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3.3.2. Number of research papers per teachers in the Journals notified on UGC website during the last year

3.3.2.1 Number of research papers in the Journals notified on UGC website during the last year

Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISBN/ISSN number
BIOTECHNOLOGY					
Isolation of Fungi for Lipase Production from Paddy Fields	Bhawana Pandey and Chitra Bhattacharya	Biotechnology	International Journal of Advances in Pharmacology and Toxicology	2023	ISSN 0973-2381
Isolation and Characterization of Newly Laccase-Producing Endophytic Fungi in Submerged Cultures from <i>Calotropis gigantean</i> Plant Leaves	Sabiha Naz, Shailendra Gupta, Tanushree Chatterjee	Biotechnology	International Journal of Plant and Environment. 9(3), 226-236.	2024	DOI: 10.18811/ijpen.v9i03.06
B.Ed					
The role of Emotional intelligence in student development	Dr. Mohana Sushant Pandit	Education Department	Editorial Board of Universe International Journal of Interdisciplinary Research	10 march 2024	ISSN:25 82-6417
The effect of social change on	Dr. Mohana Sushant	Education Department	International Journal of	Vol-3 Issue	ISSN 2583-

the social behavior of students	Pandit		futuristic Innovation in Arts, Humanities and Management	1January-2024	6196
COMMERCE					
A Study Of Agricultural And Rural Development Of Chhattisgarh	Dr. Bharti Verma	Commerce	International Journal of Social Science & management Studies	August, 2023	ISSN-2454-4655
Women Entrepreneurship In Tourism Industry a Study on Women Entrepreneurial Opportunities And Challenges In Tourism Industry Of Chhattisgarh	Dr. Bharti Verma	Commerce	Swadeshi Research Foundation	Sep-2023	ISSN: 2394-3580
A study on performance of selected hybrid mutual funds in Indian Capital Market	Dr. Rajshree Sharma	Commerce	IPE Journal of Management	Jan-June 2024	ISSN No. 2249-9040
Agriculture Products Pricing and Marketing in Chhattisgarh	Dr. Rajshree Sharma	Commerce	International Journal Of Social Science and Management Studies	Aug-2023	ISSN No. 2454-4655
MGNREGA and Women Empowerment	Dr. M. Madhuri Devi	Commerce	International Journal of Social Science & Management Studies(I.J.S. S.M.S.) UGC	March–2024	ISSN : 2454 - 4655
A Study of Financial Performance using Ratio Analysis of Steel Authority of	Dr. M. Madhuri Devi	Commerce	Pontifical Universidad Catolica De Chile Facultad De Letras	September 2023:795-804	ISSN : 0718 - 5758

India			ONOMAZEI N 61 (SCOPUS)		
Socialization in the Era of Social Media – A Study of Bhilai.	Dr. M. Madhuri Devi	Commerce	Hi – Tech Research Analysis - UGC Approved & Peer-Reviewed Journal	Feb-July 2023	ISSN No. 2231-6671
Critical Analysis of Digital payment System	Dr. M. Madhuri Devi	Commerce	Interlink Research Analysis International Registered & Recognized Research Journal	Jan2024-Jun2-2024	ISSN 0976-0377
Balancing Population and Livelihood is a Challenge for Indian Economy	Dr. M. Madhuri Devi	Commerce	International Journal of Social Science & Management Studies (I.J.S.S.M.S.) UGC S.No. 5351	August 2023.	ISSN : 2454 - 4655
Impact of COVID-19 on digital Marketing in India	Dr. Nidhi Monika Sharma	Commerce	International Journal Of Social Science and Management Studies	August, 2023	ISSN No.2454 -4655
सतत कृषि विकास अवसर और चुनौतियां	Dr. Nidhi Monika Sharma	Commerce	International Journal Of Social Science and Management Studies	August, 2023	ISSN No.2454 -4655
A study on exploring the transformation and dynamics of an emerging economy	Dr. Nidhi Monika Sharma	Commerce	Research Journal of Management Sciences	June,2023	ISSN No. 2319-1171
HOME SCIENCE					
Study	of	Dr. Rupam	Home	International	2
					2394-

Relationship between body mass index body fat percentage/ female subject	Ajeet Yadav & Anamika Biswas	Science	Journal of Applied Home Science Vol. 10 July 2023 “ 132-36	0 2 3	1413 DOI
To study the effect on Anamia on pre-menopausal women	Dr. Rupam Ajeet Yadav Nisha Banchoor & Reshma Lankesh	Home Science	International Journal of Applied Home Science Vol.- 10 (5 opt oct 2023) 362-367	2 0 2 4	2394- 1413 DOI
NAFL (Patients and use of fad diets for weight management	Dr. Rupam Ajeet Yadav Nisha Banchoor & Reshma Lankesh	Home Science	GIS Science Journal UGC Care Vol.11 Issue-7	2 0 2 4	1869- 9391
Fibro scan score & its association with various stages of NAFLD	Dr. Rupam Ajeet Yadav Babita Dubey & Chittranjan Yadav	Home Science	International Journal of Applied Home Science VOL- 11 Feb 2024	2 0 2 4	DOI :2391- 1413
Association between and chronological and metabolic age and its impact in health & fitness	Dr. Rupam Ajeet Yadav	Home Science	International Journal of management sociology & humanities Vol.- 14 (12), 2023	2 0 2 3	2277- 9809
Association of BMI and weight status with different stages of NAFLD	Dr. Rupam Ajeet Yadav	Home Science	International Journal of commerce & art of science Vol.-15 (6) June 2024	2 0 2 4	2519- 9202
MATHS					
New Generalized Trigonometric, Hyperbolic and Exponential Measure of Fuzzy Entropy and Fuzzy Directed Divergence.	Dr. Sapna Thakur	Maths	Mukt Shabd Journal	2024	ISSN: 2347- 3150

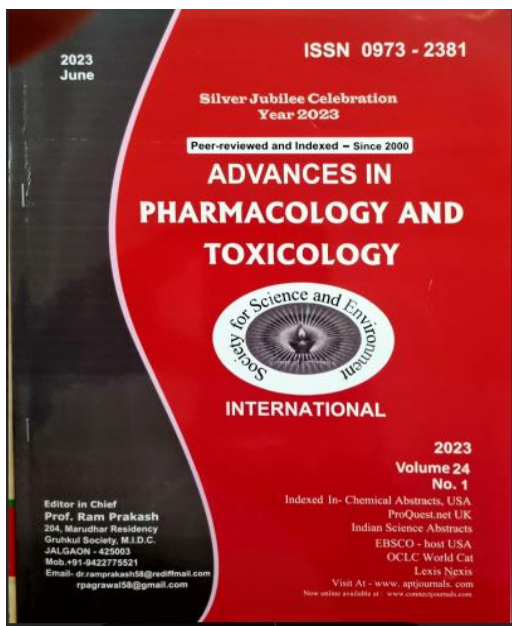
Uniform Estimate on Length of Programs and Computing Algorithmic Complexities for Quantitative Information Measure	M. Bhagyalaxmi	Maths	Journals of Advances in Mathematics and Computer Science	2024	ISSN: 2456-9968
Some Demeanor Based on Utility and Mutual Information of Discrete Memory-Less channel capacity for Multi Identical Cascaded Channel	M. Bhagyalaxmi	Maths	International Journal of Mathematical Science and Engineering Application	2024	ISSN: 0973-9424
ZOOLOGY					
Histopathological Impact of Silver nanoparticles : A Review	S. Singh, Raju. A. Shrivastava. and A. Mishra	Zoology	Eco. Env. & Cons.	2 0 2 3	0971-765 X


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3.3.4. Number of research papers per teachers in the Journals notified on UGC website during the last year

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BIOTECHNOLOGY



Adv. Pharmacol. Toxicol. Vol. 24 (1) 2023, 1-8
ISSN - 0973 - 2381

ISOLATION OF FUNGI FOR LIPASE PRODUCTION FROM PADDY FIELDS

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Three different fungal strains of *Aspergillus* sp. were isolated and screened. These isolates were identified on the basis of morphological and microscopic studies. Among these fungal strains, *Aspergillus fumigatus* gave the best results for these studies. Olive oil substrates were optimized, and a maximum lipase activity of 85.51 U/g was observed at pH 7.0. Maximum lipase activity was observed for an incubation period of 72 hrs at 30°C.

INTRODUCTION

The ester bond between triacylglycerol, free fatty acids, and glycerol is broken by lipases, which are hydrolytic enzymes. Lipases can catalyze esterification, interesterification, and transesterification processes in non-aqueous conditions as part of their normal function (Ghala Mahmoud *et al.*, 2015). Generally speaking, fungi are the best sources of lipase and are preferred for industrial uses. Recently, it has become more common to make biotechnological products, especially enzymes, from waste biomaterials. In recent years, solid substrate fermentation (SSF), which uses cheap media to make enzymes and other microbial products, has become more popular. Both plant and animal cells have lipases. For the synthesis of lipase, certain microbes are preferred. Because of their biotechnological potential, lipase enzymes are currently receiving a lot of interest. The microbial enzymes are preferred among the sources of lipases because they are inexpensive, highly stable in organic solvents (which are frequently employed in synthesis procedures), require no cofactors, and have a wide range of pH and temperature stabilities (Hikhar *et al.*, 2010).

To obtain the microbial enzymes, two processes can be employed: submerged fermentation (SmF) and solid-state fermentation (SSF) (Oliveir *et al.*, 2013). The SSF is the process where the substrate given to the microorganism is solid, and it is moistened by a nutritious solution or a buffer solution. According to Bhattacharya *et al.* (2016), this method appears useful because it makes use of widely accessible

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RESEARCH ARTICLE

Isolation and Characterization of Newly Laccase-Producing Endophytic Fungi in Submerged Cultures from *Calotropis gigantean* Plant Leaves

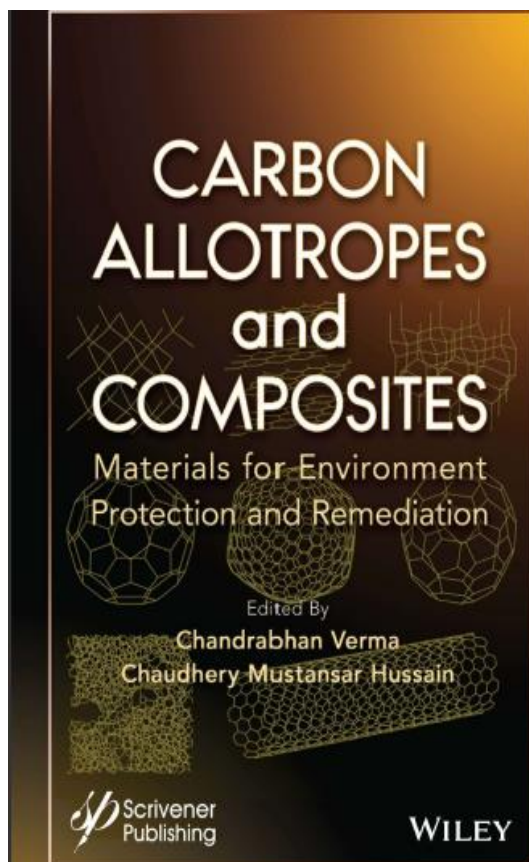
Sabha Naz^{1*}, Shalendra Gupta², Tanushree Chatterjee³

DOI: 10.18811/ijpen.v9i03.06

ABSTRACT
The aim of the study to isolate and identify new laccase sources from an endophytic fungal source that could be used as a weapon for eliminating and detoxifying contaminants found in wastewater and aquatic habitats. Isolation was done from *Calotropis gigantean* plant leaves from different locations of paper mill effluents from the "Raipur" region of Chhattisgarh, India. Positive isolates were obtained with a dark brown color below and surrounding the fungal colony due to guaiacol oxidation on potato dextrose agar. One potent endophytic fungal isolate that produces laccase is identified as *Aspergillus niger* by using the internal transcribed spacer (ITS) and BLAST analysis. After optimization, maximum laccase production was obtained at the following conditions: medium (Czapek-Dox broth), carbon source (sucrose), nitrogen source (sodium nitrate), pH (6), activator tannic acid (20 mM), incubation period (35°C) and duration (8 days) with 3 (g/ml) fermentation) disc inoculum. The maximum laccase activity was obtained at 65 U mL⁻¹ in submerged optimized conditions, which was more than two fold compared to the unoptimized conditions. As estimated by SDS-PAGE, the molecular mass of the monomer of pure laccase was determined to be 66 kDa. After five days of treatment with the laccase of *A. niger*, the synthetic dyes phenol red, bromophenol blue, methyl orange, and Congo red lose their colour. Clearances rates for chemical oxygen demand were 59.46 and 48.57%, and phenolic contaminants were 80 and 22.3% in coal and textile effluents during the required treatment periods, respectively. One novel and potent laccase-producing endophytic fungus was successfully isolated, which can be utilized as a laccase-producing source for various industrial applications.
Keywords: *Aspergillus niger*, Endophytic fungus, Industrial effluents, Internal transcribed spacer, Laccase, Optimization.
International Journal of Plant and Environment (2023); ISSN: 2454-1117 (Print), 2455-202X (Online)

INTRODUCTION
Several factors, including post-ingestion metabolic excretion, industrial waste, and incorrect disposal, contribute to pharmaceuticals' environmental contamination (Huber *et al.*, 2018). The health of people and animals is significantly impacted by the pollutants and toxins that accumulate in water bodies. However, varieties of diverse pollutants are challenging and are discharged into water bodies (Daughton, 2004). Biotechnologists are creating innovative tools and environmentally friendly procedures all over the world to mitigate the consequences of environmental contamination. Because of the fact that remarkable selectivity high productivity while maintaining a low impact on the ecosystem, microorganisms and microbial enzymes are being used to eliminate industrial and environmental contaminants (Gasper and Welch, 2011).
Recently, the potential application of multi-copper enzymes made of glycoproteins termed fungal laccases, which EC 1.10.3.2, and also comes under class of p-diphenol: dioxygen oxidoreductase in the detoxification of resistant pollutants and the bioremediation of phenolic and non-phenolic chemicals, have heightened interest in these enzymes. The protein fungus laccase of 60-70 kDa with an amino acid sequence between 220-800 and an isoelectric point of 4.0 for acid. Many species of ascomycetes and basidiomycetes, such as *Melanconium* *obovatum*, *M. unicolor*, *M. gongylophorum*, *Trametes versicolor*, *Trichoderma reesei*, and *Xylaria polymorpha* have provided the majority of the laccase enzyme for purification. Various soil-borne and freshwater species of ascomycetes from the genera *Aspergillus*, *Curvularia*, and *Penicillium* and pathogenic plant species have been observed to produce laccase. Their property is to catalyze a diverse array of substrates and change various contaminants into nontoxic compounds. Because their co-substrate, oxygen, is often available in their surroundings, they don't need any other co-factors. Laccase production from fungi was done during secondary metabolism, which was commonly impacted by a variety of cultivation methods like carbon and nitrogen, pH, temperature, media, inducers, incubation periods, etc. (Garcia-Morales *et al.*, 2015). The majority of laccases are extracellular, making purifying processes simple. The majority of fungal species often show a high degree of stability in the extracellular environment and the induced production of laccases. Endophytic fungi identified in


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Carbon Allotropes in Lead Removal

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Abstract

By manipulating the size and structure of the materials at the nanoscale, nanotechnology is an advanced discipline of research that can address several environmental problems. Adsorbents made of carbon nanotubes have generated a lot of interest as prospective heavy metal removal sorbents. Due to their benign makeup, high area of surface, ease of biodegradation, and special utility in environmental cleanup, carbon nanoparticles are exceptional. Water contamination with lead is a serious issue that puts people's health at risk. Carbon nanomaterials (CNMs) are gaining attention as they possess specific physicochemical qualities because of that; they are used to treat heavy metals present in some concentrations in wastewater. Because of their high surface area, nanoscale size, and presence of different functionalities as well as the ease with which they can be chemically modified and recycled, carbon nanomaterials (CNMs), specifically carbon nanotubes, fullerenes, graphene, and graphene oxide, have a specific property to treat lead-contaminated water. This chapter has examined recent developments in the use of these carbon nanomaterials for treating water contaminated with lead metal and has highlighted their use for environmental remediation.

Keywords: Water pollution, lead, carbon allotropes, adsorption, carbon nanotubes, fullerene

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Chandrabhan Verma and Chaudhery Mustansar Hussain (eds.) Carbon Allotropes and Composites: Materials for Environment Protection and Remediation, (51–72) © 2023 Scrivener Publishing LLC


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Carbon Allotropes in Air Purification

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Abstract

One of the most fundamental and adaptable components found in the landscape, carbon has a variable that allows it to generate different allotropes. Carbon has been employed as an energy source for the last few decades. Today, carbon plays a large and outsized role in virtually every area of applied science, including research, technology, and innovation. We should all be aware of carbon's extraordinary properties, including its many forms and allotropes, as well as how widely they are used in fields as disparate as science and environmental preservation and restoration. To cure a variety of organic and inorganic contaminants for renewable energy and environmental protection, amazingly adaptable nanomaterials, and carbon nanotubes can be used. One of the biggest environmental issues we face today is global warming, which was brought on by the improper use of fossil fuels, which resulted in the development of greenhouse gases. The majority of air pollutants, such as carbon monoxide, sulfur dioxide, nitrogen oxides, organic volatile compounds, ozone, toxic substances, and inhalable particulates (PM 2.5 and PM 10), were found as a result of incomplete combustion of the gases. These pollutants differ in their chemical makeup. A recent definition of nanoparticles of carbon. It possesses the capacity to change the world in terms of new inventions, technology, power, and accuracy as well as enable humankind will explore new depths and heights, states that one of the most significant goals of sustainable development is the protection of environmental health. The use of carbon allotropes and the elimination of environmental air contaminants and the methods used to clean them were discussed in the current book chapter. The application of carbon allotropes and their synthesis as nanoparticles, as well as the uses of

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Carbon Allotropes in Nickel Removal

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Abstract

The stock of secure drinking and uncontaminated water is getting to be progressively perplexing recommendations all through the world. The arrangement of naturally economical nanomaterials with one-of-a-kind preferences specifically selectivity, elevated effectiveness, great quantity, eco-friendly, low-charge of generation forms, and steadiness, has been a need even though a few critical tasks and imperatives quite remained uncertain. Carbon nanomaterials, to be specific, single- and multiwalled nanotubes of carbon, fullerene have been created and connected for instance adsorbents for the management of contaminated water and refinement; nanomaterials based on graphene and graphene oxide have appeared as noteworthy guarantees for the management of contaminated water and water filtration, particularly, for mechanical- and pharmacological-loaded squanders. The expulsion of nickel from the sea-going environment could be a genuine natural issue in see of open well-being. Consequently, this chapter includes progressed carbonaceous nanomaterials and techniques that are used for the disposal of nickel particles in aquatic environments, and instance innovative nanosorbents for drinking groundwater and contaminated water management. Moreover, later patterns and tasks relating to the maintainable graphene and carbon-inferred nanomaterials and their apparatuses for considering and decontaminating polluted water are emphasized.

Keywords: Nanotubes of carbon, graphene, fullerene, nickel ion, contaminated water, adsorption

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B.ED

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International Journal of Futuristic Innovation in
Arts, Humanities and Management (IJFAHM)

Research paper On "The effect of social change on the social behavior of students"

Dr. Mohana Sushant pandit, Mrs. Heera Manikpuri
Head of Department, Department of Education, Bhilai Mahila Mahavidyalaya Bhilai (C.G.)
Presented by Research scholar, Hemchand Yadav University, Durg (C.G.)

ABSTRACT: Education, as a transformative process, unfolds the inherent potential and shapes the personality of an individual, preparing them for adult roles and responsible citizenship within society. Offering essential skills and knowledge, education cultivates concentration, hard work, and a sense of social responsibility to address societal challenges. Educated individuals actively contribute to social welfare, making education a potent instrument for social change. This reciprocal relationship between education and society underscores the societal influence on the form and nature of education. As society undergoes changes, education adapts, facilitating social transformation. This study explores the nexus between education and social change, focusing on the impact of social changes on the social behavior of students. By examining the influence of social stimuli, cultural factors, and group dynamics, the study delves into how these factors shape students' academic, social, intellectual, and cultural development. The investigation aims to elucidate the effects of social change on students' behavior, adjustment, and thinking, offering valuable insights into the intricate interplay between education and societal evolution.

INTRODUCTION

Education is a process which develops the inherent potential and personality of a person. This process helps him to play the role of an adult person in the society and prepares the person to become a member of the society and a responsible citizen. Provides necessary skills and knowledge. Through education, we are given a sense of concentration, hard work and social responsibility to solve the problems of the society. Educated people play active roles in the society and contribute to social welfare. Education is the most powerful instrument of social change. Man becomes modern through education and brings real change in the society itself. There is a deep connection between education and society. The process of education is a social process. It is the society itself that decides what should be the form of education given to its

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IJFAHM

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Dr. Bharati Verma:




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Women Entrepreneurship in Tourism Industry A Study on Women Entrepreneurial opportunities and challenges in Tourism industry of Chhattisgarh

Dr. Bharati Verma
Assistant Professor, Bhilai Mahila Mahavidyalaya Hospital Sector, Bilhal

Abstract - Tourism has been considered as economic in India as it is the largest contributor to the foreign currency earnings. Globally, small firms are considered to have an important role in the economy serving as a agent of change by their entrepreneurial activity. Women Entrepreneurs can positively contribute towards the local or national economy by pursuing Tourism as a development strategy. The glorious culture and heritage our nation are closely linked with the development of Tourism women.

Women Entrepreneurs need to boost their families' standard into comfortable level along with their family which turns helps in progress of a country. The key findings of this study show the challenges and opportunities for women Entrepreneurs mainly in Tourism industry of Chhattisgarh.

Key words - Tourism, women Entrepreneurship challenges, opportunities, economic development.

Introduction - Tourism industry has been recognized as one of the implicit areas for profitable development and profitable metamorphosis in the world. Service industry like tourism opens immense openings for employment generation and entrepreneurial practices especially for developing and under developed countries. It has been recognized as one of the fastest growing assiduity in India and the world, where the compass of employment and entrepreneurship both are unlimited. Tourism is little different from other goods. It's largely reliable on seasonal factors and guest's satisfaction criteria. Like the other assiduity, tourism also drink and encourage women participation not only as trained and untrained force, but also as a business leaders and entrepreneurs. As a parent assiduity, tourism

supports and encourages other confederated areas to contribute further and produce employment and business openings. The number of women entrepreneurs are adding day by day and their benefactions are also recognized and appreciated encyclopedically. CHHATTISGARH is also known as proteem tourism products and tourism business occasion. Government enterprise have formerly been taken to promote and exercise tourism each over the state.

Implicit areas have been linked and tourism action plan have been formulated to achieve the target. The master plan also includes women entrepreneurial practices and support system to make Chhattisgarh proud.

Chhattisgarh is blessed rich natural beauty and diversity and expectant with rich heritage. It has colorful geomorphology, geography, monument delicately sculpted tabernacles, wildlife, beautiful falls, ancient grottoes, Buddhist spots, green timbers and ethnal town lets.

Nearly all of these location serve as a new and interspersing sightseer destination and give an engaging experience to the trippers.

The distinct metropolises and municipalities of Chhattisgarh correspond of their own separate unique appeal and charm. Bastar region has a unique natural and artistic actuality that can amp the excursionists. Dantewada is dominated by the autochthons or the ethnal people who still continue their age old life. Bilhal on the other hand is a well-developed mesagcity and forms the central point of assiduity and frugality of the state. Nature Tourism in Chhattisgarh. The stunning and magnific falls of Teerathgarh, Chitradhara, Chitrakoot, Mandra, Tamba and numerous others are popular as haven fun and games spots. Chhattisgarh is a haven for

Dr. Rajshree Sharma:



A Study on Performance of Selected Hybrid Mutual Funds in Indian Capital Market

Duna Jageswar Rao¹, Dr. Rajshree Sharma², Dr. Syed Saleem Aquil³


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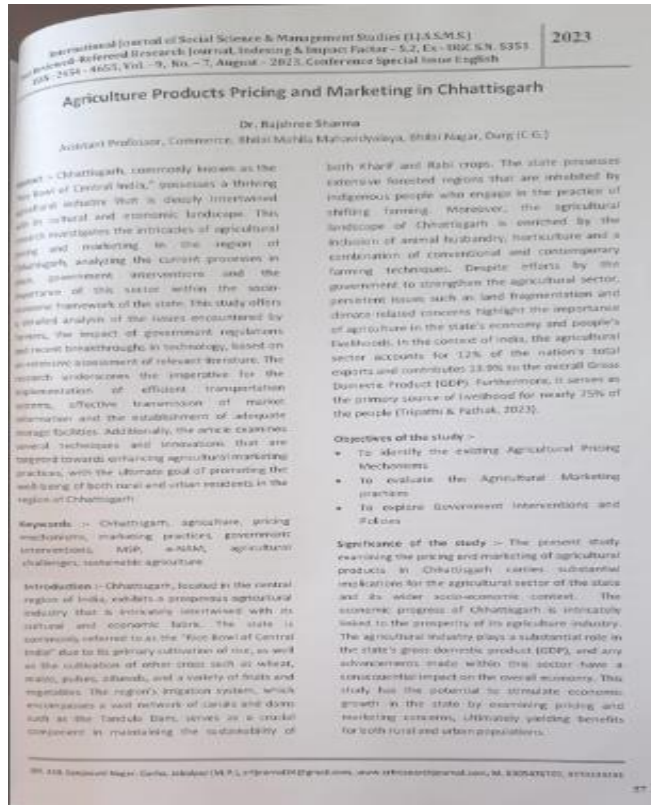
Abstract:
The dynamic Indian mutual fund industry, which has grown impressively to reach ₹50.78 trillion AUM as of December 31, 2023. The study examines selected hybrid mutual funds in the India's stock market from 2019 to 2023. It considers important variables like average returns, Beta, Sharpe ratio, Treynor ratio, and Jensen alpha. The findings highlight HDFC Balanced Adv Dir Gr, Bank of India Mid & Small Cap E, and Quant Absolute Fund as they regularly provide superior average NAV returns. HDFC Balanced Adv Dir Gr and UTI Aggressive Hybrid Fund have favourable risk-adjusted metrics, however concerns are raised regarding DSP Equity & Bond Fund. This research shows how important it is for investors to carefully study and understand their own willingness to take risks and their financial goals. It emphasizes that the market is always changing, and to do well in investments, it's crucial to make smart decisions when choosing funds and actively managing your investment mix.

Keywords: Investment, Risk-Adjusted Returns, Sharpe Ratio, Treynor Ratio, Jensen Alpha

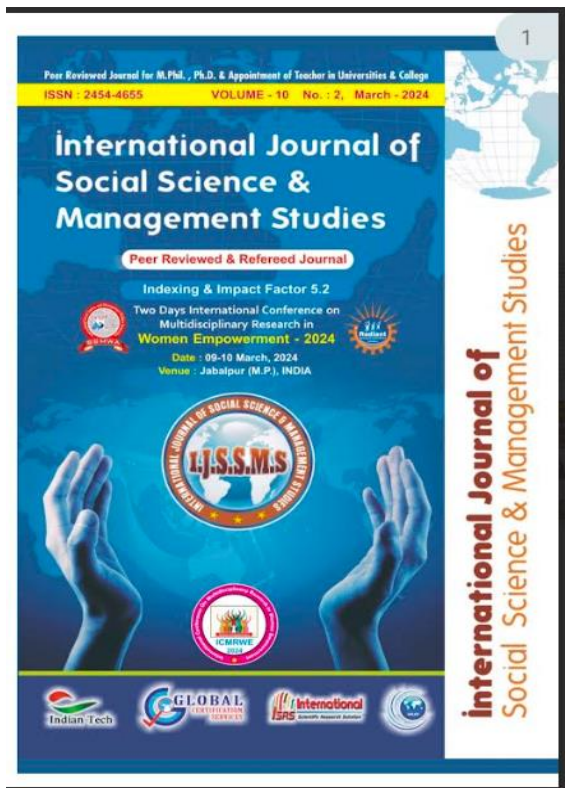
Introduction:
A mutual fund is an investment vehicle in which the capital of numerous investors is pooled in order to generate long-term returns. A fund manager or portfolio manager, who is an investment professional, oversees this collection of funds. It is his or her responsibility to allocate the corpus across a variety of assets, including equities, bonds, gold, and other securities, with the expectation of generating returns. The investors collectively bear the gains (or losses) associated with the investment in accordance with their respective contributions to the fund. The Mutual Fund Industry of India has grown significantly in the past decade, with AUM reaching ₹50.78




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Dr. M. Madhuri Devi:



Mgnrega and Women Empowerment

Dr. M. Madhuri Devi
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Introduction about the study -> Women are an integral part of the economy. Since early ages women were treated like 'objects'. For a long time women in India remained within four walls of their house, but now everything has changed, women and men have become head to head in every sphere of life and that's why empowering them more is the need of the hour. Women is the important element which constitute the family, and which leads to society and nation. Social and economic development of women is necessary for overall development of society. A nation's all round development and harmonious growth would only be possible when women will be considered as equal partners in progress with men.

The term **Empowerment of Women** refers to the process of providing power to women to stand up with others and help them to lead a prosperous and successful life.

- Woman's empowerment has five components:-
- > Woman's sense of self-worth,
 - > Their right to have and to determine choices,
 - > Their right to have access to opportunities and resources,
 - > Their right to have the power to contribute their own lives both within and outside the home.

Review of Literature -> There are many studies conducted related to the Impact of MGNREGA on women's participation and their empowerment, which are as follows:-

Maurya (2004) also identified why Mahatma Gandhi National Rural Employment

labour force. In 2004-05, 348 million workers lived in rural areas and the majority of them (56.5% of the total workers) earned their livelihood from agriculture. But in agriculture sector, the employment is only for a short period of time and rest the time they are unemployed. (O.P.Maurya, 2004; 48)

Sudha Narayanan (2007) conducted a survey on the sideline of social audit regarding women participation and crèche facilities in Villupuram district (Tamil Nadu) from July 29 to 31 under MGNREGA. The survey covered 15 MGNREGA worksites of 11 villages located in two blocks (Tirukovilar and Tiruvannaiellur) of Villupuram district (Tamil Nadu). A total of 104 women workers with at least one child below the age of six years were interviewed. The survey found that 41 percent women were getting income from MGNREGA and most of them belonged to SC's and ST's in the district. In Vengur village the scheme solved the problem of water scarcity, which was available from the pond constructed under MGNREGA. Thiathur village residents were dependent on the mercy of the Zamindars, but MGNREGA gave them a sense of independent and security by providing them work. So the scheme was a lifeline for the rural people. Some of them said that they would "starve" without MGNREGA. 41 percent respondents declared that MGNREGA has been the only source of income for the households in the past few months. 95 percent said that it was their own decision to work under MGNREGA. MGNREGA was the only option when there was no agricultural work. The problem faced by women at worksites

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A Study on Financial Performance using Ratio Analysis of Steel Authority of India

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1. Introduction

In 1991 the Indian Government initiated economic reform; this Reform added further dimension in industrial growth as well as also boosted the growth of steel industry. India's team industries development is depended or driven by domestic accessibility and availability of raw material like Iron ore and low-cost labour. To promote and to boost steel sector government introduced various steps like National Steel Policy which came in year 2017 and also allowed 100% foreign Direct Investment in this sector. To provide further momentum in growth of steel industry the government eases industrial policy, also removed restriction on external trade, both in export and import. The export of Steel started a long time ago but and that time it was not regulated and heavily Reliant on domestic surpluses. But after liberalization a sudden jump was seen in Steel export.

SAIL is India's most iron producing company. It has around annual sales of 1.05,398 crore (US Dollar 13 billion). The SAIL is in top five Maharatnas of the country public sector units. There are five integrated steel plants which are own and operated under SAIL, i.e. Bhilai, Rourkela, Bokaro, Burnpur, Durgapur. SAIL is one of the largest Steel producer which is owned by Government. It is estimated that by 2025 the production of hot metal capacity of the company will reach up to fifty million tonnes per annum. Three special Steel plants which are at Salem, Durgapur, and Bhadravathi are also managed by SAIL. It also possesses a ferro alloy plant at Chandrapur. Due to increasing demand of Steel and having the advantage of quality of raw material and labour, the public sector units is going through a huge expansion and remodeling program by building new facilities by giving more importance on Green Innovative Technologies and Internet of Things. *"Bhilai Steel Plant"*

OBJECTIVES OF THE STUDY

- To analyze the profile of Steel Authority of India.
- To evaluate the company's financial performance by using different ratios.
- To identify areas of weakness and suggest measures.

2. Research Methodology

Methods of Data Collection: This research is based on secondary data and the data is collected from annual reports, ministry of steel.

Time Period of the study: The period of the study is from 2017-2022, covering a time period of Five years.

Statistical Tools and Techniques: To analyze the financial performance of the company the statistical tool that has been used is Mean, Standard deviation and Variance.

3. Limitation Of The Study

- This study has following limitations:-
- The current study is based on Five years period i.e. 2017-2018 to 2021-2022 for financial analysis of Steel Authority of India.
 - The study is based on secondary data like audited company's annual report.

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Critical Analysis of Digital Payment System

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Research Paper - Commerce

ABSTRACT

The core objective of this study is to have a thorough study about the problems and prospects of cashless economy as well as study the various tools of cashless transactions. India is moving towards cashless economy, where people minimize or avoid the use of cash for meeting their periodic financial commitments. The aim of cashless economy is to eliminating black money, enhance government tax compliance and revenues for development, seriously eradicate counterfeit currency and enhance value of money held by the common man. It is in the paramount interest of both Government and citizens to collectively work towards a digitally enabled, cashless economic system as it would bring in transparency, genuine economic growth and eliminate forces threatening national security. As Our Prime Minister has introduced Digital payment system, a decade ago, its important to study the pros and cons of the cashless payment system, so that, problems if any can be eliminated and improvement can be made to get benefited in the long run.

Keyword: Cashless, critical, digital payment, cashless.

After demonetization Indian economy moving towards the cashless transactions. Digitalization of transaction is the best way to move towards cashless economy. Such cashless economy is realizable by promoting electronic money instruments, developing financial infrastructure and spreading digital transaction habits among the people.

Meaning of Digital Payment System - It is an economic setting in which goods and services are bought and paid for through electronic media. Cashless economy does not



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Balancing Population and Livelihood is a Challenge for Indian Economy

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Introduction -> Population growth and natural resources are directly connected and play role in climate disruption and farmers' ability to adapt to climate change especially in developing countries with rapid demographic changes and economies mostly dependent on natural resources. India is a developing Country of good density of population. So, this is one of the challenges of Indian Economy which has been included in our Five-Year plans. Although literature exists on population issues, emphasis was given to positive roles of population growth providing only incomplete picture for stakeholders and policy makers. This constrained climate change adaptation and mitigation strategies, improving food security and attaining sustainable, development goals. Review was done on publications on developing countries. This review will bring forth often side lined issue of population growth for decision-makers and future research in the context of achieving sustainable development goals of the United Nations for 2015-2030, therefore, this review was focused to reveal the impacts of population growth on natural resources only.

It has not covered the key issue of farmers' capacity to adapt the climate change in the developing countries. Rapid population growth continues to be a major underlying force of environmental degradation and a threat to sustainable use of natural resources. It reduces the quality and quantity of natural resources through overexploitation, intensive farming and land fragmentation. Regions with high population pressure face scarcity of arable land, which leads to shortened/removed fallow period, declining soil fertility and farm income due to farm subdivision. Low farm income from small farms not only exacerbates food insecurity of farmers but also constrains their ability to adopt certain climate change adaptation technologies. Balanced Regional Development, although a hard task initially, can lead to sustainable Economic

Development. Advancements in the Researches of Bio-Technology can better solve our problem and can balance the livelihoods and population. All stakeholders should take swift actions to address the dynamics between population, natural resources and climate change and its adaptation.

A number of global trends are influencing food security, poverty and the overall sustainability of food and agricultural systems :- The world's population is expected to grow to almost 10 billion by 2050, boosting agricultural demand -income growth in low- and middle-income countries would hasten a dietary transition towards higher consumption of meat, fruits and vegetables, relative to that of cereals, requiring commensurate shifts in output and adding pressure on natural resources.

Economic growth and population dynamics are driving the structural change of economies :- The decline in the share of agriculture in total production and employment is taking place at different speeds and poses different challenges across regions. Although agricultural investments and technological innovations are boosting productivity, growth of yields has slowed to rates that are too low for comfort. Food losses and waste claim a significant proportion of agricultural output, and reducing them would lessen the need for production increases. However, the needed acceleration in productivity growth is hampered by the degradation of natural resources, the loss of biodiversity, and the spread of transboundary pests and diseases of plants and animals, some of which are becoming resistant to antimicrobials.

Climate change affects disproportionately food-insecure regions, jeopardizing crop and



Socialization in The Era of Social Media - A Study of Bhilai

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Research Paper - Commerce

Introduction:

What is Social media?

The mass media used for the purpose of social interaction is called social media.

Social media are interactive technologies that facilitate the creation and sharing of information, ideas, interests, and other forms of expression through virtual communities and networks.

Socialization: Socialization is an important part of Human life for the wellbeing. Celebration of religious festivals, days of National importance, special occasions are just for the sake of Socialization and interactions for the betterment of human life.

Social Media is playing key role in the society and the perspective of people has entirely changed. People would like to socialize on their own conditions. They like virtual socialization and solitude. The scenario of socialization has been entirely changed in the era of Internet and in the era of Social media Communication.

The introduction of affordable smart phone in addition to data plans have increased the popularity of social networking sites for last few years. People are engaging themselves to social media for communication purpose and find social media easier rather than face to face communication. So, virtual communication has replaced face to face communication.

Socialization is the means of exchange of information and the psychological well being of all.


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Strategies and Best Practices for Change Management in Business Processes

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Abstract

Businesses must manage change in their business operations if they are to respond to changing consumer needs, market trends, and technological advancements. In the context of business process transformation and improvement, this study explores successful change management strategies and best practices. Using a mixed-method approach that blends quantitative analysis and qualitative case studies, this study investigates effective change management programs. It seeks to pinpoint the crucial tactics that facilitate effective change in company procedures, such as leadership, employee empowerment, communication, and stakeholder engagement. The study provides useful information to help businesses better manage the challenges of process change and become more adaptable in the fast-paced commercial world of today. The business process was widely addressed and carried out in many different kinds of companies worldwide. This paper examines the best strategies and practices for the wider notion of business process change management. The investigation used a quantitative descriptive survey methodology to scientifically explain the witnessed change processes and to examine the relationship between change practice variables and business change option. Out of the 192 mining business staff and other parties, 134 have been selected at random using stratified sampling to form the business, support section, and business layout categories. The findings demonstrate an outstanding uniformity in the significance of change management problems such as strategy, shift, and practices. Furthermore, the concept of constant change appears to be gaining traction. The research lays the groundwork to determine important factors that can be investigated to successfully handle this broad phenomenon.

Keywords: Change management, Strategies, Practices, Business Process, and Process management.

11. Introduction

For organizations to be competitive and relevant in a world where change is constant, they need to be flexible and agile. Efficiently executing changes in business processes is one of the biggest problems that firms have. Change management is essential to the success of any effort, whether it be process optimization, digital transformation, or restructuring. In business operations, change management refers to a methodical methodology that moves teams, people, and the organization as a whole from one state to another. This is a complicated process that requires strategic planning, has many players, and may encounter resistance. It is crucial to comprehend and put into practice successful methods and best practices as a result.

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M.Bhagyalaxmi

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On Connection of Fuzzy Entropy Like Functional with Generalized Fuzzy Values and Similarity Measures

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Abstract

In this work, we looked into how entropy and similarity measurements relate to fuzzy sets. We noted that the fuzzy entropy is equal to the separation between the fuzzy set and the corresponding crisp set. We also use illustrative examples to demonstrate and discuss the properties of the fuzzy values and similarity measure. It is demonstrated that some features hold for some measures but not for others, and that some properties are shared by all measures. Last but not least, we developed a measure of similarity from and demonstrated using a straightforward example that the maximum similarity measure can be attained using a minimum entropy formulation.

Keywords: Fuzzy values, similarity measures, distance measure, crisp set

Introduction:

The definitions of closeness measure and roughly equal fuzzy sets as well as the idea of approximating fuzzy values have all been introduced in [2], a similarity index based on the greatest difference between equivalent membership grades, was implied, along

Uniform Estimates on Length of Programs and Computing Algorithmic Complexities for Quantitative Information Measures

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^{ab} Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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Abstract

Shannon entropy and Kolmogorov complexity are two conceptually distinct information metrics since the latter is based on probability distributions while the former is based on program size. All recursive probability distributions, however, are known to have an expected U_p to a constant that solely depends on the distribution, the Kolmogorov complexity value is equal to its Shannon entropy. We investigate if a comparable correlation exists between Renyi and Havrda-Charvat Entropy entropies order α , indicating that it is consistent solely with Renyi and Havrda-Charvat entropies of order 1. Kolmogorov noted that the characteristics of Shannon entropy and algorithmic complexity are comparable. We examine a single facet of this resemblance. Specifically, linear inequalities that hold true for Shannon entropy and for Kolmogorov complexity. As it happens, the following are true: (1) all linear inequalities that hold true for Shannon entropy and vice versa for Kolmogorov complexity; (2) all linear inequalities that hold true for ranks of finite subsets of linear spaces for Shannon entropy; and (3) the reverse is untrue.

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Histopathological Impact of Silver Nanoparticles: A Review

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Introduction

The term nanoparticle is a combination of the words nanos (Greek: dwarf) and particulum (Latin: particle). In scientific context nanos normally refers to magnitude of 10⁹ meters. Nanoparticles can be traditionally defined as particles whose at least one dimension is in range of 1-100 nm. But sometimes nanoparticles can exceed the size of 100 nanometer up to 1000 nm. Nanoparticles are dealt in a multi-disciplinary field i.e. nanotechnology and it was first proposed by Richard Feynman in 1959 during his well famous lecture "there is plenty of room at the bottom" that is why he is also called father of Nanotechnology. Nanoparticles can synonymously be called Nano crystals or nanomaterials.

The human made nanoparticles can be categorized into- Non-metallic inorganic NPs- TiO₂, SiO₂, ZnO, CaO; Carbon based NPs- Carbon nanotubes (CNTs), Fullerenes etc.; Quantum dots- Carbon Telluride, Cadmium selenide; Quantum dots free of Cadmium; Nano polymers and dendrimers nanotubes Nano rods, Nano cellulose etc.

Since past few decades there have been a Nano revolution leading to rise in manufacturing and application of NPs many folds. This vast use of NPs in many fields is due to the uniqueness of properties that is not shown by bulk material (Auffan et al., 2009).

Silver Nanoparticles (AgNPs)

Silver has been used since ages in human history primarily due to its metallic lustre and antimicrobial property. It exhibits remarkably unusual physical properties from its bulk material e.g. more active

surface area, better porosity (Ali et al., 2004), agglomeration tendency (Wai et al., 2015), surface enhanced Raman scattering, chemical stability, thermal and electrical conductivity (Capek, 2004). AgNPs have also a very special property i.e. its excellent antimicrobial activity that can be due to the release of Ag⁺ that can cause harm to DNA (Feng Q. et al., 2008). These ions also interact with the thiol groups of some essential enzymes and destroy them (Matsumura et al., 2003).

Many techniques are present for AgNP synthesis e.g., physical methods, chemical, electrochemical methods, microwave assisted methods (Horikoshi S. et al., 2013). These methods are expensive or use toxic substances hence these are 'not so favored' methods. A more economic and eco friendly method is the biological method also called the green synthesis. In this method, many living organisms can be employed e.g. variety of microorganisms like bacteria, fungi, plants and animals e.g. *Spirulina* (Mohdiah et al., 2012), *Aspergillus niger*, *Fusarium oxysporum* and *Alternaria solani* (Juraitis et al., 2015). Animal blood can also be a potential source for AgNP synthesis (Kakakhi et al., 2021). Some of the plants used for AgNPs synthesis are Neem (Namratha and Monica, 2013), Aloe vera (Logarajan et al., 2006) and many more.

Applications of AgNPs

Left the pathogenic activity this particle is also used in different fields such as in Catheters (Wu et al., 2015), in Cardiovascular implants (Shawcross et al., 2017), Face mask (Li et al., 2006), Wound dressings (Kalantari et al., 2020), in Textiles (Radotic, 2012), Water treatment (Namratha and Monica, 2013), in


Mrs Jyoti Bala Choubey

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Effect of Pandemic on Mental Health of Children and Young Adults

* Jyoti Bala Choubey

Abstract: The covid 19 pandemic brought a complex array of challenges which had mental health repercussions for everyone, including children and youth. grief, uncertainty, social isolation, increased screen time and parental fatigue had negatively affected the mental health of children. When will the schools/college reopen? When can they go out and play? When can they visit their favorite places? These are some common questions that children/youth had along with even delayed dates of career interviews. It is not unusual for children and youth to experience negative emotions such as fear, disappointment, sadness, anxiety, anger, loss etc. but it is the prolonged restrictive and wide spread nature of the covid 19 pandemic that has exacerbated the situation.

Keywords – covid 19, mental health, lockdown, quarantine, social isolation.

Introduction- COVID 19 pandemic not only effected the physical health of people but also had a grave impact on mental health. Even if the person did not contract COVID physically, the lockdowns, quarantines & social isolation had a significant impact on mental health of children & youth. The purpose of writing this research article is to study the effect of COVID-19 on the younger generation & how to help them overcome it Before we start, we will define the two main words.

Why covid- 19 called covid - 19 :- illness caused by SARS - COV-2 was termed covid - 19 by the W.H.O., the acronym derived from coronavirus disease 2019. Covid 19 is an infectious respiratory disease caused by the SARS - COV- 2 virus. [WHO - world health organisation]

What is mental health- Mental health is fundamental to our ability to think, feel, learn, work, build, meaningful, relationship and contribute to the world. Mental health means more than just an absence of mental disorders, it is an important part and foundation of every one overall health and wellbeing. [American Health Organization]

The covid 19 pandemic has had a significant impact on the mental health of children and adolescent worldwide. Children have experienced disruptions to their daily routines, social isolation, and increased stress due to the pandemic. Here are some ways in which covid 19 has affected our life-

1. Changes in parenting styles- The pandemic may have forced parents to adapt their parenting styles to fit new circumstances, such

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Association between Chronological and Metabolic Age and its impact on Health and Fitness

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Abstract

50 Female subjects of Bhilai Township between the age group of 18 to 23 years were selected for the study. Their Metabolic Age, Body Fat and Muscle Mass was calculated using Bioelectrical Impedance Analysis. This study is an attempt to find out the relationship between Chronological Age and Metabolic Age.

Metabolic Age denotes how many calories our body burns at rest compared to people of our age. Higher Metabolic Age is associated with development of Metabolic Syndrome.

Our study revealed that mean Metabolic Age of female subjects was 5.9 years higher than their mean Chronological Age.

Key words- Metabolic Age, Metabolic Syndrome, BIA.

Introduction-

Metabolic Age denotes how many calories our body burns at rest. Basal Metabolic Rate is minimum number of calories required by the body to function at rest. About 60% to 75% of the calories are burnt when we are doing no physical activity.

Metabolic Age is calculated by comparing Basal Metabolic Rate to the Chronological Age. It is a new word in the field of Health and Fitness. It is a comparison between Basal Metabolic Rate with the standard Basal Metabolic Rate of the same age group. Basal Metabolic Rate denotes our Metabolic Health. A lower Basal Metabolic Rate is associated with increased risk of Diabetes and Insulin Resistance. Low Basal Metabolic Rate is a risk factor for development of Insulin resistance and Type 2 Diabetes (BMJ Open Diabetes Res and Care 8 (1):e001381).

According to Munnaz TM every 10 years Basal Metabolic Rate decreases by 1-2% due to skeletal muscle loss, decreasing an adult's energy requirement and promoting Obesity. Obesity leads to development of Metabolic Syndrome. Healthy lifestyle can increase Basal Metabolic Rate and reduce development of Metabolic Syndrome.

If Metabolic Age is lower than Chronological Age, it denotes that the person is in a state of better health and body shape. If Metabolic Age is more than the Chronological Age, it denotes health problems. Knowledge of Metabolic Age can help us to balance our calorie consumption, activity level, Fat Mass and Lean Mass.

Chronological Age is the age by calendar years where as Metabolic Age depends on metabolism and overall chemical process of the body.

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Study of Relationship between Body Percentage in Femal

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ABSTRACT

50 Female subjects of Bhilai Township between the age group of 40-4 and weight were measured to calculate the Body Mass Index (02 subp on 48 Subjects). Obesity is defined as Body Mass Index of 30 kg/m² or 50% of Adult population worldwide is expected to be Obese by the year evaluating Obesity but Individuals with similar Body Mass Index may be found around the abdominal organs inside our body, which we call excess fat. This excess fat is associated with several metabolic disorder. Mass has been proved to be more informative which is measured by an attempt to find out the relationship between Body Mass Index, w

Key Words : BMI, Obese, Visceral Fat

INTRODUCTION

Obesity is defined as Body Mass Index (BMI) of 30 kg/m² or above. According to World Health Organization (WHO) 50% of Adult population worldwide is expected to be Obese by 2030 (<http://www.who.int/mediacentre/factsheets/fs311/en/>2018). Our Body Weight consists of Lean Mass and Fat

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Fibro Scan Score and its Association with Various Stages of Non-Alcoholic Fatty Liver Disease

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ABSTRACT

Background: Non-alcoholic fatty liver disease has a histological spectrum involving simple steatosis and non-alcoholic steatohepatitis. It is a marked feature of metabolic syndrome. Around 28-30% global population is estimated to be afflicted by this disease. In India, the prevalence of NAFLD is estimated up to 09-32% and found to have an association with non-communicable diseases. Liver stiffness measurement is a helpful tool for the diagnosis of hepatic fibrosis and its association with various stages of Non-Alcoholic Fatty Liver Disease. The normal range of fibro score is between 2 to 7 kPa. Liver stiffness values below 4 kPa are considered normal. This study is an attempt to identify the association of fibro scan Liver stiffness with advancing stages of NAFLD. The study revealed that a fibro scan above the normal range denotes increased abnormal scarring with the progress of NAFLD.

Aims and Objectives: to find out the association of fibro scan stiffness score with advancing stages of NAFLD.
Method: 102 clinically diagnosed NAFLD subjects between the age group of 20 - 45 years, residing in Bhilai city and Bhanupur, Raipur, Durg districts of Chhattisgarh state attending various hospitals and clinics were selected for the study. Stages of NAFLD were recorded in secondary data and a Fibro scan was done by a skilled professional and recorded. The data were analyzed using SPSS, chi Square, Pearson correlation, and descriptive statistics.

Results: The mean fibro scan scores for each stage of NAFLD (i.e., Stage I 3.09, stage II 3.62, Stage III 5.62, Stage IV 9.08, the Pearson correlation coefficient (r) of 0.609 indicates positive and linear relationship. The fibro scan scores above the normal range for various stages of NAFLD are Stage I 16.2%, Stage II 14%, Stage III 32.1%, and Stage IV 97.7% (p < .001).

Conclusion: The mean fibro scan scores for each stage clearly show a progressive and statistically significant elevation as the disease stage advances. There is a strong positive linear relationship, reinforcing the idea that as the NAFLD stage increases, the fibro scan score also tends to increase.

Key Words : NAFLD, Fibro scan, Liver stiffness score, Kilo Pascal, Elastography

INTRODUCTION

The liver is a large organ situated in the top right part of the abdomen. It is 3 pounds in weight and it stores glycogen, processes fats and protein from digested food, produces proteins required for blood clotting, and removes toxins from the body.

For the maintenance of overall health, it is important

to keep the liver in good working condition.

Non-alcoholic fatty liver disease is the most common chronic disease that affects about 1/4 of the global population.

According to Starley et al. (2010), Patients with NAFLD have a 20 to 50% risk of fibrosis, 30% of cirrhosis, and 5% of hepatocellular carcinoma.

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To Study the Effect of Anemia on Premenopausal Women

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ABSTRACT

Menopause is a normal biological process. It is not a disease. Although it is a natural process, it causes many physiological changes. A female remains in reproductive stage from puberty to menopause. Menopausal transition includes three stages (1) Perimenopause - which starts before menopause. It may be of 1 to 5 years duration. (2) Menopause - about 12 months period after the last menstrual cycle. (3) Postmenopause - Period after menopause. During perimenopausal (pre-menopausal) period body produces less estrogen and many symptoms are produced. This study is an attempt to find out the effect of Anemia on Menopausal symptoms of women in Perimenopausal age. (4) premenopausal women of Bhilai township were selected for the study. Out of them 70% suffering from anemia. A significant association was observed between urinary retention, cold sores, Nervousness, rapid weight, muscle pain and anemia in premenopausal women.

Key Words: Perimenopause, Anemia

INTRODUCTION

Midlife age is the turning point in one's life because it brings many physiological changes. Perimenopause occur many years before menopause. During this period women experience many common symptoms of Menopause. It is the time to prepare oneself for Menopause.

Perimenopausal symptoms are directly associated with state of anemia.

The world health organization define anemia as hemoglobin concentration below 12 g/dl in women.

Symptoms of 20% hemoglobin anemia is associated with anemia. 40% cases of iron deficiency anemia associated


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