பூந்தொடை விழவின் தலைநாள் அன்ன தருமணல் நெமிரிய திருநகர் முற்றம்^{,5}



என்று கூறுவதன் வழி மறவர்களின் கலைப் பயிற்சி ஆரம்ப நிலையில் கொண்டாடப்பட்ட விழாவாகத் தோன்றுகிறது.

கார்த்திகை விழா

கார்த்திகை மாதத்தில் முழுநிலா நாளில் கார்த்திகை சேரும் நடு இரவில் விளக்கேற்றி வைத்து மக்கள் வழிபட்டதை,

'மழைகால் நீங்கிய மாகவிசும்பில் குறுமுயல் மறுநிறங் கிளர மதிநிறைந்து அறுமீன் விளக் குறுத்து மாலை தூக்கிப் பிழவிறல் மூதூர்ப் பலருடன் துவன்றிய விழவுட னயர வருகதில் லம்ம^{,6}

என்ற அகநானூற்றுப் பாடல் சுட்டுகிறது. இவ்விழாவின் சிறப்பு விளக்கேற்றி வழிபடுவதேயாகும். சங்க கால மக்கள் கொண்டாடிய இவ்விழாவினை இன்றும் மக்கள் கொண்டாடி வருவதன் மூலம் இதன் பழஞ்சிறப்பினை உணரமுடிகிறது.

பங்குனி விழா

பங்குனித் திங்கள் உத்தரமும், நிறைமதியுங் கூடிய நன்னாளில் உறையூர் குறுங்காட்டில் உள்ள சோலையில் மக்கள் கூடியிருந்து விழாக் கொண்டாடியதை,

'பங்குனி முலக்கம் கழிந்த வழிநாள்' 7

என்ற அகநானூற்றுப் பாடல் புலப்படுத்தும்.

தை நீராடு விழா

சங்க காலத்தில் திருமணமாகாத மகளிர் தமக்கு ஏற்ற சிறந்த கணவர் கிடைத்தற் பொருட்டு மார்கழி மாதத்தில் நோன்பிருந்து நீராடி வணங்குவர். இதனை,

'தை இத்திங்கள் தண்கயம் படியும் பெருந்தோள் குறுமகள்'⁸

என்ற நற்றிணைப் பாடலும்,

'தையில் நீராடிய தவந்தலைப் படுவாயோ'⁹

என்ற கலித்தொகை பாடலும்,

'ந**றுவீ ஐ**ம்பால் மகளிர் ஆடும் தைஇத் தண்கயம்'¹⁰

என்ற ஐங்குறுநூற்றுப் பாடலும் சுட்டுகின்றன. இத்தை நீராடலும் திருப்பாவை, திருவெம்பாவைப் பாடல்களைப் பாடி வணங்கும் செயலும் சங்க காலத்து மகளிர் செயல்களின் எச்சமாக விளங்குவதை அறியமுடிகிறது.

நீராடல் விழா

நெய்தல் நிலத்து மக்களாகிய பரதவர்கள் புனித நீராடினால் தாங்கள் செய்த பாவங்கள் நீங்கும் என்று நம்பி, சிறை சுறவின் கோடுநட்டு வணங்கிப் பின் காவிரி கடலோடு கலக்குமிடத்தில்,

'தேறுநீர்ப் புணரியோடு யாறுதலை மணக்கும் மலியோதத் தொலிகூடற் தீதுநீங்கக் கடலாடியும் மாசுபோகப் புனல்படிந்து'¹²

நீராடியதைக் கடியலூர் உருத்திரங்கண்ணனார் பட்டினப்பாலையில் விவரிக்கின்றார்.

வையையில் நீராடச் சென்ற மதுரை நகரத்து மக்கள் நீர் வளம் பெருக வேண்டி நத்தை, நண்டு, இறவு, வாளை மீன் என்பனவற்றை நீரிலிட்டு, 'நாடு விளைவதாக! உலகம் பொலிவதாக! என்று வாழ்த்தியதை,

'நத்தொடு நள்ளி நடையாறவு வயவாளை வித்தி யலையில் விளைக பொலிகென்பார்',13

என்று பரிபாடல் சுட்டுகின்றது. இவ்வாறு பாவங்கள் போக்கவும், வளம் வேண்டியும் மக்கள் புனித நீராடும் பழக்கம் இன்றும் மக்களிடையே இருந்து வருவதைக் காணலாம்.

திருவாதிரை விழா

திருவாதிரை நிறைமதி நாளில் ஆகமங்களைப் பயின்ற அந்தணர்கள் சிவபெருமானுக்கு விழாத் தொடங்கி நடத்தியதை,

'ஞாயிறு காயா நளிமாரிப் பிற்குளத்து மாயிருந் திங்கள் மறுநிறை ஆதிரை விரிநூல் அந்தணர் விழவு தொடங்க^{,14} என்ற பாடல் வரி சுட்டுகிறது.

காமன் விழா

சங்க காலத்தில் இவ்விழாவை வேனிற் காலத்தில் நிகழ்த்தினர். ஆடவரும், பெண்டிரும் இன்பப் பொழுதுபோக்கு விழாவாகக் கொண்டாடினர். இக்காமனை மன்மதன், காமவேள், காலத்தில் வேண்வான் என்று அழைத்தனர். இவ்விழாக் பரத்தையருடன் கூடியாடிதை,

'உநலியாம் ஒளிவாட உயர்ந்தவன் விழவினுள் വിന്ദ്രலിയെ ധവ്യോദ്ര വിതെപ്രോദ്ര വാത് ഥത്**ര**ണ^{,15}

என்றும், இளவேனிற் காலத்தில் விழா எடுத்து மகிழ்ந்ததை,

'இருங்குடி லாகப் பெருந்துறை கவின்பெடிக் குழவி வேனில் விழவெதிர் கொள்ளுஞ் சீரார் செவ்வியும் வந்தன்று^{,16}

என்றும் கலித்தொகைப் பாடல்கள் புலப்படுத்துகின்றன. இவ்விழா இற்றை நாளிலும் வேனிற் காலத்து நிகழ்த்தப் பெறுவதைக் காணமுடிகிறது.

சிறு சோற்று விழா

இவ்விழா குறித்துப் புறனாநூறு,

'வாயின் மாடந்தொறு மைவிடை வீழ்ப்ப நீயாங்குக் கொண்ட விழவினும் பலவே ,17

கூறுகிறது. இச்சோற்றை தயிர் முதலானவற்றோடு கலந்து உருண்டைகளாக்கி என்று அவற்றை வருவோர் ஒவ்வொருவருக்கும் கொடுத்து வழங்குவதே இவ்விழாவாகும்.

(முடிவுரை

சங்க இலக்கியங்களைக் கொண்டு இக்கால மக்களின் விழாக்களை அறியமுடிகிறது. காக்கை கரைதல், கனவு நிமித்தம், விரிச்சி, வான் நிமித்தம், புலனாட்டு, இந்திரவிழா, கார்த்திகை விழா, திருவாதிரை விழா முதலான பல விழாக்களும் பழக்க வழக்கங்களும், நம்பிக்கைகளும் பண்டைய மக்களிடத்து இருந்தது கொண்டு அவர்களது <u> ഖ</u>ாழ்க்கை நிலையினை அനിயமுடிகி<u>ரது</u>.

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- 4. ஐங்குறுநூறு, ப.62
- 5. அகநானூறு, 187: 7-9
- 6. மேலது., 141: 6-11
- 7. மேலது., 137
- 8. நற்றிணை, 80: 7-8
- 9. கலித்தொகை, 59:13
- 10. ஐங்குறநூறு, 84: 3-4
- 11. மதுரைக்காஞ்சி, பக்.590-591
- 12. பட்டினப்பாலை, பக்.97-100
- 13. பரிபாடல், 10: 85-86
- 14. மேலது., 11: 76-78
- 15. கலித்தொகை, 30: 13-14
- 16. மேலது., 36: 8-10
- 17. புறநானூறு, 33: 21-22

சங்க தமிழர் வாழ்வியலில் சுட்டும் கொடை மாண்பு

திருமதி.ர.சசிகலா

உதவிப் பேராசிரியர், தமிழ்த்துறை, டாக்டர் சாகிர் உசேன் கல்லூரி, இளையான்குடி

(முன்னுரை

சங்க காலத்தில் அரசர்கள் கொடை வள்ளல்களாக இருந்திருக்கிறார்கள். தம்மைப் ШΠЦ புலவர்களுக்கும், மந்நவருக்கும் பொன்னையும் பொருளையும் வரையாது கொடுத்து மகிழ்ந்தமை சங்க இலக்கியங்களால் உணரமுடிகிறது. ஆற்றுப்படை இலக்கியங்கள் மன்னர்களின் கொடைத்தன்மையைக் கூறுவனவாக இருத்தலைக் காண்கிறோம். கல்வெட்டுக்கள், செப்பேடுகள் மூலமும் மன்னர்களின் கொடைத் தன்மையை அநியமுடிகிறது என்பதை இக்கட்டுரை வழி காணலாம்.

ஈதலின் சிறப்பு

ஈகையில் சிறந்த பெரியோர் ஏனையோர் தம்பால் வந்து வறுமை கூறி இரப்பதற்கு முன்பாக விரைந்து அவர்க்கு உதவுவர்.

'இல்லது நோக்கி, இளிவரவு கூறாமுன் நல்லது வெ.்.கி, வினை செய்வார் ,1

(uffl. 10:87-88)

இங்ஙனம் உதவுவேரா என்றும் தம் பெயர் நிலைக்க வாழ்வோராவர்.

'துன் அருஞ்சிறப்பின் உயர்ந்த செல்வர் இன்மையின் இரப்போர்க்கு ஈயாமையின் தொன்மை மாக்களின் தொடர்பு அறியலரே²

(புறம். 165: 3-5)

என்பதனால் ஈவோர் பால் புகழ் நிலை பெறுதல் பெறப்படும். இரப்பார்க்கு ஒன்று ஈயாமல் கரத்தல் மிக அழிவு தரும் செயலாகும்.

'தொலைவு ஆகி, இரத்தோர்க்கு ஒன்று ஈயாமை இழிவு'³

(கலி.2:11)

'இல் என, இரந்தோர்க்கு ஒன்று ஈயாயை இழிவு'

(கலி. 2:15)

'இடன் இன்றி இரந்தோர்க்கு ஒன்று ஈயாமை இழிவு'⁴

(கலி. 2:19)

எனவரும் கலித்தொகை அடிகளால் உணரலாம். பிறர்க்கு 14 வதில் விருப்பமுடையோர்க்குச் செல்வம் பெருகுதல் இயல்பாகும். 'பிறர்க்கொன்று ஈயாது வீயும் உயிர் தவப் பலவே' (புறம். 235: 19-20) என்ற படி ஈவோர் மிக அரியவராவர். ஈயாது, செல்வத்தை கரந்துவைப்போர், பொருள் பார்க்கும் பயன்படாது அது அழிந்து போகும்.

'செல்வத்துப் பயனே ஈதல் துய்ப்பேம் எனினே தப்புநபலவே^{,5}

(புறம். 189: 4-8)

என்பதால் பொருளை நாமே அத்தனையும் அனுபவிப்போம் என்றில்லாது செல்வம் பெற்றதளால் ஆய பெரும் பயனாம்.

கொடை வள்ளல்

கொடைக்கு அக்குரன் என்பவன் எடுத்துக்காட்டப்படுகிறான்.

'அக்குரன் அனைய கை வண்மையையே' 6

(பதிற். 14:7)

நல்லியக் கோடன் என்பான், அவனுக்கு முன் வாழ்ந்த கொடையிற் சிறந்த எழுவர் மேற்கொண்டிருந்த கொடையாகிய பாரத்தைத் தான் ஒருவனே தாங்கி வாழ்ந்தான் எனப் பாராட்டப்படுகிறான்.

'எழுவர் பூண்ட ஈகைச் செந்துகம் விரிகடல் வேலி வியலகம் விளங்க ஒருதான் தாங்கிய உரனுடைய நோள்தாள்

நல்லியக் கோடன்^{,7}

(சிறுபாண். 113-115; 115:126)

இவனைப் போன்று குமணனும், வள்ளல் எழுவரும் இநந்த பின்பு இரந்து வரும் பிறர் துன்பத்தைத் தாங்கி விளங்கினான் என்பதை, 'எழுவர் பாய்ந்த பின்றை அழிவரப் பாடி வருநரும் பிறரும் கூடி இரந்தோர் அற்றம் தீர்க்கு என விரைந்து இவண் உள்ள வந்தெனன் யானே'⁸

(புறம். 158: 17-20)

என்று பெருஞ்சித்திரனாரும் கூறுவர். முற்பட்டு விளங்கிய கொடை வள்ளல்கள் எழுவராவர். பாரி, ஓரி, மலையன், எழினி, பேகன், ஆய், நள்ளி என்போராவர். இது புறநானூற்றில் காணும் (158) பெயரளவு ஆகும். இப்பெயரளவு வள்ளல்கள் வாழ்ந்த காலம் கருதியா அல்லது அவர்தம் சிறப்புடைமை கருதியா என்பது புலனாகவில்லை.

பெருமித வாழ்வு

இன்பமும் பெருகும். ஈதலோடு ஈதலால் ஒருவனுக்கு புகழும் ஒருவனுடைய நற்குணங்களும் அநநிலை திறம்பா நடுநிலைமையும் போர் வெந்நியும் ஒருவனது வாழ்க்கையில் பெருமிதத்தை உண்டாக்கும். தொல்காப்பியரும் கல்வி, அஞ்சாமையோடு கூடிய வீரம், கொடை, புகழ் என்பனவே பெருமித வாழ்க்கைக்கு அடிநிலை என்பர்.

'கல்வி, தறுகண், புகழ்மை கொடை எனச் சொல்லப்பட்ட பெருமிதம் நாளகே'⁹

(தொல். மெய்.9)

என்பது தொல்காப்பியம்

'இன்பமும் ஈதனும் மூன்றும் பொருள் இல்லார்க்கு இல்லை'¹⁰

(**ந**ற். **214**: 1-2)

என்பதினால் பொருளால் ஒருவன் இன்பத்தையும் புகழையும் பெறுதல் பெறப்படும்.

'பாடுநா், கொளக் குறையாச் செல்வத்து, செற்றோா், கொளக் கொளக் குறையாதளைச் சான்றோா் வன்மையும், செம்மையும் சால்பும், மறனும், புகன்று புகழ்ந்து, அசையா நல் இசை, நிலம் தரு திருவிள், நெடியோய் நின்னே^{,11}

(பதிற். 82: 12-16)

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என இளஞ்சேரலிரும் பொறை புகழ்ந்து பேசப்படுகிறான். இவனுடைய நல்லிசைக்குச் செல்வ மிகுதியும் படைப் பெருக்கமும் கொடைத்திறமும் நடவுநிலையும் சால்புடைமையும் வீரமும் நிலைக்களமாக அமைந்தன என்கிறார் புலவர்.

தலைகொடுத்து குமணன்

குமண வள்ளல் தன் தம்பியால் நாடு கொள்ளப்பட்டு காடே உறைவிடமாய் வாழ்ந்த காலத்தும் தன்னிடம் வந்த பெருந்தலைச் சாத்தனாருக்குத் தன் தலையையே கொய்து கொண்டு சென்று அதற்கு விலையாகத் தன் தம்பி அறிவித்த பொன்னைப் பெறுமாறு, வாளைப் புலவர் கையில் கொடுத்தாராம். இந்நிகழ்ச்சியை,

'கேடுஇல் நல்இசை வயமான் தோன்றலைப் பாடி நின்றளனாக கொன்னே பாடு பெறு பரிசிலன் வாடினேன் பெயர்தல் என வாள் தந்தனனே தலை எனக்கு தன்னின் சிறந்தது பிறுது ஒன்று இன்மையிள்! ஆடுபலி உவகையொடு வருவல் ஓடாப் பூட்கை நின்கழமை யோற்கண்டே'¹²

(புறம். 164: 8-15)

எனவரும் பெருந்தலைச் சாத்தனாரின் வாக்கினால் அறியலாம். இவ்வாறாகத் தமது உயிரையும் இரப்போர்க்காகக் கொடுக்கும் வண்மையாளர்கள் வாழ்ந்தனர். ஈகைப் பேரறம் தமிழகமெங்கும் செழித்து விளங்கியது.

புகழ்பட வாழ்தல்

இல்லோர்க்கு வேண்டுமென்பது முக்கிய குறிக்கோளாகவும் ஈந்து புகழ்பட கொண்டிருந்தனர். ஒருவன் தன் சுற்றத்தார்க்கும் பிறர்க்கும் ஈந்து, புகழுடையவனாக வாழ்தலே அவன் தன் பெயரை என்றும் நிலைக்கச் செய்ய வல்லது.

'வசையும் நிற்கும் இசையும் நிற்கும் அதனால் வசை நீக்கி இசை வேண்டியும் நசை வேண்டாது நன்று பொழிந்தும் நிலவு கேட்பு பல களிற்றொடு பொலம் படைய மா மயங்கிட இழை கிளர் நெடுந்தேர் இரஏலர்க்கு அருகாது கொள் என விடுவை ஆயின், வெள்ளென்,

ஆண்டு நீ பெயர்ந்த பின்னும் ஈண்டு நீடு விளங்கும் நீ எய்திய புகழே 13

(புறம். 359: 10-18)

இரப்போர்க்கு ஈயும் பாங்கு

இரப்போர்க்கு உண்டியும் உடையும் பொன்னும் மணியும் பிற பொருள்களும் அளித்துப் போற்றுவது செல்வம் உடையோரின் சிறந்த கடனாக விளங்கியது. இரப்போரின் கை நிறையப் பொருள்களை அள்ளிச் சொரிந்தனர். மழையைப் போன்று பயன் கருதாது எல்லோர்க்கும் வாரி வாரி வழங்கினர். ஒரு நாள் போல் எந்நாளுமே ஈதலில் குறை காட்டாது பிறர்க்கு வழங்கி மனம் உவந்தனர்.

'மடை வேண்டுநர்க்கு இடை அருகாது, அவிழ் வேண்டுநர்க்கு இடை அருளி^{,14}

(புறம். 366: 17-18)

'இரப்போர் ஏர்து கை நிறைய, புறப்போர் புலம்பு இல் உள்ளமொடு புதுவ தந்து உவக்கும் அரும் பொருள் வேட்டம் ,15

(அகம். 389: 11-13)

மழையினும் மிகுதியாக ஏற்பார்க்கக் கொடுத்தலைப் பின்வரும் பாடந்பகுதிகள் வெளிப்படுத்துகின்றன.

'மைபடு மலர்க்கழி மலர்ந்த நெய்தல் இதழ் வனப்பு உற்ற தோற்றபொடு, உயர்ந்த மழையினும் பெரும்பலம் பொழிதி அதனால் பசியுடை ஒக்கலை ஒரீஇய இசைமேம் தோன்றல்! 16

(பதிற். 6:16-20)

''பரந்து இடம் கொடுக்கும் விசுப்பு நோய் உள்ளமோடு நயந்தனர் சென்ற நும்மினும், தாள் பெரிது, உவந்த, உள்ளமோடு, அமர்ந்து இனிது நோக்கி

மழை சுரந்தன்ன ஈகை நல்கி தலை நாள் விடுக்கம் பரிசில் 17

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(மலைபடு: 558:560, 580-581)



ஒருவன் கொடுக்கும் கொடை இரப்போன் மீண்டும் மற்றொருவர்பால் சென்று இரக்க வேண்டாத வகையில் அவள் வாழ்க்கைக்கு வேண்டிய எல்லாப் பொருள்களும் உதவப்பட்டன.

முடிவுரை

பிறர்க்கு உதவுவதற்கும் நல்ல உள்ளம் அமைதல் வேண்டும். தன்னிடம் வந்தவர்க்கு இல்லையென்று இல்லையென்று மறுக்காது கொடுப்பது சிறந்த பண்புடைமையாகும். இத்தகைய உள்ளத்தை வானம் போல் பரந்த உள்ளம் என்று ஒருவர் குறிப்பிடுகிறார். இவ்வளவு குறைவாக இருந்த போதிலும் கரவாது இருப்பதைக் கொடுப்பது ஈவோர்க்குரிய சிறந்த பண்பாகும். பிறர்க்கு ஈந்து புகழ்பட வாழ்தலைப் பெரியோர்கள் நமக்கு வலியுறுத்துகின்றர் என்பதை சங்க இலக்கிய நூலின் வழி அறிய முடிகிறது.

துணைநூற்பட்டியல்

- 1. பரிபாடல், 10: 87-88
- 2. цвътоли, 16: 3-5
- கலித்தொகை, 2:11
- 4. மேலது., 2:15
- 5. புறநானூறு, 189: 7-8
- 6. பதிற்றுப்பத்து, 14:7
- 7. சிறுபாண்நாற்றுபடை, 113: 115-126
- 8. புறநானூறு, 158: 17-20
- 9. தொல்.மெய், 9
- 10. நற்றிணை, 214: 1-2
- 11. பதிற்றுப்பத்து, 82: 12-16
- 12. புறநானூறு, 164: 8-15
- 13. மேலது., 359: 10-18
- 14. மேலது., 366: 17-18
- 15. அகநானூறு, 389: 11-13
- 16. பதிற்றுப்பத்து, 6: 16-20
- 17. மலைபடுகடாம், 558-560, 580-581

பாடாண்திணையில் பண்பாடு

முனைவர் ஷி∴பா

உதவிப்பேராசிரியா,தமிழ்த்துறை, டாக்டா சாகிா உசேன் கல்லூரி,இளையான்குடி-630702 சிவகங்கை மாவட்டம், கைபேசி எண்:9750493909

முன்னுரை

வள்ளல்,மன்னர்,கடவுள் போன்றோரைப் பற்றிப் புகழ்ந்து பாடும் பாடல்களே பாடாண் ஆகும். பாடு + ஆண் எனப் பிரித்து பெருமையை ஆளும் தன்மை என்றும் பொருள் ஒருகலாறு என்று **நச்சினார்க்கினியர்** பொருள் கொள்ளலாம்.ஆண் என்பதற்கு ஆடவனது பெருமை சோமசுந்தரபாரதியார் பொருள் கூறுவர்.பாடு கூறுவர்.பாடு என்பதந்கு ฤ๗ முறைமை,செவ்வி,பெருமை,ஒலி,ஒழுக்கம் முப்பத்திரண்டு என்பதற்கு ฤ๗ பொருள் உண்டு.ஆண் என்பதற்கு ஆளுமை என்றும் பொருள் கொள்ளலாம்.இக்கருத்தினையொட்டி வெள்ளைவாரணர் கூறும்போது,"புலவர் பாடும் புகழினை விரும்பி தலைவர் தம்முடைய அறிவு,திரு,ஆற்றல்,ஈகை பெருமிதப் தன்மையாகிய முதலிய பண்புகளை ஆளுதல் சொல்லாகும்" ஒழுகலாந்நைக் குறித்து வழங்குவதே பாடாண் என்னும் என்கிறார்.இப்படிப்பட்ட பாடாண்திணையில் பண்பாட்டை எடுத்துரைக்கும் பொருண்மையில் இக்கட்டுரை அமைகிறது.

பாடாண்திணை - தொல்காப்பியர் கரும் விளக்கம்

பாடாண்திணையைப் பற்றித் தொல்காப்பியர் கூறும்போது,

பாடாண் பகுதி கைக்கிளைப் புறனே

நாடுங் காலை நல்லிரண் டுடைத்தே. (தொல்:பொருள் - 1026)

என்கிறார்.பாடாண்திணை எனும் புநத்திணை கைக்கிளை என்னும் அகத்திணைக்குப் புறனாகும். மேலும் இத்திணையைத் தொல்காப்பியர் இரண்டாகப் பகுப்பார்.அவை,ஒன்று

அமரர்கண் முடியும் அறுவகையானும்

புரைதீர் காமம் புல்லிய வகையினும்

ஒன்றன் பகுதி ஒன்றும் என்ப. (தொல்: பொருள் - 1027)



கடவுளிடத்து முடியும் கொடிநிலை அல்லது தேவர்களிடத்து முடியும் கொடிநிலை, கந்தழி, ഖள்ளி, புலவராற்றுப்படை,புகழ்தல்,பரவல் என்பவற்றினும்,குற்றந்தீர்ந்த காமத்தைப் பொருந்திய ഖகെயில் அவையிற்றின் கூற்றின் புகழ்ச்சியில் பாகுபாடு கடவுள் வருதலேயன்றிப் பாட்டுடைத் தலைவனைச் சார்த்திப் பாடாண் திணையாவதந்கும் பொருந்தும்.இரண்டாவதாகக் கூறுவது,

வழக்கியல் மருங்கின் வகைபட நிலைஇய பரவலும் புகழ்ச்சியும் கருதிய பாங்கினும் முன்னோர் கூறிய குறிப்பினும் செந்துறை வண்ணப் பகுதி வரைவின் நாங்கே.(தொல்:பொருள் - 28)

ஒரு தலைவன் தன்னைப் பிறர் வாழ்த்தலும்,புகழ்ந்துரைத்தலும் கருதிய பக்கத்திடத்தும் அநம்,பொருள்,இன்பங்களின் தோன்ற முன்னோர்கள் கூறிய குறிப்புப் பொருள் கூறுபாடு செம்மையாகக் கூறும் துரை நிலை பெ<u>ர்று</u> வழங்குதல் இயலுமிடத்து,விகார வகையின் அமரராக்கிச் செய்யும் கொடிநிலை முதலிய அறுவகை வாழ்த்தினைப் போல் அல்லாது உலகினுள் இயற்கை வகையான் இயன்ற மக்களைப் பாடுதலும் வரையறுத்து நீக்கப்படாதனவாகும் எனத் தொல்காப்பியர் கூறுவர்.

பழந்தமிழரின் பண்பாடு

பழந்தமிழர்கள் கொண்டுள்ள வாழ்க்கை நிலையும்,பழக்க வழக்கங்களும்,நாகரிகமும்,பண்பாடும் போர்ச் செய்திகளும்,அரசியல் வாழ்க்கையும்,ஆடவர் ஆந்நலும்,பெண்டிர் பெருமையும் சங்கப்பாடல்கள் வாயிலாக அறியலாம்.

பாடாண்திணைப் பாடல்களில் பழந்தமிழரின் பண்பாட்டை நோக்குங்கால் ஆண்மகனின் ஒழுகலாற்றைக் காணலாம்.ஆண்மகன் வீரம் செறிந்தவனாகத் திகழ்வதைப் பாடாண்திணைப் பாடலின் வாயிலாக அறியலாம்.

பாண்டியன சித்திரமாடத்துத் துஞ்சிய நன்மாறனின் வீரத்தின் தன்மையை,கூலவாணிகன் சீத்தலைச்சாத்தனார் தனது பாடாண்திணைப் பாடலின் வாயிலாக உணர்த்தும் போது,

> காய்சினம் தவிராது கடல் ஊர்பு எழுதரும் ஞாயிறு அனையை நின் பகைவர்க்கு.(புறநானூறு: 59:5-6)



என்கிறார்.இதில் கதிரவனின் ஆந்நலையும் தன்மையையும் மன்னனுக்கு சான்று பகிர்கின்றார்.சங்க காலத்தில் உயர்ந்தோர் தாழ்ந்தோர் என்ற வேறுபாடு இன்றி நல்லோரைப் சான்றோர்க்குப் பொருள் புகழ்தலும்,இழிந்தோரை இகழ்தலும் வழங்குதலும்,பெரியோரை அஞ்சி மதித்தலும் உயர்ந்த பண்பாடாகத் திகழ்ந்தன.அதியமான் நெடுமான் பெரும் வேந்தனாக இருப்பினும் தன்னைப் புகழும் புலவரைச் சிறப்பித்து வேண்டிய பொருளைக் கொடுத்து அன்போடு வழியனுப்பும் தன்மையை நோக்கும் போது அதியனின் உயர் பண்பை உணரலாம். ஓளவையார் வேந்தனை செந்நாப் புலவர் எனப்புகழும் தன்மையினைக் காணும்போது அரசன் பொய் கூறாதவன் என்பதை அறியலாம். இது போன்று,செந்நாப் புலவர் என்றும் குறிப்பிடுவதை அறியலாம்.அக்கால அரசர்கள் நீதி வழுவாது,புறங்கூறாது வாழ்ந்தனர் என்பதைப் பாடாண்திணைப் பாடலின் வாயிலாக உணரலாம்.அக்காலப் புலவர் பெருமக்களிடையே சிறப்பாக திகழ்ந்த குணப்பண்புகளுள் நோக்கத்தக்கது அழுக்காறின்மையாகும். இதனை வள்ளுவர்,

ஒழுக்காறாக் கொள்கை ஒருவன்தன் நெஞ்சத்து

அழுக்காறு இல்லாத இயல்பு. (குறள் - 161) என்பர்.

சமுதாயச் சிந்தனைகள்

வாழும் வசதி படைத்தவர்களாக நாட்டில் மக்கள் அனைவரும் இருத்தல் கொள்ளும் வேண்டும்.எல்லாத் தேவைகளையும் எளிதில் நிறைவு செய்து ஆற்றல் பெற்றவர்களாக இருத்தல் வேண்டும்.இந்நிலையில் மக்கள் வாழும் நாட்டை முன்னேறிய நாடு என்பர்.சங்ககாலத்தில் இத்தகையதொரு மேம்பட்ட வாழ்வை மக்கள் பெற்றிருந்தார்கள் தமிழகத்தின் பொற்காலமென்று இலக்கிய ஆகையால் தான்,சங்க காலத்தைத் வரலாற்றாசிரியர்கள் இயல்புகின்றனர்.தமிழ் மொழியும்,தமிழர் வாழ்வும் அக்காலத்தில் மேலோங்கி இருந்தமையைச் சங்க நூற்கள் கொண்டு அறியலாம்.

செல்வம் பெற்றவர்கள் அச்செல்வத்தைப் பிறர்க்குப் பகிர்ந்தளித்தலை 'அறம்' எனக் கருதினர்.இதனை,

செல்வத்துப் பயனே ஈதல்

துய்ப்பே மெனினே தப்புந பலவே.(புறம்:189:7-8)

என்ற புறநானூற்றுப் பாடல் வாயிலாக அறியமுடிகிறது.

வள்ளலிடம் சென்று வளம் பல பெற்றவன் பெறாதவனுக்கு அத்தகு வளம் பெறும் வழி துறைகள் கூறிய பண்பாட்டிலக்கியங்களாக ஆற்றுப்படை இலக்கியங்கள்



திகழ்கின்றன.சான்றாக ഉണ്ടെയ്യാ அதியமானிடத்து பரிசு பெற்றுவரும் ഖழിயിல் விறலியைப் பார்க்கிறார்.அவளின் ஏழ்மையைக் கண்டு,அதியமானின் சிறப்பை அவளிடத்துக் கூறி,அவன் பரிசில் தருவான்.அதனைப் பெற்று வாழ்வாயாக என்கிறார் ஔவையார்.

பெண்ணின் பெருமை

இருபத்தொன்றாம் நூற்றாண்டில் பெண்கள் முன்னேற்றம் பற்றித் தனிப்படப் பேச வேண்டிய நிலையுள்ளது.ஏதோ காலத்தில் பெண்கள் அடிமையாக்கப்பட்டார்கள். **ஒ**(Ҧ ஆடவர்களின் போகப் பொருளாக்கப்பட்டார்கள்.அந்த அடிச்சுவடு இன்றும் இருப்பதால் தான் பெண்ணடிமை தீர,பலர் இன்று பேசியும் எழுதியும் வருகின்றனர்.தொல்காப்பியர் கம் காலத்திலேயே,

> செறிவும் நிறைவும் செம்மையும் செப்பும் அறிவும் அருமையும் பெண்பாலான.(தொல்:பொருள் - 1155)

என்று பெண்மையை உயர்த்திக் காட்டுகிறார்.மேலும்,

அநம்புரி மக்களொடு கிழவனும் கிழத்தியும்

சிறந்தது பயிற்றல் இறந்ததன் பயனே.(தொல்:பொருள்:கற்பியல்-கு.51)

தொல்காப்பியர் குறிப்பிடுவதால் வீடுபேறு பெண்ணின் என்று அடைவதற்குப் பங்கு சமபங்காகின்றது.தனக்கு நரை உண்டாகாமைக்குக் காரணம் கூறும் பிசிராந்தையார் தம் மனைவியும் மக்களும் அநிவு நிரம்பி இருந்தமையையும் ஒரு காரணமாகக் கூறுவதை,

மாண்ட என் மனைவியொடு மக்களும் நிரம்பினா.(புறம் - 191 -

என்பதன் மூலம் அநியலாம்.இத்தகைய பெண்களுக்கு இடைக்காலத்தில் அடுப்பூதும் பெண்களுக்கு படிப்பெதற்கு என்று கல்வி மறுக்கப்பட்டிருக்கின்றது.இப்படிப்பட்ட நிலைமாறி இன்று பெண்களின் நிலை உயர்த்தப்பட்டிருப்பதே பண்பாட்டின் வளர்ச்சியைக் காட்டுகிறது.

பாடாண்திணைத் துறையில் பண்பு

பாடாண்திணையில் இயன்மொழி,வாழ்த்தியல்,வாண்மங்கலம்,பரிசில் கடாநிலை, ഖിന്ദരിധന്ത്വ്വാലം, பரிசிற்றுறை,கடைநிலை,பரிசில் ഖിഥെ எனத்துறைகள் பல அமைந்துள்ளன.

இயன்மொழி

தனக்கு ஒன்றைக் கொடுத்தோரைப் புகழ்தலும்,கொடுக்காதவரைப் பழித்தலும்,வெற்றியினாலும்,குணச்சிறப்பினாலும் உயர்ந்து நிற்போரைப் புகழ்ந்து கூறுவது இயல்மொழி வாழ்த்தாகும்.இதனைத் தொல்காப்பியர் குறிப்பிடும்போது,

கொடுப்போர் ஏத்திக் கொடாஅர்ப் பழித்தலும்

அடுத்தூர்ந்த தேத்திய இயன்மொழி வாழ்த்தும்.(தொல்:பொருள்:1036-1-2)

என்கிறார்.இதனையே,

இன்னோ ரின்னவை கொடுத்தோர் நீயும்

அன்னோர் போல வமையெமக் கீகென

என்னோடு மறிய வெடுத்துரைத் தன்று.(கொளு-194)

என்று புறப்பொருள் வெண்பாமாலைக் குறிப்பிடுகின்றது.

இப்பாடல் வழி,இத்தன்மையோர் இத்தன்மை வழங்கினார்,நீயும் அத்தன்மையோர் போல் அப்படியான பொருள்களை.எமக்குத் தருவாயாக என்று சொல்லி,எத்தன்மையோரும் உணர உயர்த்திச் சொல்லிய பாங்கு புலனாகிறது.

கடைநிலை

கடைநிலை என்பது தூரத்திலிருந்து வருகின்ற வருத்தம் தீரும்பொருட்டு வாயிலைக் காத்து நிற்போருக்கு உரைத்த வாயில் நிலையேயாகும்.இதனைத் தொல்காப்பியர்,

சேய்வரல் வருத்தம் வீடவாயில்

காவலாக் குரைக்க கடைநிலையானும்.(தொல்:புறத்திணையியல் 35)

என்கிறார்.இதனைப் புறப்பொருள்வெண்பாமாலை,

புரவல னெடுங்கடை குறுகிய வென்னிலை

கரவின் றுரையெனக் காவலாக் குரைத்தன்று. (கொளு:190)

குறிப்பிடுகின்றது.இதன் வாயிலைக்கிட்டிய என்று மூலம் அரசனுடைய நெடிய तळां ഖ്യഖിത്ത மறைவின்றிச் வாயில் காவலனுக்குச் சொல்லியது சொல் नजा என்பது தெளிவாகிறது.

வாண்மங்கலம்

கயக்கருங் கடற்றானை

வயக்களிற்றான் வாள் புகழ்ந்தன்று.(கொளு:223)

பகைவரால் கலக்குதற்கு அரிய கடல்போலும் சேனையினையும்;வலிய யானையினையும் உடையான் வாளைப் புகழ்ந்து கூறும் வகையில் இத்துறை அமைந்துள்ளது.இதனைத் தொல்காப்பியர்,

மாணார்ச் சுட்டிய வாள்மங்கலம்.(தொல்:பொருள்:1037)

என்று குறிப்பிடுகிறார்.

பரிசில் விடை

அரசன் தனது உள்ளம் மகிழும்படி தன் வெற்றியால் உண்டான புகழைக்கூறிய பரிசிலர்க்கு பரிசில் பொருளை வழங்கி அவர் இன்புறும்படி விடை கொடுத்தல் பரிசில் விடையாகும்.இதனைப் புறப்பொருள்வெண்பாமாலை,

வேந்தன் உள் மகிழ வெல்புகழ் அறைந்தோர்க்கு

ஈந்து பரிசில் இன்புற விடுத்தன்று.

என்று குறிப்பிடுகின்றது.தொல்காப்பியரோ,

பரிசில் கடை இய கடை கூட்டு நிலை.(தொல்:பொருள்:1037)

என்று குறிப்பிடுகின்றார்.இதன் மூலம் பரிசில் பெற்றோர் தாம் பெற்ற பெரும் பொருள் குறித்து மிகுத்துச் சொல்லித் தாம் போகல் வேண்டும் என்பது பரிசிலர் விடைபெறுதல் துறையாகும்.

வாழ்த்தியல்

கூத்தா்,பாணா்,பொருநா்,விறலியா் போன்றவா்கள் அரசனைப் புகழ்ந்து பாடும் நிலையினைக் குறிப்பிடுதல் வாழ்த்தியல் துறை ஆகும்.

விறலியாற்றுப்படை

திறல் வேந்தன் புகழ்பாடும்

விறலியை யாற்றுப்படுத் தன்று.(கொளு:219)

ഖலിഥെ கீர்த்தியைச் மிகுந்த மன்னனின் வெற்றி சொல்லும் பாணிச்சியை வழிப்படுத்துவது,விறலியாற்றுப்படை என்று புறப்பொருள்வெண்பாமாலை குறிப்பிடுகிறது.மேலும்

> சில்வளைக்கைச் செவ்வாய் விறலி செருப்படையான் பல்புகழ் பாடிப் படர்தியேல் - நல்லவையோர் ஏத்த விழையணிந் தின்னே வருதியாற் பூத்த கொடிபோற் பொலிந்து.

உடைய பாணிச்சி சில ഖബൈധல்களால் சிறந்த கையினையும்,சிவந்த வாயினையும் பூசலிற் சேனையினை சிறந்த உடையான் தன் பல கீர்த்தியையும்;வாழ்த்திப் போவாயாயின்,நல்ல அவையிடத்து உள்ளோர் புகழ ஆபரணத்தைப் பூண்டு இப்பொழுதே மீள்பாவையால் ഖல்லியை ஒப்பப் பொலிவ மலர்ந்த பெற்றது எனப் புறப்பொருள்வெண்பாமாலை வருணிக்கின்றது.இதனைத் தொல்காப்பியர் குறிப்பிடும்போது,

-- விறலியும்

ஆற்றிடைக் காட்சி உறழத் தோன்றிப்

பெற்ற பெருவளம் பெறாஅர்க்கு அறிவுறீஇச்

சென்று பயன் எதிரச் சொன்ன பக்கமும்.(தொல்:பொருள்:1037)

விறலியர் போன்று பலர்,தாங்கள் வருகின்ற வழியிலே கண்ட தங்களை ஒத்தோரிடம் தாம் பெற்ற பெருஞ்செல்வம் போல அவருக்கும் கிடைத்தற் பொருட்டு இன்ன வழியே சென்று இன்னானை அடைவீர்களாயின் எம்போன்று பெருஞ்செல்வம் பெறுவீர் என்று ஆற்றுப்படுத்துவது என்று கூறுவார்.

பரிசிற்றுறை

மண்ணகங் காவன் மன்னன் முன்னர்

எண்ணிய பரிசி லிதுவென அரைத்தன்று.(கொளு:193)

பூமியிடத்தைக் காக்கும் தொழிலையுடைய அரசன் முன்னே கருதியபோது இதுவெனப் புறப்பொருள்வெண்பாமாலை விளக்கம் தருகிறது.மேலும் இத்துறையை வருணிக்கின்ற போது,

வரிசை கருதாது வான்போற் நடக்கைக் குரிசினீ நல்கயாங் கொள்ளும் - பரிசில் அடுகள மார்ப்ப வமரோட்டித் தந்த படுகறி நால்வாய்ப் பகடு.

இப்பாடல் மூலம்,யானையைப் பரிசாகப் பெரும் தன்மையை அறிய முடிகிறது.

நிறைவுரை

இதுகாறும் கூறியவற்றின் மூலம் பாடாண்திணைப் பாடல்களின் வாயிலாகவும்,அதன் துறைச் சார்ந்தப் பாடல்களின் வாயிலாகவும் பண்டைய மக்களின் வாழ்வியல் பண்பாட்டையும், அரசனது வாழ்வியல் சிந்தனைகளையும் இவ்வாய்வின் மூலம் அறிய முடிகிறது.

பார்வை நூல்கள்

- 1. அழகப்பன்.ஆறு.,ஐயனாரிதனார் இயற்றிய புறப்பொருள் வெண்பாமாலை.
- 2. இராமலிங்கம்.என்.இ.,புறநானூறும் வாழ்வியலும்
- 3. இளம்பூரணார்.,தொல்காப்பியம் (பொருள்)
- 4. சுப்பிரமணியன் ச.வே.,தொல்காப்பியம் தெளிவுரை.
- 5. ஜெயராமன் நா.,சங்க இலக்கியத்தில் பாடாண்திணை
- 6. பாலசுப்பிரமணியன் கு.வெ.,சங்க இலக்கியத்தில் புறப்பொருள்
- 7. வரதராசனார் மு.,திருக்குறள் தெளிவுரை.

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