



**DEVI AHILYA VISHWAVIDYALAYA  
INDORE (M.P.)**

**(NAAC ACCREDITED WITH 'A+')**



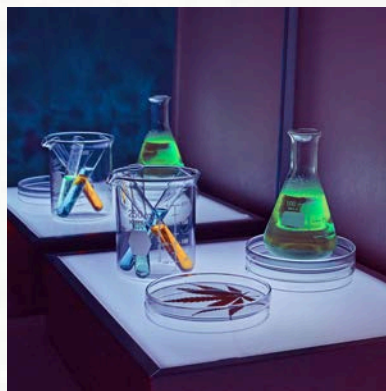
**DEEN DAYAL UPADHYAY KAUSHAL KENDRA  
(DDU-KK)**

**IN ASSOCIATION WITH**

**VIGYAN PARISHAD PRAYAG  
MADHYA PRADESH CHAPTER, INDORE**

**PRESENTS PROCEEDINGS OF**

**NATIONAL  
CONFERENCE ON  
SCIENCE,  
SKILL  
DEVELOPMENT  
& SOCIETAL  
GROWTH**



**29<sup>TH</sup>  
MARCH  
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# **Track 1**

# **Scientific Applications**



## **DEEP LEARNING-BASED BURGLAR SYSTEM TO INCREASE FOREST SAFETY**

Aaquib Multani

In today's time, the biggest problem is to prevent forest trees from thieves. The thieves generally cut the trees and take the wood for their personal use and even they sell the precious woods in the market for their own benefits. We saw a lot of cases in today's time like wooden smuggling and precious woods like sandalwood and red sander timbers smuggling. The main reason is to prevent this smuggling and to protect the illegal money and give the right benefits to the right person. So, we make a small microphone type device that we place in a forest and the device that connected with our mobile phone and we trained the device with the sound of Sawmill means (tree wood cutting machine) with deep learning algorithms. When someone cut the tree so the device activates and gives us the notification and alert that someone is cutting the trees. So we can go and find out who is cutting the trees. After the successful Burglar System for Sawmill, we make this system for farms to protect the crops from unwanted animals and we trained that with the animal sound also so they give us the information that animals are destroying our crops.

## **COMPARATIVE STUDY OF FACE RECOGNITION ALGORITHMS AND THEIR ROLE IN ACCUSED IDENTIFICATION**

Divya Kumawat<sup>\*</sup>

Dr. Deepak Abhayankar<sup>\*\*</sup>

Crimes are rising in our society not only in volume but also in complexity. The use of scientific investigation methods to solve a crime can save time and energy. The automated accused identification can be done through biometrics such as fingerprint, iris and retina recognition, and voice recognition. However, all the above-given techniques have some drawbacks: fingerprints can be fabricated, iris and retina recognition require special hardware with a constraint on the distance between hardware and eyes of the person that needs to be recognized and voice recognition fails if the person has a sore throat. Hence, a non-contact face recognition process is the best option for accused identification. It can make the accused identification task easy for law enforcement authorities. A volume of data is available to us in the form of images and videos obtained from CCTV cameras, the task of identifying a person at public places is tiresome. An automated face identification system can make this task easy. This paper presents different face recognition algorithms used in criminal identification and carries out comparisons between them.

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<sup>\*</sup>Assistant Professor, Medicaps University, Indore

<sup>\*\*</sup>Assistant Professor, SCSIT, DAVV, Indore

## **DESIGN AND DEVELOPMENT OF LONG SHORT TERM MEMORY BASED MODEL FOR EFFICIENT EFFICIENT RAINFALL FORECASTING SYSTEM USING MPSO**

Bhushankumar P. Nemade

Rainfall is considered the primary source of a large portion of the economy in the agriculture sector. Rainfall estimation is required for areas having unpredictable rainfall to establish a suitable rainwater collector and plan to tackle associated problems. Nowadays, the forecast of heavy rains is a significant problem for the meteorological department as it is closely associated with the economy and human existence and causes natural disasters such as floods and droughts that occur every year around the world. Statistical techniques fail to provide good accuracy for forecasting rainfall due to the dynamic nature of the environment. Existing methods for forecasting rainfall perform poorly for complex and non-linear datasets. The proposed system performs the performance evaluation of the proposed LSTM with M-PSO with existing methods for rainfall forecasting. The experimental results of the proposed LSTM with M-PSO method provides better mean squared error (MSE), Root Mean Square Error (RMSE) in monthly rainfall forecasting in the range of 0.099 to 0.139 whereas the existing methods MSE and RMSE score is found to be in the range of 0.35 to 2.55. Thus, the proposed system is suitable for global climate forecasts which need high-volume data processing.

## **A REVIEW ON DETECTION OF SOCIAL MEDIA RUMOUR, FAKE NEWS, AND MISLEADING POST**

Vedpriya Dongre

Dr. Pragya Shukla

Social Media attracts almost each age group. It has the potential audience for promoting malicious content on these platforms such as misleading information, fake news, and hate news. The main aim of this paper is to investigate different techniques and methods which can be employed for detecting fake news in social media. In order to keep track, a rich survey on existing progressive techniques is carried out. Based on current research works, different machine learning techniques and methodologies are located to solve this problem. Additionally, based on this survey, the work is concluded and for future extension, a model is proposed for design and evaluation.

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Institute of Engineering & Technology, Devi Ahilya Vishwavidyalaya, Indore.

**MACHINE LEARNING, CODING AND NETWORKING ARE VARIOUS SKILL DEVELOPMENT TECHNIQUES IN THE FIELD OF INFORMATION TECHNOLOGY**

Ms. Arpita Shukla\*

Dr. Jitendra Sheetlani\*\*

India is edging towards becoming a global economic power. It is true that the giant factories and large-scale businesses employing highly qualified engineers and executives have a great role to play in the country's progress towards a developed nation. But at the same time, it is also true that the country cannot ignore its middle-level workforce contributing greatly to its development. The institutions conducting degree programmes in general subjects have failed to guarantee job opportunities for their graduates. Skill development is an area that was largely neglected in the country after independence. Skill development can greatly contribute to financial security and community development. Therefore it is important that the country equip its workforce with employable skills. Skill development training will enhance the quality of labour to a great extent which will finally contribute to economic power and social progress. The present paper looks at the opportunities for skill development techniques like machine learning, networking, etc in the field of Information Technology. A lot of skilled jobs are available in the job market in the field of IT. Apart from highly skilled engineering jobs, there are a large number of skilled jobs available at the middle level in the field of IT which demands training courses Like CCNA for networking. A lot of sophisticated machines are used in the manufacturing sectors, health sectors, etc. The more electronically operated machines are used in these fields, the more job opportunities are created for the operatorating of these machines. The Government of India has initiated various plans and schemes for skill development in the field of IT. It has approved two schemes for Skill Development in Electronics System Design and Manufacturing sector to facilitate the creation of an eco-system for the development of the ESDM sector in the entire country by training more than four lakh beneficiaries with a total financial outlay of around 525 Crore.

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\* Research Scholar, Sri Satya Sai University of Technology and Medical Sciences, Sehore.

\*\* Associate Professor, Sri Satya Sai University of Technology and Medical Sciences, Sehore.

**HYDROMAGNESITE SHEETS CROWNED WITH COBALT-FERRITE MAGNETIC  
NANOPARTICLES ABETTED SUSTAINABLE SYNTHESIS OF  
PHARMACOLOGICALLY SIGNIFICANT BENZO[D]IMIDAZO[2,1-B] THIAZOLE  
SCAFFOLDS**

Deepika Geedkar

Ashok Kumar

Pratibha Sharma

The present work elicits an account of the one-pot robust multicomponent reaction (MCR) strategy catalyzed by novel hydromagnesite sheets embracing cobalt-ferrite (CoFe<sub>2</sub>O<sub>4</sub>-HMS) magnetic nanoparticles (MNPs) as environmentally benign nanocomposite to synthesize benzo[d]imidazo[2,1-b] thiazole derivatives. The high product yield (up to 94%) in minuscule reaction time, modest catalyst loading, estimable recyclability of catalyst and solvent without substantial loss of activity (up to five synthetic cycles), as inveterate by parameters of green chemistry, are the virtues of this protocol. The characterization of synthesized nanocomposite was accomplished through several spectroanalytical devices *viz.* powder X-ray diffraction (PXRD), field emission scanning electron microscopy (FE-SEM) with energy-dispersive X-ray spectroscopy (EDAX), high-resolution transmission electron microscopy (HR-TEM), Raman, FT-IR, TGA-DTA-DTG analyses, magnetic studies, and nitrogen porosimetry analyses. The structures of the synthesized compounds were also endorsed by extensive spectroscopic studies (FT-IR, <sup>1</sup>H, and <sup>13</sup>C NMR, Mass) and elemental analyses. The reaction protocol is also scalable to the multi-gram scale, which is valuable to extend the methodology for the industrial process. The methodology affords several advantages to attain sustainable chemistry and opens up a new scope to further prospect the catalytic potential of (CoFe<sub>2</sub>O<sub>4</sub>-HMS) for the synthesis of biologically significant scaffolds.

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School of Chemical Sciences, Devi Ahilya Vishwavidyalaya, Indore.

**Feel Ai**  
Nitesh Verma

‘Feel Ai’ is a project where we provide different features based on Ai in a single website. Features like Face-Recognitions Speech to Text, Text to speech, etc. at one place for the user to use. Besides this users can play games that are available. All these features in the same place save lots of time for the user. Face Detection- This will recognize the face of the user using the webcam. Count Number of Faces- This will count the number of faces that will be present in front of the webcam. Face Mask Recognition- This will recognize whether the user has put on a mask or not.

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Student, Medi-caps University, Indore.

## **AUTOMATION SYSTEM FOR AGRICULTURE USING DRONE**

Divyaraj Singh Shaktawat

Dr. Preeti Saxena

Farmers are spreading harmful fertilizers manually in agriculture which is very harmful to health. The manual system is also very time-consuming. Thus, there is a need for an automation system for spreading fertilizers. The system has been developed using drones that can help farmers to optimize the use of inputs (seed, fertilizers, water), to react more quickly to threats (weeds, pests, fungi), to save time crop scouting (validate treatment/actions taken), and to improve variable-rate prescriptions in real-time and estimate yield from a field. Agricultural drones fitted along with multispectral sensors, RGB sensors, and agriculture drone spraying tank 16L. They can detect field areas inflicted by weeds, infections, and pests. The implementation of the system requires deploying a Drone and connecting a small Camera to it. We have also used multispectral sensors and RGB sensors and agriculture drone spraying tank 16L. The data collected from drones help farmers to gain the information of exact amounts of chemicals needed to fight these infestations. This helps in the reduction of the costs inflicted by the farmer. The system is therefore helpful for the farmer's health as compared to the manual fertilization system.

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School of Computer Science and IT, DAVV Indore.

## **A FACILE MICROWAVE-ASSISTED SYNTHESIS OF SUBSTITUTED OXAZOLES USING COPPER-CATALYZED SEQUENTIAL OXIDATIVE CYCLIZATION**

Nagendra Kumar Pandey

Pratibha Sharma

Ashok Kumar

A novel and highly efficient synthesis of substituted oxazoles was carried out through the condensation reaction of aromatic amines and 1,3-dione derivatives in the presence of copper-catalyst under mild conditions. The structures of the synthesized compounds have been corroborated on the basis of spectral analysis viz., FTIR, <sup>1</sup>H, <sup>13</sup>C NMR, Mass, and elemental analysis data. The recyclability of catalyst was ensured up to many cycles without any significant loss in the activity. Also, the structure of the developed catalyst was confirmed based on pertinent XRD, SEM, and EDAX data. Moreover, simple workup procedure, good selectivity, cost-efficiency, short reaction time, and milder reaction conditions are the added salient features.

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School of Chemical Sciences, Devi Ahilya University, Indore.

## **BLOCKCHAIN REVOLUTIONISING VOTING SYSTEMS**

Anish Makhija    Pratiman Gautam    Tarun Choudhary

A data structure that contains transactional records while maintaining security, transparency, and decentralization is known as the blockchain. Elections are the foundation stones of a democracy. Governments are made and governments are turned down with the help of the most powerful tool ever created for a citizen of a country, the right to vote. Blockchain is paving the path for direct democracy, in which citizens make policy decisions for themselves rather than relying on representatives to do so. While the laws of a political election may need to be amended in order to accommodate such a transparent system, blockchain is also perfect for informing corporate choices, leading public meetings, polls, and censuses, among other applications. As several political parties are indulging themselves in malpractice and vote tampering, the number of legal votes cannot be perceived with certainty. Today's blockchain technology can overcome these issues by offering an alternative to the traditional election method. The following articles provide a possible technological solution using blockchain technology to create a voting system that is highly secured, decentralized, and anonymized. The decentralized nodes across blockchain networks can be used to create an electronic voting system. This technology could be used to record, and report votes and prevent many types of voter fraud. Constituents would vote via their mobile phones or PCs. Each participant could vote just once, and each vote was recorded on the immutable blockchain ledger, guaranteeing that there was no tampering, manipulation, or fraud. The study discovered that several companies are taking this idea into account to create a voting system that is more reliable and cost-efficient. The end results concluded that a blockchain voting system can provide the most accurate results, nevertheless, the scalability needs to be addressed.

## **GREEN SYNTHESIS OF AZEPINE DERIVATIVES USING CHITOSAN SUSTAINED ZINC OXIDE NANOPARTICLES**

Geetanjali Pandey

Pratibha Sharma

Ashok Kumar

The multicomponent reactions (MCRs) have provided a strong dais to excess diversity as well as complexity in molecular and chemical bibliotheca in a short number of reaction steps. MCR is a very effective strategy in the sustainable and diversity-oriented synthesis of heterocyclic compounds. Also, MCRs in accordance with the principles of green chemistry in terms of economy of steps and atom efficiency for the development of improved organic synthesis pave the way towards sustainability approaches. In particular, the synthesis of azepine derivatives through MCRs has strongly attracted significant attention due to their various medicinal, biological, and pharmaceutical activities. The present work elicits the preparation of chitosan-based nanocomposites containing the high content of ZnO nanoparticles as the support system to synthesize azepine derivatives. Moreover, because of the ease of separation and no waste generation, and the ability to reuse the catalyst, this work can be considered a green and environmentally benign process. Also, the clear workup procedure, high to excellent yields, relatively short reaction times, and high atom economy are some added advantages associated with the protocol. All the synthesized compounds were characterized using various spectroanalytical techniques viz-FTIR,  $^1\text{H}$ ,  $^{13}\text{C}$  NMR, Mass, and elemental analysis. SEM, XRD, IR, TGA-DTA were used to establish the structure and morphology of the synthesized catalyst.

## **CONTROLLED AND MONITORING THE QUALITY OF WATER-BASED ON IoT**

Kriti Jain

Preeti Saxena

In today's world, the natural water resources which are suitable for drinking are limited like groundwater, rivers, pond, and lakes and no one can afford to waste them. The population of the world has increased rapidly, estimated results show the world is facing a 40% shortfall between the demand for water and the available supply of water by 2030. We will plan effectively to evaluate the quality of water based on the local, state, and national water quality problems. This project deal with controlling and monitoring the quality of water-based on the internet of thing to assurance of quality water by developing the smart water quality monitoring system using different sensors to measure the quality such as PH Values, temperature, turbidity of water and also, used of microcontroller unit interface with detecting sensor and wireless communication technology further collect the data and send them in the cloud by using IoT and then analyze the data for further use.

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SCS&IT, DAVV, Indore.

## **A FACILE MICROWAVE-ASSISTED SYNTHESIS OF SUBSTITUTED OXAZOLES USING COPPER-CATALYZED SEQUENTIAL OXIDATIVE CYCLIZATION**

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School of Chemical Sciences, Devi Ahilya University, Indore.

## **SECURITY AND PRIVACY IN SOCIAL NETWORKS**

Megha Koshti

Akash Kumhare

Social Network has now become a crucial part of our daily life. Networking sites such as Facebook, Twitter, Google+ attract hundreds and millions of users. The users share their data and information on these sites. When a user signs up for a social networking site such as Facebook, Google+, Twitter, even if he does not want to give his personal details to a stranger, his information can be viewed in the form of a profile by anyone who browses the internet. The use of personal information in social networks raises new privacy concerns and requires insights into security problems. This can even result in undesired or fraudulent activities such as information and identity theft, data loss, data breaches, spamming, attacking through viruses, phishing, etc. The user needs to keep the data safe and secure. Every user should follow multiple measures for it such as; a strong password, two-way authentication, using virtual private networks, keeping the system up to date, updated antivirus on mobile/laptop, changing the password frequently, regular observation on the mailbox to check suspicious login attempts, etc. This study will help to make the users aware to protect and secure their data and personal information on social networking sites. This study provides the ways to deal with the security challenges and measures to be taken to make users' data private.

## **MULTIPLE CROP PREDICTION FOR EFFICIENT SMART AGRICULTURE**

Surekha Janrao

The proposed system is expected to analyze the different soil and climatic parameters such as Temperature, Humidity, Weather, Rainfall, Water-Storage, Soil\_pH, Soil\_Temperature, Soil-depth, Soil\_color, Soil\_type. This analysis will help the farmer to know in advance which crops are likely to be produced on his farm based on the available soil and climatic parameters. The proposed system is going to use the optimization technique for selecting a single predicted crop that has more demand in the market so that farmers can obtain more profit from that crop. The proposed system is going to use one more feature to find which fertilizers can increase the crop yield and this information will help the farmers to be ready with the preparation in advance to produce the crop. In a country like India, maximum farmers are mainly focusing on crops such as food grains, spices, vegetables, fruits, flowers, etc, and therefore, the proposed system is expected to use the class label attributes for the same to prepare the data set. The proposed system is going to build the forecast model by using a machine learning algorithm that can do the predictive analysis on the available data and suggest which fertilizer will be used for the predicted crop which is prescriptive analysis as the proposed system is giving the solution to increasing the crop yield by suggesting the correct fertilizer. The proposed model is going to become very helpful to the farmers as well as other agriculture domain experts to obtain quick information and thereby making them useful decisions related to growing the crops, fertilizer to be used, selecting multiple crops to be produced to maximize the profit with fewer resources and less time.

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Research Scholar, Thakur College of Engineering & Technology, Mumbai.

## **GARBAGE MONITORING SYSTEM**

Ravindra Raghuwanshi      Dr. Preeti Saxena

The development of a smart city gives way to the implementation of a citizen-centered public administration. The urban population growth has led to some basic problems to handle. Waste or garbage management is among them. Thus, it is required to build an intelligent and dynamic garbage management system that is capable enough to handle the process of collecting waste efficiently and effectively. The system monitors the garbage bins and through a web page informs about the level of garbage or waste collected in the garbage bins i.e. dustbins. This system detects the garbage level and compares it with the garbage bins' depth by using ultrasonic sensors placed over the bins. Microcontrollers from the AVR family, LCD screens, wireless modems for data transmission, and a buzzer are all used to develop the system. Using the LCD screen, one can see how much garbage has been collected in the bins. There is a transformer supplying 12V to the system. The status of the garbage bins is shown on a web page for the authority monitoring it for example the municipal corporation of the city. The web page depicts the garbage bins graphically and highlights the collected garbage in colour to show the level of garbage collected. An LCD screen shows the level of garbage collected. A buzzer sounds when the level of garbage collected crosses the set limit. This system uses the hardware resources for development including LCD Display, Buzzer, Crystal Oscillator, Microcontroller, ESP8266 Wi-Fi Module, HC-SR04 Ultrasonic, Diodes, PCB and Breadboards, LED, Resistors, Capacitors, Transistors, Cables and Connectors, Transformer/Adapter, Push Buttons, Switch, IC and IC Sockets. The software used for system development and web page design includes Arduino IDE, IOT Gecko, and MC Programming Language C. By providing the graphic image of the bins via IOT Gecko web-based development, this system encourages the city to keep clean by providing information regarding the garbage levels of the bins. This system will help to reduce the overhead of the people of informing the garbage collectors by informing them directly through the web page. The system will be further enhanced in the future to send an SMS message to garbage collecting vehicle drivers. This functionality requires an additional GSM module to implement.

## **SMART HOME AUTOMATION**

Revan Nelson

Internet of Things (IoT) is a new paradigm that has changed the traditional way of living into a high-tech lifestyle. Home automation is a modern technology that modifies your home to perform different sets of tasks automatically. It uses a combination of hardware and software technologies that enable control and management over appliances and devices within a home. Today smart home automation technology is gaining more recognition among people not just for home modification but in industrial and business sectors as well. The technology is constantly improving its flexibility by incorporating the latest features to satisfy the increasing demands of people. A system is developed where homes are interfaced with sensors including motion sensors, light sensors, and temperature sensors, and provide automated toggling of devices based on condition. The system requires Nodemcu (microcontroller), Arduino UNO, jumper wires, Pushbutton, Relay board, IR sensor, Android mobile, and Actuator as hardware devices. The Software used is the Blynk app, Blynk web dashboard, Blynk server, and Arduino IDE (latest Version). The system uses wireless communication and remote control of different aspects of a living space like lighting, temperature, security, entertainment, etc. It performs with the help of connected smart devices and appliances that use communication technology like Wi-Fi, Bluetooth, and Ethernet, to share data and facilitate the efficient management of power consumption. The advantage of the system includes Cost-effectiveness since appliances have a longer life cycle than the regular device which results in saving money, Self-sufficient since the home automation technologies come with the option of running on sustainable sources of energy like wind or solar power and even water harvesting, and Eco-friendliness since they minimize the power consumption. The system uses stored user data to modify the output. And, even easily scalable to handle rapid changes to devices and user requests. Overall, the system improves the quality of life and convenience in the home as well as safety and security, and efficient use of energy. The most common applications of smart home automation are lighting control, lawn irrigation system, temperature control system, entertainment system, smart kitchen application, security using door lock, and CCTV surveillance.

## **REVIEW ON ELECTROCHEMICAL PREPARATION OF ALLOYS AND ITS CHARACTERIZATION**

Pratibha Sharma

Shankar Singh Pal

Photovoltaic (PV) cells are converting sunlight into electricity and the conversion efficiency of the commercially available PV is 14-22%. PV alloy e.g., CdZnTe (Cadmium Zinc Telluride), CIS (Copper Indium Diselenide), CIGS (Copper Indium Gallium Diselenide), GaAs (Gallium Arsenide), are produced by depositing a semiconducting layer/ coating on a substrate surface. Electrodeposition of alloys was first introduced by Brenner A. et al. in 1950. Alloys of Phosphorus with Nickel and Cobalt were prepared. Effects of different types of deposition baths, pH, temperature, the concentration of depositing materials, current density on electrodeposition of alloys have been studied. Pathak R.K. et al. have prepared Zn-Se-Hg alloy on Aluminium substrate by electrodeposition method in an acid bath. Composition and characterization of these alloys were done by EIS, SEM, and EDAX. This study concluded that corrosion resistance increases with an increase in Hg content. The particle size also decreases with the addition of Hg. We will prepare binary/ ternary/ military alloy films by electrochemical co-deposition method. Characterization of alloy films will be done by Photochemical/ electrochemical characterization methods and Photovoltage/ Photocurrent Studies. One of the major problems with PV alloy films is electrochemical corrosion. To overcome the issues of corrosion during the process, Gallium (III) chloride phthalocyanine complexes as corrosion inhibitors for Aluminium surfaces were introduced by Nnaemeka N. et al. Corrosion efficiency was studied by Potentiodynamic polarisation. Surface morphology studies of films will be done using, Scanning Electron Microscope (SEM), X-ray-EDAX studies, and X-ray Diffraction (XRD). PV alloy technology is very encouraging for the worldwide electricity demands. We are proposing to carry out the preparation of alloys by electrochemical co-deposition methods. These alloys will be cost-effective so that they can reach the common man and eco-friendly (it will reduce dependency on conventional electricity generation modes). Photo-responsiveness of the alloy film will expect to be enhanced. By using suitable corrosion inhibitors, corrosion efficiency will be enhanced. We will try to improve the efficiency of PV alloy, to enable it to generate more power in moderate weather conditions.

## **CYCLE BUS STAND: A NEW VISION**

Swaraj Singh

This course of the pandemic and the rise in pollution has brought the wellbeing to realize that “Health is Wealth “. Cycling is one basic mode of transportation for short distances with addition of benefits to health also saving of our fossil fuel reserves. “But can this be utilized further?” While the concept of shared Self-help bicycle is still relatively new, this is already encouraging people in Indore, Bhopal, Gandhinagar, and many such Smart Cities in India to use this as a daily commuter or for wandering around as a workout within the city. These Cycles are preloaded with the system which includes GPS Tracking in order to make them theft tolerant. This is one of the key benefits of public usage. The bus stands require energy from power stations and cycles require lights during commute during the night. The advancements in the automotive industry enable the vehicle’s kinetic energy to be converted back to electrical energy during braking (deceleration or downhill running). The converted electrical energy is stored in energy storage devices such as batteries, ultracapacitors, and ultrahigh-speed flywheels to extend the driving range. Now combining these concepts, a wheel can be built and installed in Pay to use Cycles that store the produced energy. These cycles are not only used for workouts/commutes but also add up in providing Portable energy sources to power up gadgets such as night lights and phones while on the go. Building such stand-alone architecture can power Cycle stands and Bus stands, which will run on carbon emission-free Sources, stepping into a clean and healthy future.

## **THE IMPACT OF SOCIAL MEDIA ON OUR SOCIETY: HOW TO USE IT EFFECTIVELY AND NOT LET IT USE US**

Brajwal Yadav

Social Media has changed the world. It has become a place where people from around the world come together to discuss their ideas, thoughts, and opinions. It is a collection of online communication channels that people use, to have conversations, interactions, content sharing and collaborations. Today we are surrounded by mobile devices and interactive social networking sites which has made social media a vital aspect of our life. Social networking is transforming the way we interact in the 21<sup>st</sup> century and how we combine it with different technologies. With the rise of smartphone sales and usage, it is no wonder why these social networking sites are reporting a record number of growth in monthly active users and overall traffic in recent years. A lot of studies have proved that social media has both positive and negative outcomes. On the positive side, social media can act as a crucial and valuable tool for professionals for their business opportunities, it can also be a great source of learning for anyone seeking information online. On the negative side, it could act as a serious addiction and can come with several risks related to online communities like Cyber Bullying, Phishing, Blackmailing, etc. Generally, when people use social media for predetermined purposes and specific goals, the outcome will be positive and when they don't use it wisely, they might end up having negative side effects. This paper will provide detailed information about the effect of social media on society, its positive and negative impacts on different fields like health, business, education, society, etc.

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Student, Deen Dayal Upadhyay Kaushal Kendra, DAVV, Indore.

## **A COMPARATIVE STUDY TO DETECT FAKE PROFILES ON SOCIAL MEDIA**

Sonam Mehta      Pragya Shukla

Social media platforms are used daily in today's society and have become an important part of our lives. The number of people using social media platforms for malicious purposes is increasing. Hacking into social media accounts has become a profitable business for cybercriminals. Attackers can spread their destructive messages or disseminate false information to a huge user base by taking control of a popular media or commercial account. These accidents have a wide variety of consequences, from a deteriorate reputation to multibillion-dollar financial market losses. This paper examines the state-of-the-art research on detecting fake profiles on social media through a literature review.

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Department of Computer Engineering, Institute of Engineering and Technology,  
Devi AhilyaVishwavidyalaya, Indore.

## **EFFECT OF FERTILIZERS ON NUTRITIVE PARAMETER OF *SOLANUM LYCOPERSICUM* (TOMATO) GROWN IN SEWAGE-CONTAMINATED SOIL**

Sharma P. \*, Dave J. \*\*

Soil contamination by sewage water sources is becoming a serious problem for irrigation purposes therefore the present work was done to know the impact of the water from sewage source on the nutritive parameter (carbohydrate content) of *Solanum Lycopersicum* (tomato) plant. Organic soil was used as a control. Significant decreases were observed in carbohydrate content in sewage water sources as compared to control. It is concluded from the present study that sewage water can be used for irrigation purposes but first of all, it is very necessary to test that water and if found any heavy metals or impurities in water then it is mandatory to treat that water.

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\* Research scholar, School of Biochemistry, DAVV, Indore

\*\* Professor and Head, Department of Biosciences, SCM Institute of Professional Studies, Indore

## **A WOMAN SAFETY APPLICATION: SAFE CITY**

Madhvi Bharti Lodhi

Dr. M. Ingle

Presently, crime against women has always been an issue in the country. Also, this problem is observed to be increasing day by day. The main concern here is to make women feel safe in every type of environment and women can survive without fear in this century. We feel that technology plays a vital role in our lives and believe that we can assure the safety of women in certain ways. There exist some android applications in Indian context for women's safety viz. *iGoSafely*, *Smart 24x7*, *bSafe*, *Shake2Safety*, *My Safety Pin*, *Citizencop*, *Chilla*, etc. along with an application developed for women's safety in Madhya Pradesh as *e-cop*. We intend to develop an android application that will work offline and online. It will include safety features such as Complaint page, help me, Emergency contacts, Panic button, Current location sharing etc. and will be useful to provide security for women. It will be compatible with Android mobile phones and the users will be required to submit their personal details as name, address, and emergency contact number etc. The main objective of active alerts is to send emergency calls/ messages/ sms to the concerned officials. Instant alerts can prevent women from becoming a victim of attacks. Also, the safety apps will allow the women to know about the nearest police stations in any area and also share the present location of a victim immediately.

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School of Computer Science & IT, DAVV, Indore

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**Track 2**

**Management Science**



## **ROLE OF SKILLS FOR NURTURING START-UPS FOR FUTURISTIC AND INCREDIBLE INDIA**

Ms. Mona Dharamsey

Indian start-ups are emerging with new innovative ideas in different fields like Advertising, Marketing, Content writing, Film-making, Photography, Anchoring, Architecture, and Design like User Interface & User Experience and so on. Each and every field is going deeper day by day and the reason behind is the fast use and change in technology every second hour. The education needs to be switched from traditional way to vocational way by nurturing the innovative ideas among the youth to form and give the nation a skilled and professional force in each field so as to make now *“India, an incredible part of World”*. Even after the announcement of BYJU’s being the official sponsor of FIFA world cup 2022 in Qatar, Prime Minister Shri Narendra Modi also said *“Our start-ups are changing the rule of the game. That’s why I believe start-ups are going to be the backbone of new India”*. Youth today in India is coming up with all new and innovative ideas which will be helpful in the economic growth of the nation. The government has launched many programs and schemes for skill development and providing the possible facilities for the new start-ups. At initial level it all requires to enhance the untapped innovations in youth through diverting the education system from traditional to vocational or practical. As “jugaad” is in the jeans of maximum Indians, the practical approach view of the teaching will create and invent the unexpected ideas in youth and will take the nation to the top. India being a huge country with a high population is facing many challenges in skills that the industry needs, reach of the training program and schemes that government is providing, low participation at labour level, easy availability of substitutes etc. In a nutshell, this is the time to change the way of traditional theory teaching to the practical teaching at every level to explore the hidden skills as the professional example for world.

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Visiting Faculty, Deen Dayal Upadhyay Kaushal Kendra, DAVV, Indore.

## **CHALLENGES TO CARGO BUSINESS IN MADHYA PRADESH AND LACK OF MANAGEMENT BY THE STATE GOVERNMENT**

Piyush Verma

As we all know that MP has potential to become the logistics hub of Central India but there are major issue faces by the industrialist and logistics key players like there has been a huge delay in acquiring land for logistics projects. Government need to speed up the process so that rail constructions can be taken up rapidly. To develop the International air connectivity in Madhya Pradesh for further growth of industries. Inadequate rail connectivity to gateway ports of JNPT and Mundra. The cost of movement and repositioning containers from JNPT to Mandideep and Govindpura is very high compared to the neighbouring States of Maharashtra and Gujarat. Undue cargo checking and stoppages by State police cause harassment to the trader and delays in cargo delivery. Due to this, most of the interstate traffic from North India bypasses the State en-route Gujarat Ports. Road stretch leading to Hoshangabad and shajapur area are prone to theft and pilferage. Suggestions and recommendations:- State may consider digital initiatives measures to decrease the number of physical checks of commercial vehicles by enforcement officers. State may implement IT infrastructure for surveillance for monitoring on crucial freight routes and terminals like Hoshangabad to avoid cargo theft and enabling safety and security of cargo during transit by road. State may facilitate swift allotment of land for the development of facilities in the State and they may coordinate with MoR to improve rail connectivity to gateway ports and ensure rake availability. State may request Customs to set up ICEGATE service centres in the State to facilitate ease of documentation for EXIM stakeholders. We need more composite hub for storage of not only perishable goods but also the FMCG products. The new railway line between Tihi and Indore is operational now and this further boost the connectivity of ICDs with Mumbai and other cities where ports are located. Airlines take more than 2days for delivering the cargo while the same can be delivered in 2days if it was sent by the road and due to lack of competitive rates, Longer time for the delivery of cargo air cargo also not helpful for farmers. Airlines operating from Indore and Bhopal are using small aircrafts and they don't have much cargo space. There are only 2 air cargo terminal operating in the state Indore, Bhopal whereas Gwalior and Khandwa also have potential to grow.

## **STUDY OF IMPORTANCE OF LOGISTICS FOR FOOD SECURITY IN CONTEXT OF M.P.**

Deepak Dhamarika\*

Ms. Mona Dharamsey\*\*

Logistics industry is one of the increasing and leading sectors in the world with the importance of cost, time & availability of goods. The involvement of logistics activities is almost in all industries. Current situation as in terms of economic growth has increased the importance of the concept of logistics to reduce costs and save time for enterprises and to deliver the goods to the right customer at right time and keeping the wheels of the economy moving. In the view of National Food Security Bill 2011 with the objective to provide for food and nutritional security in human life cycle approach, by ensuring access to adequate quantity of quality food. Food security exists when all people at all times have access of sufficient, safe, nutritious food to maintain a healthy and active life. The Government of India has launched several initiatives towards ensuring food security to its citizens. It's including the public distribution scheme (PDS), the mid-day meal program for school children. All food security schemes operated under the joint responsibility of Central and State Governments. The Central Government, through Food Corporation of India, has main responsible agency of complete logistics facility including procurement, storage, and transportation. State Government involve with MP State Agriculture Marketing Board for procurement, MPWLC for logistics and storage, Department of food & civil supplies for distribution in PDS. Without logistics facility government cannot achieve targeted objective to provide food security to each and every country man. In context of MP, MPWLC having 200 Lacs MTs wheat storage capacity in the year 2021-22. As MP beaten Punjab and became new wheat basket of India therefore improvement in planning and logistics facilities is very important to procure, store and distribute wheat grain properly. Procurement is the main and important activity of government and although complete government body involve every year in procurement process in village areas but unfortunately every year we read in news that lakhs of ton wheat grain rotted due to lack of logistics facilities. Therefore study of importance of logistics for food security has very vital role in context of MP.

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\*Student, Deen Dayal Upadhyay Kaushal Kendra, DAVV, Indore.

\* \* Visiting Faculty, Deen Dayal Upadhyay Kaushal Kendra, DAVV, Indore.

## **POST COVID 19 TECHNOLOGY TRENDS SHAPING THE FUTURE OF YOUNG ENTREPRENEURS**

Ms. Eshika Sendre\*

Mrs. Reshma Bhide\*\*

This decade has witnessed a rapid evolution of technology for global communication, and networking. These technological manifestations lead us to a clear roadmap for smart interior design solutions, integrating solutions for sustainable interior design. In large scale, this design method will save global resources and create healthy, beneficial, and comfortable environments; moreover, it supports the progression of technological lifestyles. With this sudden shift away from the workspace in many parts of the globe, some are wondering whether the adoption of online working will continue to persist post-pandemic, and how such a shift would impact the worldwide working. The COVID-19 pandemic has forced the world to engage in the omnipresent use of virtual learning. People have started practicing their different daily activities within their homes. Furthermore, they conduct their social activities of meeting friends and relatives & work meetings through social media and other online platforms. The importance of providing a safe and healthy environment in the home is for granted. The aim is to determine the newly emerging needs and the design considerations that must be taken into account when designing houses in order to achieve comfort, safety & privacy. This issue highlighted the importance and the vital role of interior design along with incorporation of new technology trends. The technology-enabled shifts are fundamentally providing three things: Global digital connectivity, Data analysis, and Effective mass commutation. Be it any sector or industry; technology has brought about changes to all. By providing visuals, periodic communication, and faster implementation, technology has also improved the real estate sector. The conclusion is with the emerging technology trends there is 180° turn way round. Like now we have trend of home offices, online education, global meetings, smart interior solutions, home automation, virtual reality technology, & many more. This new era of working in comfort & flexibility leads young entrepreneurs to take off in their own new sky of their respective fields.

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\*Student, Deen Dayal Upadhyay Kaushal Kendra, DAVV, Indore.

\*\*Visiting Faculty, Deen Dayal Upadhyay Kaushal Kendra, DAVV, Indore.

## **STUDY OF GREEN LOGISTIC STRUCTURE**

Ankit Bamniya\*

Dr. Rachanaa Datey\*\*

The worldwide economic growth of the last century has given rise to a vast consumption of goods while globalization has led to large streams of goods all over the world. The production, transportation, storage and consumption of all these goods, however, have created large environmental problems. Today, global warming, created by large scale emissions of greenhouse gasses, is a top environmental. Due to increased focus on environmental Pollution through transport activities, organizations, Transport providers and governments have taken various Initiatives towards reducing the environmental impact of Transport and logistics related activities. Due to the increasing environmental problems in recent years, there are more and more “green” ideas that have been put forward and implemented. Green logistics Emerged as a new concept to focus on reducing the pollution of the environment and decreasing the resource consumption which differ from traditional logistics. Green logistics describes all attempts to measure and minimize the ecological impact of logistics activities. This includes all activities of the forward and reverse flow of products, information and services between the point of origin and the point of consumption. Reducing the harmful effects on the environment and increasing the expression of sustainable development principles is one of the most topical challenges all around the world. Given the Importance of logistics for the economy and the growing concern for the environment, the purpose Of this article was to reveal a green logistics (GL) The objectives of this paper are to study and review the concept of Green Logistics and various issues governing green logistics. This paper aims to discuss the concept of green logistics

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\*Student, Deen Dayal Upadhyay Kaushal Kendra, DAVV, Indore.

\*\*Visiting Faculty, Deen Dayal Upadhyay Kaushal Kendra, DAVV, Indore.

**STUDY OF MEASURES TO BE TAKEN TO REDUCE THE RISK IN LABOUR  
WORK IN LOGISTICS AND SUPPLY CHAIN INDUSTRY**

Rashi Rathore\*

Ms. Mona Dharamsey\*\*

Every industry depends on the working ability of either a machine or a person. Moreover, to make the machine work or even to manufacture a machine there is a need for manpower. This manpower is called labour in the industrial language. Labour works as an individual as well as an operator of the machinery which allows the logistics and supply chain industry to function efficiently. There is a lot of risk in terms of the health and life of the labours working to maintain the smooth movement of the supply chain cycle. From manufacturing a pin to loading and unloading heavy cargo labour works as a backbone of a company, sometimes they have to work with the harmful chemicals also which involves a high-risk factor and they should be aware of appropriate methods to work with the material that they are dealing. The purpose of this paper is to identify the risk and measures to minimize those risks which can change the whole scenario of the logistics and supply chain industry. Based on previous research studies the first thing which appears as the reason for the involvement of risk is that most of the labours in India come from rural areas and are not well educated, they have a stereotype that working as labour does not require any skill or knowledge, it can be done by anyone. They are unaware of the right working and operating process, which results in a distressing way. This problem can be solved easily if the person (labour) who is working will be provided with the knowledge and guidance to work with the equipment. And also should be trained before operating in the field. This will be the very skillful and easiest step to overcome the risk factors involved in the industry and will be highly beneficial in increasing the ability of the workers as they will have the proper knowledge about the things they are carrying out.

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\*Student, Deen Dayal Upadhyay Kaushal Kendra, DAVV, Indore.

\*\*Visiting Faculty, Deen Dayal Upadhyay Kaushal Kendra, DAVV, Indore.

## **IMPORTANCE OF CODIFICATION IN MATERIAL MANAGEMENT**

Shivansh Sharma\*

Ms. Mona Dharamsey\*\*

Coding is a Systematic concise representation of equipment, raw material, tools, spares, suppliers. Coding refers to the process of assigning symbols to the parts. Coding is defines as process of allocating symbol to the parts. The symbol represents design characteristics of parts, manufacturing attributes or both. Due to industrial requirement organization has to store large no. materials. Therefore there should be some mean of identifying them hence Coding is used. Classification and codification of materials are steps in maintaining stores in a systematic way. Materials are coded in such way that storing, issuing and identifying of materials become easy Code should be Simple. Code should be unique. Coding should be compact, concise and consistent. Code should be sufficiently flexible to meet future demands. To bring all similar items together less than one classification or group. To avoid duplication and confusion. To fix essential parameters to specify an item. When large number of materials have been given codes, it becomes difficult to remember them. For easy reference, the organization is publishing the codes and names of materials in books. The stores vocabulary may be published in number of volumes of books when large number of material are required in the organization. Number of volumes of books may be categorized depending upon group of materials required in the organization Example: In the Railways, the categories of materials required are in lakhs.

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\*Student, Deen Dayal Upadhyay Kaushal Kendra, DAVV, Indore.

\*\*Visiting Faculty, Deendayal Upadhyay Kaushal Kendra, DAVV, Indore.

## **IMPORTANCE OF SKILLS IN HUMANS LIFE**

Vinay Gaud\*

Ms. Mona Dharamsey\*\*

Health is wealth. As we all know likewise, Skill is wealth, identity, prosperity, recognition, power. It is the best friend. If any person has a skill, it means one has a type of wealth and can use it for own progress, for his family, society & for the country as well. Science is also connected with skill and eventually both contribute to the growths of society. Although growth may be positive or negative. Skills are the base of Nation's Progress. So we can say, it plays a key role in the development of any individual, society or any culture. For instance, we can understand from the Indus valley Civilization. In that early phase of human society, they developed their own society, culture and also affect other civilization of that time. Mahatma Gandhi ji said about the skills and vocational training that "Handicrafts should be taught not merely for production work but for developing the intellect of the pupils" Gandhian philosophy is a doubled edged weapon. Its objectives are to transform the individual and the society simultaneously. During Covid – 19 period, we have seen the shortage for skilled health professionals. This shows the importance of skills not merely in one field but also in others fields. It gives a new height to life of any person. And apart from 'Bookish learning' one must focus on practical aspect of learning to touch new heights.

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\*Student, Deen Dayal Upadhyay Kaushal Kendra, DAVV, Indore.

\*\*Visiting Faculty, Deendayal Upadhyay Kaushal Kendra, DAVV, Indore.

## **GENDER EQUALITY AND WOMEN EMPOWERMENT**

Mariya Taher Ali Millwala\*

Dr. Chaina Trivedi\*\*

Gender equality in India is the most desired state of form, which our Nation is craving to have for since long. Gender equality is no more a moral pressure or social issue but also a social, economic challenge. Gender Equality leads to human development and the overall development of the Nation. India being a Nation full of achievement, still lacks few appreciations in the case of Gender Equality in India. Although the Indian constitution has granted both men and women equal rights, gender disparities continue to live and rule. Indian society has always been the hub of this discrimination, making women its victim. Recent research reveals gender discrimination mostly in favour of men in many realms, including the workplace. Discrimination between men and women affects many aspects of women's lives, from career development and progress to mental health disorders. While Indian laws on rape, dowry, and adultery have women's safety at heart, many highly discriminatory practices are still occurring at an alarming rate. Gender Equality in India is the most desired state of the form to achieve other goals for its development. Gender is the term that mainly refers to the economic, social, and cultural attributes and opportunities associated with being male or female. Gender equality in India is linked to sustainable development and vital to realizing human rights. The primary objective of gender equality is a society in which women and men enjoy the same opportunities, fairness, and obligations in all phases of life. Within Nation and development strategies, gender equality is critical because it enables women to make decisions that impact their overall health and their spouses and families. Gender equality in India is the need of the hour to develop from all perspectives. Around the globe, girls have higher survival rates at birth, are more likely to be developmentally on track. Still, India is the only country where more girls die than boys. Girls are more likely to drop out of school. In India, girls and boys encounter adolescence differently. Whereas boys tend to experience greater freedom, girls tend to face extensive restrictions on their ability to move freely and make decisions affecting their work, education, marriage, and social relationships. As girls and boys age, gender barriers continue to expand and continue into adulthood, where we see only a quarter of women working in the formal workplace. Some Indian women are global leaders and influential voices in diverse fields. Still, most Indian women do not fully enjoy many of their rights due to deeply entrenched patriarchal ideologies, norms, traditions, & structures. There are risks, violations, and vulnerabilities; girls in our society face because of their gender. With the prevalence of gender unfairness and social norms and practices, girls are exposed to the possibility of child marriage, early pregnancy, domestic work, poor education and health, sexual abuse, exploitation, and violence. Many of these signs will not change unless girls are valued more. Changing the perspective towards girls should include men, women, & boys. It has to mobilize multiple sectors in society. Only when society's perception changes will affect all the girls' rights and gender equality in India.

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\*Student, Deen Dayal Upadhyay Kaushal Kendra, DAVV, Indore.

\*\*Visiting Faculty, Deendayal Upadhyay Kaushal Kendra, DAVV, Indore.

## **INDUSTRIAL TRAINING SHOULD BE A PART OF CURRICULUM**

Nitesh Gupta

Now a day, Industry has lot of opportunities for the students whereas the educational Institutes are not able to grab it for their students fully due to lack of technological and industrial exposure. Industrial Training is a practical knowledge and experience in the related field of interest in which students develop and enhance the necessary skills along with their studies which helps them in building their knowledgebase that apparently has benefit for future. During industrial training, the students observe the experts and professionals and the work in real time under the guidance of them that will help them to explore the avenues and opportunities. If the industrial training will be a part of curriculum, then every student will get a chance to know and recognize their skills as well as field work and students will be able to know themselves more which means they will be able to express themselves better which helping them to boost their confidence also. Students get a chance to grab or adopt the different skills such as; interpersonal communication, team work, leadership, self motivation, critical and logical thinking, time management, etc. By using these skills, they can make themselves professional and expert in their field of interest. This study will be helpful to guide the students in their career development if industrial training is incorporated in the curriculum. This study will help students to represent themselves in placements and job interviews effectively. It will lead to fill the gap of Industry demand and formal academia. Students will definitely be able to grab the opportunities well. Practical exposure will lead to make them emotionally, mentally and financially strong. As a result, they will be highly contributing in Nation Building.

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Student, Shri Vaishnav Institute of Management, Indore.

## **ROLE OF GOVERNMENT SCHEMES IN THE FIELD OF WOMEN EMPOWERMENT**

Neha Mangrola

Dr. Chaina Trivedi

Women empowerment refers to increasing and improving the social, economic, political and legal strength of the women. To ensure equal right to women, to make them confident, freely live their life with self respect and self dignity. It is essential for the health and social development of families, communities and countries. As per the 2011 Census, the total female literacy rate in India stands at 74.00 per cent and the rate of literacy among women is 65.46 per cent. The percentage of female literacy in the country was 54.16 per cent in 2001. Main causes of poor female literacy rate are Gender based inequality, Social discrimination and economic exploitation, Occupation of girl child in domestic chores, Low enrolment of girls in schools, Low retention rate and high dropout rate. Importance of women empowerment is that women play a very good role in the development of economy and society. Woman is the leader, planner of the family, the trainer, supplier of labour power and playing important role in the development of agriculture, industry and service sector. Women empowerment is a critical aspect to achieving gender equality, where both men and women have equal power and opportunities for education, healthcare, economic participation and personal development. Government schemes for women empowerment are- Beti Bachao Beti Padhao Scheme- 'Save the Girl Child, Educate the Girl Child', is an initiative taken by the Government of India. The major objective of the scheme is women's empowerment at the grass-root level. One Stop Centre Scheme-One-Stop Centre scheme is a sub-scheme under NIRBHAYA the National Mission for Empowerment of Women. Under this scheme, complete financial assistance will be provided to women by the Centre to the States and the Union territories. Women Helpline Scheme-The objective of the Universalisation of Women Helpline (WHL) Scheme is to provide 24 hours emergency and non-emergency referral and information services to women affected by violence, both in public and private spaces.. UJJAWALA : A Comprehensive Scheme for Prevention of trafficking and Rescue, Rehabilitation and Re-integration of Victims of Trafficking and Commercial Sexual Exploitation. STEP (Support to Training and Employment Program for Women)- The STEP Scheme aims to provide skills that give employability to women and to provide competencies and skill that enable women to become self-employed/ entrepreneurs. Mahila Shakti Kendras (MSK):- Mahila Shakti Kendra (MSK) is the scheme aimed at providing one-stop convergent support services for empowering women with opportunities for skill development, employment, digital literacy, health, and nutrition. Suggestions:- make a safe space where women can gather and talk. Teach her how to write and read. Boost her self-esteem- go on to empower women, so encourage the women around you, and make them feel free and strong. Shut down negativity- Combat negativity by promoting body positivity, intelligence and authenticity. Teach her job skills and seed business. Be open and honest- share thoughts as much as you can.. Become a mentor. Support women-run businesses.

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\*Student, DDU-KK, DAVV, Indore.

\*\* Visiting Faculty, DAVV, Indore.

## **POOR FINANCIAL LITERACY LEADS TO VICIOUS CIRCLE OF POVERTY- AN EXPLORATORY STUDY**

Neeleshwari Bairagi\*

Dr. Yamini Karmarkar\*\*

Financial wisdom is important for everyone, be it professionals, employees, self-employed, home-makers, children, or any other. The more financially literate a person is, more are the chances of his financial well-being and less financial difficulties. People with more financial education make better financial judgements and do financial planning more effectively than others. However, on the other side, lack of proper financial education can hinder effective financial decisions. This may include insufficient or no financial planning, improper spending, saving less or more than what is required, choosing wrong investment options, and many other undesirable outcomes. This phenomena becomes even worse when it comes to poor and unorganised sector. They are more likely to make wrong financial decisions due to lack of financial literacy. Not having proper financial knowledge, they get less access to social schemes, often borrow from local moneylenders at higher interest rates, get deluded by ponzi schemes and remain far away from proper budgeting and investment. In addition, they also find it difficult to properly understand the financial information and its implications on their financial condition. Government, RBI, and other bodies are organising various programmes for financial inclusion and spreading financial literacy, yet there is a need to make these people more aware, given their socio-economic background, vulnerability, spread-out population and disconnection with intellectual world. The study attempts to explore the reasons, challenges and scope for increasing Financial Literacy among Indian population.

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\*Student, MBA (MS), IIPS, DAVV, Indore.

\*\*Associate Professor, IIPS, DAVV, Indore.

## **MANAGEMENT OF STUDENT'S CAREER**

Mohammed Arshad Multani

Dr. Shraddha Masih

There are lots of academic organizations or institutions as schools, colleges, universities, and institutes etc which allow to take education and where students learn multiple disciplines of multiple domains. Student primarily take admission on the basis of examination like if he/she is in secondary or higher secondary school then students should mandatorily prepare for the entrance examination, then a student can take admission in any educational organizations or institutes. Students face so many difficulties, problems, troubles to choose and select career in his/her education life. Students suffer many levels of difficulty in admission process. During school student also think about what discipline, what stream, what course, and what type of job should be chosen. There is lack of educational guidance. Students are not aware of types of academic or educational organizations, academic disciplines, academic programs, types of streams and courses. Students do not understand educational hierarchies, importance and applications in real life. Every student has his own calibre and he/she can perform best if he/she gets the career option as per interest and skill. Lack of knowledge is the barrier between student and their ideal career. Solution of this problem is to develop a website/mobile application and write algorithms which help the students to choose education and career perfectly. Such software/application/ web portal will not only tell and inform the career paths, rather it will suggest the best path according to current trends, students calibre and interest. The idea is to collect every academic information related to the student along with his other interests. The collected data need to be analysed using some machine learning algorithm which helps to predict the best career option for students. The proposed application can help to improve professional outcomes in future and job satisfaction in employees.



**Track 3**

**Life &  
Environmental  
Science**



## **LIFE SKILLS EDUCATION AND SWAMI VIVEKANANDA'S PHILOSOPHY WITHIN THE CONTEXT OF UNESCO'S FOUR PILLARS OF EDUCATION**

Dr. Kamna Lad\*

Dr. Prashant Sharma\*\*

The **WHO** (1994) has defined the term **Life skills** as “the ability that can be imbibed and improved through practice, to translate the knowledge, attitude, and values to support adaptive and positive behaviours, to deal efficiently with the needs and challenges of everyday life”. Life skills education have received enormous consideration in present world as an instrument for holistic growth of individuals. Rational studies indicate that life skills teaching mainly improve individual's physical, emotional, spiritual, educational, cultural and social aspects of life. Though, life skills are now extensively incorporated with academic programs in the various educational courses of schools and universities globally. There are different working organisations and agents in the field of life skills education; have been developed, designed, projected and executed their models. They have been marked the outline for combination of life skills and education. Moral, theoretical and ethical thoughts from various cultures embrace a great potential for educating life skills. Life skills are most effective when they are applied with the cultural and philosophical contexts. Jacques Delors (2001), **The four pillars of Education** or knowledge for the 21st century (**UNESCO**), comprises as: **Learning to Know, to Do, to Live Together and to Be**. The objectives of this conceptual research article to explore the famous Indian philosopher, **Swami Vivekananda's philosophy of education**, within the context of the four pillars of education as the philosophical sustaining of life skills education. It would be helpful in creating a conceptual framework by understanding the relation between the three beliefs of Swami Vivekananda's philosophy of education, specifically, manifestation of oneself, character building and man making; the four pillars of education by UNESCO; and the ten core life skills by World Health Organisation. The objective of this study is to explore the ancient wisdom of philosophical ethnicities of India towards life skills as a tool to face the challenges of life in modern world.

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\*Visiting Faculty, DDU-KK, DAVV, Indore

\*\*MJB Government P.G. Girls College, Indore

## **INTERPRETATION OF SHRIMAD BHAGAVAD GITA WITH REFERENCE TO LIFE SKILLS AND EDUCATION**

Dr. Prashant Sharma\*

Dr. Kamna Lad\*\*

Ancient Indian scriptures and culture are intensely deep-rooted with ethical and moral values. They are the source of wisdom and has the solutions to all problems faced by human beings in the modern times too. Among the prominent scriptures, **Shrimad Bhagavad Gita** is considered as the most influential, respected, adored, worshipped, referred and universally accepted philosophical text, which can act as a guiding principle for mankind. It gives ability to handle new generation's issues of coping with stressful situations as life skills. Its acceptance, in the all over world shows that it has the power to cross boundaries of culture and tradition. Bhagavad Gita has lot of implications in the field of life skills and education. Bhagavad Gita is an important part of **Mahabharata**, an epic written more than 5000 years ago by **Sri Veda Vyasa**, and it is composed of seven hundred verses in Sanskrit. The Bhagavad Gita is all about **Sri Krishna-Arjuna** dialogue, it deals with the dilemma faced by Arjuna in the battle field. Sri Krishna guides him through several means of support and brings back his valour so that he eventually wins the war. It is very comprehensive, covering almost the complete gamut of Vedic thought. The Bhagavad Gita also known as the "**Song of the Lord**". **Life skills** have been defined as "the abilities for adaptive and positive behaviour that enable individuals to deal effectively with the demands and challenges of everyday life". The core life skills as suggested by WHO are; Self-awareness, Empathy, Critical thinking, Creative thinking, Decision making, Problem Solving, Effective communication, Interpersonal relationship, Coping with stress and Coping with emotions. This paper deals with the interpretation of Shrimad Bhagavad Gita with reference to life skills and education. This study is based on hermeneutics method, an attempt to find the effect and implication of Gita in present scenario. The present paper focuses on the significance of imparting life skills education for developing moral values, social, emotional, rational thinking and behavioural skills.

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\* MJB Government P.G. Girls College, Indore

\*\*Visiting Faculty, DDU-KK, DAVV, Indore

**AN INHERENT PROPERTY AND CAPACITY OF ENVIRONMENT TO  
NEUTRALIZE ITS ECOSYSTEM FROM UNDESIRABLE HARMFUL MATTER  
ACCUMULATIONS**

Prachi Harmit

Dr. Jyoti Ratnawat

According to UN Secretary General – “COVID recovery and our planet’s repair can be two sides of the same coin.” The spread of pandemic of covid-19 world over, resulted in lock down of many human activities, that is stopped people moving out. That result in Positive impact on environment. Before the lockdown we were facing environmental pollution everywhere; be it air, water, soil etc. After lock down as there were lesser combustion of fuel as lesser travelling done by people, even industries were closed down this resulted in decrease in air pollution that is less emission of greenhouse gases, nitrous oxides etc. Since there was less interface of human activities at freshwater and marine water, no emission of Industrial effluents that resulted into decline in pollution. Less wastage deposition in river also help to free flow of water and lesser clogging of River system. As observed in holy Ganga water became clear, the Uttarakhand pollution control board tested the water from Haridwar result shown water as ‘fit for drinking after chlorination’ for the first time in decade. Which shows inherent property of river to clean itself, Oceans and marine life also recovered from pollution. Decline in fishing, no cutting of trees, stop of harmful activities to kill wild animals, resulted in positive impact on wildlife. Birds, Animals have been spotted moving, Swimming here and there even people of city witnessed few beautiful rare birds which usually they have never seen nearby their surroundings. Sea Turtles returned to left out earlier human interfered areas to lay their eggs, even some of the rare marine animals were seen by scientists. Thus, in ecosystem flora and fauna shown positive and healthy changes because of clean air, water and very low human interference after the lockdown. All the above positive changes in the environment after lockdown reflect that environment has an inherent property and capacity to neutralize its ecosystem from undesirable harmful matter accumulations only if it should not exceed so much by human activities. As per an article by UN – Nature can still heal itself, if we give the urgent attention it needs.

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\*Student, DDU-KK, DAVV, Indore

\*\*Visiting Faculty, DDU-KK, DAVV, Indore

## **BIO-ENZYMES FROM ORGANIC WASTE**

Nafeesa Susnerwala

Zainab Saife

The enzymes are biological catalysts (also known as biocatalysts) that speed up reactions in the living organisms, and which can be pulled out from cells and then used to catalyse a wide range of commercially important processes. Bio Enzymes are organic compounds produced by fermentation of fresh vegetable/fruit waste in the presence of water and jaggery. First we have to add jaggery and then we have to add peels of vegetables/fruits and then we have to add water in a ratio of 1:3:10 in a air tight container. It is placed in a shaded area in a fixed manner and in an observation of our eyes. It is proving that the bio enzyme is the best solution for domestic and agricultural applications. It is a natural, non-toxic, non-flammable, noncorrosive liquid enzyme formulation fermented from vegetable extracts that improve the engineering qualities of soil, facilitates higher soil compaction densities and increases stability. Improvement and stabilization of soils are widely used as an alternative to substitute the lack of suitable material on site. Soils may be stabilized to increase strength and durability or to prevent erosion and dust generation. The use of non-traditional chemical stabilizers in soil improvement is growing daily. A bio enzyme was developed to improve the mechanical performance and applicability of clayey soils. Enzymes increase the rates of reactions allowing them to occur within a biologically useful time scale. The waste generated from fruits and vegetables are organic and supply a major share in pollution of air, water, and soil. Enzyme Bio-cleaners are an organic compound including enzymes produced by the simple fermentation of fresh vegetable wastes, fruit wastes with the addition of brown sugar and water by using the selective microorganisms like Yeast and Bacteria. This anaerobic fermentation generates natural chains of the capacity to breakdown, modify, create and catalyse functions that make it an astonishing cleaning support in a household or growing support for trees/plants as well as other applications. It is an eco-friendly, zero waste and crop protective. This idea is to review the investigations and opportunities of significant work be done on the bio enzymes. It helps to reduce waste & turn into a useful substance to the society which is economical and cheaply available and the end product can be completely useful.

## **PRESS MUD AS A SUBSTRATE IN BIO GAS PLANT: A STUDY**

Aiman Farooqui\*

Dr.Jyoti Ratnawat\*\*

The amount of waste generated, whether biodegradable or non-biodegradable, is growing in proportion to the world's population. To reduce biodiversity, large biogas centers are helpful. Because of the depletion of fossil fuels, an alternative to fossil fuels is urgently needed now. As a result, new sources of energy must be found. The biogas plant is a center that allows anaerobic digestion in the absence of oxygen. Simply put, it is a man-made system that converts waste into sustainable energy and nutrients while being environmentally friendly. It is a world-renowned and widely used energy source based on cattle manure. Biogas technology is important not only in energy production, but also in increasing the use of biomass in forests, animal husbandry, fisheries, agricultural economics, environmental protection, agricultural recycling, and improving sanitary conditions in rural areas. According to statistics, 69% of waste is used as fertilizer, 29% as fuel, and the remaining 2% is used for various purposes. Biogas can be made from the remains of sugarcane, commonly known as compression mud. The sugar industry produces a lot of living, nutritious waste. Sugarcane mud has a great future for sustainable energy production due to the anaerobic digestive process. Anaerobic digestion is a collection of biological processes in which bacteria slow down decay products due to lack of oxygen. Biogas is an example of such a product. Anaerobic digestion of bio waste produces energy while also being environmentally friendly. Biogas contains 50 to 70% methane, 30 to 40% carbon dioxide, and traces of other gases, while Bio-CNG contains 92 to 98 percent of methane and 2 to 8% carbon dioxide and is the best fuel. Biogas can also be converted to biomethane, also known as natural gas or compressed natural gas (CNG). Pressmud makes it an excellent tool for anaerobic biomethanation, which produces bioenergy (methane). Waste left after extracting biogas from compressed mud can also be used as fertilizer. Benefits include reducing pollution, reducing waste, and the ability to use biogas in a variety of ways. This project can be used as an add-on to LPG, which is an urgent need in today's society. 2) It can also be used to generate electricity. 3) Other fuel for internal combustion engines, etc.

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\*Student, DDU-KK, DAVV, Indore

\*\*Visiting Faculty, DDU-KK, DAVV, Indore

**DIVERSITY STATUS OF BUTTERFLIES (ORDER: LEPIDOPTERA) IN  
RATAPANI WILDLIFE SANCTUARY, RAISEN (M.P.)**

Grishma Trivedi   Harsh Vishwakarma   Kratika Patidar   V.K. Sharma

The objective of the present study is totally focussed on the diversity of butterflies in Ratapani Wildlife Sanctuary which is situated on the discontinuous hills of Vindhya Range, located in Raisen District, around 50 kms away from Bhopal, Madhya Pradesh having coordinates 22.918°N 77.722°E. RWLS is a part of Obedullaganj Forest Division and it covers 824 Square Kilometre Of area. The dry deciduous and moist deciduous forest of Ratapani makes it a very important hotspot for flora and fauna and it is the home to many mammals including Tiger, Leopards, Chital, Sambar etc. and various bird species. Ratapani Wildlife Sanctuary comprises four ranges namely Barkheda, Delawari, Dahod and Bhineka. For the study, random field surveys were done on different trails of the area. Species recordings were made in the months of September 2021 and January 2022 on the basis of visual findings in the morning 07:00-11:00 AM and evening 03:00-05:00 PM. Photographs were captured during the field surveys which were taken in use for validation of species of Butterflies recorded with the help of Field Guides and previously published literature. The study resulted in finding 104 species of butterflies, indicating the enormous diversity of butterflies. Butterflies of all the 6 families were present there and recorded during the study. The family Nymphalidae found to be the most dominated with the 35 species followed by Lycaenidae- 28, Pieridae-16, Hesperidae- 13, Papilionidae-10 and Riodinidae- 02. The most dominating species over all the species were, Common Grass Yellow and Zebra Blue. The finding of such a number of butterfly species is a clear indication of a flourishing environment for all the other creatures present in the area.

## GO GREEN TO BREATHE CLEAN

Gaurav Sahani

Venus Rathore

Miqdad Arif

Air pollution is contamination of the indoor or outdoor environment by any chemical, physical or biological agent that modifies the natural characteristics of the atmosphere. Some common sources of air pollution are mainly Household combustion devices, Motor vehicles, Industrial facilities and Forest fires. Air pollution kills an estimated seven million people worldwide every year. As per the IQAir, a Swiss-based air quality technology company in India air pollution is a very serious issue, out of the 30 most polluted cities in the world, 21 cities are in India, the major cause of air pollution currently around is the human as our greed of comforts made us pollute the air. Personal transport is also one of the major reasons. The burning out dangerous industrial and chemical wastes is contributing mainly in promoting electric vehicles are to be used as a common medium of transportation. To make our city number one in Green Air pollution free like cleanest city, there is a need to ban the use of plastic, strict rules to be implemented for plantation which should cover-up the required deforestation. Government rules for maintaining the green belt in residential place to follow strictly. Government should implement strong acts to reduce air pollution by regular checking of air quality index. The industrial waste should not be burnt without any proper waste management plan.

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Shri Vaishnav Institute of Management, Indore

## DIVERSITY AND DISTRIBUTION OF GENUS *SCENEDESMUS* (MEYEN) IN THE CHORAL RIVER, INDORE (M.P.)

Pradeep Mansore, Tufan Benal, Smriti Chitnis

Genus *Scenedesmus* (Meyen) belongs to class Chlorophyceae. The present study was undertaken to understand the diversity and distribution of genus *Scenedesmus* (Meyen) in fresh water system represent by Choral river. Water samples from the Choral river were collected and analyzed during the period of the year 2019-2020 using standard methods. They were taxonomically investigated and described. A total of 08 species belonging to Genus *Scenedesmus* viz. *Scenedesmus dimorphus*, *S. obliquus*, *S. quadricauda*, *S. acutiformis*, *S. arcuatus*, *S. abundans*, *S. bijugatus*, *S. abundans var. longicauda*, *S. longus*, were identified. The result provides primary documentation of the *Scenedesmus* and its diversity and basic understanding of hydrological variables in the river ecosystem.

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Department of Botany, Mata Jijabai Govt. P.G. Girls' College, Moti Tabela Indore

## **THE URBAN DECLINE OF BIRDS DUE TO ELECTROMAGNETIC RADIATION**

Khadija Pattiwala\*

Dr Jyoti Ratnawat\*\*

Cell phones nowadays are important part of our life and so are the cell phone towers. They are not simply standing towers but a balloon of invisible electromagnetic field with radiations that continue to threaten life around them especially of the bird species. Before the cell phones came into existence, electromagnetic radiation emission was sporadic from a few radio or television transmitters only. The invent and spread of cell phones to almost every individual in every home around the world has massively increased the amount of unseen electromagnetic radiations into the atmosphere. When birds are exposed to electromagnetic radiation, they disorient and fly in different directions which harm their natural navigation ability. Birds like sparrows, swan, pigeons are some highly affected by this radiation. Outcomes of this radiation lead to locomotory defect, neural damage and endangering reproductive capacities in birds. Identification of the monstrous effect of electromagnetic field causing harm to the environment, would help in developing alternatives and would empower best possible utilization of wireless devices while ensuring well-being of these little creatures. Hence it is crucial that strict radiation standards must be authorized by government. Organizations like WHO, ICNIRP, FCC should make strict guidelines to be followed all over the world so that crucial bird diversity can be saved and sustainable developmental approach can be adopted.

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\*Student, DDU-KK, DAVV, Indore

\*\*Visiting Faculty, DDU-KK, DAVV, Indore

## **SOIL CONSERVATION**

Taher Bagwala

Mohammed Lookmanjiwala

Saloni Lalka,

The world is about to death, because one of the most important non-renewable natural resources is going to be extinct i.e., soil. A handful of soil contains almost 8-10 billion micro-organisms, and because of that organism, we are getting grains, fruits, vegetables and many more land crops. UN Agency state that only 40-55 years of harvest is left on the planet, and the rate of extinction is double. This means that only harvest for next 20 years is left and it will take around 150-200 years to make it harvestable again. We may formulate solutions to the above problem such as grow and plant more trees to prevent soil erosion and need strong government policies to prevent soil.

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Shri Vaishnav Institute of Management, Indore.

**‘PATRIKA MAGAZINE’ STARTED CAMPAIGN FOR POLLUTION FREE  
CLIMATE, RED LIGHT ON, ENGINE OFF MESSAGE ON REGAL.**

Riddhi Dagaonkar

MPs, Municipal Commissioners and Patrika magazine volunteers making people aware at Regal tiraha. To make the city's climate pollution free, the magazine started the Red light on, Engine off campaign at Regal Tiraha. They advised the drivers of the vehicle to turn off the engine when the traffic signal light turns Red, which will reduce the pollution. Now-a-days it is mandatory to save our environment not only by planting the trees but also by reducing all the types of pollution as we want a good future for our next and upcoming generations. If we want to protect our environment from all the types of pollution and also from the depletion of the ozone layer, green house effect we have to reduce the use of the vehicles by using the public transport or bicycles etc. It is a good step to turn off the engine when the traffic light turns on taken by our MPs, Municipal Commissioners and the Patrika volunteers. But this step should be taken not at every signal of Indore but also at all the signals of India. We have to make people aware about the environment not only by taking this step but also different steps should be taken such as using public transports, bicycles or bullock cart, by not using the ACs, as by using the air conditioner the global warming increase, at the place of AC we can use coolers. So, these are the small steps we can take by our own to save our climate. The MP encouraged the people who turned off the engines on the red light by giving them flowers. Now, it's our turn to make ourselves and people aware about our environment and climate. The small steps taken today will help tomorrow. Therefore, we should start right now to protect and save our climate.

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Student, DDU-KK, DAVV, Indore.

## “तितलियों का जीवन चक्र-उनके विकास की विभिन्न अवस्थाएँ एवं विकास के लिए संरक्षण”

सुबोध नातू

पर्यावरण के प्रति सजगता फोटोग्राफी कला के प्रति प्रेम एवं एक व्यावसायिक फोटोग्राफर होने के नाते कोरोना महामारी के काल में घर की बगिया के एक पौधे पर रंगीन इल्लियों को देखकर अपने केमेरे में अलग-अलग समय में सूर्यप्रकाश के साथ कैद करते समय उनके प्रति उत्सुकता जागी जिससे इल्लियों की विभिन्न अवस्थाओं को शूट करने का जूनून पैदा हुआ और यहाँ से इनके जीवन चक्र की विभिन्न अवस्थाओं की विषम परिस्थितियों में विकास की जटिल प्रक्रिया को कैप्चर करने का मौका मिला जिससे तितलियों के सम्पूर्ण जीवन चक्र को देखने की उत्सुकता ने तितली के जीवन चक्र की जानकारी प्राप्त करने हेतु प्रोत्साहित किया और इसी विषय पर विस्तृत शोध कार्य प्रारम्भ हुआ। विभिन्न प्रजातियाँ जैसे लाइम बटरफ्लाई इसके बायोलॉजिकल नाम (पेपीलिओ डेमोलिओस), मॉरमॉन और मोनार्क तितलियों के जीवन चक्र के विकास के लिए अनुकूल पौधे, वातावरण व उनकी विभिन्न अवस्थाओं जैसे प्रजनन से लेकर अंडे देने, अंडे के डेवलपमेंट से शिशु केटरपिलर का निर्माण, शिशु केटरपिलर से केटरपिलर की चारों अवस्थाओं का विकास इसके पश्चात कोकून निर्माण व कोकून से पूर्ण विकसित तितली के जन्म तक का फिल्मांकन व फोटो चित्रांकन और विभिन्न अवस्थाओं के विकास की समयावधि पर शोध कार्य किया गया है उपरोक्त जीवन चक्र में एक इल्ली जिस प्रकार से अत्यंत विषम परिस्थितियों में भी हार न मानते हुए स्वावलंबीरूप से तितली के रूप में विकसित होती है उसी प्रकार से मैंने भी ये शोध पूर्ण रूप से कई नाकामियों के बाद सफलता पूर्वक स्वयंसिद्ध किया है जिसमें उपलब्ध सिमित साधनों से ही मैंने सम्पूर्ण शोध व फिल्मांकन किया है जिसकी विशेषता है की राई के दाने से भी छोटे आकार के अंडे के आंतरिक विकास का चित्रण माइक्रो लेंस की अनुपस्थिति में तकनीकी तौर पर साधारण लेंस को माइक्रो लेंस में कन्वर्ट करके सफलता पूर्वक किया गया है।

## **ENVIRONMENTAL POLLUTION**

Zainab Kiranawala\*

Dr. Jyoti Ratnawat\*\*

Environmental pollution is not a new phenomenon, yet it remains the world's greatest problem causing a serious impact on living organisms including humans. Environmental pollution is defined as "the contamination of the physical and biological components of the earth/atmosphere system to such an extent that normal environmental processes are adversely affected. Man's activities through urbanization, industrialization, mining, and exploration are at the forefront of global environmental pollution. Environmental pollution reflects a measurement of contamination of the living and non-living (physical and biological) constituents of the earth, in a manner and to an extent, to adversely affect the normal optimum environmental processes. The pollutants may yield primary or secondary damages, of which the primary damage can be quantified and its impact monitored. The secondary damage, on the other hand, occurs as a marginal disturbance to the delicately poised biological food web pyramid balance and can be noticed only over prolonged durations.

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\*Student, DDU-KK, DAVV, Indore

\*\* Visiting Faculty, DDU-KK, DAVV, Indore.

## **ENVIRONMENTAL DEGRADATION**

Ummulbanin Kapadiya

Environmental degradation is an issue of increasing concern for all of us. The deterioration of the environment through depletion of resources and the destructions of ecosystem and the extinction of wildlife is an environmental degradation. The purpose of this abstract is, to aware the people about this serious problem. To define environmental awareness, we must first understand the environmentalist movement. Environmentalism is an ideology that evokes the necessity and responsibility of humans to respect, protect, and preserve the natural world from its anthropogenic (caused by humans) afflictions. Environmental awareness is an integral part of the movement's success. By teaching our friends and family that the physical environment is fragile and indispensable, we can begin fixing the problems that threaten it. There are mainly three different types of environmental degradation. They are land degradation (also called soil degradation), water degradation, and air degradation. The degradation of these three environments impacts the global climate and living conditions to a great extent. All the environmental factors are dependent on one another and the impact or degradation of one type leads to the breakdown of the other factors in nature. Continued environmental degradation can completely destroy the various aspects of the environment such as biodiversity, ecosystems, natural resources, human health and habitats. One notable implication of environmental degradation for social existence is that it usually disrupts the socio-economic life of the human population who are immediately dependent on natural resources for sustenance. environmental degradation is not only affecting individual but also entire countries all over the world. The awareness towards improving the quality of environment has increased substantially and all efforts are being made at different levels to minimize environmental degradation and thus help in improving the quality of life. Management of environment means the proper utilization, conservation, preservation, control and recycling. The main focus on environmental management is thus, avoid the over use, misuse and abuse of the natural resources. Some solutions of this serious problems are :- stop deforestation, there should be fines and punishment for illegal dumping, avoid plastics, reduce consumption levels and education about environment. we only have one earth to work with, and if environment is irreparably compromised, it could mean the end of human existence.

## **MULTIPLE CROP PREDICTION FOR EFFICIENT SMART AGRICULTURE**

Surekha Janrao

Proposed system is expected to analyses the different soil and climatic parameters such as Temperature, Humidity, Weather, Rainfall, Water-Storage, Soil\_pH, Soil\_Temperature, Soil\_Depth, Soil\_color, Soil\_type. This analysis will help the farmer to know in advance which crops are likely to be produced in his farm based on the available soil and climatic parameters. Proposed system is going to use the optimization technique for selection a single predicted crop which has the more demand in the market so that farmers can obtain more profit from that crop. Proposed system is going to use one more feature to find which fertilizers can increase the crop yield and this information will help the farmers to be ready with the preparation in advance for production of crop. In country like India, maximum farmers are mainly focusing on crops such as food grains, spices, vegetables, fruits, flowers etc and therefore, proposed system is expected to use the class label attributes for the same to prepare the data set. Proposed system is going to build the forecast model by using machine learning algorithm which can do the predictive analysis on the available data and suggest which fertilizer will be used for the predicted crop which is prescriptive analysis as proposed system is giving the solution to increase the crop yield by suggesting the correct fertilizer. The proposed model is going to become very helpful to the farmers as well as other agriculture domain experts to obtain the quick information and thereby making the useful decision related to grow the crops, fertilizer to be used, selecting multiple crops to be produced to maximize the profit with less resources and less time.

## **ENVIRONMENTAL PROBLEMS AND SUSTAINABLE DEVELOPMENT**

Sakina Mhowwala\*

Dr. Jyoti Ratnawat\*\*

Any country's environmental problems are related to the level of its economic development, the availability of natural resources and the lifestyle of its population. In India, growing population, poverty, agricultural growth and several related challenges are responsible for the rapid degradation of environment. These factors adversely affects the poor who depends on them for their livelihood. Some of the severe environmental issues prevalent in India are : Degrading air quality index, Loss of Biodiversity, Urbanisation, Loss of resilience in Ecosystems, Lack of Waste Management, Depletion of Resources, Growing Water Scarcity, etc. Sustainable development is an approach to the economic development of a country without compromising with the quality of the environment. Efficient use of natural resources, education, population stabilization, integrated environmental systems, social and cultural changes, determining environmental limits, refining market economy, reduction in waste and prevention of pollution are some elements of sustainable development. Awareness creation and raising understanding regarding the importance to conserve and enhance our resources. According to State of India's Environment (SoE) report, India's position of Global Environment Performance Index fell from 141 in 2016 to 177 in 2018. While every citizen should be responsible for safeguarding our environment, government initiatives have played a huge role in helping find solutions to the problems. Some are listed here: Swachh Bharat Mission, Green Skill Development Programme, Namami Gange Programme, Compensatory Afforestation Fund Management and Planning Act (CAMPA), National Mission for Green India, National River Conservation Programme, Conservation of National Resources and Ecosystems. After all the efforts, it's our own individual responsibility to maintain a balance with environment and our development. This balance can be achieved through minimizing the environmental dependency and recycling the resources.

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\*Student, DDU-KK, DAVV, Indore

\*\* Visiting Faculty, DDU-KK, DAVV, Indore

**Track 4**

**Allied Science**



**“HOW INTERIOR IMPACT HUMAN BEHAVIOR & DEVELOPMENT-  
PSYCHOLOGY OF SPACE”**

Ms. Shraddha Munshi\*

Mrs. Reshma Bhide\*\*

The goal of this paper will analyze how interior design impact on human behavior & their development and how it will help in societal growth by using psychology of space. Most of our lives spent indoors, the space we occupy has a major role in our psychological behavior. Space psychology is, in fact, the interaction between people and the spaces they inhabit. Lighting, colors, configuration, scale, proportions, acoustics, and materials address the senses of the individual and generate a spectrum of feelings and practices. From inducing warmth and safety, defining well-being, or creating a positive and efficient working environment, space can have a whole lot of impact on how we act or on what we feel therefore, design and creative measures should be considered according to the social and psychological needs of the occupants. Having a direct impact on your subconscious, contributing to your emotions and perceptions, through that special part of your brain that reacts to the geometry of the space you occupy, interior design became an inherent part of people's psychology. Understanding the energy of your space and introducing nature in well-defined manner can bring forth positive energy and moods. A psychology of space creates a better surrounding, it is not only necessary for the people as well as for their development and also for the growth of the society. A good interior space keeps human mood good ,boost positive thoughts, creativity, productivity, motivation, relieve the symptoms of depression & anxiety, and keeps human healthier and happier. Increase the concern about the importance of the interaction between interior design and human psychological behavior. Creating a meaningful space that fulfills the needs of the inhabitant and optimizes their space is one of our key roles as designers and is essential to our society. Conclusion is that the interior design and the psychological status of residents and users should go hand in hand considering human behavior. Identity, privacy and safety impacts, health concerns, accessibility, open spaces feature, aesthetic sense all the point should also be kept in mind while designing for a better development, better hospitality & better creativity.

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\*Student, Deen Dayal Upadhyay Kaushal Kendra, DAVV, Indore.

\*\*Visiting Faculty, Deen Dayal Upadhyay Kaushal Kendra, DAVV, Indore.

## **NATURE INFLUENCES ON ARCHITECTURE & INTERIOR DESIGNS**

Ms. Eshika Sendre\*

Mr. Manish Kothari\*\*

The most important and primary elements during the design process is considering nature. Through the history, nature has been always a source of inspiration for the human begin in different aspects of their life. Architecture & interiors are remarkable features in every society that cannot be separated from nature. Various designers have been using concepts inspired from nature but still there are some missing parts in one of their forms, function, or structure. Therefore, the best solution for the architects and designers to increase the optimization in their design works is looking at the nature in every aspect deeper and try to apply them in their conceptual design of their project which is the heart of the design process. The surrounding environment and nature always influences human perception. The aim of this research is to understand the relationship between nature and human perception and the role that nature plays in architectural interiors to achieve interiors integrated with the surrounding environment. The natural surroundings of a particular region influence the colors, materials, spatial planning, structural systems, etc. Using materials in the interiors obtained locally in the region would reflect the outside nature inside the building and reduce the carbon emission. It would also help deal with various natural factors like keeping the thermal environment inside the space stability and comfort. The elements of nature in the form of natural materials for tables, chairs, wall hangings, closets or intricate wood/stone-carved display objects, ornamental lightings, or any other element that is made by local and natural material, could also depict the outside nature inside the structures and uniqueness of the region. Conclusion is while designing a building, the architecture & interior should always be focused, keeping the natural features of space in mind allows the building to blend in with its surroundings and to complement natural factors such as the climate and location. The location also decides how the interior of the space will be designed.

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\*Student, Deen Dayal Upadhyay Kaushal Kendra, DAVV, Indore.

\*\*Visiting Faculty, Deen Dayal Upadhyay Kaushal Kendra, DAVV, Indore.

## **INDIRA PARYAVARAN BHAWAN NET ZERO ENERGY BUILDING**

Nidhi Nashikkar\*

Mrs. Kavya Ingle\*\*

In the current scenario of microclimate change and ecological crumbling, different sustainable approaches should be taken into action to maintain the ecological balance and also reduce the carbon footprint. In the field of sustainability, the net-zero building design concept has gained a wide international attention for the mitigation of carbon dioxide emission by adopting renewable energy and energy efficient technologies in the building industry. The net-zero energy building design concepts have grabbed attention due to clean energy deployment, energy security, economic growth, and environmental sustainability. It is now considered widely with the introduction of net metering system of onsite renewable energy generation and grid power utilization. Integration of solar photovoltaic power plant has boosted the morale of owners and building design professionals for construction of energy efficient buildings and use of clean and green renewable energy. The design strategy of net zero energy building is the ultimate solution to reduce energy consumption in the building sector resulting considerable carbon dioxide emission reduction. The NZEB approach in a country can differ depending on the climate, the resources for (green) electricity in the grid, the heating and cooling grid infrastructures. To meet energy demands of building long term strategy needed which can increase energy efficiency levels and use of renewable energy resources. The main target is new buildings by using the energy conservation measures in construction, to make energy-efficient buildings or NZEBs. The architects and building design professionals have attempted this new design concept on some important buildings, one of them is the Indira Paryavaran Bhawan constructed at New Delhi in composite climate zone in India. This research paper contributes and elaborates on the case study of Indira Paryavaran Bhawan from various green building and NZEB'S norm perspective. Various design strategies adopted in this building have been analysed which can help in developing design considerations for Net Zero Energy Building (NZEB) in the composite climate.

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\*Student, Deen Dayal Upadhyay Kaushal Kendra, DAVV, Indore.

\*\* Visiting Faculty, DDU-KK, DAVV, Indore.

## **IMPACTS OF INTERIOR DESIGN TO FIGHT ANXIETY AND DEPRESSION**

Mrs. Apoorva Kesariya\*

The personal spaces in our home set the stage for many moments in our lives. And because these areas are the setting for so many important and stressful periods in life, it's crucial that your personal spaces comfort, support, and provide positive emotional energy. anxiety and depression are the most common mental health complaints. However, many interior design techniques and approaches have been shown to reduce stress and depression. While making the connection between home design and emotional stability is not new, recent studies have fortified the validity of these claims. In the healthcare industry, the links are well-documented. Creating spaces for being together and being apart can increase mental health. Interior design and our emotions has gained much attention in the last decade, this form of environmental psychology exists for thousands of years now – the Indian Vastu Shastra, the Chinese Feng Shui, etc. Because of the rise of neuroscience, scientists are doing plenty of research on this topic and finding the most incredible results. They have shown the ability of interior design elements to evoke a positive or negative emotional response in people. These findings open the door to design spaces that consciously manipulate decorative elements with the goal of encouraging creativity, peace, and happiness. Whether or not you believe that interior design is essential, all humans have evolved in ways that make them sensitive to environmental cues. Your home design can either increase or discourage productivity, intimacy, efficiency, and even happiness. Everything in your home triggers an emotional response. The spaciousness of your home, the layout of the room, the lighting, the use of materials, the presence of plants and flowers, the use of colour, and the use of art are all ways to improve your mood, increase your focus, and reduce anxiety.

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\*Visiting Faculty, Deen Dayal Upadhyay Kaushal Kendra, DAVV, Indore.

## **HASTA SHILPA HERITAGE VILLAGE, MANIPAL**

Mansi Pal

HASTA SHILPA HERITAGE VILLAGE at Manipal, in the coastal region of India's Karnataka state, is an open air museum and cultural complex which aims to restore and conserve the nation's cultural wealth in the form of traditional buildings and objects of art, craft and other arte facts of aesthetic interest. Architecture of Hasta Shilpa Heritage Village: All the houses in Hasta Shilpa Heritage Village are a reconstruction of older structures, representing their own history and story. Various cultures such as Maratha, Keralite, and European ways of life are on display. What Does Hasta Shilpa Heritage Village Represent? Hasta Shilpa Heritage Village resurrects age-old extraordinary craftsmanship and masonry that was once prevalent in south India. Conceptualizing and executing a project on a large scale as this, is a task only for the ardent and the industrious. Hasta Shilpa Village in Manipal is living proof that passion and pain can drive anyone to achieve the impossible and to push the limits that they weren't even aware of. Shenoy single-handedly created a legacy for architectural conservation. The idea of building this heritage village was to save an era of rich craftsmanship from being forgotten and to make young people walk through the experience of a bygone era. Why Should You Visit Hasta Shilpa Heritage Village? The Hasta Shilpa Village stands as a proud bastion built with the purpose of reminding us of what existed earlier. Declaring it as a protected monument, the State Directorate of Archaeology and Museums had started the restoration work. Discerning visitors such as students of architecture, designers, scholars, researchers, and conservationists are welcome to visit this heritage village. ITS SPECIAL FEATURES: The site is covered with the screening of the various trees such as Acasia tree, Coconut tree, Mango tree, Jack Fruit tree, White Jack tree; they have recreated all the structures with different ideas and vernacular materials. Traditional houses have been preserved for future generations at this heritage village attraction.

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Student, Deen Dayal Upadhyay Kaushal Kendra, DAVV, Indore.

**SELECTION OF INDOOR PLANTS BASED ON INTERIOR DESIGN ELEMENTS  
AND FUNCTIONS IN A RESIDENTIAL SPACE**

Ar. Ruchika Gangrade

Since the beginning, humans have had a very close relationship with nature. Interaction with the elements of nature is essential for a better quality of life. In the course of time and development, humans have lost contact with nature and plants. Creating a successful and appealing indoor space is directly related to an optimal degree of space aesthetic and function. Interior design which includes plants creates a functional, physical and psychological effect. Indoor plants are a vital part of contemporary design. This study aims to explain how plants can be used as a design element indoor and determine their benefits regarding human health concerns. The study provides an overall outline of indoor plants' aesthetic and characteristic importance in human life. A home is a place that perceives the environment as life by people and culture.

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Assistant Professor, Shri Vaishnav Institute of Architecture, SVV, Indore, India

## **LANDSCAPE TRENDS 2022 AND ITS IMPACT ON SOCIETY**

Nidhi Nashikkar

Public parks are an important aspect of the urban environment. Urban nature fulfils many social functions and psychological needs of the citizens, which makes urban nature a valuable municipal resource, and a key component for the sustainable city. Many new trends in landscape design process in urban spaces have appeared in order to be sustainable parks which response to social, economic and environmental changes. 2022 will see a continued emphasis on planet-friendly gardening ideas like organic growing, peat- and pesticide-free plants and a return to the basics such as composting. Studies have shown that landscaping has a direct effect on not only the building outfit but also the functionality, performance and aesthetics. Landscape Architecture over the years has not been given the deserved emphasis and considerations in design proposals and construction. Hence, the natural elements of the environment are not fully harnessed in maintaining ecological balance in built environments as proper landscaping offers owners and users an increased liveability, improved health, greater flexibility, enhanced energy and environmental performance. Landscape is more than a projection into nature or the environment, it is a multivalent frame of territory, patterns, politics and aesthetics determining how the environment is perceived and shaped. The importance of this study goes beyond highlighting the benefits of Landscape Architecture in the built environment but also promote the awareness of sustainable Architecture and ecological balance of the built environment. Allotment gardens have been making a major contribution to providing the urban population with food for the last two centuries; their additional value in relation to experience of nature, health of the population, leisure activities, social togetherness, species protection and biodiversity, furthermore their contribution to adjusting to climate change wins recognition in society. This paper offers a perspective on the role landscape and gardening play in urban settings from a socio-cultural and ecological dimensions.

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Student, Deen Dayal Upadhyay Kaushal Kendra, DAVV, Indore

## **SUSTAINABLE INTERIOR MATERIAL IMPACT ON HUMAN HEALTH**

Ms. Suhani Gupta\*

Mr Manish Kothari\*\*

Health has become an important area of focus. A more educated approach towards building material and its impact on human health and wellbeing will go long way to improve not only human health but also the environment. Why selection of materials is important? Many building materials may contain chemicals of concern which may lead to short terms and long terms health impacts. Short term impacts may include skin allergy, eye irritation, throat irritation and sneezing while long term impacts may include asthma, cancer, infertility, etc. Some of these health concerns can pass on to the next generation like autism, obesity and endocrine disorders. Using non-toxic and non-polluting products and materials which have a low environmental impact is yet another fundamental principle of sustainable interior design. While the use of organic materials like wood and stone might be the obvious answer, one must also consider their scarcity and varying rates of renewability. Today, sustainability as a concept has become increasingly popular in building and interior design, owing to the growing need for environmental conservation. As a result, most homeowners and developers have been adopting sustainable interior design to help reduce the impact on the human health and environment.

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\*Student, Deen Dayal Upadhyay Kaushal Kendra, DAVV, Indore.

\*\*Visiting Faculty, Deen Dayal Upadhyay Kaushal Kendra, DAVV, Indore.

## **ENERGY EFFICIENCY LANDSCAPE FOR THERMAL COMFORT**

Nidhi Nashikkar\*

Thermal comfort is the condition of mind that expresses satisfaction with the thermal environment and is assessed by subjective evaluation. By managing thermal comfort, we are likely to improve morale and productivity as well as improving health and safety. Energy-efficient landscaping is a type of landscaping designed for the purpose of conserving energy. There is a distinction between the embedded energy of materials and constructing the landscape, and the energy consumed by the maintenance and operations of a landscape. Common methods of energy-efficient landscaping include reducing heat or cooling load of a building through shade, wind-blocking, and insulation; management of water; and using plants or construction material that cost less energy. Energy and landscape are critical constituents in the physical development of built environment. Energy conservation and landscape quality have been widely acknowledged as important parameters in design of building, surroundings and built-up Areas. In design process the landscape is one of the vital parameters of functional, aesthetical and environmental considerations. Buildings that are carefully designed using passive strategies for natural ventilation and day lighting reduces our dependency on electrical energy meanwhile ensuring thermal comfort inside the building. Similarly, carefully planned vegetation around the building helps in reducing the urban heat island effect and electricity consumption. The physical parameters in terms of temperature, precipitations and humidity of varied prevailing climatic conditions and varied methods adopted through landscape interventions and techniques to overcome the extreme conditions, which in turn helps in reducing the consumption of energy. It has a potentiality to dilute the greenhouse effect, absorb the dust particles. It is essential to understand its contribution towards energy and environment to enable the designer to utilize its potential effectively in an integrated design approach and thought process with due consideration to climate change. This paper shows how precisely the energy efficient landscape parameters can be assessed to integrate the built-up spaces so as to conserve the energy.

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\*Student, Deen Dayal Upadhyay Kaushal Kendra, DAVV, Indore.

## **LANDSCAPING AROUND HOME IMPROVES ENERGY EFFICIENCY IN HOME**

Mansi Pal

Residential landscaping can be defined as the art and the practice of improving the appearance and aesthetic appeal of the people who live there. A well-designed landscape not only can add beauty to your home but also can reduce your heating and cooling costs. A well-placed tree, shrub, or vine can deliver effective shade, act as a windbreak, and reduce your energy bills. Carefully positioned trees can save up to 25% of the energy a typical household uses. The climate immediately surrounding your home is called its microclimate. When landscaping for energy efficiency, it's important to consider your microclimate as well as your regional climate. Common methods of energy-efficient landscaping include reducing heat or cooling load of a building through shade, wind-blocking, and insulation; management of water; and using plants or construction material that cost less energy. When plants are used on the walls and roofs of buildings, the results are positive too: Plants reduce energy usage. Plants extend roof lives. Plants moderate temperatures in hot spots. Plants even can provide fresh vegetables for building occupants. 12 simple front yard landscaping ideas that can add serious curb appeal Add rock features, add lighting, upgrade a bed border. Plant ground cover to hide unsightly areas. Plant perennial shrubs in front of your house, make a garden bed around your mailbox, Haul out old mulch and refresh, Build a flower bed around a tree. Landscaping entails making improvements or maintaining previous enhancements on your property's ground, either aesthetically or practically. Any fixed feature in your property ground affecting your house's practical functioning or overall aesthetics is a landscaping feature. Landscaping also allows homeowners to control storm runoff and drainage. When it rains, water should flow away from your home. If it collects around the base of your home, it can cause significant property damage, creating an ideal environment for rot and mold. Our whole human history involves interaction between us and our natural environment. Landscaping seeks to restore harmony between the built and natural environment. Attractive and accessible landscapes invite and encourage physical activity. They can also provide an escape from the pace of modern life and give us insights into our past and culture. Engaging more closely with landscapes is thus good for our physical and mental health and well-being as individual. Landscaping preserves the environment, helps manage soil pollution, clean the air, water management, creates a cooling effect, and stops erosion.

## **BIOPHILIC INTERIOR DESIGN**

Shivam Pathak\*

Mr. Manish Kothari\*\*

Biophilic Interior Design is the growing adoption of nature inspired design which has a significant positive impact on people's health as well as mental strength. Approximately 80% of our time is spent indoors these days, which disrupts the human body's circadian rhythm and leads to sleep disturbances, stress, and mental disorders. Because of its complexity and adverse effect on lifestyle, the generation we live in is reducing human life expectancy. Our species originated in jungles and evolved in natural environments from apes, so the favorable growth and living environment must reflect natural aspects and a nature-driven environment. An interior designer can employ Biophilic Design by using natural materials and incorporating asymmetrical shapes of tree and plant life. It also involves maximizing more natural day light inside the building. Using carpet patterns, wall murals, fountains and other materials that mimic the randomness of nature, the interior designer can create a soothing environment for humans. This practice can also be employed. In office to provide good working conditions to enhance individual's working, in school to enhance the learning environment of the student as well as in hospitals to speed up the recovery of patients. In order to achieve this balance, Biophilic Design emphasizes the open environment while mimicking nature in interior design in order to provide humans with a space where they can develop and evolve. In nutshell, biophilic design offers a cure to the problem of stress-induced aging in our generation by providing a stress-free environment and allowing human life spans to increase.

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\*Student, Deen Dayal Upadhyay Kaushal Kendra, DAVV, Indore.

\*\*Visiting Faculty, Deen Dayal Upadhyay Kaushal Kendra, DAVV, Indore.

## **FOR CLIMATE CONTROL**

Nidhi Nashikkar

Many people decide to enrich their gardens by planting trees. Most of them do it for the beauty or to provide extra shade in summer months. However, there are more benefits from planting than you might think. Except for relaxing, connecting us with nature and their calming effect, plants do a lot when it comes to the environment. Since climate is basically an average of the weather over a long period of time, vegetation is important to climate. Plants also help keep our climate stable over time by offsetting temperature and moisture fluctuations through transpiration. With vegetation covering about 20% of our planet, it's no surprise that plants affect climate. Plants also produce their own micro-weather by controlling the humidity and temperature immediately surrounding their leaves through transpiration. It is well known that plants do purify the air. They absorb pollutant gases such as nitrogen oxides, ozone, ammonia, sulphur dioxide. Plants also absorb odours and act as a filter as little particulates get trapped in leaves. Removing plants and replacing them with heat absorbing asphalt roads and buildings makes cities much warmer. Plants are cooling cities by up to 10 F by providing shade and releasing water. Except for cooling, plants also help to save water. Because of the shade they provide, water will evaporate slowly from low vegetation. Without plants, stormwater flows into oceans and waters without being filtered. Plants break the rainfall and allow water to enter the earth and seep into the soil. Therefore, they prevent stormwater from polluting oceans. Plants are one of the best partners when it comes to agriculture. They act positively in several ways: they reduce soil erosion, increase fertility and help soil obtain moisture. Fallen plant leaves lower reduce soil temperature and prevent soil from losing too much moisture. There are many environmental benefits of planting. Strategically planting plants in the surroundings can have tremendous benefits on the environment. Not only it will help restore life quality in community, contribute to the environment and help fight climate change. Therefore, planting a beautiful tree is always a good idea!

## **ORGANIC FARMING**

Mansi Pal

Organic farming is an agricultural system that uses fertilizers of organic origin such as compost manure, green manure, and bone meal and places emphasis on techniques such as crop rotation and companion planting. Organic farming in India is an agricultural process, uses pest control derived from organic manure and animal or plant waste. This farming started to respond to the environmental suffering caused by chemical pesticides and synthetic fertilizers. It is a new system of agriculture that repairs, maintains, and improves the ecological balance. Organic farming uses organic inputs, green manures, cow dung, etc. Principles of Organic Farming in India: There are four principles of organic farming: Principles of Health – The health of the ecosystem, people, and communities. The Principles of Ecology– The right balance between ecosystem and environment or nature. Principles of Fairness– Good human relationships and quality of life. Principles of Care– The considerations about the environment and environment of the future. There are some techniques by which organic farming in India practiced and are Soil Management, Weed Management, Crop Diversity, Chemical Management in Farming, Biological Pest Control Advantages of Organic Farming: Organic farming in India is very economical; it uses no expensive fertilizers, pesticides, HYV seeds for the plantation of crops. With the use of cheaper and local inputs, a farmer can earn a good return on investment. This is one of the most important benefits of organic farming in India. There is a huge demand for organic products in India and worldwide and can earn more income through export. Organic products are more nutritional, tasty, and good for health to chemical and fertilizer utilized products. Organic farming in India is very environment friendly; it does not use fertilizers and chemicals. Overall, organic agriculture appears to perform better than conventional farming and provides important environmental advantages such as halting the use of harmful chemicals and their spread in the environment and along the trophic chain, reducing water use, as well as reducing carbon and ecological footprints. Organic farming benefits society substantially by reducing pollution and flooding; conserving energy, soil, nutrients, fish, and wildlife; reducing federal costs for grain price supports; and insuring the supply of food for future generations. Even Governments have moved away from this thinking, and are promoting organic or natural farming.

## **ZERO WASTE**

Mustufa Jariwala\*

Tulika Somani\*\*

Zero waste management means the holistic concept of waste management which recognises waste as a source produced during the interim phase of the process of resource consumption. Zero waste strategies may be applied to companies, to communities, industrial sectors, to schools, and homes since they include many stakeholders, not only those of the environment, but also technological aspects. Sustainability is also strongly supported by environmental protection, cost reduction, and additional jobs when it comes to wide management and handling back into the industrial cycle. Lowering global resource requirements force us to consider resource, management and product management. The management of cem waste is therefore a holistic view of the sustainable avoidance and management of waste and resources. Although there are many null practice approaches and wall waste approaches in the modern world, zero waste is a very complex system, and in the future, there are still many works

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\*Student, Deen Dayal Upadhyay Kaushal Kendra, DAVV, Indore.

\*\*Visiting Faculty, Deen Dayal Upadhyay Kaushal Kendra, DAVV, Indore.

## **STUDY OF CLOTHING NEEDS FOR PERSON WITH LOCOMOTOR DISABILITY**

Ankit Bhargava\*

Dr. Chaina Trivedi\*\*

According to the current 2021 Indian disability statistics, out of total 70.22 crore male Indian citizens, 1.5 crore are disabled. There are 1.18 crore disabled women in India out of 65.46 crore female Indian citizens. Clothing plays an important role in our lives because it represents one of the basic physiological needs, which not only mirrors our status within the society but is also meant to provide comfort and protection. Clothing becomes even more important when we are dealing with person with special need. Disability is the consequence of an impairment that may be physical, cognitive, mental, sensory, emotional, developmental, or various combinations of these. A disability may be present from birth or occur during a person's lifetime. The functional capacities that are hindered by motor affections are: walking, climbing the stairs, sitting or standing for a long period of time, grabbing or handling various objects, maintaining body balance and coordination, lifting, stretching, as well as other ordinary activities. Clothing for special needs represents a class of functional clothing that is developed to improve the quality of life of disabled people, to minimise the joint movements while dressing or undressing person with locomotor disability such clothing is designed which should provide phsycoemotional comfort to such person and also make there life more easier , Reported studies have shown that these groups are very sensitive to the clothing they wear and to their overall personal appearance. The needs of these persons are distinctive and different and thus there is a need for designing clothing specifically engineered to their requirements. Thus, the design consideration has to include, among others, changed body shapes, mobility limitations, psychological and social needs. Study conducted on clothing that meets the needs and interests of people with disabilities requires designers, brands and manufacturers to understand their needs and design garments that are stylish yet functional and what possible changes can be made in present clothing line to make it more functional. Therefore, the apparel that is specially designed for persons with disabilities has to allow more freedom and independence when is being worn correspond to the aesthetic point of view.

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\*Student, Department of Life Long Learning, DAVV, Indore.

\*\*Faculty, Department of Life Long Learning, DAVV, Indore.

## **IMPORTANCE OF MEASUREMENT IN FASHION TECHNOLOGY**

Mr.Raj khandelwal\*

Dr. Chaina Trivedi\*\*

Measuring is an important method in fashion or pattern making. We cannot make any garment fit properly unless we have a proper measurement of the person. In fashion designing we generally take the measurement part very seriously as only few centimeters or inches can be a big destruction to the whole pattern or the garment. The measurement is generally taken with the help of a tool name "measuring tape". A measuring tape is the most common and easily available tool required to measure one's body. A measuring tape is a long tape with inches and centimetres marked on both sides of it. It generally comes with a length of 60" and width of  $\frac{3}{4}$  inches. It is foldable and light weight therefore it is easy to carry. Points to remember while taking measurement: the measuring tape should be proper without any cuts or starched, the person should be standing straight, without bending, the measurements should be taken according to the garment (all the required measurements should be taken properly), while measuring one should avoid thick or bulky clothes for perfect measurement, the measurement should be taken in a proper order, personal preference of the wearer should be asked for length, ease and style. In India the most common size in males or females is xl size which is 36. And the size basic industrial size charts also varies according to companies. One can fit into xl of zara but can be thin for xl of reebok as the draft of every company is made with different size modules according to the brand.

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\*Student, Department of Life Long Learning, DAVV, Indore.

\*\*Visiting Faculty, Department of Life Long Learning, DAVV, Indore.

## प्राकृतिक संसाधनों (बॉटनिकल) के द्वारा प्रिंटिंग की विधि का अध्ययन

प्रिया शर्मा\*

डॉ. चैना त्रिवेदी\*\*

बॉटनिकल प्रिंट एक प्राकृतिक छपाई (प्रिंट) प्रक्रिया है जो भारत ही नहीं अलग-अलग देशों में इतिहासिक रूप से देखी जाती है। इस प्रक्रिया को अलग-अलग नामों से जाना जाता है:- बॉटनिकल ड्राइंग, इको-प्रिंटिंग, बॉटनिकल प्रिंटिंग, बॉटनिकल डाईंग, इको-डाईंग, बॉटनिकल इंक। इसका इतिहास मध्यकालीन युग में पाया गया है। 1800 दशक के मध्य से पहले, प्राकृतिक संसाधन कपड़े पर रंगाई और छपाई का एकमात्र स्रोत थे। बॉटनिकल प्रिंट का पहला रिकॉर्ड डिस्कोराइड्स- प्राचीन ग्रीस के एक फार्माकोलॉजिस्ट द्वारा लिखित एक मैनुअल में पाया जा सकता है। मध्य युग के दौरान यह मैनुअल बहुत लोकप्रिय था। 25 साल पहले, इंडिया फ्लिंट ने इको प्रिंट प्रक्रिया विकसित की थी। यह तकनीक विभिन्न पौधों से फूलों और पत्तियों को कागज, कपड़े, मिट्टी और पत्थर जैसी विभिन्न सामग्रियों में स्थानांतरित करने की अनुमति देती है। पौधे के अंदर प्राकृतिक रूप से पाए जाने वाले रंग को छोड़ने के लिए कपड़े के ऊपर फूल, पत्ती और अन्य पौधों की सामग्री को डिजाइन के अनुसार डाल कर भाप के द्वारा या हतोड़े के द्वारा या पानी में उबाला जाता है, जिससे पत्ती या फूल के आकार में एक प्राकृतिक छपाई (प्रिंट) होती है। मेरा उद्देश्य प्राकृतिक संसाधनों (बॉटनिकल) द्वारा छपाई (प्रिंटिंग) की नई विधियों की खोज करना एवं इन विधियों को प्रोत्साहन देना है। लोगों को प्रकृति के जादू से अवगत कराना और टेक्सटाइल में कुछ नया बनाना, सरल, रचनात्मक वेराइटी को लोगों तक पहुंचाना। कपड़े पर छपाई के रूप में लोगों को पसंद आने वाले पत्ते और फूल की डिजाइन को बनाना। इस विधि के द्वारा कपड़े को पर्यावरण के अनुकूल बना सकते हैं, चूंकि ये रासायनिक रंगों से मुक्त होने के कारण त्वचा के संक्रमण को रोकने में लाभप्रद सिद्ध हो सकती है और इससे हम रसायन से होने वाले प्रदूषण को रोक सकते हैं। इस विधि में किसी भी प्रकार के फूल, पत्ती (सूखे हुए) का उपयोग किसी भी कपड़े, कागज आदि पर कर सकते हैं और हमें प्रकृति का अलग-अलग परिणाम देखने को मिलेगा। इसके द्वारा हम पर्यावरण के अनुकूल (इको-फ्रेंडली) कपड़े, ड्रेस, चादर, पर्दे, पिलो कवर, ज्वेलरी, बैग्स, गिफ्ट पेपर आदि का निर्माण कर सकते हैं। ये एक प्रयास है प्राकृतिक धरोहर को संजोने का साथ ही छपाई (प्रिंटिंग) को नया आयाम देने का।

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\*Student, Department of Life Long Learning, DAVV, Indore.

\*\*Visiting Faculty, Department of Life Long Learning, DAVV, Indore.

**TO REDUCE THE POLLUTION BY WASTAGE OF GARMENTS MADE WITH  
DENIM FABRIC AND INCREASE SUSTAINABILITY**

Renuka Hardiya\*

Dr. China Trivedi\*

Denim is a sturdy fabric made with cotton. It is a warp faced textile. The weaving structure is the weft passes under two or more warp threads. It is in everyone's wardrobe, but its end use is not so appropriate as it is a rough fabric with extreme strength and durability. Most of the time it is burnt when user finds it useless. While burning fabric it produces harmful gases which leads to Air pollution also it causes Water pollution while manufacturing Fabric. Keeping in mind Sustainability and also to reduce Air and Water pollution, going to create garments such as blouse out of used denim garment such as jeans, jackets, skirts etc. The process of creating denim fabric is, spinning of cotton fibre is done into yarn, usually dyeing of warp yarn is done and weft is left white, Shuttle loom or projectile loom is used for weaving, the fabric is then sanforized i.e sanforizing machine is used, in machine, the fabric is moistened with water or steam. A rotating cylinder passes a rubber sleeve against another, heated, Rotating Cylinder. The rubber sleeve compress and expand which brings normal thickness and length to fabric, causing shrink. Finally, the fabric is dried with dryer to remove moisture and the shrinkage is permanent now. The purpose of study is to reduce the wastage of denim garments and increase sustainability and Create upcycled product with used Denim garments and also to upcycle used denim garments and reduce Air and water pollution. Denim upcycling has opened vast opportunities for savings in reuse of raw materials, energy and water consumption, chemicals and auxiliaries and waste water treatment. The fabric already has color and hence, dyeing and finishing processes can be eliminated to a great extent.

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\*Student, Department of Life Long Learning, DAVV, Indore.

\*\*Visiting Faculty, Department of Life Long Learning, DAVV, Indore.

## **HASTA SHILPA HERITAGE – AN ODE TO HERITAGE CONSERVATION**

Mansi Pal\*

Mrs . Kavya Ingle\*\*

The Hasta Shilpa Heritage Village, an enclave of six-and-a-half acres carved out of the university town of Manipal, was painstakingly conceptualized by Architect. Vijayanath Shenoy. Hasta Shilpa Heritage Village at Manipal, in the coastal region of India's Karnataka state, is an open air museum and cultural complex which aims to restore and conserve the nation's cultural wealth in the form of traditional buildings and objects of art, craft and other artefacts of aesthetic interest. Time flew by as we paced through classic homes from different times and sections of the society, transported from their original location , from ruins to being reinstated back to full glory here. Not just the actual houses , but also the art, music and scents unique to each house add personal charm that helps transport you at that time and age. Galvanizing teams of masons and carpenters, Shenoy arranged for 16 houses and nine shrines to be transplanted to the site after getting the land on lease from the local government. The structures ranged from 160 to 700 years old, some of them once serving as homes to noblemen, traders, seafarers and priests. Nine new buildings were also wedged into the site, earmarked for collections of musical instruments, handicrafts, textiles, lithographs, and paintings. But from Shenoy's perspective, the main focus would always be vernacular architecture and bygone ways of living. Heritage conservation is very important for the society and its growth. There are some points which exactly tell its importance like embedded memory , historical record , sense of place , appropriate treatment of public goods , re-use rather than re-new, good from sustainability point of view , creates good job for the economy , provides interest to communities and tourists , provides a legacy for the future. Restoring and conservation of the heritage will not only add to the architectural value but also embody our moral values , our cultural identity and historic continuity.

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\*Student, Deen Dayal Upadhyay Kaushal Kendra, DAVV, Indore.

\*\*Visiting Faculty, Deen Dayal Upadhyay Kaushal Kendra, DAVV, Indore.

## प्राकृतिक रंगों का व्यवसायिक उपयोग एवं वित्तीय लाभ

रूही लाड़\*

डॉ. चैना त्रिवेदी\*\*

प्राकृतिक रंग वह रंग होते हैं जो बिना किसी रासायनिक पदार्थ का उपयोग किए जानवर या पौधों की सामग्री से प्राप्त होते हैं। वह फूलों की पंखुड़ियों से पत्तियों से छाल से जड़ से और कीड़ों आदि से प्राप्त होते हैं। हालांकि यह रंग आसानी से प्राप्त नहीं होते हैं और इनकी निष्कर्षण प्रक्रिया कठिन होती है। प्रागैतिहासिक काल में प्राकृतिक रंग जामुन फूल छाल और जड़ों आदि से प्राप्त किए जाते थे और उन्हें बिना किसी पूर्व उपचार किए कपड़े पर लगाया जाता था। 19वीं सदी के मध्य में सिंथेटिक रंगों की शुरुआत से प्राकृतिक रंगों के उपयोग में गिरावट दिखाई देने लगी। प्राकृतिक रंगों को अलग-अलग तरह से वर्गीकृत किया जा सकता है जैसे रंग के आधार पर, ओरिजिन के आधार पर, रासायनिक संरचना के आधार पर, मेथड ऑफ एप्लीकेशन के आधार पर और मोडैट के उपयोग के आधार पर। प्राकृतिक डाईस्टफ में एक ही डाई के साथ अलग-अलग मोडैट का उपयोग करके नए रंग बनाए जा सकते हैं, रंगों को बनाने में निकला अपशिष्ट कृषि क्षेत्रों में उर्वरक के रूप में काम है। रंग मानव त्वचा के लिए और कीट से भी सुरक्षित होते हैं। साथ ही पौधों में रंग बहुत कम मात्रा में होते हैं अर्थात् ज्यादा डाईस्टफ की जरूरत पड़ती है। रंग प्राप्त करने के लिए पेड़ पौधों को नुकसान पहुंचाना पड़ता है पौधों की अंधाधुंध कटाई से प्रकृति का संतुलन बिगड़ने का खतरा होता है। रंगाई के लिए जो पारंपरिक तरीके उपयोग होते हैं उनमें बहुत अधिक पानी का उपयोग होता है बहुत सी प्राकृतिक डाई में नई तकनीकी कारगर नहीं होती। प्राकृतिक रंगों का उपयोग और अधिक बढ़ाने के लिए रंगाई के तरीकों में कुछ परिवर्तन आवश्यक है। आज बहुत से ब्रांड प्राकृतिक रंगों का उपयोग कर रहे हैं और लोग भी पर्यावरण के प्रति जागरूक हो रहे हैं जिससे घरेलू महिलाओं को रोजगार के अवसर प्राप्त करवाएं कराएं जा सकते हैं, सरकार द्वारा ऐसे उद्योगों को बढ़ावा देने के लिए व्यवस्था की जा सकती है।

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\*Student, Department of Life Long Learning, DAVV, Indore.

\*\*Faculty, Department of Life Long Learning, DAVV, Indore.

**Track 5**

**Health Science**



## **OBESITY AND EXERCISE: CHALLENGES AND SOLUTIONS**

Akash Dass<sup>\*</sup>

Dr. Dipali Saxena<sup>\*\*</sup>

The prevalence of obesity has drastically increased in the last couple of decades, with a devastating consequence on public health. Obesity is a multifactorial disease, but the fundamental cause of the obesity epidemic is energy imbalance with calorie influx exceeding calorie expenditure. Though several factors like age, gender, genes may influence how many calories a person needs each day, physical activity greatly enhances one's ability to utilize calories. The recommended strategy to lower the obesity epidemic is to focus on a healthy diet and increase physical activity. Exercise and physical activity seem to be critical interventions for weight control and obesity management. Combining exercise with a calorie-restricted diet has a synergistic effect on weight loss. Moreover, exercise also improves flexibility, bone density, and cardiorespiratory fitness, which lowers the health risks associated with obesity. Thus, combining various forms of exercise has been shown to reduce obesity risks while improving overall health indicators.

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<sup>\*</sup>Student, DDU-KK, DAVV, Indore

<sup>\*\*</sup>Visiting Faculty, DDU-KK

## **A STUDY OF FINGER MILLETS AND ITS IMPACT ON TYPE 2 DIABETIC PATIENTS IN BHOPAL, MADHYA PRADESH**

Adiba Afaq

Madhya Pradesh with its large area enjoys diverse climatic and soil conditions suitable for broad range of agriculture products. agriculture sector in Madhya Pradesh forms the backbone of its economy. it contributes almost one fourth of the gross state domestic product and is the main source of employment for over 65% of population and constitutes about 60 to 75% of the rural income. Ragi also known as finger millet is a robust popular food and marvelous grain crop in India it is called dry land crops mostly cultivated by the people of Andhra Pradesh, Karnataka, and it is cultivated in Dindori district also known as Ramgarh of Madhya Pradesh. In Madhya Pradesh it has been cultivated from June to October that is known as kharif season. ragi has many nutritional advantages for a diabetic patients and. Millets score over rice and wheat weather in terms of vitamins minerals and crude fiber content or amino acid. Studies have shown that the health benefits of ragi far supersede that of wheat as it is gluten free promote heart health the fiber content helps in improving the digestive system and its great substitute for weight loss and is very beneficial for diabetic patient as its Glycemic index is less than 40. In this study subjects were divided into two groups. Experimental group and controlled group total 50 subjects. Experimental group were counselled on their dietary intake and were educated on intake and benefits of Ragi as a substitute for cereal and after two months their feedback was recorded. In non-experimental group no counselling was provided and results were compared. In methodology questionnaire and posters were used on subjects. After two months the positive impact was seen in dietary habits and blood sugar level of experimental group. ANOVA test was applied on dietary intake question and random blood sugar level the result was found statically significant on all the objects. Which proofs the hypothesis that dietary counselling and finger millet intake are beneficial for diabetic subjects. The data was analyzed by Advance excel version 2019.

## **BENEFITS OF VITAMIN D SUPPLEMENTATION FOR AUTISM SPECTRUM DISORDER**

Aditi Jain\*

Mrs. Nandita Thakur\*\*

Autism spectrum disorder is a condition related to brain development that impacts how a person perceives and socializes with others, causing problems in social interaction and communication. The disorder also includes limited and repetitive patterns of behavior. The term "spectrum" in autism spectrum disorder refers to the wide range of symptoms and severity autism spectrum disorder begins in early childhood and eventually causes problems functioning in society socially, in school and at work, social communication and interaction, performs repetitive movements, such as rocking, spinning or hand flapping vitamin D3 (cholecalciferol) seems to play a significant role in the etiology of ASD because this vitamin is important for brain development. Lower concentrations of vitamin D3 may lead to increased brain size, altered brain shape, and enlarged ventricles, which have been observed in patients with ASD. It has also been suggested that vitamin D3 deficiency may cause ASD symptoms. Autism spectrum. The disorder has no single known cause. Given the complexity of the disorder and the fact that symptoms and severity vary, there are probably many causes. Both genetics and environment may play a role. In Genetics Several different genes appear to be involved in autism spectrum disorder. For some children, autism spectrum disorder can be associated with genetic disorders, such as Rett syndrome or fragile X syndrome. Children born with low blood levels of vitamin D have 33 percent increased odds of autism compared with those normal children. It is a neurosteroid that is active in brain development, having effects on cellular proliferation, differentiation, calcium signaling, neurotrophic and neuroprotective actions; it also appears to influence neurotransmission and synaptic plasticity. High-dose vitamin D improves the core symptoms of autism in about 75% of autistic children.

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\*Student, DDU-KK, DAVV, Indore

\*\*Visiting Faculty, DDU-KK

**A STUDY TO ASSESS THE PHYSICAL ACTIVITY BEFORE AND AFTER THE  
COVID-19 PANDEMIC AND ITS IMPACT ON THE HEALTH OF ADOLESCENTS IN  
INDORE**

Himanshi Lowanshi\*

Mrs. Nandita Thakur\*\*

To stop COVID-19 from spreading, state and local governments imposed plenty of limitations on people's movements and physical interactions. All primary and secondary schools were shuttered as a result of the COVID-19 pandemic, and all teaching activities were conducted digitally. Physical activity and sedentary behaviors have been significantly impacted as a result; this study assessed the physical activity before and after the COVID-19 pandemic and its impact on the health of adolescents aged 10-16 years in Madhya Pradesh Indore. A cross-sectional online survey was conducted which included 90 adolescents (boys and girls both) aged 10- to 16-year-old in Indore during the Covid-19 curfew with a random sampling procedure. The survey included questions about the activity of the outdoor game such as football, kho-kho, volleyball, etc. which were asked before the pandemic, and for after pandemic the questions were about yoga, skipping, etc. it was found that 91% of adolescents said yes when asked about doing exercise pre-pandemic and remaining 9 % said no. when the same question asked about exercise post-pandemic then 64% of participant said yes and remaining 36% said no. hence there was no health issue problem due to low physical activity among adolescent.

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\*Student, DDU-KK, DAVV, Indore

\*\*Dietician

## **STUDY THE PREVALENCE AND FACTORS CONTRIBUTING TO OBESITY AMONG THE STUDENTS OF DAVV, INDORE**

Ashwini Pacholi\*

Dr. Neeraj Joshi\*\*

Obesity is a medical condition in which excess body fat has accumulated to an extent that it may hurt health. People are generally considered obese when their body mass index (BMI), a measurement obtained by dividing a person's weight by the square of the person's height, is over 30 kg/m<sup>2</sup>; the range 25–30 kg/m<sup>2</sup> is defined as overweight. Obesity increases the likelihood of various diseases and conditions, particularly cardiovascular diseases, type 2 diabetes, certain types of cancer, osteoarthritis, and depression. Cross-sectional research was conducted with the help of an online questionnaire to assess the prevalence and factors that contribute to obesity among students (18-29-year-old) studying in DAVV, Indore (MP). The structured questionnaire helps in accessing demographic information, food frequency, and frequency of dining, eating behavior, the number of meals consumed and snacking patterns among students. The online survey was conducted from 18<sup>th</sup> August 2019 to 17 September 2019. A total of 139 respondents were included in the study (59% females). In the research, it was seen that 52.4% of respondents were either overweight or obese. Furthermore, many students consumed packed food (60%), Fried food (83%), junk food (72%), and spicy food items daily (73%). Any alterations in the eating habits of young adults which are not favorable to health could be a potential cause of developing obesity which can lead to severe health complications in the future.

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\*Student, DDU-KK, DAVV, Indore

\*\*Visiting Faculty, DDU-KK

**TO ASSESS THE NUTRITIONAL STATUS OF ADOLESCENT GIRLS (14 – 18 YEARS)  
AND NUTRITION AWARENESS REGARDING ANAEMIA**

Anita Solanki\*

Dr. Shweta Keswani\*\*

The word adolescence means “to grow into adulthood.” Adolescence is a time of moving from the immaturity of childhood into the maturity of adulthood. Adolescence is a crucial part of life. Adolescents constitute over 21.4 percent of the population in India and adolescent girls constitute about 10 percent of the Indian population. Adolescence in girls is a turbulent period of development, which includes stressful events like menarche, which is considered the landmark of female puberty. Some of the special problems of adolescents are nutritional problems, menstrual disorders, and psychological problems. Precise estimates of undernutrition of adolescent girls seem to receive little attention from any quarter, especially in rural India. With this background kept in mind, the present study was undertaken to assess the nutritional status of adolescents aged (14 – 18) and their knowledge of Anemia. The study will commence in Kalani Nagar, Anganwadi center, Indore. A simple sampling procedure will be used for the selection of respondents. The adolescent girls, who are studying in government and private schools will be randomly selected for the study. The data will be collected with the help of pretested questionnaire developed for assessing the nutritional awareness of adolescent girls. The specific objectives for the study were to know the profile characteristics, the existing nutritional awareness, and the correlation between the profile characteristics and nutritional awareness among Anganwadi center adolescent girls. The adolescent girls who are visiting AWC regularly, will have better nutrition status and have good knowledge regarding Anemia as they are getting regular supplementation for iron.

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\*Student, DDU-KK, DAVV, Indore

\*\*Visiting Faculty, DDU-KK

## **THE NUTRITIONAL AWARENESS OF WOMEN DURING PREGNANCY**

Bharti Verma\*

Mrs. Priya Chitale\*\*

The Nutritional awareness of women during pregnancy is helpful in pregnancy has to play as the mother has to meet the nutritional requirements of the people. Nutritional play an important role during pregnancy, for the maintenance of health nutritional requirement increase during pregnancy can influence the growth development and health of the mother. Maintain to maintaining. A health pregnancy is important. An adequate nutrition pattern is of major importance to one's health and well-being, especially during pregnancy. When a woman undergoes. Major biological, physical, psychological, and social transformations. And especially macronutrients and macronutrient deficiencies predispose the fetus to birth, neural tube defects, and low birth weight for gestational age. This study was conducted to determine the nutrition awareness of pregnant women. The study aimed to check the Nutritional awareness of women during pregnancy. Twenty pregnant the importance of this study are to check the nutritional awareness of women during pregnancy and to know how to grow physically and Emotionally and learn to communicate, think, and socialize. For this research questionnaire will use collect the information and data. (WHO) world health organization. The 8 research questionnaire questions. The data will be collected from twenty pregnant women and surveys from Hospitals NGOs Anganwadi's etc.

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\*Student, DDU-KK, DAVV, Indore

\*\* Dietician

## **A STUDY TO ACCESS NUTRITIONAL STATUS AND DIETARY HABITS OF WOMEN AGED 19- 25 YEAR**

Bhumika Dubey

The present research aims to assess the nutritional status; examine the awareness about health and nutrition Descriptive Research is conducted in Indore Madhya Pradesh with a sample size of 50 girls. Using a Google form. Advance Excel 2010 has been used to input; clean the data; data analysis. The mean, median, mode, standard deviation, are used in statistical analysis. The result has shown that 60%of young women have Ideal body Weight & normal BMI. The dietary intake of girls is poor.

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\*Student, DDU-KK, DAVV, Indore

## **ROLE OF NATIONAL RURAL HEALTH MISSION IN WOMEN AND CHILDREN**

Dhruv Gaur

Dr. Chaina Trivedi

The National Rural Health Mission (NRHM) was launched on 12th April 2005, to provide accessible, affordable, and quality health care to the rural population, especially the vulnerable groups. The thrust of the mission is on establishing a fully functional, community-owned, decentralized health delivery system with inter-sectoral convergence at all levels, to ensure simultaneous action on a wide range of determinants of health such as water, sanitation, education, nutrition, social and gender equality. Mortality variations in terms Expectation of Life at Birth are around 63.1 for India and varies from around 57 years in Madhya Pradesh to 66 Years in Tamil Nadu. Similarly, infant mortality rate (IMR) for India being 53 varies from 31 in Tamil Nadu to 70 in Madhya Pradesh. Further, we find that the Maternal Mortality Ratio (MMR) of 254 as per SRS in 2004-06 for India ranges from 111 in Tamil Nadu to 440 in Uttar Pradesh amongst the seven states. Secular declines in overall and infant mortality rates characterized by CDR and IMR collated from SRS reports, are observed in all the states during 2004-08 for all the states excepting Jammu and Kashmir as per appended bar diagrams. Reduction in Infant Mortality Rate (IMR) and Maternal Mortality Ratio (MMR); Universal access to integrated comprehensive public health services; Child health, water, sanitation, and hygiene; prevention and control of communicable and non-communicable diseases, including locally endemic diseases; Population stabilization, gender, and demographic balance; Revitalize local health traditions and main-stream Ayurvedic, Yoga, Unani, Siddha and Homeopathy Systems of Health (AYUSH); Promotion of healthy lifestyles. The National Rural Health Mission has made significant achievements in the area of health. The enormous framework of human and physical resources has empowered them to achieve most of their targets. NRHM will improve the lives of many generations to come. The key features to achieve the goals of the Mission include making the public health delivery system fully functional and accountable to the community, human resources management, community involvement, decentralization, the convergence of health and related programs from village level upwards, innovations, and flexible financing and also interventions for improving the health indicators.

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\*Student, DDU-KK, DAVV, Indore

\*\*Dietician

## **VITAMIN C AND ITS NEED IN OUR BODY**

Falguni Rathore\*

Mrs. Deepa Agnihotri\*\*

Vitamins are vital for good health, but needed in much smaller amounts than macronutrients, like carbs and fats. They're important for many daily bodily functions, such as cell reproduction and growth, but most importantly for the processing of energy in cells. Most vitamins are provided by food – so they are classed as 'essential'. Vitamin C is also needed in a good amount. Vitamin C is a water-soluble type of vitamin and is very crucial for our health. It helps to form bones, teeth and skin repair and maintenance, and blood vessels. The good thing about vitamin C is easily available. Some good sources of vitamin C are citrus and juicy fruits which are low in cost too. We need vitamin C because it cannot be stored in the body and since it is water-soluble it is readily lost. It helps the body to produce collagen and some neurotransmitters. As an antioxidant, it helps to remove unwanted substances known as free radicals or RDS – Reactive oxidative species from the body. It also helps the body to absorb iron. Vitamin C boosts the immune system and helps in wound healing. Our body needs vitamin C to produce collagen, which is an important component of connective tissues. Its deficiency can lead to scurvy symptoms such as swollen joints, bleeding gums, loose teeth, anemia, and tiredness. Vitamin C promotes cardiovascular health, prevents cataracts and macular degeneration, helps in controlling glucose levels in diabetic patients and anemic patients get benefits when they increase their vitamin C intake. The combination of vitamin C and vitamin E helps high antioxidant properties and helps in reducing the symptoms of asthma and pulmonary diseases. Some allergic reactions can trigger the symptoms related to oxidative stress where vitamin C plays a positive role in reducing inflammation.

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\*Student, DDU-KK, DAVV, Indore

\*\*Dietician

## **DETERMINING NUTRITIONAL NEEDS OF WOMEN DURING PREGNANCY**

Habiba Hatpipliawala\*

Mrs. Deepa Agnihotri\*\*

The importance of lifestyle and dietary habits during pregnancy and breastfeeding, for the health of mothers and their offspring, is widely supported by the most recent scientific literature. The consumption of a varied and balanced diet from the pre-conception period is essential to ensure both maternal well-being and pregnancy outcomes. However, the risk of inadequate intakes of specific micronutrients in pregnancy and lactation is high even in most industrialized countries. Moreover, the risk of not reaching the adequate nutrient supply is increased for selected groups of women of childbearing age: those following exclusion diets, underweight or overweight/obese, smokers, adolescents, mothers who have had multiple or close pregnancies, and those with previous unfavorable pregnancy outcomes. Nutrients intake of a pregnant women micronutrients is dietary components, such as vitamins and minerals that are only required in relatively small amounts. Macronutrients are nutrients that provide calories, or energy. We're talking carbohydrates, proteins, and fats. You'll need to eat more of each type of nutrient during pregnancy.

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\*Student, DDU-KK, DAVV, Indore

\*\*Dietician

## **LIFESTYLE CHANGES IN WOMEN WITH POLYCYSTIC OVARIAN SYNDROME**

Hafsa Zeenoor Sayed\*

Dr. Pooja Maheshwari\*\*

Polycystic ovarian syndrome (PCOS) is a common hormonal disorder seen among women of reproductive age. In this condition, the various small cyst may develop and fail to regularly release eggs. It causes health problems such as menstrual irregularities infertility, abnormal hair growth on the face, chest, hands, and feet, male pattern, baldness or hair loss, acne, uncontrolled weight gain, and lack of energy. There is no exact cause of PCOS. It can be genetic or have other factors like the higher levels of male hormones called androgens. Lifestyle changes are the primary therapy in weight loss and obese women with PCOS. Lifestyle changes are the most effective form of treatment not only for weight loss but also for the improvement of insulin sensitivity, decreasing the incidence of metabolic syndromes such as cardiovascular diseases and type 2 diabetes. Weight loss also has fertility benefits by restoring the ovulatory cycle. Thus, improved insulin resistance and hyperinsulinemia may reverse some of the manifestations of PCOS. It has been seen that the women who are following a proper diet, having physical activity and exercising daily, avoiding junk foods, have proper sleep schedule can lose weight, have fewer acne issues, feel more energetic throughout the day, and be able to maintain PCOS. The objective is to assess the effect of lifestyle changes in improving infertility, weight, metabolic diseases like diabetes, and heart disease to overcome the problem that occurs due to PCOS. This study would be conducted on 20 women under 18 – 30 years of age. The study is delimited to Vedanta Super Specialty Hospital. Anthropometric measurements (height, weight, BMI, age) of women will be done. A questionnaire consisting of 25 closed questions will be asked to know their lifestyle and recurrent issues.

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\* Student, DDU-KK, DAVV, Indore

\*\*Dietician

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Himanshi Lowanshi\*

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To stop COVID-19 from spreading, state and local governments imposed plenty of limitations on people's movements and physical interactions. All primary and secondary schools were shuttered as a result of the COVID-19 pandemic, and all teaching activities were conducted digitally. Physical activity and sedentary behaviors have been significantly impacted as a result; this study assessed the physical activity before and after the COVID-19 pandemic and its impact on the health of adolescents aged 10-16 years in Madhya Pradesh Indore. A cross-sectional online survey was conducted which included 90 adolescents (boys and girls both) aged 10 to 16 years old in Indore during the Covid-19 curfew with a random sampling procedure. The survey included questions about the activity of the outdoor game such as football, kho-kho, volleyball, etc. which were asked before the pandemic, and for after pandemic the questions were about yoga, skipping, etc. it was found that 91% of adolescents said yes when asked about doing exercise pre-pandemic and remaining 9 % said no. when the same question asked about exercise post-pandemic then 64% of participant said yes and remaining 36% said no. hence there was no health issue problem due to low physical activity among adolescent.

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\* Student, DDU-KK, DAVV, Indore

\*\*Dietician

## **TO ASSESS THE WEIGHT GAIN PATTERN IN MENOPAUSAL WOMEN IN INDORE CITY**

Mahima Sharma\*

Mrs. Nandita Thakur\*\*

Menopause can be defined as the stage when women have stopped menstruating for more than 12 months. That age would have been in women between the ages of 45 to 55. Due to menopause women experience many types of biological transition, mental changes, physiological changes, sexual changes. Through my study, I have tried to know about women's post-menopausal weight change and health status at the time of menopause. This study has been done on menopausal women from Indore, Madhya Pradesh (2021). Cross-sectional research was conducted, data was collected through a questionnaire from 50 menopausal women by simple random sampling in Indore City. The composition of the question year helps to get information about the demographic profile, weight before and after menopause, health status, lifestyle patterns, and eating behavior of the menopausal woman. Advance excel 2010 has been used to input clean the data analysis, the mean median, mode standard deviation, which is used in statistical analysis. The result showed that 52% weight change in women after menopause, the prevalence rate of fatigue, back pain, and indigestion was found to be high in health-related problems due to menopause .66% of does exercise 30% women sleep 6-7 hours and screening time of 46% women is 1–3-hour, majority of respondent eat a balanced diet daily. Women's health can be improved by consuming a balanced diet and dairy products daily. Increasing weight after menopause can be controlled by exercise.

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\* Student, DDU-KK, DAVV, Indore

\*\*Dietician

**TO STUDY THE AWARENESS AMONG MOTHERS OF UNDER FIVE AGE CHILDREN REGARDING VARIOUS NUTRITION-RELATED PROGRAMS UNDER ICDS**

Manisha Chhawdi\*

Dr. Shweta Keswani\*\*

The young child under 5 years is the most vulnerable to the vicious cycle of malnutrition, infection, and disability all of which influence the present condition of a child. The health of a child is one of the most challenging, and important responsibilities therefore the awareness of government programmes and policies for mothers is necessary. The Integrated Child Development Service (ICDS) scheme integrates several aspects of early childhood development and provides supplementary nutrition, immunization, health check-ups, and referral services to children below six years of age. Rationale: -This study aimed to assess the awareness among mothers of under 5 age children regarding various nutrition programs under the ICDS scheme. The importance of this study is to create awareness among mothers of the under 5 age children for age-appropriate eating and associated development the study will also focus on the knowledge of mothers regarding the importance of nutrition in the growth and development of their children, Methodology: -For this research questionnaire will be formulated which will further be tested by conducting a pilot study on 5 -6 mother of U5 age children to rectify any ambiguity after that the retested questionnaire will be used to collect for the data collection. The data will be collected from 50mothers of under-five children of Shri Ram Nagar, Palda, Indore. Soon after the conception, the mother has enrolled under the ICDS scheme (subjected to the area) and starts getting benefits from the scheme and continues till the 5 years age of the child, so it is expected the mother of the U5 child is knowing almost all nutrition-related programme.

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\* Student, DDU-KK, DAVV, Indore

\*\*Visiting Faculty, DDU-KK

## **ROLE IN PREVENTING & REDUCING MALNUTRITION IN CHILDREN UP TO 6 YEARS REGARDING NUTRITION REHABILITATION CENTER**

Bhavesh Kalal \*

Dr. Chaina Trivedi\*\*

Nutrition is about eating a healthy and balanced diet. Food and drink provide the energy and nutrients you need to be healthy. Malnutrition -Lack of sufficient nutrients in the body. Malnutrition occurs when the body doesn't get enough nutrients. Causes include a poor diet, digestive conditions, or another disease. The infant mortality rate is an MDG indicator. Definition: Infant mortality rate is the probability of a child born in a specific year or period dying before reaching the age of one if subject to age-specific mortality rates of that period. The infant mortality rate for India in 2021 was 28.771 deaths per 1000 live births, a 3.61% decline from 2020. The infant mortality rate for India in 2020 was 29.848 deaths per 1000 live births, a 3.48% decline from 2019. A 2019 report by the United Nations Children's Fund (UNICEF) highlighted that India reported the greatest number of deaths — 882,000 — of children below five years in 2018. The report titled 'State of the World's Children 2019', pointed out that malnutrition caused 69 percent of under-five deaths in India. Today's child is the future citizen of the country. So to fight malnutrition, Severe Acute Malnutrition (SAM), and medical complications. Indian government came up with an idea of NRC (nutritional rehabilitation centre). The Government of India's Ministry of Health and Family Welfare has established 1,151 Nutritional Rehabilitation Centres (NRCs) across the country under the National Health Mission. As per the National Family Health Survey (NFHS 4, 2015-16), 7.5 percent of children under five are severely wasted, and 35.8 percent of children are underweight. Children (age 6 years or less) with Severe Acute Malnutrition along with medical complications are referred from villages by frontline workers, such as Accredited Social Health Activist (ASHA), Anganwadi workers, and are admitted to NRCs as per the defined admission criteria. They provide facility-based care for children with Severe Acute Malnutrition (SAM) and medical complications. These NRCs offer appropriate feeding of children, careful height and weight monitoring, and counseling to mothers and caregivers on age-appropriate caring, nutrition, and growth monitoring. The frontline workers actively make home visits and scan the Anganwadi Centres in the villages under their purview, to keep track of children's health and spot those who need facility-based care. Through NRC we can reduce the number of malnourished children and educate mothers about food, nutrition, and cooking methods so that they can take care of their families and children because today's youth is tomorrow's future.

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\*Student, DDU-KK, DAVV, Indore

\*\*Dietician

## **MACRO NUTRIENTS (BURSTING MYTHS)**

Bhavesh Kalal\*

Deepa Agnihotri\*\*

Macronutrients are the nutrients that your body needs in large amounts, which include fat, carbohydrates, and protein. They're the nutrients that give you energy and are often called "macros". Macronutrients contain the components of food that your body needs to maintain its systems and structures. You need all three (protein, carbs, and fats) macronutrients as part of a healthy diet, so you shouldn't exclude or seriously restrict any of them. There are three macronutrients protein, carbs, and fats. The objective of the study is to burst the myths related to macronutrients. The study was carried out in 3 groups of people with the same body weight and height. All of them are given the same amount of calories (protein, carbs, and fats) and physical activity. So many myths get burst in this study. Like only gym buddy needs protein, protein will damage your kidneys, avoiding carbs in your diet makes you lose weight/fat: fats are bad for your health, etc. So, the result is that all these myths get burst and we prove the facts that everybody needs protein (according to their needs), carbs do not make you fat eating in a calorie surplus will make you fat, fats are good and also essential for your body in day-to-day life etc. So never avoid any of these macronutrients.

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\* Student, DDU-KK, DAVV, Indore

\*\*Dietician

## **VITAMIN B1 (THIAMINE)**

Neha Mangrola

Thiamine (thiamine), or vitamin B1, is a water-soluble vitamin found naturally in some foods, added to foods, and sold as a supplement. Thiamin plays a vital role in the growth and function of various cells. Only small amounts are stored in the liver. Forms of Thiamin are-thiamin pyrophosphate: it is the active form of thiamine, functions as a coenzyme for a number of enzymes involved in carbohydrate metabolism and is present in human beings, thiamin triphosphate: it is present in animal tissues, thiamin hydrochloride: it is a synthetic form of thiamin and present in supplements. Role of Thiamin -it is a type of coenzyme that functions in aiding many essential chemical reactions. For example- it converts nutrient into energy, supports sugar formation, provides energy to nerve-muscle cells, and converts carbohydrates to glucose. Thiamin also plays a role in muscle contraction and conduction of nerve signals. Thiamin is essential for the metabolism of pyruvate, which is an important molecule in several chemical reactions in the body. Sources of thiamin- plant sources are peas, some fresh fruits such as bananas and oranges, nuts, wholegrain bread, some fortified breakfast cereals. Animal sources are pork, meat, and fish, and other sources are yeast during fermentation. The most common effect of thiamin deficiency is Beriberi, which is characterized mainly by peripheral neuropathy and wasting. People with this condition have impaired sensory, motor, and reflex functions. In rare cases, beriberi causes congestive heart failure that leads to edema in the lower limbs and, occasionally, death. Dry Beriberi: This deficiency syndrome causes wasting and partial paralysis and is characterized by nerve and muscle abnormalities, a prickling sensation in the toes, a burning sensation in the feet at night, leg cramps, muscle atrophy, mental confusion, vomiting, etc. Wet Beriberi: This deficiency syndrome weakens the capillaries and mostly affects the cardiovascular system and causes vasodilation, increased heart rate, dyspnoea, edema, and dilated cardiomyopathy. The reasons for these deficiencies are the consumption of polished rice and alcohol. Excess intake of thiamin may cause stomach upset. Taking any one of the B vitamins for a long period of time can result in an imbalance of other important B vitamins.

## **HEALTH SCIENCE AND YOG**

Neelmadhav Vasant Bhusari

The health sciences study all aspects of health, disease and healthcare. This field of study aims to develop knowledge, interventions and technology for use in healthcare to improve the treatment of patients. **Yoga** is essentially a spiritual discipline based on an extremely subtle science, which focuses on bringing harmony between mind and body. It is an art and science of healthy living. Yoga is all about harmonizing the body with the mind and breath through the means of various pranayamas, yoga asanas (yoga poses), and meditation. Asanas are performed to improve flexibility, strength, and balance. It helps the body's joints, ligaments, and muscles strengthen through movement. A regular yoga practice can, over time, increase flexibility and mobility, lubricating the spine and alignment to aid in everyday activity. All yoga poses are performed in conjunction and in sync with the breath. When you combine breathing techniques and focus, these asanas can also help relieve stress and anxiety. The poses are not meant to simply be physical exercises but rather used holistically as a mind-body practice to improve physical, mental, and spiritual health. A regular asana practice can also help in strengthening the immune system and in improving blood circulation throughout the body. Through dedicated practice and with time, the body can experience noticeable improvements and benefits from asanas.

The practice of breath control and breathing techniques with awareness makes breathing slow and subtle. Exhalation is prolonged. The pause between inhalation and exhalation is eliminated. It helps in the control of mind and concentration (dharana). There are other types of pranayama also. Individual studies report beneficial effects of yoga in various conditions, indicating that it can be used as a nonpharmaceutical measure or complement to drug therapy for the treatment of different conditions. Therefore, it can be concluded that the practice of yoga is beneficial for all the dimensions of health, ie physical, mental, social, and spiritual, and at the same time promote harmony with nature and helps in conserving the environment.

## महिलाओं में एनीमिया के स्तर का मापन करना (इंदौर शहर के संदर्भ में)

श्रीमती निर्मला चंदर राजानी

डॉ चैना त्रिवेदी

भारत देश विविधताओं का देश है 70% परिवार गाँवों में निवास करते हैं भारत की 45% महिलाएँ अशिक्षित अनपढ़ हैं जिसकी भोजन एवं आहार की सही जानकारी प्राप्त नहीं है एनीमिया एक भयावह रूप धारण कर हमारे समाज को खोखला करता जा रहा है जिसका मुख्य कारण अशिक्षा, अज्ञानता, कुरीतियाँ, अंधविश्वास एवं गरीबी सामाजिक एवं आर्थिक स्थिति का कमजोर होना है राष्ट्रीय परिवार स्वास्थ्य सर्वेक्षण 2009-2012 की रिपोर्ट के अनुसार भारत में आधी से अधिक जन संख्या एनीमिया से पीड़ित है मध्य प्रदेश में 45% 12 माह के बच्चे 56% प्रजनन आयु वर्ग महिलाएँ 58.7% गर्भवती महिलाएँ एनीमिया से ग्रसित हैं 56% किशोरी बालिकाएँ 15-19 वर्ष में खून की कमी देखी जा सकती है पोषण विज्ञान के अन्तर्गत सभी पोषक तत्वों का शरीर क्रिया विज्ञान को सुचारू रूप से चलाने अत्यंत महत्व है यदि इनमें से कोई भी पोषक तत्व शरीर की दैनिक आवश्यकताओं के अनुरूप न हो तो वो शरीर की रासायनिक क्रियाओं को प्रभावित कर शरीर की कार्य क्षमता को कम करने के साथ साथ शरीर को शक्तिहीन बना देता है जिसके परिणाम स्वरूप अनेक रोग जीवण एवं बैक्टीरिया शरीर पर आक्रमण करते क्योंकि पोषण हीनता की कमी का ही परिणाम है **शोध पत्र के उद्देश्य**-1) महिलाओं में एनीमिया के स्तर का मापन करना 2) गर्भवती महिलाओं में आहार संबंधी आदतों का अध्ययन करना **शोध विधि**-शोध हेतु देव निदर्शन विधि विधि का उपयोग किया गया मध्य प्रदेश के इंदौर शहर में बलई समाज की 30 महिलाओं को अध्ययन हेतु चुना हिमोग्लोबिन मीटर द्वारा सहलिस विधि का उपयोग किया गया **निष्कर्ष**-आंकड़ों का विश्लेषण होठ संबंधी अध्ययन में 35% महिलाओं में एनीमिया के लक्षण पाए गए महिलाओं की आंखों को देखने पर 50% सुखी रंगहिन आँखें, बाल सम्बन्धी अध्ययन करने पर 15%, दांत संबंधी 30%, नाखून देखने पर 60%, तथा हाथों की हथेलियाँ देखने पर 50% महिलाओं में एनीमिया के लक्षण पाए गए साथ ही साथ जीवन ज्योती संस्था इंदौर के माध्यम से बस्ती की 80% महिलाओं में रक्त अल्पता (खून की कमी) स्तर निर्णय पाया गया हिमोग्लोबिन स्तर 12% से कम पाया गया आहार एवं पोषण का अध्ययन करने पर गर्भवती तथा धात्री माताएँ हरी सब्जियाँ का सेवन प्रतिदिन के भोजन में नहीं करती हैं 60% महिलाएँ आहार एवं स्वास्थ्य योजनाओं का ज्ञान नहीं है **सूझाव** बस्तियों की महिलाओं को स्वास्थ्य एवं पोषण सम्बंधी जानकारी हेतु जागरूक करने के लिए नाटक कहानी आदि का उपयोग किया जा सकता है महिला शिक्षा एवं जागरूकता अती आवश्यक

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\*Student, DDU-KK, DAVV, Indore

\*\*Dietician

## विटामिन K और उसकी आवश्यकता

श्रीमती निर्मला चंदर राजानी

श्रीमती दिपा अग्निहोत्री

हमारे शरीर में कई विटामिन की आवश्यकता होती है हर विटामिन का अपना महत्व है मानव शरीर सभी जीवों में सबसे ज्यादा विकसित माना जाता है शरीर के सभी अंगों का अपना महत्व है सभी अंगों की अपनी आवश्यकता है जिसकी पूर्ति संतुलित आहार द्वारा होती है इन सब में विटामिन का अपना एक अलग महत्व है जो की भोजन से हमें प्राप्त होते हैं विटामिन मुख्य रूप से दो प्रकार के होते हैं 1) फेट सॉल्यूबल (A,D,E,K) 2) वॉटर सॉल्यूबल (B1,B2,B3,B4,B6,B12,&C) उपरोक्त सभी विटामिन हर उम्र के व्यक्तियों के लिए आवश्यक है इन सभी का अपना महत्व है आज हम विटामिन K के बारे में ही बात करेंगे विटामिन K का मनुष्य शरीर में एक अलग ही महत्व है विटामिन K आसानी से हमारे भोजन में शामिल हो जाता है यह खून को गाढ़ा बनाने या चोट लगने पर खून का बहाव रोकने में करता है परंतु जिस तरह से इसकी कमी से हानी हो सकती है उसी तरह से विटामिन K की अधिकता भी खतरा बढ़ा सकती है मनुष्य के शरीर में यह बहुत ही कम मात्रा में इसकी पूर्ति हो जाती है और साधारण भोजन से ही क्योंकि यह हरी सब्जियाँ, बैंगनी या काले फलों में प्रचुर मात्रा में पाया जाता है **विटामिन K की कमी के लक्षण-1)** थोड़ी सी चोट लगे पर बहुत खून बहना 2) नाक से खून बहना 3) छोटी चोट का बड़ा घाव बनना 4) जोड़ों में दर्द बने रहना 5) महिलाओं में अधिक मासिक धर्म होना 6) बोन डेंसिटी होना 7) उम्र से पहले दाँत कमजोर होना 8) मसुड़ों से खून आना 9) **नाखुनो के नीचे खून के थक्के जमना** विटामिन K की सही मात्रा - अनुशंसित आहार भत्ता (आरडीए) के अनुसार 14 वर्ष की आयु से अधिक लोगों को विटामिन ई 3.6 ग्राम (120 UG) के करीब लेना चाहिए। जो महिलायें स्तनपान करा रही हैं, उनको अधिक आवश्यकता हो सकती है इसलिए ऐसी महिलायें 2.7 ग्राम (90 UG) तक ले सकती हैं। सुरक्षा के लिए ऊपरी सीमा 2.7 ग्राम (90 UG) है। **विटामिन K के स्रोत** विटामिन K हमारे शरीर के लिए बहुत जरूरी विटामिन है। विटामिन K हमें हरे पत्तेदार सब्जी, सरसो का साग, मूली, गेहूँ, जौ, पालक, चुकंदर साग, जैतून तेल, लाल मिर्च, केले, अंकुरित अनाज, रसदार फलों से प्राप्त होता है। निष्कर्ष-विटामिन K मनुष्य के लिए आवश्यक है परंतु इसकी अधिकता व कमी दोनों ही से नुकसान होता है अतः बहुत ही कम मात्रा की आवश्यकता होती है और आसानी से शरीर को पर्याप्त मात्रा में मिल जाती है इस की कमी से खून का बहाव बंद नहीं होता जबकी अधिकता से खून ज्यादा गाढ़ा हो जाता है

## **ANTI-CANCER DIET FOR CHEMO PATIENTS (ROLE OF PHYTOCHEMICALS)**

Meha Saxena\*

Mrs. Nandita Thakur\*\*

Cancer is a disease in which some of the body's cells grow uncontrollably and spread to other parts of the body. Cancer can start almost anywhere in the human body, which is made up of trillions of cells. For treatment of this disease, chemotherapy is used. Four main types of cancer are: Carcinoma, Sarcoma, Leukemia, Lymphomas. Though chemotherapy is an effective way to treat many types of cancer, chemotherapy treatment also carries a risk of side effects. Some chemotherapy side effects are mild and treatable, while others can cause serious complications. Chemotherapy is a drug treatment that uses powerful chemicals to kill fast-growing cells in your body. Chemotherapy is most often used to treat cancer, since cancer cells grow and multiply much more quickly than most cells in the body. Side effects of Chemotherapy are: Chemotherapy can damage some healthy cells in your body, such as blood cells, skin cells and cells in the stomach, feeling tired most of the time, bad feeling and being sick, hair loss, an increased risk of getting infections, a sore mouth, dry, sore or itchy skin, These phytochemicals often act via regulating molecular pathways which are implicated in growth and progression of cancer. The specific mechanisms include increasing antioxidant status, carcinogen inactivation, inhibiting proliferation, induction of cell cycle arrest and apoptosis, and regulation of the immune system. Dietary phytochemicals are commonly found in plant-based foods such as fruits, vegetables, grains and tea. Camellia Sinensis, or tea, is one of the most ancient and popular beverages consumed across the world. Although the specific composition varies widely, tea is usually composed of a combination of polyphenols, alkaloids, minerals, and other volatile organic compounds. Further, there is a very high proportion of catechin, polyphenols such as Epigallocatechin-3-gallate (EGCG) and Epicatechin-3-gallate (ECG). Interestingly, green tea contains much higher concentration of these specific Catechins compared with other black teas. Catechin polyphenols, particularly EGCG and EBCG have robust antioxidant activity and are thought to exert their role as antioxidants by preventing specific DNA damage by reactive oxygen species, thereby preventing tumor mutagenesis of normal cells.

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\* Student, DDU-KK, DAVV, Indore

\*\*Dietician

## **DIETARY MODIFICATION IN NEPHROTIC SYNDROME**

Monika Singh Chouhan\*

Mrs. Nandita Thakur\*\*

Nephrotic syndrome is a clinical syndrome defined by massive proteinuria responsible for hypoalbuminemia (less than 30 g/L), with resulting hyperlipidemia, edema, and various complications. It is caused by increased permeability through the damaged of basement membrane in the renal glomerulus. For people who have developed nephrotic syndrome, limit the intake of dietary sodium, often from salt, and fluid that helps to reduce edema. A diet low in saturated fat and cholesterol may also be recommended to help control hyperlipidemia. Nephrotic syndrome leads to some common complications like Dehydration, Anemia, Diabetes and Hyertension. Dietary modifications play a major role to overcome the above mentioned complications of Nephrotic syndrome. Dietary modifications are changes made during food preparation, processing, and consumption to increase the bioavailability of micronutrients—and reduce micronutrient deficiencies—in food at the commercial level. For the management of dehydration in patients with Nephrotic syndrome must modify their diet by drinking the beverages ice cold, they will be more refreshing and will quench the thirst. Try frozen grapes or peach slices, a refreshing cold apple, sugarcane juice or handful of chilled berries. Make flavored ice by freezing lemonade, juice or tea. Suck or munch of a cube slowly to chase away thirst without drinking. Secondly, to prevent anemia increase the intake of high iron foods such as iron-fortified and iron-enriched cereals and enriched rice. Use an iron skillet for cooking because some of the iron from the skillet is absorbed into food during cooking. Third, to prevent diabetes choose the right combination of protein foods with high fibers like: Beans, ¼ cup Nuts, Grains, Egg white etc. Forth, to prevent hypertension sodium intake should be limited. The DASH (Dietary Approaches to Stop Hypertension) diet is a recognized treatment for hypertension. The DASH plan recommends eating: Fruits (apple, blackberries, grapes, cherries), Vegetables (beans, cauliflower, carrot), Whole grains. Hence, proper dietary management contribute to control the complications in the patient with persistent Nephrotic syndrome.

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\* Student of DDU-KK, DAVV, Indore

\*\*Dietician

## **CHANGES OCCUR IN THE OLFACTORY SYSTEM OF INDIAN COVID-19 RECOVERED PATIENTS**

Prachi Harmmeet\*

Mrs. Priya Chitale\*\*

As the world saw how the COVID-19 pandemic affected human lives in various ways. There are some noticeable changes in smell and taste which are very new for COVID-19 recovered patients. These changes in the olfactory (smell) system are very common in most of the COVID recovered patients and remain for a longer period. The quality of life and health status is also affected due to the alteration in taste and smell is also affected. The medical world is still not clear about the exact reasons behind it. Till this time there is a lot of scope of research on it so that can be helpful for future medical care. As our eating habits mainly result in our healthy living, so if COVID-19 recovered patients are facing changes in the olfactory system (smell) that means there is a definite impact on the taste of food that one normally enjoys, resulting in the compromised intake of healthy and nutritious food directly impacting the health and immunity. Emotionally also it is quite disturbing. A deep understanding of changes in the olfactory system will guide us on how we can form a medical support system. A google form was prepared and was shared with the contacts on the social media platform. The responses will be analysed further. SARS-CoV 2 damage the olfactory system causing dysfunction of the central nervous system resulting in distortion of smell and tastes so it may affect the relationship with food.

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\* Student, DDU-KK, DAVV, Indore

\*\*Dietician

## THE MINISTRY OF HEALTH AND FAMILY WELFARE

Ruqaiyah Chechatwala\*

Dr.Chaina Trivedi\*\*

The Ministry of Health and Family Welfare is an Indian government ministry charged with health policy in India. It is also responsible for all government programs relating to family planning in India. The Minister of Health and Family Welfare holds cabinet rank as a member of the Council of Ministers. The Department of Health deals with health care, including awareness campaigns, immunization campaigns, preventive medicine, and public health. The Department of Family Welfare (FW) is responsible for aspects relating to family welfare, especially in reproductive health, maternal health, pediatrics, information, education, and communications; cooperation with NGOs and international aid groups; and rural health services. Health care should be within the reach of every citizen. For providing basic health facilities to all citizens, the government has introduced and implemented various health schemes and programs. This section provides information pertaining to health programmes, policies, schemes, forms, etc. Specific beneficiaries include women, children, senior citizens, etc. Details of Union and state government agencies, departments, organizations, research institutions, hospitals are also available. Primary Health Centre (PHCs), sometimes referred to as public health centers, are state-owned rural health care facilities in India. They are essentially single-physician clinics usually with facilities for minor surgeries. They are part of the government-funded public health system in India and are the most basic units of this system. As of 31 March 2019, there are 30,045 PHCs in India of which 24,855 are located in rural areas and 5,190 are in urban areas. National health programmes, such as relevant **Universal Immunisation Programme**- Ministry of Health and Family Welfare, Government of India provides several vaccines to infants, children and pregnant women through the Universal Immunisation Programme. **Family welfare programme**- In 1951 India became the first country in the world to launch a family planning programme to reduce population growth in the country. In 1997, India changed the strategy of National Family welfare program to Reproductive and child health- and in the ninth five-year plan (1997-2002), a total change in implementation was recommended. Keeping in view the issues and problems confronting reproductive and child health, various family welfare programmes have been effectively implemented in every state with a larger perspective intended for population stabilization, reduction of infant and Maternal mortality through integrated Family Welfare services, I.E.C act activities. (Information, Education and Communication activities) Immunization and prophylaxis against Anemia and Vitamin A deficiency of children and mothers with a comprehensive health strategy. Since the last 48 years, the Family welfare programme is being implemented in the State with financial assistance of the central Govt. The general conclusion is that very limited success has been achieved in curbing the birthrate and in creating an awareness of the population problem and of family planning methods among the masses. A gap between knowledge of contraceptive methods and the practice of such methods exists. About 15% of reproductive couples use contraceptive methods, and the birthrate has declined by about 10% from its level of 41.7 per 1000 in 1961. The impact of the family planning program has been much less in rural than in urban areas.

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\*Student, DDU-KK, DAVV, Indore

\*\*Dietician

## **CHILDHOOD OBESITY IS A GROWING PUBLIC HEALTH CONCERN**

Rabab Badri\*

Dr. Chaina Trivedi\*\*

Childhood obesity is a growing public health concern, and a variety of factors (e.g., environmental, lifestyle choices, culture) are playing critical roles in the rising prevalence of childhood obesity across the globe. The research that has been made had shown that the main cause of childhood obesity is lifestyle issues, too little activity and too many calories from food and drinks, are the main contributors to childhood obesity. But genetic and hormonal factors might play a major role as well. Family factors, psychological factors, socioeconomic factors, certain medications play a major role in childhood obesity. Obesity increases the risk of developing early puberty in children, menstrual irregularities in adolescent girls, sleep disorders such as obstructive sleep apnea, cardiovascular risk factors that include Prediabetes, Type 2 Diabetes, High Cholesterol levels, Hypertension, and Metabolic syndrome. Additionally, obese children and adolescents can suffer from psychological issues such as depression, anxiety, poor self-esteem, body image and peer relationships, and eating disorders. In addition to behavioural and dietary recommendations, changes in the community-based environment such as promotion of healthy food choices by taxing unhealthy foods, improving lunch food quality and increasing daily physical activity at school and childcare centres, are extra measures that are needed. The growing issue of childhood obesity can be slowed if society focuses on the causes. A combined diet and physical activity intervention conducted in the community with a school component is more effective at preventing obesity or overweight. Moreover, if parents enforce a healthier lifestyle at home, many obesity problems could be avoided. What children learn at home about eating healthy, exercising, and making the right nutritional choices will eventually spill over into other aspects of their life. This will have the biggest influence on the choices kids make when selecting foods to consume at school and fast-food restaurants and choosing to be active. Focusing on these causes may, over time, decrease childhood obesity and lead to a healthier society.

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\* Student, DDU-KK, DAVV, Indore

\*\*Dietician

## **EFFECT OF CONSUMPTION OF GINGER ON GASTROINTESTINAL DISORDERS**

Saloni Azad \*

Zainab Nadeem\*\*

Ginger is a bulbous plant, that has been cultivated for a very long time. It is mainly used as a spice and flavor agent for food. It is used in cooking in various forms. It is an excellent source of several bioactive phenolics. It is used in traditional oriental medicine. It has a long history of medicinal use that stimulates investigations to assess its potential role as a therapy in a range of diseases. To this investigation, to assess the effect of ginger on gastrointestinal disorders a review study was done. In many scientific studies, the anti-inflammatory, antioxidant, antitumor, antiulcer effects of ginger have been proven. Ginger is an important dietary agent possessing carminative effect, lowers esophageal sphincter, lowers cramping, prevents dyspepsia, flatulence, bloating. Similarly, a clinical trial has investigated the effects of ginger consumption (2g per day) on gastrointestinal motility and showed a significant increase in gastrointestinal motility in intervention groups. With this, the study also showed that ginger accelerates gastric emptying and stimulates antral contractions. In gastrointestinal problems in ill patients, delayed gastric emptying is the main problem. Another clinical trial was conducted that showed consumption of 120mg of ginger extract for four days significantly decreased mean volume of feeding. There were another 14 studies that demonstrated the effect of ginger consumption with medicines and gave positive results. Another 7 studies were done for the effect of ginger on gastrointestinal function and explained that an extension of the antiemetic property, ginger has been studied for protective effect on the gastrointestinal system. Another seven studies clinical trial examined ginger's effect on gastric function, mostly regarding gastric emptying and dysrhythmia. All studies that observed gastric emptying rate reported ginger as a digestive enhancer. One study reported that ginger treatment significantly reduced tachygastric activity induced by circular vection, a phenomenon of feeding a rotating sensation without actual movement. 4 studies examined the anticancer effect of ginger, all of which evaluated the risk of colorectal cancer according to the ginger treatment. Collectively, ginger has a beneficial effect on colorectal cancer by reducing tumorigenic risk factors. Lastly, one study examined the symptomatic relief on irritable bowel syndrome patients upon ginger application and found no evidence in the reduction of symptoms.

This review study was conducted on the effect of ginger on gastrointestinal diseases in which we included different studies, and, on this basis, further investigations will be conducted in near the future for clinical research of consumption of ginger and to make treatment of gastrointestinal diseases cost-effective through a natural process.

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\* Student, DDU-KK, DAVV, Indore

\*\*Visiting Faculty, DDU-KK

## **MENSTRUAL HYGIENE AWARENESS**

Zainab Kiranawala\*

Dr. Chaina Trivedi\*\*

Menstruation is the monthly shedding of the lining of a woman's uterus (more commonly known as the womb). Menstruation is also known by the term's menses, menstrual period, cycle, or period. The menstrual blood—which is partly blood and partly tissue from the inside of the uterus—flows from the uterus through the cervix and out of the body through the vagina. Menarche is the beginning of the menstrual cycle in females. Begins approximately between the age group of 11-16 years. Menopause is the ending phase of the menstrual cycle in females. Generally, menopause may occur between the age group of 45 - 50 years. The steps in the menstrual cycle are triggered by the rise and fall of chemicals in the body called hormones. Menstruation is a normal physiological process of females at their reproductive age. However, it is surrounded by social taboos and supernatural beliefs. The poor knowledge and understanding of menstruation may lead to unsafe hygienic practice that intern increases the risk of reproductive and Genito-urinary tract infections, cervical cancer, school drop-out, poor academic performance, and overall poor quality of life. Most women are uncomfortable to discuss regarding "menses" as it has a social taboo and adolescent girls could not have access to gain adequate information. As a result, adolescent girls perceive menstruation as something embarrassing that should be kept hidden. This demonstrates a need to design acceptable awareness creation and advocacy programs to improve the knowledge and promote safe hygienic practices of adolescent schoolgirls during menstruation. There is a need for information on menstruation, especially about menarche before its onset, and encouragement for the use of sanitary napkins as an absorbent. School-going girls and adolescents spend major time in their school. So, teachers can play an influential role in informing them about changes during adolescence, especially about menarche and other issues related to menstruation. Sisters and mothers can be the major source of information. Therefore, there is a strong need for the provision of comprehensive family life education for the parents also.

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\* Student, DDU-KK, DAVV, Indore

\*\*Dietician

## **ROLE OF GOVERNMENT SCHEMES IN THE FIELD OF WOMEN EMPOWERMENT**

Neha Mangrola\*

Dr. Chaina Trivedi\*\*

Women empowerment refers to increase and improve the social, economic, political and legal strength of the women. To ensure equal right to women, to make them confident, freely live their life with self-respect and self-dignity. It is essential for the health and social development of families, communities, and countries. As per the 2011 Census, the total female literacy rate in India stands at 74.00 per cent and the rate of literacy among women is 65.46 per cent. The percentage of female literacy in the country was 54.16 per cent in 2001. Main causes of poor female literacy rate are gender-based inequality, social discrimination and economic exploitation, Occupation of girl child in domestic chores, low enrolment of girls in schools, low retention rate and high dropout rate. women play a very good role in the development of economy and society. Woman is the leader, planner of the family, the trainer, supplier of labour power and playing important role in the development of agriculture, industry and service sector. Women empowerment is a critical aspect to achieving gender equality, where both men and women have equal power and opportunities for education, healthcare, economic participation and personal development. Government schemes for women empowerment are-Beti Bachao Beti Padhao Scheme- ‘Save the Girl Child, Educate the Girl Child’, is an initiative taken by the Government of India, the major objective of the scheme is women’s empowerment at the grass-root level. One Stop Centre Scheme-One-Stop Centre scheme is a sub-scheme under NIRBHAYA the National Mission for Empowerment of Women. Under this scheme, complete financial assistance will be provided to women by the Centre to the States and the Union territories. Women Helpline Scheme-The objective of the Universalization of Women Helpline (WHL) Scheme is to provide 24 hours emergency and non-emergency referral and information services to women affected by violence, both in public and private spaces. UJJAWALA- a Comprehensive Scheme for Prevention of trafficking and Rescue, Rehabilitation and Re-integration of Victims of Trafficking and Commercial Sexual Exploitation. STEP (Support to Training and Employment Program for Women)-The STEP Scheme aims to provide skills that give employability to women and to provide competencies and skill that enable women to become self-employed/ entrepreneurs. Mahila Shakti Kendra (MSK) Mahila Shakti Kendra (MSK) is the scheme aimed at providing one-stop convergent support services for empowering women with opportunities for skill development, employment, digital literacy, health, and nutrition.

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\* Student, DDU-KK, DAVV, Indore

\*\*Dietician

## **DIABETES AND ITS MANAGEMENT WITH NUTRITIONAL COUNSELING AND HEALTHY DIET**

Parul soni\*

Dr. Pooja Maheshwari\*\*

The prevalence of diabetes is increasing worldwide, and India is the diabetes capital of the world, according to National Diabetes statistics report 37.3 million peoples have diabetes. Two major kinds of diabetes can be seen: Diabetes mellitus type 1 - A metabolic disorder characterized by high blood glucose level due inability of the tissue to utilize carbohydrate, causes by deficiency of insulin hormone secreted from islet of Langerhans of pancreas. It is insulin dependent diabetes, usually appears during childhood and adolescence. Diabetes mellitus type 2 – a long term medical condition in which your body unable to use insulin properly resulting in unusual blood sugar level. This type of diabetes generally prevalent in old age group. Goal of nutrition therapy in people with diabetes include development of individualized eating plan that can help to achieve personal target for blood glucose level.

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\* Student, DDU-KK, DAVV, Indore

\*\*Visiting Faculty, DDU-KK

## **BLOOD CHOLESTROL LEVELS**

Pratha Sharma\*

Mrs Deepa Agnihotri\*\*

Cholesterol is a waxy, fat-like substance that's found in all the cells in your body. Your body needs some cholesterol to make hormones, vitamin D, and substances that help you digest foods. Your body makes all the cholesterol it needs. Cholesterol is also found in foods from animal sources, such as egg yolks, meat, and cheese. Plaque sticks to the walls of your arteries. This buildup of plaque is known as atherosclerosis. It can lead to coronary artery disease, where your coronary arteries become narrow or even blocked. Eat a low-salt diet that emphasizes fruits, vegetables and whole grains. Limit the amount of animal fats and use good fats in moderation. Lose extra pounds and maintain a healthy weight. Quit smoking. Exercise on most days of the week for at least 30 minutes. Drink alcohol in moderation, if at all. Manage stress. Processed or deli-style meats (such as ham, bacon and salami), deep fried fast foods, processed foods (such as biscuits and pastries), takeaway foods (such as hamburgers and pizza), fat on meat and skin on chicken, Ghee, lard and copha, coconut oil, ETC. Symptoms- High cholesterol has no symptoms. A blood test is the only way to detect if you have it. Causes- Poor diet, Obesity, Lack of exercise, Smoking, Alcohol, Age etc. Unlike most hydrocarbons, cholesterol does not have an alternative name; it is simply cholesterol. The formula for cholesterol is  $C_{27}H_{46}O$  and the structure is on the cover page of this document. The “-ol” in cholesterol implies that it is part of the hydroxyl or alcohol functional group. Being part of the alcohol functional group means that one of the parent hydrocarbons was replaced with the alcohol functional group –OH. There are three main functions of cholesterol; it coats our cells, it makes the acids in the body to digest food in the intestine, and it allows the body to make Vitamin D and hormones like estrogen in women and testosterone in men. Without cholesterol, these functions could not happen and without these functions, human life would not exist. Cholesterol can be linked to many diseases, but what most people don't know is that cholesterol is actually essential for all animal life to exist. Without it, all animals, including humans, would cease to exist. There is actually “healthy” cholesterol and “bad” cholesterol. The “healthy” cholesterol is the approximate 1,000 mg the body needs to function, whether it be produced by the body itself or consumed through the diet. The “bad” cholesterol is all the excess that is ingested through the diet that our body cannot use nor digest. Without anywhere to go, it builds up in the body, leading to many heart-related diseases.

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\* Student, DDU-KK, DAVV, Indore

\*\*Dietician

## **TO EDUCATE ABOUT PERSONAL HYGIENE OF ADOLESCENT GIRLS IN INDORE, MP**

Priyanshi Chouhan\*

Mrs. Nandita Thakur\*\*

The adolescence is a period in which physical growth, mental development, emotional balance, social participation, cultural activities, moral changes, professional, future goals related and identity-related developments occur. This descriptive research aimed to know the personal hygiene practices of adolescent girls. The study was conducted in the government school Sharda Kanya Girls' Higher Secondary School, Bada Ganpati of Indore. Data was collected by questionnaire, height, weight, and BMI. Quantitative method was used. Primary data were obtained by direct interview method. The age of 13-18 years who were the students. Data was collected by using structured questionnaire in this the assessment of personal hygiene practices. In this research, the result obtains that among the girls 21% was reusing the menstrual cloth, 98% was taking bath, 98% was washing their hands before eating, 100% was brushing regularly and the menstrual cycle regularity was 67%.

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\* Student, DDU-KK, DAVV, Indore

\*\*Dietician

## **AWARENESS AMONGST WOMEN TOWARDS HOW FOOD CAN HELP WITH THE MOOD SWINGS**

Radhika Godbole\*

Mrs. Priya Chitale\*\*

Nutrition plays an important role in our behavior and our thought process, as the food we eat affects our cognition, memory and emotions. The people in modern society are burdened with tremendous pressure, so the incidences of mental illness are increasing specifically in women. Women play a major role in the development of the country by contributing professionally or as a homemaker, also they go through several bodily changes in their life, these changes include hormonal changes as well that affects the quality of life and working capacity. Our food contains various nutrients that may help boost the functioning of happy hormones like serotonin and others which leads to manage mood related problems in women. This aims to understand the experience, knowledge and awareness among women and their perception towards how healthy eating practices can help them with the mood swings. This study is based on survey research methodology in which women of age 19 to 50 years old are included. The sampling frame are women residing within India. The tool used for the survey purpose is a questionnaire that is formed with the help of google forms. This study will explore the relationship between food and mood against the backdrop of increased mental health and nutrition cognizance of women within public health and scientific discourses.

\* Student, DDU-KK, DAVV, Indore

\*\*Dietician

## **OBESITY IN ADOLESCENTS**

Riddhi Dagaonkar\*

Dr. Chaina Trivedi\*\*

**Obesity** is a condition where a person has accumulated abnormal or excessive body fat that causes negative effects on health. A body mass index (BMI) over 25 is considered overweight, and over 30 is obese. If the BMI is 30.0 or higher, it falls within the obesity range. The issue has grown to epidemic proportions, with over 4 million people dying each year as a result of being overweight or obese in 2017, according to the global burden of disease. A simple measure commonly used to classify overweight and obesity in adults is body mass index (BMI). BMI is defined as a person's weight in kilograms divided by the square of his height in meters ( $\text{kg/m}^2$ ). WHO identifies overweight when BMI is greater than or equal to 25; and obesity when BMI is greater or equal to 30. In Asians, the cut-offs for overweight ( $\geq 23.0 \text{ kg/m}^2$ ) and obesity ( $\geq 25.0 \text{ kg/m}^2$ ) is lower than WHO criteria due to risk factors and morbidities. Obesity is generally caused by eating too much & moving too little. Consumption of high amounts of energy, particularly fat and sugars, but do not burn off the energy through exercise and physical activity, much of the surplus energy will be stored by the body as fat. Consume less “bad” fat and more “good” fat (such as polyunsaturated fat, invisible fats, etc.) which can reduce the bad cholesterol level (LDL) & increase the good cholesterol level (HDL). Consume less processed and sugary foods, which can discourage overeating. Eat more servings of vegetables and fruits can help keep calories reasonable and reduce the risk of overeating. Engage in regular aerobic activity. The CDC Trusted Source recommends 150 minutes of moderate aerobic activity or 75 minutes of vigorous aerobic activity per week. Focus on reducing daily stress. A 2012 study of a Trusted Source suggests that stress may trigger a brain response that changes eating patterns and leads to cravings for high-calorie foods. Practice Yoga & go for a walk every day, as it will burn the extra fat accumulated in the body. In India, more than 135 million individuals were affected by obesity. According to ICMR-INDIAB study 2015, prevalence rate of obesity and central obesity are varying from 11.8% to 31.3% and 16.9%-36.3% respectively. In India, abdominal obesity is one of the major risk factors for cardiovascular disease. According to various studies the prevalence of obesity among women was significantly higher as compared to men.

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\*Student, DDU-KK, DAVV, Indore

\*\*Dietician

## **VITAMIN B2 (RIBOFLAVIN)**

Riddhi Dagaonkar

The chemical name of Vitamin B2 is Riboflavin. It is a water-soluble vitamin (it cannot be stored in the body). It is a part of coenzyme Flavin adenine dinucleotide (FAD) & Flavin mononucleotide (FAM). It plays a key role in oxidative metabolism. Functions of Vitamin B2 are: It helps in oxidation and utilization of oxygen, in metabolism of carbohydrate and protein, necessary to keep the skin healthy & glowing, helps in the normal functioning of the eye, important for growth of the body, helps in production of Red Blood Cells (RBC) and also aids in the release of the energy from proteins. Daily intake of Vitamin B2 should be 1.2-1.5 mg. Sources of Vitamin B2 are Turnip, milk & meat products, eggs, egg white, yeast, vegetables, whole grain cereals, almonds, soybean are the sources of Vitamin B2. The richest source of Riboflavin is dried yeast & liver. Milling of cereal grains may lead to deficiency. The deficiency may occur due to malabsorption enter colitis & hepatitis & use of excess antibiotics. The deficiency of Vitamin B2 causes digestive disorders, burning sensation & cracking of skin, cheilosis (fissuring at corners of the lips & mouth), photophobia (rough eye lids), and glossitis (dark red tongue). Celiac disease and Cohn's disease are other possible causes of symptoms associated with riboflavin deficiency. Signs of deficiency include stomatitis, peeling of lips & symptoms of anemia are some signs of deficiency of Vitamin B2 in the body. Riboflavin deficiency generally occur along with deficiency of other B group of vitamins. The primary risk of excess Vitamin B2 or toxicity of Vitamin B2 is damage to the liver. However, the excess riboflavin or riboflavin toxicity is rare as it cannot be stored in the body.

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Student, DDU-KK, DAVV, Indore

## **A STUDY TO COMPARE THE DEMOGRAPHIC PROFILE OF DIABETIC AND DIABETIC NEPHROPATHY ADULT HUMAN SUBJECTS**

Ritu Baghel\*

Dr. Munira Husain\*\*

Diabetes Mellitus is considered as a chronically occurred illness, which leads to an increased risk of many chronic disabilities among them one of its major complications is nephropathy. So in present study 200 subjects, 100 each with or without nephropathy have been selected by purposive sampling method from hospital OPDs and studied for some of their demographic background to find out their role in aggravating diabetic complications. An Information schedule cum questionnaire was used for data collection. Data were tested statically using percentage and Chi-square and level of significance kept at 5% level. The obtained result indicated significant difference in age group, education level and income group in between diabetic and diabetic nephropathy subjects. Subjects within the age group found as 51-60 years (52.0 %), Male (66.5 %), college level educated (44.5 %) and middle-income group (57.5 %) were found comparatively more in from diabetics and diabetic nephropathy. Similarly, more of age group 30-40 years (14.0

%), illiterate (13.0 %) and low-income group (10.5 %) have had less suffered to diabetes and diabetic nephropathy. So, the study concluded that male, middle-aged person, higher education level and middle-income group were these various demographic variable more affected to diabetes and diabetic nephropathy condition.

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\* Student, DDU-KK, DAVV, Indore

\*\*Professor, Mata Jijabai Girls' P G College, Indore

## **TO STUDY THE NUTRITIONAL STATUS OF CHILDREN UNDER 5 YEARS OF AGE ATTENDING ANGANWADI CENTRES**

Riza Khan\*

Dr. Shweta Keswani\*\*

Nutritional status of children is one of the major predictors of child survival. However, malnutrition is a major public health problem in most of the developing countries and occurs prominently among under-five children. Those children who survived malnutrition in early childhood have disadvantages compared to those who have had adequate nutrition and a healthy living environment. The objective of this study is to assess the nutritional status of children under 5 years of age and to educate parents and caregivers on the impact a well- balanced diet has on the developing child so that they might use this knowledge when working with and caring for children and promote healthy eating habits as the child grows. Childhood is a critical period as the physiological need for nutrients is high relative to energy needs. A diet of high nutritional quality

is therefore particularly important. In addition, eating habits, lifestyle and behavior patterns are developed by this age that may persist throughout adulthood. Anganwadi serve as an important community resource and engage in health-related activities and potential platform to control and prevent malnutrition. This study will evaluate the nutritional status of under 5 age children enrolled in Anganwadi and on the basis of obtained results, mothers of the same will be sensitized. This study would be conducted on 50 children of under 5 years of age attending Anganwadi Centre regularly. Anthropometric measurements (Height for Weight, Weight for Age and Height for Age) of the children will be done and will compare with WHO growth standards. A pretested questionnaire of 33 questions (25 for parents and 7 for AWW) would be given to know the eating pattern of the children. It is expected that children who attends Anganwadi regularly and receive proper care will have better nutritional status when it is compared with WHO growth standards

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\* Student, DDU-KK, DAVV, Indore

\*\*Dietician

## **ASSESSMENT OF PATHOPHYSIOLOGY OF MALNUTRITION: A REVIEW STUDY**

Sadiya Sheikh\*

Dr. Zainab Nadeem\*\*

The main aim of this review is to assess the burden of undernutrition, its determinants and strategies required to tackle malnutrition. Nutrition is the intake of food in relation to the body dietary needs. Malnutrition is the condition that develops when the body does not get the right amount of the vitamins, minerals, and other nutrients it needs to maintain healthy tissues and organ function. This can lead to reduced immunity, increased susceptibility to disease, impaired physical and mental development. Acute malnutrition is a nutritional deficiency resulting from either inadequate energy or protein intake. Secondary acute malnutrition is usually due to an underlying disease causing abnormal nutrient loss, increased energy expenditure, or decreased food intake. To assess malnutrition in India, a review study was done. On the basis of data available 21% of all children under 5 years. In one study conducted it was found that only 5 states and 50% of villages account for about 80% of the malnutrition burden. Each year approximately 2.3 million deaths among 6-60 months aged children in developing countries are associated with malnutrition, which is about 41% of the total deaths in this age group. A recent study was conducted which says that among children aged between 3 months and 3 years of age conducted in 130 districts was found mild under-weight. One study shows over 33 lakh children in India malnourished, 17.7 lakh of them severely malnourished. Existing evidence shows that the prevalence of under nutrition among under five children was high and varied widely (underweight = 39% - 75%), (wasting= 10.6 – 42.3%). WHO study shows severe malnutrition in children between 1 to 3 yrs of age to be 15.6%. A community-based study was conducted in rural areas in which 43.1%, 35.4% and 31.5% was prevalence of stunting, underweight and wasting by different methods like anthropometry, height and weight circumference, mid arm circumferences, etc. This review was conducted on assessment of malnutrition in which we included several studies and, on this data, collected we will conduct further investigation in future for clinical purpose to find prevalence of malnutrition and its factors.

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\* Student, DDU-KK, DAVV, Indore

\*\*Visiting Faculty, DDU-KK

## **BOTANICAL WAY TO LESSEN DIABETES – A STUDY OF AYURVEDA BHARAT**

Saloni Patidar\*

Mrs. Nandita Thakur\*\*

Diabetes is a chronic disease that occurs when the pancreas does not produce enough insulin, a hormone that regulates blood sugar, or when the body is unable to effectively utilize the insulin it produces. The vast majority of diabetic patients are classified into one of two broad categories: type 1 diabetes mellitus, which is caused by an absolute or near absolute deficiency of insulin, or type 2 diabetes mellitus, which is characterized by the presence of insulin resistance with an inadequate compensatory increase in insulin secretion. Diabetes mellitus is a syndrome that is characterized by hyperglycemia, change in the metabolism of lipids, carbohydrates, and proteins, and in the long term, with eye, kidney, cardiovascular, and neurological complications. The most common and effective antidiabetic medicinal plants of Indian origin are Babul (Gum Arabic tree), *kuwarpatta* (*Aloe vera*), *Bargad* (banyan tree), *gudhal* (*Hibiscus*), *shah- tut* (mulberry), *giloy*, and *methi* (fenugreek). All these plants are a rich source of phytochemicals. As per Ayurveda, there exists a huge collection of plants with antidiabetic potential. Only few of them have been scientifically proven and a lot more have yet to be explored and proved. Gum Arabic tree, *aloe vera*, *banyan tree*, *hibiscus*, *mulberry*, *fenugreek* have shown varying degrees of hypoglycemic activity. These plants have also been reported to contribute in control of complications of diabetes. Future studies may target isolation, purification, and characterization of bioactive compounds present in these plants. The outcome of such studies may provide a starting point for development of potential antidiabetic drugs. This review may be help full in the management of diabetes.

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\* Student, DDU-KK, DAVV, Indore

\*\*Dietician

## **ASSESSMENT OF PREMENSTRUAL SYNDROME IN RELATION WITH MENTAL HEALTH STATUS AND PHYSICAL HEALTH STATUS AMONG TEENAGE GIRLS OF NOORANI NAGAR OF INDORE CITY**

Sameena Chakera\*

Dr. Zainab Nadeem\*\*

Premenstrual syndrome (PMS) effects teenagers emotionally and physically substantially interfering with their quality of life. So, this study was aimed to determine severity of PMS in relation to mental and physical health status among teenage girls of Noorani Nagar of Indore city. A random purposive sampling was used to select 30 girls aged 12 to 19 years from Noorani Nagar of Indore city on a self-consent basis. Information regarding frequency and severity of Mental health status viz. anxiety, irritation, mood swings, nervous tension, depression, confusion and Physical health status viz. headache, weakness or fatigue, dizziness, palpitations, gastrointestinal problems, weight changes was obtained using a predesigned questionnaire. The participant's response was summed up as mild, moderate and severe using a score of 1, 2 and 3 respectively. Analysis of data was done using percentage basis. Obtained data revealed that majority of teenage girls had moderate effect of PMS on mental status 55.3% and physical health status 60% while 18.4% and 10.5% had mild mental and physical health status respectively. Furthermore, it was also observed that 26.3% and 29.5% had severe mental and physical health status respectively. This study concluded that PMS moderately affected mental status and physical health status of teenage girls. Hence, there is a need for better detection and management of PMS among teenagers to improve their quality of life.

## **ROLE OF FORTIFIED FOOD IN NUTRITIONAL STATUS**

Vineya Jain\*

Dr. Chaina Trivedi\*\*

Fortification is the addition of key vitamins and minerals to staple foods to improve their nutritional content. These nutrients may or may not have been originally present in the food before processing. In India, food fortification began in the 1950s with vegetable oil fortification and salt iodization. In the 2000s, the government introduced fortification of other commodities such as rice and wheat. Fortification has been made mandatory for some micronutrients. In 2020, FSSAI considered it mandatory to fortify edible oil with vitamin A and D. Fortification of rice with Vitamin B12, Iron, and Folic Acid from 2024 to address malnutrition and anaemia crisis in the country will also become compulsory. Since April 2021, the government has also started distributing fortified rice through the mid-day meal scheme and Integrated Child Development Scheme (ICDS) programme to deal with the widespread nutritional deficiencies. Other than rice and oils, according to FSSAI, fortification is voluntary. If any staple claims to be fortified, the procedures as notified have to be followed. The +F logo can only be used if the staple is fortified as per the regulations. Fortification is the process of adding micronutrients into to correct inadequate micronutrient intakes through the fortification of foods, thereby preventing, or reducing, the severity and prevalence of micronutrient deficiencies. Eliminate malnutrition and nutritional deficiencies. Provides extra nutrition at affordable costs. The inherent characteristics of the food remain the same even after fortification. This means that the original taste, texture, and appearance are unchanged. Wide scale production of fortified foods can help improve the overall nutritional problem of a country, by catering to both, the poor and the rich.

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\* Student, DDU-KK, DAVV, Indore

\*\*Dietician

## **AUTOIMMUNE DISEASES**

Ruqaiyah Talwada\*

Mrs. Chaina Trivedi\*\*

Autoimmune disease occurs when the immune system attacks self-molecules as a result of a breakdown of immunologic tolerance to auto reactive immune cells. Many autoimmune disorders have been strongly associated with genetic, infectious, and/or environmental predisposing factors. Autoimmune diseases are divided into two classes: organ-specific and systemic. An organ-specific disease is one in which an immune response is directed toward antigens in a single organ. Examples are Addison disease, in which autoantibodies attack the adrenal cortex, and myasthenia gravis, in which they attack neuromuscular cells. In systemic diseases the immune system attacks self-antigens in several organs. Systemic lupus erythematosus, for example, is characterized by inflammation of the skin, joints, and kidneys, among other organs. The early symptoms of many autoimmune diseases are very similar, such as fatigue, achy muscles, swelling and redness, low-grade fever, trouble concentrating, numbness and tingling in the hands and feet, hair loss, skin rashes etc. How are autoimmune diseases treated? Treatments can't cure autoimmune diseases, but they can control the overactive immune response and bring down inflammation or at least reduce pain and inflammation. Drugs used to treat these conditions include non-steroidal anti-inflammatory drugs (NSAIDs), such as ibuprofen (Motrin, Advil) and naproxen (Naprosyn) and immune-suppressing drugs. Treatments are also available to relieve symptoms like pain, swelling, fatigue, and skin rashes. More than 80 different autoimmune diseases exist. Often their symptoms overlap, making them hard to diagnose. Autoimmune diseases are more common in women, and they often run in families. Blood tests that look for autoantibodies can help doctors diagnose these conditions. Treatments include medications to calm the overactive immune response and bring down inflammation in the body. Any autoimmune diseases can be managed if the diet given to the gut is right because 70 per cent of the immune cells are housed in the gut lining. If the gut is inflamed or irritated or agitated, naturally it will not produce sufficient immune cells and therefore the immunity becomes even worse.

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\* Student, DDU-KK, DAVV, Indore

\*\*Dietician

## **ROLE OF VITAMINS IN OUR BODY**

Ruqaiyah Talwada\*

Mrs. Deepa Agnihotri\*\*

Vitamins are organic substances present in minute amounts in natural foodstuffs. Having too little of any vitamin may increase the risk of developing certain health issues. Vitamins are vital for good health, but needed in much smaller amounts than macro-nutrients, like carbs and fats. They're important for many daily bodily functions, such as cell reproduction and growth, but most importantly for the processing of energy in cells. Most of the people can meet their daily vitamin needs by eating a range of food from the four main food groups; that means most people do not need to take supplements. However, if you're thinking of getting pregnant, or are already, you need to take a daily folate supplement (400µg) until your 12th week of pregnancy. Low daily intakes are linked to spinal bifida and other malformations in babies. Read more about eating and drinking during pregnancy. Vitamin B12 is contained only in foods of animal origin, which means vegans and vegetarians need to watch out for low B12 levels. There are currently 13 recognized vitamins. Fat-soluble and water-soluble vitamins. Vitamins are either soluble, or dissolvable, in fat or water. A balanced, varied diet that contains plenty of fruits and vegetables should be the primary source of vitamins. The Department of Health and Human Services provide up-to-date guidelines [Trusted Source](#) detailing the best ways to get enough nutrients from the diet. Fortified foods and supplements may be appropriate in some cases, however, such as during pregnancy, for people with restricted diets, and for people with specific health issues. Anyone taking supplements should be careful not to exceed the maximum dose, as research [Trusted Source](#) shows that taking too much of any vitamin can lead to health problems. Also, some medications can interact with vitamin supplements. Overall, it is important to speak with a healthcare provider before trying any supplement.

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\* Student, DDU-KK, DAVV, Indore

\*\*Dietician

## **COMPARATIVE STUDY OF WEIGHT GAIN IN INFANTS**

Priya Suman

Breastfeeding is the most crucial and important phase of life, and it is the process by which human milk is fed to a child. Breast milk may be fed from the breast or expressed by hand or pumped and fed to the infant and it has number of benefits to both mother and baby which infant formula lack. The most effective intervention to reduce infant mortality this is a comparative study of weight in pattern of infants from 0 to 6 months and here mentioned a diet in pregnancy and lactation period about the benefits of breastfeeding in our daily life and there are so many types of breastfeeding found according to the circumstances like exclusive breastfeeding, predominant breastfeeding and all different weight gain comparisons of infants in different types of feeding patterns. This study also mentioned who recommendations including maternal nutrition supplements for mothers and infants and community support groups and also analyzed that exclusive breastfeeding infants gain weight doubled to the average weight gain of infants as compared to mixed feeding in all other feeding. And in this study, we also assess that the present knowledge of mothers on breastfeeding and this study administered over 50 infants from bhopal.it was seen that exclusive breastfeed infants gain proper weight and were healthier and well developed.

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\* Student, DDU-KK, DAVV, Indore

## **A STUDY ON MID-DAY MEAL PROGRAM AND ITS IMPACT ON THE NUTRITIONAL STATUS**

Khadija Pattiwala\* Dr. Chaina Trivedi\*\*

Childhood is the foundation for the health and well-being of an individual. Along with proper nourishment, education also plays an important role in the overall development of a child. Realizing the relationship between education and health, Government of India has launched the National Program of Nutritional Support to Primary Education or the Mid-Day Meal (MDM) Scheme in 1995. The MDM scheme is launched with an objective of improving nutritional status of children, reducing classroom hunger, increasing school enrollment, improving socialization among castes and to address the problem of malnutrition in the country. Under this scheme mid day meals are provided to primary school children with low social economic status studying in government schools, local body schools, government-aided schools, special training centers (STC), maktabas and madrasas on all working days. The key focus of this research is on the Mid-day meal program run by the government and its impact on the nutritional status of the children. Also social economic status of the beneficiaries of midday meal program will be reviewed. Purposive Random Sampling method is used to conduct this research. A study was conducted on the students of Shaskiya Prathamik Vidhyalaya, Juni Indore. This school provides primary education from classes 1-5 to 80 students who are considered as sample size in this research. The study showed that the Mid day meal food provided to the children was below average. The quality of the food was substandard. No specific menu was followed. The food provided was partially as per the government guidelines, Dal rice were provided more frequently than other vegetables. It was seen that maximum number of students brought their own food from home and those who were not capable of bringing their own food were obliged to eat the mid-day meal food which was not as per their liking. According to the government guidelines 400 calories and upto 12g of protein is to be provided to each student per day. As all the children studying their belonged to below poverty line the hygiene among the children was average. The sitting arrangement as per the strength was also inadequate. The Mid Day Meal scheme is a well-intentioned Program. Government of India has attempted to address the fundamental problems of Health, Nutrition, Education, and overall development of children in the country by implementing the program all over the country. This program is known to lead to higher attention spans, better concentration, and improved child performance. School meal program also provides parents, a strong however after analyzing it seems that the MDM program needs to be strengthened in its operational supervision. Also, the government should improve the quantity and the quality of supplements needed so that the nutritional gap can be filled.

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\* Student, DDU-KK, DAVV, Indore

\*\*Dietician

## **A STUDY OF MECHANISM AND BENEFITS OF “DIGITAL TELE-ECG” IN ENHANCING CARDIAC HEALTH AND MITIGATING CARDIAC EMERGENCY**

Abdul Sabir Khan\*

Dr. Nisha B. Siddique\*\*

Heart attack is most common word during all kind of cardiac emergency, it may be angina, chest pain, sudden uneasiness. We all look forward for urgent diagnosis and treatment. We never realise the benefits of speed diagnosis until our love one required. Every day 4280 people in India die due to cardiac issue and ICMR claims out of 50% case reach hospital late. And out of 50% those who reach hospital on time approx. 27% required immediate diagnosis and treatment. But unfortunately, available cardiac facilities cannot full fill gap of demands on cardiac healthcare emergency. Our healthcare services and workforce are currently overrun by a superfluity of activities related to mitigate the heart related issue. In doing so, there is a challenge that essential healthcare service which society expecting from the healthcare professionals & our system, would be compromised. Healthcare sector involves innumerable problems that the prospective has to confront. But the most important side of these problems are non-availability of healthcare facilities on time and place. Government is trying to reach rural areas too but without digital platform it's next to impossible to touch the goal. We are fixing healthcare approach but also providing economical option and playing significant role to save several lives in non-traditional ways through TELE-ECG. There was ample impact of digital ECG platform in this lockdown. Digitalization of ECG increases ability to perform fast and diagnose heart problem. If we will see contribution of digital ECG to healthcare than findings are not satisfactory in compared to other developed nation. Now it's time to explore more in digital healthcare platform to make approachable for all.

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\*Student, IMS, DAVV, Indore

\*\* Faculty, IMS, DAVV, Indore

## **JUDICIOUS APPROACH TOWARDS DIETARY FATS**

Khadija Pattiwala\* Mrs. Deepa Agnihotri\*\*

The way nutritional information is obtained by the people nowadays has subsequently changed from the past decades. Internet and various social media platforms have become a hub for it. However, many people are being misled by the information on such platforms as generally no authorized source confirms it and because of this wrong information circulates. One such misleading theory is about the Dietary fats, where people are often told to stop their intake of fats. Dietary fats are energy dense nutrient that provides essential fatty acids and aids in fat soluble vitamin absorption in our body. They help in protecting our vital organs and also help in maintaining our body temperature. We always hear that eating fat will add inches to your waistline, raise cholesterol, and cause a myriad of health problems but not all fats are same some are good as well. Fats are classifying as good fats and bad fats in which bad fats are the one because of which blame comes on all other fats. By understanding the difference between good and bad fats and how to include more healthy fat in our diet, we can boost our energy, keep ourselves healthy and can even reduce waistline. Now the question arises which type of fats are good and which are bad. Fats are mainly categorized into two categories saturated fats or bad fats and unsaturated fat or good fats. Saturated fats are those which are solid at room temperature, they are found in butter, full fat milk, yogurt, high fat meat etc. They tend to raise low density lipoprotein (LDL) cholesterol levels in the blood and higher cholesterol level can increase your risk of heart disease and stroke and so it is recommended to take saturated fats in a low amount. According to the NIN guidelines saturated fat consumption should not exceed 8-10% of the total calories intake. Another type of fats which are also termed as bad fats are trans fats, these are the fats which are artificially made by the process of hydrogenation. This is the worst type of fat since it not only raises bad LDL cholesterol but also lowers good HDL levels. Another type of fats are unsaturated fats also termed as good fats, they are liquid at room temperature, they are found in vegetable oils, fish, and nuts. Studies have shown that eating food rich in unsaturated fats instead of saturated fats helps in improving blood cholesterol levels which leads to decreasing risk of heart diseases and stroke. Unsaturated fats are further classified into monounsaturated fats found in olive oil, canola, peanut, sunflower etc and polyunsaturated fats found in corn, soybean, walnuts etc. One type in particular Omega3 fatty acid falls in this category which boosts heart health, reduces blood clotting, reduces irregular heartbeat, and helps in slightly lowering the blood pressure, it is found in fatty fishes such as salmon, herring etc. According to the NIN guidelines the polyunsaturated fats consumption should be 8-10% of the daily energy intake and remaining 8-10% of fat calories can be derived from monounsaturated fats. Instead of obsessively counting fat grams, aim for a diet rich in a variety of vegetables, fruit, nuts, and beans, with two or more weekly servings of fatty fish, moderate amounts of dairy, small amounts of red meat, and only occasional fried or processed meals. Some of the ways in which you can inculcate healthy fats in your diet limit your intake of saturated fats, Eat omega-3 fats every day. Include a variety of fish sources as well as plant sources such as walnuts, ground flax seeds, flaxseed oil, canola oil, and soybean oil. Cook with olive oil. Add more nuts while cooking this way you will keep getting healthy dietary fats essential for your body and can avoid bad dietary facts and its effects.

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\*Student, DDU-KK, DAVV, Indore

\*\*Dietician

## **ROLE OF DIETARY FIBRE**

Ummulbanin Kapadiya

Dietary fiber, also known as roughage or bulk, includes the parts of plant foods. Since it cannot be digested or absorbed by the body like other nutrients such as carbohydrates, fats, protein. This is the ignored part of food intake by many. The digestive enzymes of the human can not completely breakdown this group of substance completely but some part of it get fermented in the body as per the chemical composition. fiber isn't digested by your body. Instead, it passes relatively intact through your stomach, small intestine and colon and out of your body. Fibre is The amount of soluble and insoluble fibre varies in different food items. so, it is advised to get the varieties of the plant food to get the best benefit out of it. Fibre recommendation for men till the age of 50 is 38 grams and for above 50 is 30 grams. Fibre recommendation for women till the age of 50 is 25 grams and for above 50 is 21 grams. The health benefits of fibre rich diet are proved medically not only for gut health but also for blood sugar levels, heart health, immunity, cancer prevention and figure control. The importance of fibre is associated with proper intake of fluids. High fibre diet may not prevent or cure constipation unless the diet is high in fibre content.

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Student, DDU-KK, DAVV, Indore

## **HEALTHY COOKING METHODS**

Falguni Rathore\*

Dr. Chaina Trivedi\*\*

A Good Nutrition is important for your body and its processes. It is important to have a balanced diet rich in all nutrients to ensure that no deficiencies or hormonal imbalances are created in the body. Nutrition is also important for you to boost your immunity and give it the ability to fight against diseases. Boiling is cooking foods just by immersing them into the water at 100° C and the water at the temperature till the food is tender. Food that are cooked by boiling are rice, eggs, dals, potatoes, meat, sago, etc. It is the simplest method and does not require special skill and equipment. Soluble starches can be removed, and rice grains are separated. Also, in this process protein gets denatured, starch gets gelatinized, and collagen gets hydrolyzed. A uniform cooking can be done by this method. Simmering is when foods are cooked in a pan with a well-fitting lid at temperature just below the boiling point (82 – 99 °C) of the liquid in which they are immersed the process is known as simmering. In this method the food gets cooked thoroughly. The foods which are cooked by simmering method are custard, kheer, vegetables, halwa and many more such items. Poaching involves cooking in the minimum amount of liquid at a temperature of 80-85°C, that is below the boiling point. For poaching eggs, the addition of little salt or vinegar to the cooking liquid lowers the temperature of coagulation, Eggs get cooked quickly by poaching. This is a very quick method of cooking and easily digestible since no fat is used. Stewing is a gentle method of cooking in a pan with a tight-fitting lid, using some small quantities of liquid to cover only half of the food. The food above the liquid is cooked by the steam generated within the pan. It is a slow method of cooking. This method is generally used for cooking some roots and vegetables and legumes, all put in the same cooking pot and cooked in water. There is no loss of nutrients as flavour is retained. Steaming method requires the food to be cooked in steam. The water should be boiled before the food is placed in the steamer. Here the foods get cooked at 100° C. This method does not require constant attention, easily digestible and good for children and patients. Pressure cooking is a relatively small increase in temperature can drastically reduce cooking time and this fact is utilised in pressure cooker, escaping steam is trapped and kept under pressure so that the temperature of boiling water and steam can be raised 100°C and reduce cooking time. This method takes less time to cook and the food is cooked thoroughly. But there must be proper knowledge of using the equipment otherwise accident can happen. Sautéing method involves cooking in just enough oil to cover the base of the pan (greasing the pan). The food is turned over with spatula to enable all the pieces to come in contact with the oil and cooked evenly. All these methods improve the digestion and increase the absorption of nutrients. They all have a specific role for a particular category of food. In all this method pressure cooking is the best and easy method to cook food. There is no any loss of nutrients and it requires less attention plus less time to cook the food.

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\*Student, DDU-KK, DAVV, Indore

\*\*Dietician

## **ROLE OF INTEGRATED CHILD DEVELOPMENT SERVICES REFERENCE [WOMEN AND CHILD]**

Ummulbanin Kapadiya\*

Dr Chaina Trivedi\*\*

**Integrated Child Development Services (ICDS)** is a government program in India which provides nutritional meals, preschool education, primary healthcare, immunization, health check-up and referral services to children under 6 years of age and their mothers. This scheme was launched in 1975 by ministry of health and family welfare. It is the largest and unique scheme which addresses the needs connected to the development of a child. It is the Nation's response to the challenge to provide access to basic nutrition and health to children below the age of 6 years and women in the reproductive age group, pregnant women and nursing mothers. For nutritional purposes ICDS provides 500 kilocalories (with 12–15 grams of protein) every day to every child from 6 months to 6 years of age. For adolescent girls in the age group of 10 to 19, 6 kilograms of food grain is given every month. This programme was launched to fulfil the objectives like: To improve the nutritional and health status of children in the age-group 0-6 years.<sup>2</sup> To lay the foundation for proper psychological, physical and social development of the child.<sup>3</sup> To reduce the incidence of mortality, morbidity, malnutrition and school dropout.<sup>4</sup> To achieve effective co-ordination of policy and implementation amongst the various departments to promote child development; and 5. To enhance the capability of the mother to look after the normal health and nutritional needs of the child through proper nutrition and health education. Children under the age of 6 years and pregnant women are being commenced to the anganwadi under the programme of ICDS and other schemes for their mental, physical and social development. Food is being provided to the children for the nutritional purpose and they are taught about discipline and basic education is being provided to them. They are being kept in the hygienic condition. To achieve the objective of ICDS, anganwadi workers take the anthropometric measurement of the children and plot it on growth chart for the analysis of their nutritional status. Adolescent girls are also being provided the basic education about the awareness of hygiene at the time of their menstrual cycle.

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\*Student, DDU-KK, DAVV, Indore

\*\*Dietician

## **ASSESS THE KNOWLEDGE AMONG STUDENTS OF DAVV REGARDING FOOD LABELLING**

Vikram Singh\*

Dr. Shweta Keswani\*\*

Food Labelling is giving standard information through packaging such as the name of the product, name & address of the manufacturer, ingredients graphics, directions for use, maximum retail price, warning, expiry date etc. It is essential to label the Processed food item because it ensures the quality and quantity of the item, and it varies from brand to brand. In a survey conducted among 373 respondents across three major cities in India, the study assesses the level of awareness about five categories of information generally displayed on food labels. The level of awareness and the purchase decisions are compared across different socio-economic groups and found that Indian consumers in these three cities are fairly aware of the information given on the food labels, though the level of awareness about different types of information varies. Another study revealed that 86.7% of the participants reported reading labelling information prior to the purchase of pre-packaged foods. It is not always necessary that the consumer always read the label before buying the product of the same brand though he checks the MRP mentioned on the label which shows how much the labelling is important for the product. The proposed study will be conducted to know the awareness level of the students as consumers regarding the importance of the food label, what as consumer actually check on the food packet while purchasing and the reasons for not checking the nutrition labels over food products. The study will be conducted among the students (age group from 20 – 30 years) of DAVV University, Indore, Madhya Pradesh. The survey tool for this study is a structured survey questionnaire method through Google form Link & face-to-face interview to ensure that the data is unbiased by the investigator. Since there are abundance of campaigns to enhance the knowledge of the consumers regarding packaging and labelling, an effort has been made to evaluate the knowledge level of students of DAVV regarding food labelling, as food labelling has great impact on health if unnoticed. It is expected that the students are likely to have greater concerns with the contents of the food labelling.

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\*Student, DDU-KK, DAVV, Indore

\*\*Visiting Faculty, DDU-KK

## **VITAMIN B<sub>12</sub>**

Rukaiya Chechatwala\*

Mrs Deepa Agnihotri\*\*

Vitamin B<sub>12</sub> is a coordination complex of cobalt, which occupies the center of a corrin ligand and is further bound to a benzimidazole ligand and adenosyl group. It is a deep red solid that dissolves in water to give red solutions. Vitamin B<sub>12</sub>, also known as cobalamin, is a water-soluble vitamin involved in metabolism. It is one of eight B vitamins. It is required by animals, which use it as a cofactor in DNA synthesis, in both fatty acid and metabolism. Most people in developed countries get enough B<sub>12</sub> from the consumption of meat or foods with animal sources. The US National Academy of Medicine updated estimated average requirements (EARs) and recommended dietary allowances (RDAs) for vitamin B<sub>12</sub> in 1998.[6] The EAR for vitamin B<sub>12</sub> for women and men ages 14 and up is 2.0 µg/day; the RDA is 2.4 µg/day. RDA for pregnancy equals 2.6 µg/day. RDA for lactation equals 2.8 µg/day. For infants up to 12 months the adequate intake (AI) is 0.4–0.5 µg/day. For children ages 1–13 years the RDA increases with age from 0.9 to 1.8 µg/day. Animals store vitamin B<sub>12</sub> from their diets in their livers and muscles and some pass the vitamin into their eggs and milk. Meat, liver, eggs and milk are therefore sources of the vitamin for other animals, including humans. Vegans are advised to consume a dietary supplement or fortified foods for B<sub>12</sub> intake, or risk serious health consequences. Children in some regions of developing countries are at particular risk due to increased requirements during growth coupled with diets low in animal-sourced foods. Vitamin B<sub>12</sub> deficiency can potentially cause severe and irreversible damage, especially to the brain and nervous system. At levels only slightly lower than normal, a range of symptoms such as feeling tired and weak, feeling like one may faint, difficulty walking depression, poor memory, poor reflexes, confusion, breathlessness, headaches, and pale skin, feeling abnormal sensations, among others, may be experienced, especially in people over age 60. Severe vitamin B<sub>12</sub> deficiency is corrected with frequent intramuscular injections of large doses of the vitamin, followed by maintenance doses of injections or oral dosing at longer intervals. For cyanide poisoning, a large amount of hydroxocobalamin may be given intravenously and sometimes in combination with thiosulfate. Resulting non-toxic cyanocobalamin is excreted in urine.

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\*Student, DDU-KK, DAVV, Indore

\*\*Dietician

## **VITAMIN - D**

Rohan Thakur\*

Deepa Agnihotri\*\*

Vitamin D is also known as “Calciferol” is a fat soluble vitamin, it comprise a group of fat soluble sterol found in various foods. It is a non essential vitamin, it means it can be produced with in our body, or by the skin when exposed to the direct sun light. It’s two dietary forms are :Ergo Calciferol (which is also known as D2, and found in mushroom) and Chole Calciferol (which is also known as D3, and found in Egg, fish oil) vitamin D, Regulates the circulation of calcium and phosphorus. So vitamin D help to absorb the minerals from the diet we eat. Immune system regulation :- Vitamin D, helps to regulate and strengthen the immune system. When absorb in the blood stream, the liver and kidneys change the Calciferol into calcitriol which is biologically the active form of vitamin D. Getting sufficient sunlight is the best way to help the body produce enough vitamin D. Plentiful food sources of vitamin D include Fatty fish, such as salmon, mackerel, and tuna Egg yolks Cheese Beef liver Mushrooms Fortified milk, Fortified cereals and juices. People can measure vitamin D intake in micrograms (mcg) or international units (IU). One microgram of vitamin D is equal to 40 IU. Deficiency may occur in those who are hospitalised, in movable or those who remain or stay in the area where there scanty sunlight, like hilly areas, forest area, rainy area, etc. People with dark colour skin, obese, old age, And people with impaired fat absorption may develop it’s deficiency.

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\*Student, DDU-KK, DAVV, Indore

\*\*Dietician

## **WATER BALANCE IN OUR BODY**

Vineya Jain\*

Mrs. Deepa Agnihotri\*\*

Our body is 60-70% water, so proper water intake every day is important for your health. Water helps keep a normal temperature. Lubricate and cushion joints. Protect your spinal cord and other sensitive tissues. Get rid of wastes through urination, perspiration, and bowel movements. If water intake is less than the amount needed it can lead to dehydration. Dehydration means your body loses more fluids than you take in. If it's not treated, it can get worse and become a serious problem. Other reasons facilitating dehydration maybe high temperature leading to fluid loss via sweat, due to some illness, or medication side effects. Symptoms of dehydration can include dark yellow and strong-smelling urine, feeling dizzy or lightheaded, feeling tired, having a dry mouth, lips and eyes. This can be treated by increasing fluid intake, ORS. Water intoxication, also known as water poisoning, is a condition that occurs from drinking too much water, upsetting electrolyte balances. Drinking too much water can decrease sodium in the blood to dangerously low levels. People who participate in endurance activities are at risk. Health experts commonly recommend eight glasses of water a day, which equals almost 2 litres of water (about 2.5L for women and 3.5L for men). As with most things, how much water you need depends on the individual. Many factors ultimately affect how much water you need. Most of your fluid needs are met through the water and beverages you drink. You can get some fluids through the foods that you eat – especially foods with high water content, such as many fruits and vegetables.

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\*Student, DDU-KK, DAVV, Indore

\*\*Dietician

## **GOVERNMENT NUTRITION PROGRAMMES IN WHO**

Pratha Sharma\*

Dr Chaina Trivedi\*\*

The world health organization (WHO) is a agency of the united nations responsible for international public health. Headquartered in Geneva, Switzerland, it has six regional offices and 150 field offices worldwide. The WHO was established on 7 April 1948. The WHO has played a leading role in several public health achievements, most notably the eradication of smallpox, the near-eradication of polio, and the development of an Ebola vaccine. Its current priorities include communicable diseases, particularly HIV/AIDS, Ebola, COVID-19, malaria and tuberculosis; non-communicable diseases such as heart disease and cancer; healthy diet, nutrition, and food security; occupational health; and substance abuse. It is World Health Assembly, the agency's decision-making body, elects and advises an executive board made up of 34 health specialists. It selects the director-general, sets goals and priorities, and approves the budget and activities. The director-general is Tedros Adhanom Ghebreyesus of Ethiopia. Effective nutrition policies and actions exist but are often inadequate in the face of the complexity of the double burden of malnutrition – wasting, stunting, low birth weight and micronutrient deficiencies on one hand, and overweight, obesity and diet-related non-communicable diseases (NCDs) on the other. At the same time, the nutrition landscape is changing with the increased marketing of unhealthy processed food, urbanization and economic growth. Also Universal Health Insurance Scheme covers hospitalization, accident and disability. The scheme was initiated by the government to provide universal healthcare to persons below poverty. line. The World Health Organization (WHO) envisages a world free from all forms of malnutrition, where all people achieve health and well-being. Actions should target the various causes of malnutrition to achieve sustainable change, which requires a comprehensive and multisectoral approach. WHO works with partners to support Member States to develop, implement and monitor effective strategies and plans, advocate for supportive regulatory actions and policies, and monitor progress of global targets. In the midst of the United Nations Decade of Action on Nutrition 2016 - 2025, there is further opportunity for sustained and coherent implementation of policies, programmes and increased investments to eliminate malnutrition in all its forms, leaving no one behind.

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\*Student, DDU-KK, DAVV, Indore

\*\*Dietician

## **ASSESSMENT OF DIETARY HABITS AND ITS ASSOCIATION WITH VITAMIN B12 STATUS OF ADULT HUMAN SUBJECTS**

Dr. Zainab Nadeem\*

Dr. Munira Husain\*\*

Dietary habits lay a good foundation of potential growth and health attainment. B12 deficiencies occur as a consequence of inadequate intake or poor absorption. Animal-source foods are the only good natural sources of B12, so deficiency is more prevalent when intake of these foods is low due to cultural, religious, cost or availability issues. So, in this study, assessment of dietary habits was done and its association with serum vitamin B12 status was studied. A random purposive sampling was employed to select 300 subjects from the health check-up camps and OPD visitors in a multispecialty hospital of Indore City on self-consent basis. Information regarding food habits, the patterns of consumption of different food groups including fortified foods and supplements use of adults was collected using predesigned questionnaire. Their biochemical report of serum vitamin B12 was obtained from pathological labs and hospital records. Mean, SD, frequency and percentage were applied to characterize the study population and Chi test and ANOVA were used to assess significance of difference among the attributes. P-values  $<0.05$  was considered minimum level of significance. Mean $\pm$ SD data revealed significant differences in F values for food habits, intake status of vegetables, snacks and vitamin B12 rich milk, egg and meat, and nutritional supplements. Whereas, F value was not significant for the mean difference among intake status of pulse, fruits, nuts and oilseeds and vitamin B12 fortified foods. Furthermore, percentage distribution of vegetarians, intake status of vegetables, snacks, vitamin B12 rich foods and nutritional supplement was found significantly different while no significant difference among intake status of pulse, fruits, nuts and oilseeds and vitamin B12 fortified foods was found. Reaching a better understanding of the dietary intake associated with vitamin B12 would be relevant to determine whether dietary contribution by the accessible natural source can progress vitamin B12 status in majority of vegetarian population of India, protect from varied disorders and introduction of fortification and supplementation should be considered or not.

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\*Visiting Faculty, DDU-KK, DAVV, Indore

\*\*Professor, Mata Jijabai P G College, Indore

## **प्रतियोगी परीक्षा के प्रतिभागी किशोरों में तनाव, चिंता, अवसाद की उपस्थिति का अध्यय**

(मयुरी यशोधरा)\*

(डॉ.मुनीरा हुसैन)\*\*

वर्तमान समय में बढ़ती हुई प्रतिस्पर्धा और प्रदर्शन का दबाव भारतीय किशोर छात्रों को तनाव चिंता और अवसाद की ओर ढकेल रहा है हाल ही में नेशनल इंस्टीट्यूट ऑफ मेंटल हेल्थ एंड न्यूरोसाइंस द्वारा किए गए अध्ययन द्वारा ज्ञात हुआ है कि प्रत्येक पांच किशोरों में एक किशोर किसी ना किसी प्रकार की मानसिक स्वास्थ्य समस्या से ग्रसित है। प्रतिस्पर्धी परीक्षाओं जैसे- जॉइंट एंट्रेंस एग्जामिनेशन (Joint Entrance Test – JEE), नेशनल एलिजिबिलिटी कम एंट्रेंस टेस्ट (National Eligibility cum Entrance Test- NEET) आदि में अच्छे अंक प्राप्त करने हेतु विद्यार्थियों में तनाव लगातार बढ़ता जा रहा है जिसके फलस्वरूप विद्यार्थी अवसाद जैसी मानसिक बीमारी की ओर बढ़ता जा रहा है। साहित्य अवलोकन से स्पष्ट होता है कि सामान्यतः किशोरों में और मुख्यता प्रतियोगी परीक्षा में भाग लेने वाले किशोरों में तनाव, अवसाद और चिंता व्याप्त होती है तथा किशोरों में पोषण स्तर से संबंधित अनेक समस्या एवं भोजन संबंधित आदतों में भी अनियमितताएं व्याप्त होती है जिसका एक और आर्थिक सामाजिक संबंध है तो दूसरी ओर मानसिक तनाव भी भोजन ग्रहण करने एवं पोषण स्तर को प्रभावित करते हैं। साहित्य अवलोकन एवम इस विषय में निम्न बिन्दुओं के आधार पर अंतर देखा जा सकता है। तनाव चिंता अवसाद एवं पोषण स्तर सभी चरों का उल्लेख किसी भी शोध के अंतर्गत पूर्णतः प्राप्त नहीं हुआ। प्रतियोगी परीक्षा के प्रतिभागी किशोरों की शारीरिक स्वास्थ्य एवं पोषण स्तर पर तनाव, चिंता और अवसाद किस प्रकार प्रभाव डालते हैं यह भी नहीं ज्ञात होता है। एक बार अनुत्तीर्ण होने के पश्चात प्रत्येक अटेम्प्ट (प्रयास) के साथ उनकी मानसिक स्थिति पर पड़ने वाले प्रभाव एवं दबाव की जानकारी प्राप्त नहीं हुई है। प्रतियोगी परीक्षाओं के छात्रों के पोषण स्तर से संबंधित कोई साहित्य प्राप्त नहीं हुआ है। प्रतियोगी परीक्षाओं के छात्रों के भोजन आदतों का कितनी मात्रा में उनके तनाव, अवसाद, चिंता पर प्रभाव पड़ता है उससे संबंधित कोई साहित्य प्राप्त नहीं हुए है। उपरोक्त शारीरिक व मानसिक स्वास्थ्य से संबंधित चरों परामर्श के प्रभाव से संबंधित साहित्य की भी कमी देखी गई है।

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\* Student, DDU-KK, DAVV, Indore

\*\* Professor, Mata Jijabai Girls' P G College, Indore

## **THE STUDY OF MALNUTRITION: A PROBLEM IN DEVELOPING COUNTRIES**

Aiman Farooqui\*

Dr. Chaina Trivedi\*\*

Malnutrition is defined as an inadequate intake of certain nutrients associated with the body's inability to absorb or digest certain nutrients. Despite the provision of food assistance, these health concerns persist for children under the age of five in developing countries. Similarly, about one third of preschool children are hungry. Their human rights are being violated as a result. They may also have a weakened immune system, delayed mental development, decreased adult productivity, and a higher risk of developing food-related illnesses including high blood pressure and heart disease later in life. Women and girls tend to eat less and eat less, so malnourished women's preschool children are more likely to grow into malnourished young women who are more likely to give birth to malnourished children even before birth, which supports transmission of deficient generations. Malnutrition in children is still a challenge in many underdeveloped countries, despite its rarity in developed countries. In 2012, it was projected that 26% of the world's children were stunted, and nearly 3% were critically wasted. The sheer fact that children under the age of five were underweight was responsible for 45% of all deaths in this age group. Malnutrition needs to be prevented and treated more effectively. (Data reference: Kumar HN, Mohanan P, Kotian S, Sajjan BS, Kumar SG. Prevalence of overweight and obesity among preschool children in semi urban South India.) Poor nutrition affects about 2.3 billion people worldwide in some form or another. • 928 million people do not consume enough food • 2 billion people do not consume enough vitamins and minerals • 149 million children under the age of five are too short for their age (stunted) • 45 million children under the age of five do not weigh enough for their height (wasted) • 39 million children under the age of five weigh too much for their height Anemia affects 29.9% of women aged 15-49 years • Overweight or obese men and women account for 40% of the population.. (Data reference: Mumbai: International Institute of Population Science; 2005-06. National Family Health Survey-3. )In order to improve and preserve life, malnutrition must be eliminated. All micronutrient deficiencies are caused by a variety of factors, including low food quality. As the outbreak of COVID-19 proves, traditional food systems should also provide healthy, safe, affordable, inclusive, and sustainable foods. Especially in India and many other countries studies have shown that women and children are less susceptible to malnutrition, so we can reduce that graph as researchers, , and experts can help them become more aware of the preparation of skits and display, with the help of posters or easily display skilled charts and drawings and puppet shows. We can help them learn about hygiene and personal care so that they can stay safe and not succumb to recurring illness. There are many programs in place to eliminate malnutrition, we can tell them how and how to make full use of these programs and programs. We hope these measures help the people of our country.

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\*Student, DDU-KK, DAVV, Indore

\*\*Dietician

## **THE NUTRITIONAL EVALUATION OF PRESCHOOL CHILDREN IN URBAN COMMUNITY**

**Anandita Singh**

Nutrition is one of the key process without which our body cannot survive. Nutrition can be defined as combination of processes by which our human body receive and utilize the nutrients necessary for functioning and for the growth and rejuvenation. It is very essential for a person to consume proper amount of nutrition and to maintain a healthy nutritional status. And, when it comes to children, it is even more essential as their future life depends on it. They will affect their children, family and community. And also, the economic development of our country. So, the idea is to evaluate the children (male and female) nutritionally on the basis of height and weight.

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\*Student, DDU-KK, DAVV, Indore

## **DIETARY SUPPLEMENTS**

Dhruv Gaur\*

Mrs Deepa Agnihotri\*\*

A dietary supplement is a manufactured product intended to supplement one's diet by taking a pill, capsule, tablet, powder, or liquid. A supplement can provide nutrients either extracted from food sources or that are synthetic in order to increase the quantity of their consumption. Common supplements include vitamins, minerals and herbal products, also known as botanicals. People take these supplements to make sure they get enough essential nutrients and to maintain or improve their health. Vitamins and minerals are essential to helping your body develop and function as it should. That's where supplements come in — providing you with the support your body needs to stay healthy. The most common reasons that adults reported using dietary supplements were to “improve overall health” (45%) and to “maintain health” (33%) . The next most common reason was for “bone health” (25%), and this was significantly more frequent among women (36%) than men (11%). The purpose of the food supplement is to add that little extra to your normal diet. They ensure that you are getting a measurable amount of essential nutrients and make up for the poor nutrient content of the many foods we eat. Many supplements contain active ingredients that have strong biological effects in the body. This could make them unsafe in some situations and hurt or complicate your health. Too much vitamin C or zinc could cause nausea, diarrhea, and stomach cramps. Too much selenium could lead to hair loss, gastrointestinal upset, fatigue, and mild nerve damage. Dietary supplements are regulated in the United States by the FDA under the Dietary Supplement Health Education Act (DSHEA) of 1994. Unlike drugs, dietary supplements do not require manufacturers to provide premarketing evidence of efficacy and safety from preclinical and clinical trials. Safety is evidenced from uneventful prior use for products marketed prior to 1994, while documentation supporting expectation of safety for newer or modified products to the FDA is a provision of the 2011 Food Safety Modernization Act. Hence, like a coin has two sides, dietary supplements too are good and bad for our health. So, it should be taken care of that we consume it in the right amount or as per suggested by our physicians and dieticians.

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\*Student, DDU-KK, DAVV, Indore

\*\*Dietician

## **A STUDY TO ASSESS THE HEALTH AND NUTRITIONAL STATUS OF CANCER PATIENTS BEFORE AND AFTER CHEMOTHERAPY**

Fatima Qureshi

The prevalence of cancer is increasing day by day. According to (WHO) in 2019 cancer is the second leading cause of death. There are various cancer treatments particularly chemotherapy seems to be an important nutrition risk factors. Chemotherapy interfere health and nutritional status of cancer patients and drastically lead to reduce food intake and severe loss weight which lead to a high degree of malnutrition. This study aimed to determine the nutritional status of cancer patients receiving chemotherapy. A descriptive study was conducted among 51 subjects between 10-70 years of age diagnosed with cancer of various sites and receiving chemotherapy for the treatment. The data related to the Health and Nutritional status was collected with the help of pre-designed questionnaire. Nutritional status of each subjects was assessed based on nutritional parameters i.e. Anthropometric assessment (Height, weight, BMI), Biochemical Parameters (Hb), Clinical assessment (signs and symptoms) ,Dietary assessment (food frequency) and lifestyle and physical activity of the subjects. The data was analyzed in the form of charts and percentage using Advanced Excel. Significance was calculated through t-test. The total study population (N=51) in which majority of (63%) were female and (37%) were males. The mean age of subjects was  $47.5 \pm 13.30$  years. A majority (86%) of the subjects were married. Out of all the respondents majority of (29%) respondents were suffering with breast cancer. The mean weight of the subjects before chemotherapy was  $73.5 \pm 13.17$  and after chemotherapy the mean weight of the subjects was  $63 \pm 63.07$ . The average BMI of the subjects before chemotherapy was  $28.25 \pm 4.20$  and the average BMI of the subjects after chemotherapy was  $24.14 \pm 4.59$ . Out of total respondents the majority of (88%) subjects were having good food intake before chemotherapy and after chemotherapy out of total respondents (75%) of the respondents there is decrease in (poor) food intake. There was a statistical significant association between haemoglobin levels before and after chemotherapy ( $P < 0.05$ ). Chemotherapy interferes the patients' diet, weight, haemoglobin levels, as well as impact on the overall health and nutritional status of cancer patients.

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\*Student, DDU-KK, DAVV, Indore

## **ASSESSMENT OF LIFESTYLE FACTORS AND DIETARY HABITS AND ITS IMPACT ON BLOOD GLUCOSE LEVELS OF DAVV EMPLOYEES, INDORE**

Naima Khan\*

Mrs. Nandita Thakur\*\*

Prevalence of diabetes is increasing rapidly worldwide. Diabetes is global health problem that has been increasing rapidly for the past three decades, and India ranks second in the prevalence of diabetes. Diabetes is expected to rise from 40.6 million in 2006 to 79.4 million by 2030 in India alone. Lifestyle and particularly dietary habits play an important role in the development of diabetes. Awareness about diabetes complications and consequent improvement in dietary knowledge, attitude, and practices lead to better control of the disease. The descriptive study was designed using purposive random sampling method with inclusion and exclusion criteria. For this study 72 participants of the age group of 25-65 years were chosen. The data related to health and nutritional status was collected with the help of pre designed Questionnaire. Nutritional status of each participants were assessed based on nutrition parameter i.e. demographic profile, anthropometric measurement, biochemical parameter, nutritional status, dietary habits, life style pattern and physical activity of subjects. The data was analysed in the form of percentage charts, using excel as statistical tool. Significance was calculated through chi square test. The mean age of the participants was  $48.9 \pm 9.37$ . The majority of subjects were male (62.50%) and female (37.5%). The majority of participants (90.30%) were married, and more than half (77.80%) came from middle-income families. 30.56% belonged to administrative staff, 47.22% were professors, and 22.22% were supporting staff. The biochemical parameters, i.e., RBS levels, of participants showed that about 42% were prediabetic, 39% were normal, and 19% were diabetic among them. The average sitting hours of the majority of participants were more than 8 hours. The study shows that majority of participants were overweight (43%). Findings of study shows that there was statistical significance between random blood glucose levels and exercise ( $P < 0.05$ ). Although economic status also affects the blood glucose levels, ( $P < 0.01$ ) hence  $H_0$  is not accepted that there is statistically significance between economic status and RBS. Higher BMI, more sitting hours, sedentary lifestyle, no physical activity have positive impact on blood glucose levels.

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\*Student, DDU-KK, DAVV, Indore

\*\*Dietician

## **KETOGENIC DIET- THE ENIGMATIC SIDE OF THE SPOON**

Nishita Moolchandani

Ketogenic diets reduce seizure frequency in some individuals with drug-resistant epilepsy. These diets can also reduce body weight, although not more effective than other dietary approaches over the long term or when matched for energy intake. Very low-carbohydrate diets are associated with marked risks. LDL-C can rise, sometimes dramatically. Pregnant women on such diets are more likely to have a child with a neural tube defect, even when supplementing folic acid. And these diets may increase chronic disease risk: Foods and dietary components that typically increase on ketogenic diets (eg- red meat, processed meat, saturated fat) are linked to an increased risk of CKD, cardiovascular disease, cancer, diabetes, and Alzheimer's disease, whereas intake of protective foods (eg- vegetables, fruits, legumes, whole grains) typically decreases. Current evidence suggests that for most individuals, the risks of such diets outweigh the benefits. Studies show that people who lose weight and have successfully kept it off long-term typically eat a diet rich in fiber and complex carbohydrates, and less fat than the average American. Bulky fiber-rich meals increase feelings of fullness and delay hunger. More fruit and vegetables in the diet will help one manage their weight long-term more effectively.

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Student, DDU-KK, DAVV, Indore

### **UNICEF**

Ojasvi Yadav\*

Dr. Chaina Trivedi\*\*

संयुक्त राष्ट्र बाल कोष या यूनिसेफ की स्थापना का आरंभिक उद्देश्य द्वितीय विश्व युद्ध में नष्ट हुए राष्ट्रों के बच्चों को खाना और स्वास्थ्य सेवाएँ उपलब्ध कराना था। इसकी स्थापना संयुक्त राष्ट्र की महासभा ने 11 दिसम्बर, 1946 को की थी। 1953 में यूनिसेफ, संयुक्त राष्ट्र का स्थाई सदस्य बन गया। यह पूरे विश्व के बच्चों की भोजन, शिक्षा और स्वास्थ्य संबंधी आदि समस्याओं को दूर करने का कार्य करता है। इसकी स्थापना के समय इसका काम द्वितीय विश्व युद्ध के कारण उत्पन्न समस्याओं में आये बच्चों को सुरक्षा देना था, लेकिन अब यह पूरे विश्व के बच्चों की सुरक्षा और स्वास्थ्य पर ध्यान देता है। 2017 में राष्ट्रीय पोषण अभियान को सरकार ने कुपोषण के खिलाफ एक एकजुट व्यवस्था के तौर पर शुरू किया। ये खास रिपोर्ट भारत में पोषाहार के लिए पहले किए गए प्रयासों और मौजूदा वक्त में जारी कवायद का एक खाका पेश करती है। इसके साथ ही ये रिपोर्ट, उनकी कामयाबियों और नाकामियों की भी पड़ताल करती है। संयुक्त राष्ट्र बाल कोष या यूनिसेफ की स्थापना का आरंभिक उद्देश्य द्वितीय विश्व युद्ध में नष्ट हुए राष्ट्रों के बच्चों को खाना और स्वास्थ्य सेवाएँ उपलब्ध कराना था। इसकी स्थापना संयुक्त राष्ट्र की महासभा ने 11 दिसम्बर, 1946 को की थी। 1953 में यूनिसेफ, संयुक्त राष्ट्र का स्थाई सदस्य बन गया।

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\*Student, DDU-KK, DAVV, Indore

\*\*Dietician

## **VITAMIN A**

Rabab Badri\*

Mrs. Deepa Agnihotri\*\*

Vitamin A is a fat soluble vitamin. It can be found in many fruits, vegetables, eggs, whole milk, butter, fortified margarine, meat, and oily saltwater fish. It can also be made in a laboratory. Carotenoids are a group of yellow or orange chemicals found in plants. Some of these can be converted to vitamin A in the body. Vitamin A helps form and maintain healthy teeth, skeletal and soft tissue, mucus membranes, and skin. It is also known as retinol because it produces the pigments in the retina of the eye. Vitamin A promotes good eyesight, especially in low light. It also has a role in healthy pregnancy and breastfeeding. Vitamin A also stimulates the production and activity of white blood cells, takes part in remodelling bone, helps maintain healthy endothelial cells (those lining the body's interior surfaces), and regulates cell growth and division such as needed for reproduction. The total vitamin A content of a food is usually expressed as micrograms ( $\mu\text{g}$ ) of retinol equivalents (RE). The amount of vitamin A adults aged 19 to 64 need is: 700  $\mu\text{g}$  a day for men, 600  $\mu\text{g}$  a day for women. You should be able to get all the vitamin A you need from your diet. Any vitamin A your body does not need immediately is stored for future use. This means you do not need it every day. Vitamin A deficiency is rare in but may occur. Conditions that interfere with normal digestion can lead to vitamin A malabsorption such as celiac disease, Crohn's disease, cirrhosis, alcoholism, and cystic fibrosis. Also at risk are adults and children who eat a very limited diet due to poverty or self-restriction. Mild vitamin A deficiency may cause fatigue, susceptibility to infections, and infertility. The following are signs of a more serious deficiency. Vitamin A toxicity is way more common than deficiency, due to high doses of preformed vitamin A (retinol) found in some supplements. Vitamin A is also fat-soluble, meaning that any amount not immediately needed by the body is absorbed and stored in fat tissue or the liver. If too much is stored, it can become toxic. The tolerable upper intake of 3,000 mcg of preformed vitamin A, more than three times the current recommended daily level, is thought to be safe. However, there is some evidence that this much preformed vitamin A might increase the risk of bone loss, hip fracture, or some birth defects. Another reason to avoid too much preformed vitamin A is that it may interfere with the beneficial actions of vitamin D.

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\*Student, DDU-KK, DAVV, Indore

\*\*Dietician

## **TO STUDY IMPACT OF DASH DIET ON HYPERTENSION ON 30 TO 50 YEARS AGE GROUP IN PIPLIYAHANA INDORE**

Renu Garg

Hypertension is world's leading risk factor for global disease burden. High blood pressure is dangerous because it makes the heart work too hard, and the high force of the blood flow can harm arteries and organs. Lifestyle measures for lowering blood pressure, such as reducing salt intake and alcohol consumption, increasing physical activity, controlling overweight and obesity, avoiding stress, and others, can potentially prevent high blood pressure. Adopting a diet rich in plant-based foods, whole grains, low-fat dairy products, and sodium intake within normal limits can be effective in the prevention and management of HTN. Blood pressure can be controlled by following the DASH eating plan. The purpose of the study was to analyze the life style, Dietary pattern and impact of nutrition education intervention in hypertensive patient aged 30 to 50 years age group in pipliyahana Indore. The study shows respondents demographic profile, dietary practices, physical activity and life style. Study was done in two parts 1<sup>st</sup> included locale of the study, sample collection, intervention and observation and 2<sup>nd</sup> part included statistical analysis result and discussion. Both open ended and closed ended question were asked. A community based descriptive exploratory survey was conducted to assess the nutritional status and associated factors among age 30 to 50 years. . Purposive, Convenient sampling method was used Patients were counseled for DASH diet and they follow that diet for one month. Follow up taken after 15 days and then differences was seen with previous diet and current diet. The sample size for this study was composed of 100 subjects. The data was analyzed in the form of percentage, frequency and graphs, using Excel as statistical tools. Significance was calculated through t-test. Mean BMI was 27.83. 80.81% were obese and 19.19% were normal weight. Out of 50 women 40 were obese and out of 49 males 40 were obese. 78.79% were vegetarian and 21.21% were non vegetarian. 57.58% were taking high salt diet 36.36% were taking medium and 6.06% were taking less salt. out of 99, 44 were doing walk, 12 were doing yoga, 13 were doing gym and 30 were doing nothing. 78 don't smoking 12 subjects were currently smoking and 9 were taking in past. 63 were not consuming alcohol while 16 were drinking in past and 20 were drinking at the time of questionnaire. Mean BP systolic and diastolic was 113.43 and 74.65. standard deviation was 49.90 and 46.80. Statistical significance difference was seen in blood pressure ( $P < .05$ ). There was seen strong association between DASH diet and hypertension. Dash diet, Life style changes, weight control and no consumption of smoke and alcohol was seen very helpful in control of diastolic and systolic BP.

## **GROWTH AND DEVELOPMENT OF CHILD**

Rohan Thakur\*

Dr. Chaina Trivedi\*\*

Growth is the process of physical maturation resulting an increase in size of the body and various organs. It occurs by multiplication of cells and an increase in in intracellular substance. It is quantitative changes of the body. It is the process of functional and physiological maturation of the individual. It is progressive increase in skill and capacity to function. It is related to maturation and myelination of the nervous system. It includes psychological, emotional and social changes. It is qualitative aspects. A child's growth and development can be divided into four periods: Soon after birth, an infant normally loses about 5% to 10% of their birth weight. By about age 2 weeks, an infant should start to gain weight and grow quickly. By age 4 to 6 months, an infant's weight should be double their birth weight. During the second half of the first year of life, growth is not as rapid. Between ages 1 and 2, a toddler will gain only about 5 pounds (2.2 kilograms). Weight gain will remain at about 5 pounds (2.2 kilograms) per year between ages 2 to 5. Between ages 2 to 10 years, a child will grow at a steady pace. A final growth spurt begins at the start of puberty, sometime between ages 9 to 15. The child's nutrient needs correspond with these changes in growth rates. An infant needs more calories in relation to size than a pre-schooler or school-age child needs. Nutrient needs increase again as a child gets close to adolescence. A healthy child will follow an individual growth curve. However, the nutrient intake may be different for each child. Provide a diet with a wide variety of foods that is suited to the child's age. Healthy eating habits should begin during infancy. This can help prevent diseases such as high blood pressure and obesity. Poor nutrition can cause problems with a child's intellectual development. A child with a poor diet may be tired and unable to learn at school. Also, poor nutrition can make the child more likely to get sick and miss school. Breakfast is very important. Children may feel tired and unmotivated if they do not eat a good breakfast. The relationship between breakfast and improved learning has been clearly shown. There are government programs in place to make sure each child has at least one healthy, balanced meal a day. This meal is usually breakfast. Programs are available in poor and underserved areas of the United States. Talk to your health care provider if you have concerns about your child's growth and development.

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\*Student, DDU-KK, DAVV, Indore

\*\*Dietician

## **ANGANWADI**

Tanu Panchal\*

Dr.Chaina Trivedi\*\*

Anganwadi is a type of child and mother care centre in India. The Anganwadi Centres are a part of the Integrated Child Development Services Scheme, a centrally sponsored government scheme. The ICDS was launched on 2 October 1975 and is one of the flagship programmes of the Government of India focussing on children and nursing mothers. Anganwadi centre provides basic health care. It is a part of the Indian public health-care system. Basic health-care activities include contraceptive counselling and supply, nutrition education and supplementation, as well as pre-school activities. The objectives of the ICDS Scheme are: to improve the nutritional and health status of children in the age-group 0-6 years; to lay the foundation for proper psychological, physical and social development of the child; to reduce the incidence of mortality, morbidity, malnutrition and school dropout; to achieve effective co-ordination of policy and implementation amongst the various departments to promote child development; and to enhance the capability of the mother to look after the normal health and nutritional needs of the child through proper nutrition and health education.

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\*Student, DDU-KK, DAVV, Indore

\*\*Dietician

## **ROLE OF MINERAL IN OUR BODY**

Zainab Kiranawala\*

Mrs. Deepa Agnihotri\*\*

Minerals are important for your body to stay healthy. Your body uses minerals for many different jobs, including keeping your bones, muscles, heart, and brain working properly. Minerals are also important for making enzymes and hormones. There are two kinds of minerals: macro minerals and trace minerals. You need larger amounts of macro minerals. They include calcium, phosphorus, magnesium, , potassium, chloride and sulfur. You only need small amounts of trace minerals. trace minerals are important, even if you need less of them than macro minerals. Most people get the amount of minerals they need by eating a wide variety of foods. In some cases, your doctor may recommend a mineral supplement. People who have certain health problems or take some medicines may need to get less of one of the minerals. For example, people with chronic kidney disease need to limit foods that are high in potassium. Minerals are essential nutrients found in many different types of plant- and animal-based foods. Macro-minerals, or those you require in greater amounts, include calcium, potassium, sodium, phosphorus, magnesium, chloride, and sulfur. Trace minerals, or those you need in smaller amounts, include iron, zinc, selenium, manganese, copper, iodine, cobalt, and fluoride. Both types of minerals support a wide variety of bodily functions, ranging from building and maintaining healthy bones and teeth to keeping your muscles, heart and brain working properly. As minerals have diverse functionalities and potentials in the body's metabolism and homeostasis, deficiency of these bioactive constituents can result in an abundant incidence of common disorders and disease symptoms. Thus their adequate intake is significant.

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\*Student, DDU-KK, DAVV, Indore

\*\*Dietician

**A STUDY ON THE RISK OF PREVALENCE OF ANAEMIA AMONG PREGNANT  
WOMEN IN RURAL AREA OF SINGRAULI DISTRICT MADHYA PRADESH**

Sandhya Shah\*

Mrs. Nandita Thakur\*\*

Anemia is defined on the basis of haemoglobin levels (Hb) levels in the body. During anemia the Hb levels falls below normal level which reduces the oxygen carrying capacity of RBC to tissues. Anemia at the time of pregnancy is still one of the major health problem faced by rural women in india. The data was collected using Purposive sampling method. Anemia was diagnosed by estimating the hemoglobin levels in subjects as per WHO standards. The data was collected using a pre-prepared questionnaire. The subjects under study were asked a series of questions. The survey data showed that 56.25 % of pregnant women (n = 80) were anaemic and 43.75 % were non- anaemic. Almost 44% of the women were having normal haemoglobin levels. 21% were having mild anaemia and 21% were having moderate anaemia, 11% were having severe anaemia, 3% were having very severe anaemia.

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\*Student, DDU-KK, DAVV, Indore

\*\*Dietician



# DDU-KK



**DEEN DAYAL UPADHYAY KAUSHAL KENDRA**  
(Under UGC Scheme for Skill Development)

**DEVI AHILYA VISHWAVIDYALAYA, INDORE**

(NAAC 'A+' Grade State University of Madhya Pradesh, India)

2<sup>ND</sup> Floor, Vigyan Bhawan, Takshashila Campus,  
Khandwa Road, Indore - 452 001



Email: [ddukkdavv@gmail.com](mailto:ddukkdavv@gmail.com)

For more details, visit on: [www.ddukk.dauniv.ac.in](http://www.ddukk.dauniv.ac.in)