51ˢᵗ Annual Conference of the Indian Anthropological Society

&

International Seminar on

Anthropology of Health and Disease: Past, Present and Future

(21-23 December2021)

Venue

West Bengal State University, Barasat, Kolkata 700126

(Offline and Online mode)

Jointly Organized by

Department of Anthropology, West Bengal State University

&

The Indian Anthropological Society

(Programme & Abstract Booklet)

CONCEPTNOTE

Anthropological understanding of health and disease is not merely a holistic concept of interplaying between human biology, culture, and physical environments but also constructed a unique platform to open the door of deep-rooted dialogue between multiple stakeholders to solve the health sciences problem. This dimension is accurate in the current pandemic scenario when community perception of disease and its culturally governed human action is focused on combating unprecedented global health crisis.

Anthropology is the unparalleled opportunity to study human health and diseases through its intersecting specialization in human biology, culture, archaeology, and anthropological linguistics dimensions. Traditionally, integrated approaches of these four fields to understanding health and diseases cross-culturally are often known as medical anthropology. Now that time has changed, the Anthropology of health and illness expanded its horizon in all dimensions. It established that the disease itself might not cause illness but also depend on individuals' cultural beliefs and worldviews, mainly psychologically governed. It has a specific emphasis on disease type, healing practices and healers' responsibility. It connects the study of ancient DNA and molecular processes, skeletal evidence for health and disease in the past in one hand. On the other hand, it also relates through explorations of illness experiences, social relationships, healthcare settings, and the analysis of historical and contemporary epidemics, health care policies, and the structural inequalities that impact well-being. Therefore, Anthropologists should nurture a critical understanding of past, present and future dimensions of health and diseases and their determinants.

In contemporary times, the study on health and disease are the critical areas of understating for human survival. It is the driver of the nation's economic development to lead socially and economically productive lives. Over time, the nature of health status and diseases has changed a lot. Currently, overnutrition and obesity and its health consequences like diabetes, coronary heart disease, and cardiovascular diseases are rising at alarming rates in low and middle-income countries, including India. The primary causes behind such epidemiological transition are changes in lifestyle, food habits, and physical activity pattern and the changes in society's socio-economic, cultural, and political shift. In addition to such changes and living challenges in the daily life of the affected individuals, the incidence of such prolong illness can also trigger the household crisis. Anthropology through the ethnographic method has demonstrated unique strengths in how individuals, families and other communities understand, manage, and treat illness and strive for a healthy life. As a systemic and scientific discipline, anthropology can contribute meaningful outcomes and analyze the dynamic interactions related to healthy well-being between all spheres of human existence.

In particular, the Anthropology of health and disease looks at how human beings' efforts to secure health and treat illness are shaped by and contingent on local, national, and

international institutions and political processes and how health inequalities are created, maintained or challenged. The recent outbreak of the COVID-19 pandemic has raised the importance of the study of Anthropology of health and disease in multi-dimensional ways and put the methodological challenges. The need for an anthropological understanding of pandemics and epidemics has gained importance in public health domains. It is mainly because Anthropologists have supreme power to understand health and disease in terms of

temporal and spatial dimensions, where changing environmental conditions has played a significant role. In that way, the Anthropology of Health and disease has become a well-established and internationally recognized sub-discipline within anthropology.

In contrast, it has remained a central point of departure for research of societies and cultures in general. Now it is time to re-evaluate and re-orient the direction of anthropological researches in health and disease in contemporary traditional communities and the changing human population in this globalized world. It will integrate the different facets of anthropologically derived knowledge systems to make them more meaningful and productive.

In light of the above discussion, we seek to reflect on pluralistic views of the discipline to understand health and disease in historical, contemporary, and predictive ways.

Themes:

(i) Culture as a driver to understand the anthropology of health and disease: Concepts, methods and actions

(ii) Research in the anthropology of health and disease through the lens of prehistorical/historical perspectives

(iii) Syndemics is a way to understand the anthropology of health and disease through bio-cultural outlooks

(iv) Anthropological research in public health to conceptualizing pandemic and epidemic

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<u>Programme Schedule</u>

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Day 1: 21st December 2021

11.30 am-12.00 pm   : INAUGURAL SESSION (Venue- Auditorium, 3rd floor, WBSU)

11.30 am-11.35 am: Inaugural Song

11.35 am-11.40 am: Welcome address by **Prof Subir Biswas**, Head, Department of Anthropology, WBSU & General Secretary, The Indian Anthropological Society

11.40 am- 11.45 am: Address by **Prof Rajat K Das**, President, The Indian Anthropological Society

11.45 am-11.55 am: Address by **Dr Mahua Das**, Hon'ble Vice-Chancellor, West Bengal State University

11.55am-12.00 pm: Vote of thanks by **Dr Suman Chakrabarty**, Jt Organizing secretary of the Conference

12.00 pm-1.00 pm   : Invited lectures-1 (Online)

Chair: **Prof Barun Mukhopadhyay**, Research Director, IAS & former Professor, Indian statistical Institute

Speaker(s):   **Prof Charmalie Nahallage**, University of Sri Jayewardenepura, Sri Lanka

             Prof Wah Yun Low, University of Malaya, Kuala Lumpur, Malaysia

1.00 pm-1.45 pm   : Keynote address (Online)

Chair: **Prof Kaushik Bose**, Dept of Anthropology, Vidyasagar University

Keynote address by **Prof Barry Bogin**, Professor Emeritus of Biological Anthropology of the School of Sport, Exercise & Health Sciences, Loughborough University, UK

1.30 pm-2.15 pm   : Lunch break

2.15 pm-4.30 pm   : 1ˢᵗ Technical session (Venue- Auditorium, 3ʳᵈ floor, WBSU)

Chair: **Prof Premananda Bharati**, former Professor, Indian Statistical Institute

Speaker(s):

i) Impact of Viral load on the surveillance of COVID-19. **Munmun Sengupta**, Diptendu Chatterjee, Bibhuti Saha (Abs No. 41)

ii) A Study on effect of dance among adult Bengalee female of North 24 Parganas, West Bengal. **Solanki Joarder**, Nagma Parvin, Subir Biswas, Premananda Bharati (Abs No. 09)

iii) Aspects of Water in Culture and Health Issues: An Ethnographic study on some villages of Barasat, West Bengal, India. **Priyanka Paul**, Abhijit Das (Abs No. 25)

iv) Indian Indigenous Fermented Foods can be a preventer of Metabolic Syndromes: A Review. **Rima Ghosh**, Diptendu Chatterjee, Sanjit Dey (Abs No 35)

v) Why Maternal Obstetric Morbidity and Their Concomitants Differ between Sedente and Migrant Groups? The Case of the Oraon tribal populations of Eastern India. **Joyeeta Thakur**, Monali Goswami and Subho Roy (Abs No. 77)

vi) A Study on the Transition of Main Line Formula over the Decades among the Bengalee Hindu Caste Population of West Bengal, India. **Biswarup Dey**, Dr. Piyali Das,Dr. Diptendu Chatterjee, Arup Ratan Bandyopadhyay (Abs No. 39)

vii) Overuse of Agro-chemicals in West Bengal: Emerging Health hazards. **Susmita Mondal**,Biswajit Pal (Abs No. 44)

viii) A Study on the expression profiling of Fanconi Anemia among Indian population: A Review. **Trisha Chanda**, Rima Ghosh, Munmun Sengupta,Biswarup Dey,Diptendu Chatterjee,Arup Ratan Bandyopadhay (Abs No. 60)

ix) Effect of CAPN10 (SNP-19) genetic polymorphism and obesity in T2DM: A study on Bengalee Hindu caste population of West Bengal, India. **Pranabesh Sarkar**, Diptendu Chatterjee, Arup Ratan Bandyopadhyay (Abs No. 69)

x) Socio-economic status, iron deficiency anaemia and COVID-19 disease burden – an appraisal. **Kusum Ghosh**, Diptendu Chatterjee, Arup Ratan Bandyopadhyay (Abs No. 30)

Day-2: 22nd December 2021 (Online)

10.30 am-11.30 am   **: Invited lectures-2 (Online)**

Chair: **Prof S.R.Mondal**, former Dr CC Sanyal Chair Professor, CHS & former HOD, Anthropology, North Bengal University

Speaker(s):   Prof A K M Mazharul Islam, **Shahjalal University of Science and Technology, Bangladesh**
Prof Dilli Prasai, Tribhuvan University, Nepal

11.30 am-1.30 pm   **: 2nd Technical session (Online)**

Chair: **Prof Anup K Kapoor**, former Vice-Chancellor, Jiwaji university& former Professor, Delhi University

Speaker(s):

i) A study on nutritional status by Composite Index for Anthropometric Failure among urban Bengali adolescents in Howrah District, West Bengal, India. **Swastika Roy**, Jyoti Ratan Ghosh. (Abs No 01)

ii) Body Adiposity Determinants of Adolescent Hypertension in Manipur. **Sanjenbam Yaiphaba** Meitei. (Abs No. 66)

iii) Association of Menstrual Irregularity with Body Composition among the Poumai women of Manipur. **V. Pao**, Sanjenbam Yaiphaba Meitei (Abs No. 74)

iv) Age at menopauseand digit ratios (2D:4D): possibility of an economising biomarker. **Tania Das**, Diptendu Chatterjee and Arup Ratan Bandyopadhyay (Abs No. 11)

v) Association of water, sanitation and house type with the nutritional status among the pre-primary school-going children living at Habra, West Bengal, India. **Karabi Mondal**, Subir Biswas. (Abs No. 17)

vi) Indigenous Healers, Healthcare and Modern Medicines in life of the Tribal People of Duddhi Region in Uttar Pradesh: Exploring Health, Disease and Development in pandemic Covid-19 scenario. **Ashok Pandey** (Abs No 26)

vii) Physical Growth and Nutritional Status among the Adolescence (Boys) of Nyishi Community, Doimuk, Papum Pare District, Arunachal Pradesh. **A. Robertson Singh**, S. Jibonkumar Singh, S. Yaiphaba Meitei (Abs No. 49)

viii) A Study on Hair Trace Element in Human: A Review. **Shreya Dey**, Rima Ghosh, Munmun Sengupta , Biswarup Dey , Diptendu Chatterjee , Arup Ratan Bandyopadhyay (Abs No. 31)

ix) An observation in respect of misdiagnosed cases of FCPD among Indian population: a brief review. **Anushree Mondal**, Rima Ghosh,Munmun Sengupta, Biswarup Dey, Diptendu Chatterjee, Arup Ratan Bandyopadhyay (Abs No. 32)

x) A Study on Cervical Cancer in Global Scenario: A Brief Review. **Sumana Paul**, Rima Ghosh, Munmun Sengupta, Biswarup Dey, Diptendu Chatterjee, Arup RatanBandyopadhyay. (Abs No. 34)

xi) Prevalence of Thinness among Birhors of Korba District, Chhattisgarh, India. **Dhansay Tandan**,Damini Swarnkar, A. N. Sharma. (Abs No. 40)

xii) Cardiovascular disease (CVD) risk factors among Meena tribal population: A cross-sectional study, Delhi (North India). **Ved Prakash**, Imnameren Longkumar, Kallur Nava Saraswathy (Abs No. 59)

1.30 pm-2.00 pm   : Break

2.00 pm-4.00 pm   : 3ʳᵈTechnical session (Online)

Chair: **Prof S Jibonkumar Singh**, Professor, Department of Anthropology, Manipur University

Speaker(s):

i) Family history of type 2 diabetes mellitus and maternal gestational anthropometric changes: A longitudinal study among an Asian Indian obstetric population living in and around Kolkata, West Bengal, India. **Maitrayee Mitra**, Arnab Ghosh. (Abs No. 28)

ii) Socio economic impact of COVID-19 among the general people in Bangladesh: A cross-sectional study in Rajshahi district. **Md. Masud Rana**, Fariza Binte Mahbub, Md. Mishkatul Kabir, Sharefun NaherTalukder, Md. Mahbubul Kabir, Premananda Bharati, Md. Golam Hossain. (Abs No. 20).

iii) Occupational Risks and Health Problems among the Traffic Police Personnel in Imphal City of Manipur. **Malvika Yumnam**, Thangjam Chitralekha Devi, Huidrom Suraj Singh (Abs No. 52)

iv) Health- Seeking Behavior among Digaru Mishmis and Sherdukpens of Arunachal Pradesh. **EVA UMPO**. (Abs No. 55)

v) Menstrual health among adolescent girls of Delhi. **Urvashi Gupta** (Abs No. 21)

vi) Being a mother: An ethnographic study on parents of the autistic child especially mothers. **Paramita Da**s, Diptendu Chatterjee, Suvendu Maji (Abs No. 13)

vii) Prevalence and correlates of diabetes mellitus: A cross-sectional study. **Huidrom Suraj Singh** (Abs No. 79)

viii) Total abdominal hysterectomy and its associated factors: a tertiary hospital based study in Rajshahi, Bangladesh. **Md. Abdul Awal**, Jarin Sazzad ,Md. Abdul Wadood ,Md. Jawadul Haque .Md. Ripter Hossain ,Momanin Mohammad Saqlain , Md. Golam Hossain (Abs No. 06)

ix) Impact of COVID-19 and pandemic lockdown on youths. **Jeena Wahengbam** (Abs No. 70)

x) Prevalence and Determinants of pre-hypertension and hypertension among married women in Bangladesh. **Shahara Sultana Shanta**, Abu Sayed Md. Al Mamun, Md. Golam Hossain. (Abs No. 23).

xi) Contemplative Practices and Neuroanthropology: Prospects for well-being. **Suresh Chandra Bhatt** and H.B.S. Chauhan (Abs No 51)

xii) Factors associated with duration of breastfeeding in Bangladesh: evidence from Bangladesh demographic and health survey 2017-2018. **Ummay Ayesha**, A. S. M. A. Mamun1, Md. Abu Sayem and Md. Golam Hossain. (Abs No. 27)

xiii) Prevalence of overweight and obesity in relation with socioeconomic factors, life styles and food habits among adult males and female of Yangyang, South Sikkim. **Yogesh Sharma** (Abs No. 62)

4.00 am- 6:00 pm : **4ᵗʰTechnical session (Online)**

Chair: **Prof Buddhadeb Chaudhuri**, former Dr Ambedkar Chair Professor, University of Calcutta

Speaker(s):

i) Socio - cultural Behaviour and its Impact on Health and Nutritional Status of Birhor's of Hazaribag . **Ganga Nath Jha** (Abs No. 81)

ii) Ethnomedicine and traditional healing practices among the Gaddi tribe of Himachal Pradesh. **Shivanshi Nehria**, Abhik Ghosh. (Abs No. 03)

iii) An Anthropological Study on Alzheimer's Disease. **Nilotpal Chakraborty**, Biswarup Dey, Rima Ghosh, Munmun Sengupta, Diptendu Chatterjee, Arup Ratan Bandyopadhyay. (Abs No. 61)

iv) Online classes and its effect on the health of adolescences during the pandemic: a study among the students belonging to age 14 - 17 years. **Antara Bose** (Abs No. 67)

v) Prevalence and Determinants of Short Birth Interval in Northeast India: Evidence from National Family Health Survey 2015-16. **Ramendra Nath Kundu** (Abs No 68)

vi) Assessing the Antibiotic Resistance Pattern in Nontuberculous Mycobacteria (NTM) and its socioeconomic effect on Aquaculture in Murshidabad District of West Bengal. Tapti Sengupta, **Arijit Mondal**, Tirthankar Saha, Souvik Nath, Sinchita Biswas, Parijat Das (Abs No. 73)

vii) Cultural aetiology of Anaemia. Ganga Nath Jha, **Shashi kiran** (Abs No. 75)

viii) Dreams, Dilemmas and Despair: Understanding the Emotional Worlds of Infertile Couples Seeking Assisted Conception. **Rashmi Patel** (Abs No. 76)

ix) Culture as a driver to understand the anthropology of health and disease : Concept, method and action. **Ritika S** (Abs No. 80)

x) Depression and Marriage: A case study among the Meiteis of Manipur, India. **Khangembam Taibanganba Meitei**, Huidrom Suraj Singh (Abs No. 57)

xi) Population structure and marriage pattern: A study on four populations of Tripura, Northeast India. **Priyanka Das**, Pranabesh Sarkar, Diptendu Chatterjee, Arup Ratan Bandyopadhyay. (Abs No. 78)

xii) Politics of Modern Midwifery: A study on maternity and newborn care in the late nineteenth and early twentieth century. **Sudip Mal** (Abs No. 42)

xiii) Awareness and practice measures of Breast Cancer: A study in Nagaland, North East India. **Khriesivonuo Nakhro**, Diptendu Chatterjee, Arup Ratan Bandyopadhyay (Abs No. 45)

Day 3: 23rd December 2021

10.00 am-12.00 pm   : 5thTechnical session (Online)

Chair: **Prof Sarthak Sengupta**, Vice-President, IAS & former Professor, Dibrugarh University

Speaker(s):

i) Influencing factors of multi-drug resistant tuberculosis patient's satisfaction: A hospital based study in Bangladesh. **Md. Abu Sayem**, Md. Kaderi Kibria, Md. Golam Hossain (Abs No. 16)

ii) Global DNA Methylation and sex specificity: An assessment in Jaat community. **Anshika Kaushik**, Sonal Jain, Kallur Nava Saraswathy. (Abs No. 08)

iii) Study on misuse of medicine for body fitness among female sex workers in Rajshahi City, Bangladesh. **Md. Masud Rana**, Rashadul Alam Mahamud , Md. Abdul wadood Md. Ripter Hossain, Md. Golam Hossain. (Abs No. 19)

iv) Determinants of age at menarche: possibility of digit ratio (2D:4D) as a prenatal biomarker. **Priyasmita Nandy**, Diptendu Chatterjee and Arup Ratan Bandyopadhyay (Abs No. 46)

v) Associated factors of psychological, financial and career among Bangladeshi undergraduate students in COVID-19 pandemic: A web-based cross-sectional survey. **Fee Faysal Ahmed**, Tonmoy Adhikary, Mst. Tania Sultana, Sheikh Sadia Arny, FariaTabassum Nishi, Partho Bosu, Samiran Mondal,FarhanaHasan, Md. Golam Hossain (Abs No 63)

vi) Association of Anthropometric and Body Adiposity Measures with Thyroid Dysfunction among the two ethnic groups of Manipur, North East India. **Kh. Dimkhoihoi Baite**, Ajit Lukram, Jamkhoupum Baite, SanjenbamYaiphaba Meitei. (Abs No 12)

vii) Factors influencing nutritional status of children aged 6-59 months in Bangladesh: Survey in Rajshahi district. **Md. Mahmudul Hasan,** Dolly Khatun, Md. Abu Sayem, Mohammad Saiful Islam Khan, Md. Golam Hossain (Abs No 64)

viii) Ageing and chromosomal telomere: possible potential for life story. **Epsita Das**, Diptendu Chatterjee and Arup Ratan Bandyopadhyay (Abs No. 47)

ix) Dermatoglyphics a possible Biomarker for Schizophrenia and Autism. **Shayari Mukherjee**, Diptendu Chatterjee and Arup Ratan Bandyopadhyay (Abs No. 48)

x) Covid-19 and international student mobility from Punjab. **Kiran Jyoti Kaur**, Dr. A. K. Sinha (Abs No. 50)

xi) Significance of Water-Bodies in the Poumaiculture: A Landscape Archaeological Approach. **Rex Chawangbou Thiumai**, M. ManiBabu (Abs No. 65)

xii) Why menopausal health matters: a study on   reproductive aging in women. **Rita Taid**. (Abs No. 53)

xiii) Sexual health among the MSM of India: exploring practice and perception. **Soumi Dey** (Abs No. 29)

12.00 pm-2.00 pm   : 6thTechnical session (Online)

Chair: **Prof Mitashree Mitra**, Vice-President, IAS& former Professor, Pt Ravisankar Sukla University

Speaker(s):

i) Factors influencing physical assistance of elderly population in Chapainawabganj District, Bangladesh: An Empirical investigation. **Md. Abu Sayem**, Smriti Akter, Md. Nurul Islam, Rashidul Alam Mahumud, Md. Golam Hossain (Abs No. 02)

ii) Prevalence and associated risk factors of adverse pregnancy outcomes among the Meitei women of Manipur, India. **Thangjam Chitralekha Devi**, Singh (Abs No. 72)

iii) Occupational health challenges of industrialization in Bangladesh: Survey in Rajshahi district.**Md. Masud Rana**, Chaity Roy, Md. Reazul Karim,Nurun Naher Shoma, Md. Akramul Haque, S.M Fakhrul Basher,Dhiman Dutt, Md. Abdul Wadood, Md. Golam Hossain. (Abs No. 04)

iv) Food habits and body adiposity among the adolescents of Manipur. **Henry Konjengbam** (Abs No. 56)

v) A comparative study of nutritional status of tribal and non-tribal school going children (aged 6-13 years) in rural Bangladesh. **Md. Reazul Karim**, Abu Sayed Md. Al Mamun, Md. Ripter Hossain, Md. Nurul Islam, and Md. Golam Hossain (Abs. No. 05)

vi) Correlation between ph of saliva and dental caries among Children of Rajshahi city, Bangladesh. **Jannatul Ferdose**, Md. Shah Alam, Mohammad Saiful Islam Khan, Md. Abu Sayem, Md, Nurul Islam , Md. Golam Hossain. (Abs No. 07)

vii)Prevalence and risk factors of stunting among under-five children from 1990-2020: A systematic review and meta-analysis. **Md. Ismail Hossain**, Md. Nurul Islam, Md. Abu syed Al mamun, Ripter Hossain, Premananda Bharati, Md. Golam Hossain. (Abs No. 08)

viii) Prevalence and associated factors of depression among adolescents in Rajshahi district Bangladesh: a decision tree approach. **M. M. Wahiduzzaman**, Abu Sayed Md. Al Mamun, Md. Sabiruzzaman, Md. Ripter Hossain, Md. Nurul Islam, Md. Golam Hossain. (Abs No. 18)

ix) Knowledge on home remedies self-treatment behavior in the self-care and practices among diabetic patients: a cross sectional study. **Nitendra Kumar Chaurasia**, Md. Abu Sayem, Md. Golam Hossain. (Abs No. 22)

x) Perceptions of disease among the Kom tribe of Manipur. **K. Grace Kom**, M.C Arunkumar (Abs No. 71)

xi) Mode of birth and academic performance among primary school students in Rajshahi district, Bangladesh. **Farhana Hasan**, Md. Sabiruzzaman,A. S. M. A. Mamun, MdMonimul Huq, Md. Kaderi kibria, Masuma Amanullah, Premananda Bharati, Md. Golam Hossain. (Abs No. 33)

xii) Suicidal behavior among couples in Rajshahi City, Bangladesh: A household study. **Md. Abdul Wadood**, Md. Rezaul Karim, Abdullah Al Mamun Hussain, Masud Rana, AKM Ahsanul Khabir, Md. Golam Hossain (Abs No. 54)

xiii) Double Burden of Malnutrition in form of Undernutrition among children - Overweight/Obesity among mothers within Households in India: A Systematic Review. **Piyali Paul**, Suman Chakrabarty (Abs No. 10)

2.00 pm- 2.30 pm   : Break

2.30 pm-3.00 pm   : Invited lectures-3 (Online)

Chair: **Dr Abhijit Das,** Associate Professor, Dept of anthropology, WBSU

Speaker**: Prof Golam Hossain,** Rajshahi University, Bangladesh

3.00 pm- 4.00 pm   : Valedictory session ((Venue- Auditorium, 3rd floor, WBSU)

Chair: **Prof Arup Ratan Bandyopadhyay**, Vice-President, IAS& Professor, Calcutta University

Valedictory address: **Dr Biswanath Sarkar**, former superintending anthropologist, Anthropological survey of India

Observation by **Prof Rajat K Das**, President, Indian anthropological Society

Vote of thanks: **Dr Diptendu Chatterjee**, Joint Secretary, Indian anthropological Society

4.00 pm-4.30 pm   : High Tea

Key note address

Unsolved problems for future research

Barry Bogin, PhD

Member, UCSD/Salk Center for Academic Research and Training in Anthropogeny (CARTA), USA
https://carta.anthropogeny.org/users/barry-bogin

Professor Emeritus of Biological Anthropology, Loughborough University
https://www.lboro.ac.uk/departments/ssehs/staff/barry-bogin/

Professor Emeritus of Anthropology, University of Michigan-Dearborn, USA

Many important discoveries about human biology are attributed to research on human growth and development. Some examples are: 1) Embryogenesis, rather than preformation – William Harvey, 1651; 2) Sexual fertilization – Oscar Hertwig, 1875, eventually leads to the importance of DNA; 3. Phenotype plasticity – Boas, 1912, derived from the study of migrants, eventually leads to Waddington's vision of the epigenetic landscape, 1942,1957 and the field of epigenetics; 3) "Growth as a mirror of the condition of society" - Tanner, 1986, eventually leads to the importance of Social-Economic-Political-Emotional (SEPE) factors and the concept of 'growth within a frame' rather than 'growth as target-seeking' - Bogin 2021; 4) Strategic growth– dominance vs. subordinate status influences IGF-1 and other hormones and regulates body size, Sapolsky et al. 1997, Bogin et al. 2015, Huchard et al. 2016; 5) Community effects – social networks regulate body size, shape, and composition –Aßmann & Hermanussen, 2013.

Each of these breakthroughs, and all other discoveries, answered some old questions but raised many newer issues about human development. This presentation focuses on the following unsolved problems for future research: 1) birth order effects on height – is it due to resource limitation or dominance/subordination?; 2) the short-stature/high weight dual burden – is it a nutritional burden or due to competition and strategic growth?; 3) father's absence and early age at menarche – is it a life history strategy or the outcome of sexual abuse?;4) climate change, uncertainty, and growth responses – what might happen?

Important new understandings about the nature of human biology, society, and culture may be derived from research on these unsolved problems. A biocultural approach will be required to understand the role of SEPE factors, strategic growth, and community effects and how these regulate the wonderous and beautiful variations in human growth and development.

Invited talk

A Glimpse into the Diseases of Primates
Charmalie A. D. Nahallage

Professor, Department of Anthropology, University of Sri Jayewardenepura, Sri Lanka

At one time or another, all animals are hosts to some kind of parasite, and primates are no exception. They can harbor one or more parasite species in their intestinal tracts, blood, skin, liver, reproductive organs and or other tissues. Primates are Mammals, and all the primates living in the world today (lorises, lemurs, tarsier, new world monkeys, old world monkeys, apes and humans) are grouped into the Order Primates with 16 families representing 79 genera (approximately 504 species and 701 taxa). On the parasite side of things, there are six major taxonomic groups known to infect primates and they are the viruses, bacteria, fungi, protozoa, helminths and arthropods. Knowledge of primate diseases comes from many sources of research including studies related to finding cures to human diseases, studies on zoonotic transmission, studies conducted to improve the quality of life in captive animals used for biomedical research, in zoos, or in situ ecological studies focused on primates. Studies so far conducted suggest that parasites play a major role in the distribution and abundance of primates in the wild same way as the resource competition, predation and habitat characteristics. The majority of the disease-causing parasites described from the primates' involved helminths, viruses and protozoans. This paper reviews the types of diseases in primates and their causative agents, their responses to infections by means of using strategies to remove parasites such as immune defenses, physiological responses, sickness behaviors, grooming and the use of medicinal plants in self-medication. In addition, it discusses the strategies used by primates for parasite avoidance to prevent infections such as habitat use and ranging behavior, diet, avoidance of arthropod vectors and parasites, parental care and avoidance of infected conspecifics.

Key words: non-human primates, self-medication, zoonoses, host responses, disease

Invited talk

Online Survey during Pandemic: Challenges and Opportunities

PROFESSOR WAH YUN LOW

Deputy Executive Director (Research and Internationalisation), Asia-Europe Institute, Professor of Psychology, Faculty of Medicine, Universiti Malaya, Kuala Lumpur,

The COVID-19 pandemic has caused unprecedented impact on healthcare systems, public health, societies and individuals globally. To control the spread of disease, national lockdowns, physical distancing measures, school closures and travel restrictions have been implemented worldwide. For researchers, they have to switch from the traditional household survey to online survey. Remote data collection is carried out via the phone, online or other virtual platform.   Remote qualitative methods include online or phone-based interviews and focus group discussions (FGDs), audio-diary methods, photovoice, video documenting, documentary analysis of social media and autoethnography Remote quantitative methods include mobile phone surveys implemented using: interactive voice response (IVR), SMS or computer-assisted telephone interviews (CATI) and self-completed online questionnaires, via email or social media platforms. These remote data collection methods have its advantages and disadvantages. There are also ethical challenges that comes with it as well as opportunities.

Invited talk

Study on nutritional status of adults in the Northern part of Bangladesh

Md. Golam Hossain

Professor, Health Research Group, Department of Statistics, University of Rajshahi, Bangladesh

Background: Malnutrition of adults is a persistent global public health concern that causes different types of diet-related non-communicable diseases. The nutritional status of adults is often neglected in low-income countries. Dual malnutrition (over and undernutrition) and nutrition transition are coexistent in the low- and middle-income countries. Nutritional status is an important indicator of health status among adults. Ethnic minority communities are known for their distinct culture, belief system, economic activities, political system, dietary habits, customary laws, and languages. Bangladesh has several ethnic minority populations and they constitute about 1% of the total population. Distinctive geographic location and rural lifestyles were influential factors for the tribal communities' insufficient access to health care facilities. However, to date, there exists scanty information on the nutritional status of tribal populations of Bangladesh. Therefore, the objective of this study was to investigate the nutritional status of tribal and non-tribal adults living in the rural area of Rajshahi district, Bangladesh. **Methods:** A total of 420 households (72 tribal and 348 non-tribal households respectively) were considered. The samples were selected using multistage stratified sampling with proportional allocation. The nutritional status of adults was measured using body mass index (BMI). Various descriptive statistics, t-test, two-way ANOVA and Z-proportional test were utilized for data analysis. Only married adults (aged>18 years) having no serious disease and living in the study area were considered. We recruited only non-pregnant women and their husbands currently living together. **Results:** The study revealed that 8.3% and 9.2% of tribal and non-tribal men were suffering from undernutrition respectively, while the corresponding figures in women were 12.5% and 10.1%, respectively. Overall, 11.1% and 27.0% men, and 13.9% and 29.3% women tribal and non-tribal were over-nourished respectively. The differences in all categories of nutritional status between tribal and non-tribal were significant for both sexes. The mean weight and BMI of the non-tribal men were significantly (p<0.01) higher than tribal men. The mean weight, height, and BMI of non-tribal women were higher (p<0.05) than tribal women. ANOVA demonstrated that the variation in BMI between education levels of non-tribal men was significant (p<0.01), and the variation among occupation for both ethnicities were significant (p<0.01). Moreover, the variation in BMI among education levels and occupation of tribal and non-tribal women were significant (p<0.05), respectively. **Conclusions:** The prevalence of malnutrition was high among both groups. Education, occupation and household monthly income were important confounding factors of malnutrition. The level of higher and secondary education as well as household income among non-tribal was higher than tribal people living in the same area. Appropriate nutritional intervention and modification programmes can be initiated by the Government of Bangladesh to ameliorate the burden of malnutrition.

Abstract – 1

Title: A study on nutritional status by Composite Index for Anthropometric Failure among urban Bengali adolescents in Howrah District, West Bengal, India

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Background: The prevalence of undernutrition during childhood is considered to have highly detrimental effects on health in those children who survive to adulthood. Undernutrition in children can manifest itself in several ways and it is most commonly assessed through the measurement of weight and height. **Objective:** The objective of the present study was to assess the prevalence of undernutrition by Composite Index of Anthropometric Failure (CIAF) among urban adolescents of Howrah District, West Bengal, India. **Materials and Methods:** In the present study a total of 510 (Boys= 258; Girls= 252) adolescents aged between 10-17 years were assessed. The anthropometric measurements included height and weight and were measured following standard procedure. Three most commonly used indicators of undernutrition, i.e., stunting, wasting and underweight were used to evaluate the nutritional status of the subjects and along with these CIAF was also used to evaluate the nutritional status for the total children. For assessing the CIAF, Svedberg's (2000) model of six groups including no failure; wasting only; wasting and underweight; wasting, stunting and underweight; stunting and underweight; and lastly stunting only children was considered. The statistical analysis includes descriptive statistics, Chi-square and t-test. **Results and Discussion:** Comparison of anthropometric variables between boys and girls revealed that the mean height and weight is higher in boys compared to girls. Results of the t-test analysis revealed significant (P<0.05) sex differences in height and weight. The overall prevalence of stunted and underweight adolescents in the studied population was 29.01% and 12.7%, respectively. The percentage of wasted was 5.76 for girls. This was in corroboration with other studies which also observed that 26% boys and 22.9% girls were stunted and boys 39.7% and girls 36.5% were underweight. However, there was significant (P<0.05) sex differences in the prevalence of stunting, wasting and underweight. The CIAF showed a higher prevalence of undernutrition is compared with other three indicators i.e., stunting, wasting and underweight. There was significant (P<0.05) sex differences between no failure and CIAF. **Conclusion:** Thus, in conclusion, the result of the present study revealed that the prevalence of undernutrition by CIAF was higher in girls than boys among the urban adolescents. Moreover, the CIAF may be a better indicator of nutritional stress as compared to the traditional measures of stunting, wasting and underweight.

Abstract – 2

Title: Factors influencing physical assistance of elderly population in Chapainawabganj District, Bangladesh: An Empirical investigation

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Background: Elderly population emerged on a world-wide scale within the last century. The growing number of elderly people is a new and burning issue in Bangladesh. **Objective:** The main objective of this study was to determine the factors influencing physical assistance of elderly people in Chapainawabganj district, Bangladesh. **Methodology:** Two-stage cluster sampling was used for this study for selecting 100 elderly women and men for the current pilot study. The primary data was collected through structured questionnaire by interview schedule. This study was conducted from 4th to 25th February, 2021. Descriptive statistics, Chi-square test and logistic regression have been applied to analyze the data. **Results and Discussion:** The present study shows that 83% respondents live in rural area and about 46% of the elderly people are suffering from disability and chronic diseases. 45% respondents have poor health and 57% are not satisfied with their life respectively. Chi-square test showed that age, working status, type of family, self-reported health status and self-reported life satisfaction has significant relationship with the physical assistance of elderly people. It is found from the logistic regression analysis model that monthly family income; self-reported health status and self-reported life satisfaction has significant effects on the physical assistance of elderly people. **Conclusion:** We have found some modifiable associated factors of physical assistance among elderly people in our study area. These findings can help to our government for reducing the health-related problems of elderly people in this country.

Abstract -3

Title: Ethnomedicine and traditional healing practices among the Gaddi tribe of Himachal Pradesh

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Introduction: Gaddi tribe is found in Chamba and Kangra district of Himachal Pradesh. They are a semi-nomadic tribe. They roam with their animals throughout the year. In winters they move to higher regions of Lahaul and Spiti and at onset winters they head towards the plains of Himachal and Punjab. Due to their roaming occupation, they are familiar with numerous medicinal plants which they use for curing ailments of human and livestock. They believe in supernatural powers and getting cured from traditional healers in distress. The field work was conducted in both the districts to know about the traditional use of ethnomedicinal plants and other traditional healing practices among the tribe. **Objectives:** The objective of study is to

know about the ethnomedicinal and traditional practices among the Gaddi tribe of Himachal Pradesh and to investigate the belief of the young generation in these practices. **Methodology:** Direct interviews were taken from medicine man, mid wife and other traditional healers. The observation method was used to observe the process while healing the patients. The young members of the community were interviewed. **Results and discussion:** Ethnomedicinal plants have a significant role in the lives of Gaddi tribe. Traditional knowledge of wild medicinal plants runs down the family. They live near forests and the wild edibles they eat have medicinal qualities. They use medicinal plants to cure both human and animal disease. *Vaid* (medicineman) and *dali bane wala* (traditional healer) use wild medicinal plants to cure the illness. Traditional healers never talk about the medicinal plants and mantras they use for curing. If they tell about the medicinal plant and mantras then their power to cure the people will go away. *Chella* (shaman) is visited during distress in the house or when a person is affected with supernatural powers. In earlier times delivery of children was done by midwives at home but with the changing time the more preference is given to doctors. Ladies still visit the midwives for the detection of the position of the child. Modernization has brought some of the changes in preferences. New generation has more trust in doctors and allopathy than the medicine man and traditional healers. **Conclusion:** The present study revealed that Gaddis are extensively using the ethnomedicinal plants to cure various ailments. Gaddi believes in black magic and evil eye and in illness they prefer consulting traditional healers. But the new generation is losing interest in ethnomedicine and traditional healing practices and prefers modern medicines. The rich knowledge will be forgotten in the coming generation so my work would preserve it in documented form.

Abstract – 4

Title: Occupational health challenges of industrialization in Bangladesh: Survey in Rajshahi district

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Background: Industrialization and urbanization are destabilizing the fragile ecology. Rapid, unplanned and uncontrolled industrialization is causing severe health hazard all over the world. The effect of industrialization on human health is of great concern in the world today. The aim of the study was to determine health hazard in industrial sector and its relationship between different socioeconomic and demographic factors among the workers in industrial sector in Rajshahi district, Bangladesh. **Methods:** A cross-sectional study was performed among 333 industrial workers from 75 different industries in Rajshahi district, Bangladesh. Health hazard was the outcome of interest in this study. Chi-square test was used in this analysis to find the

association between health hazard and selected socio economic and demographic factors. **Results:** This study revealed that 61% workers were affected with TB and most (73.8%) of them were working in shoe factories. Most of the (63.8%) young workers were infected with TB. It was found that 67.8%, 75.0% and 66.1% rural, illiterate and poor (monthly income <10,000 in BDT) workers were infected with tuberculosis respectively. Analysis demonstrated that type of industries, age, educational level, marital status, residence and monthly family income were significantly associated with TB (p<0.050). **Conclusion:** This study found that huge numbers of industrial workers were infected with TB in Rajshahi district, Bangladesh. It was noted that some modifiable factors were associated factors for infected TB. In this study, it was strongly recommended advocacy communication for social mobilization program to control TB in the industrial sector.

Abstract – 5

Title: A comparative study of nutritional status of tribal and non-tribal school going children (aged 6-13 years) in rural Bangladesh

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Background: The nutrition of school-going children is a crucial factor for their mental and physical development. School-going children nutrition is a public health problem and a challenge in many developing countries including Bangladesh. The greatest impact of malnutrition is experienced during the time of brain development of children. Poor nutrition negatively affects the learning capacity and the physical development of a child. Bangladesh Government and non-government organizations are trying to improve the socio-economic conditions of tribes in the Rajshahi region. It is important to compare the health and nutritional status as well as child education between tribal and non-tribal in Bangladesh. The aim of the study was to compare nutritional status between tribal and non-tribal school-going children (aged 6-13 years) in the Rajshahi district, Bangladesh. **Methods**: A total of 500 households (81 Tribal and 419 nontribal) households respectively were considered. The samples were selected using multistage stratified sampling with proportional allocation. The nutritional status of children was measured using body mass index (BMI) with percentile. Various descriptive statistics, chi-square test, logistic and Z-proportional test were utilized for data analysis. **Results**: The study revealed that 27.8% and 23.4% of tribal and non-tribal boys were suffering from undernutrition, while the corresponding figures in girls were 15.9% and 24.3%, respectively. Overall, 8.1% and 7.8% boys, and 4.5% and 4.2% girls tribal and non-tribal were over-nourished respectively. The rate of nutritional status among tribal and non-tribal was not statistically significantly accordingly for both sexes. The chi-square results demonstrate the association between Parent's socioeconomic status, Household average monthly income in BDT, Household food security status, Children's food intake (Kcal) in daily, Children's personal

hygiene maintenance on BMI were statistically significant (p<0.05). The logistic model showed that the effect of boy children who took less food intake (≤1000 Kcal) were less likely to be underweight than boy children who took more (>1500 Kcal daily) [OR=3.661, 95% CI: 1.142-8.693; p<0.01]. **Conclusions**: The prevalence of underweight among tribal boys was higher than nontribal boys but underweight among nontribal girls was higher compared to tribal girls. Some socio-economic and food intake factors were found as predictors of malnutrition. Gender discrimination was found among rural households. Mass campaigns on gender and appropriate nutritional intervention can be initiated by the Government and non-government organizations in Bangladesh to ameliorate the burden of malnutrition among Bangladeshi children.

Abstract – 6

Title: Total abdominal hysterectomy and its associated factors: a tertiary hospital-based study in Rajshahi, Bangladesh.

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Background: Total abdominal hysterectomy (TAH) is the ultimate standard operation among various gynecologic surgeries. It is the surgical procedure for the removal of the cervix, body, and fundus of the uterus. TAH is commonly used to treat patients suffering from a variety of pathologies, such as hemorrhage, fibroids, abdominal pain and various types of cancer. **Objective:** The aim of the study was to determine the associated factors of TAH of the patients admitted in Gynae ward of Rajshahi Medical College Hospital (RMCH), Bangladesh. **Methodology:** This was a cross sectional type of descriptive study which was conducted from May 2018 to April 2019. Data was collected from patients admitted in Gynae ward of RMCH, Bangladesh. In this study, 246 patients were examined who underwent TAH and they were selected purposively. **Results:** This study revealed that 64.6%, 71.5% and 61.4% women underwent TAH who were ≤ 50 years old, house wife and living in rural area respectively. Majority (82.5%) of the respondents had ≥ 4 times visited ANC, 58.1% had normal weight, 64.2% had DM as systemic diseases and 63.8% had continued heavy bleeding as ongoing complications. It was found that respondents' education, occupation, type of family, husbands' occupation, ANC, gravida status and BMI had significant association with TAH. **Conclusions:** This study suggests a need for increased education and empowerment in the hysterectomy decision-making process, along with expanding information given for TAH. Findings about perceptions, beliefs support health care providers to deliver more patient-centered care.

Abstract - 7

Title : Correlation between ph of saliva and dental caries among Children of Rajshahi city, Bangladesh.

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Background: Dental carries among children is a major public health problem in Bangladesh. Evaluation of association between salivary p^h level and dental carries would help reducing the prevalence and its consequences among children. **Objective**: The objective of the study was to evaluate the association between salivary p^h and dental carries among school going children in Rajshahi city, Bangladesh. **Methods:** A hospital based cross-sectional study was conducted in the Department of Microbiology of Rajshahi in collaboration with Dental unit, Rajshahi Medical College, Rajshahi for a period between January to December 2017. A total of 200 children aged between 6 to 14 years were purposively selected. Having consent, salivary samples were collected to measure p^h level using a chair side test strip. The P^h paper was rolled over the saliva on slide. Finally, the color was compared against the standard. The socio-demographic and behavior related information as well as carries with p^h level was carefully recorded using excel sheet. Finally, information was converted to SPSS to measure frequency and association. **Results :** Out of 200 children with dental carries,187 (93.5%) patient's salivary p^h were between 4-5 indicates the lower salivary p^h was associated with higher dental carries. The remaining 9 (4.5%) were ranges between 5-6 and 4(2%) samples were below <6. We also found higher carries among male children who mostly belonged to higher income (BDT. >30000.00 per month) group families. **Conclusion**: Regular teeth brushing, avoidance of junk food, mouth wash after meal was recommended for controlling dental carries.

Abstract – 8

Title: Global DNA Methylation and sex specificity: An assessment in Jaat community

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Introduction: Many studies have shown that methylation changes occur in DNA as humans age, however, there is a lack in the studies documenting the age- related variation by sex in DNA Methylation. The present study shows the variation in DNA methylation levels in males and females with the change in age. **Objectives/Hypothesis**: To study the variation in DNA methylation level in males and females and to study the deviation/change in level of DNA Methylation with respect to age. **Methods**: Total 435 samples (Male: 136, Female: 299) of Jaat population were analysed. Blood sample(~5ml) was drawn from all the participants followed by DNA extraction and global DNA methylation. **Results:** Global DNA Methylation results shows that males are

hypermethylated and females are hypomethylated compared to males. A dip in the methylation level has been observed in the age cohort 50-55 for both the sexes. **Conclusion:** The study highlights that DNA Methylation is sex specific, Males of a certain age group show hypermethylation compared to women who show hypomethylation.

Abstract – 9

Title: A Study on Effect of Dance Among Adult Bengalee Female of North 24 Parganas, West Bengal

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Introduction: Dancing can consider as an enjoyable physical activity and helps people to maintain body shape or physique and overall health (Physically and mentally). So, regular practicing of dance may have some effects or impacts on human body. **Objectives:** This study tries to find out the differences in the aspect of Somatotyping, Fat Mass and Fat free Mass, BMI among selected female Dancers and control (Non-dancers) of North 24 Parganas, West Bengal. **Methods:** For this present cross-sectional and retrospective study, out of total 140 female participants 70 of them are dancers and 70 of them are age matched control from unrelated family between the age group 18-40 years. The dancers were receiving training minimum 5 years on different forms of dance and practice half an hour for 4 - 5 days in a week. This study has conducted on some selective areas - Gobardanga, Chandpara and Habra of North 24 parganas, West Bengal. Snowball and convenient sampling were used for dancers and judgement sampling was used for collecting data from controls. Somatotyping method used to estimate body shape and physique type in this present study. Heath -Carter method of Somatotyping, some anthropometric measurements along with socio-demographic data were used for this present study. For analysis of collected data, Somatot fat calculator and SPSS version 20 were used, $p > 0.05$ considered as significant level. **Results and Discussion:** The findings are most of the participants are continuing their graduation (51.42%) and in the same time most of them are engaged in tuition (41.42%), none of the selected participants are illiterate. Significant difference is found in case of mesomorphy, the mean mesomorphy is higher among dancers 4.45 (±1.34), the mean WHR is higher among controls 0.81(±0.07). A little high amount of fat mass found among controls 16.9(±3.16) than dancers 16.70(±2.56), and fat free mass is higher in case of dancers 40.52(±6.05) than controls 39.5(±7.27). However, no significant difference found in case of Fat and Fat-free mass. Most of the controls are Mesomorphic-Endomorph and highest frequency of dancers found to be as Endomorphic-Mesomorph. Among the selected participants the dancers mean BMI value is 23.81(±4.03), and the mean BMI value of controls are 24.13(±4.19). **Conclusion:** The present study suggests that the dancers are more muscular and in case of WHR dancers have less waist circumference and

WHR than another control group. Those who are practicing dance have a less amount of fat which is good for their overall health.

Abstract – 10

Double Burden of Malnutrition in form of Undernutrition among children - Overweight/Obesity among mothers within Households in India: A Systematic Review

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BACKGROUND: At present, the double burden of malnutrition in mother-child pairs within households is an emerging issue, specifically in developing and underdeveloped countries.
OBJECTIVES: This study attempts to do a systematic review of literature on the prevalence of the double burden of malnutrition (Mother-child pairs) and its associated factors in Indian households. **MATERIALS & METHODS:** 398 articles were identified, and 389 articles were excluded for not fulfilling the inclusion criteria. Therefore, the present study reviews a total of 9 papers indicating the household level (mother-child pair) double burden of malnutrition in India between the years 2008 and 2021 from the electronic database, like PubMed, Google search, Google scholar, and different e-newspaper related to this topic. In addition, the PRISMA flow chart has been considered in the systematic review process. **RESULTS:** The coexistence of the child underweight and mother overweight in the same household present in India. Studies also mention that the mother's age, educational status, wealth status of the household, place of residence, size of the baby at the time of birth has an essential correlation with the double burden of malnutrition among mother-child pairs in India. The DBM had a higher probability among mother-child pairs, which belonged to wealthy households than poor households. It also shows that children with low birth weight, maternal short stature, and mothers who have negligence of breastfeeding practice are more likely to suffer from DBM among mother-child pairs. **CONCLUSION:** It requires the Awareness of the coexistence of malnutrition status among the population, nutrition education, and lifestyle modification that reduced the problem.

Abstract – 11

Age at Menopause and digit Ratios (2D:4D): Possibility of an Economizing Biomarker

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It remains uncertain whether age at menarche is associated with age at menopause, however, some studies suggested association of early menarche and early menopause. In contrast, other studies also reported inverse relationship of age at menarche and menopause and no association as well. The duration of the reproductive period may be an indicator of the

cumulative endogenous exposure to estrogens and progestogens during life course and is associated with risk of breast cancer and endometrial cancer. Moreover, study suggests that age at menarche is a strong indicator for the duration of women's reproductive period. On the other hand, 2D:4D ratio used for testing different traits related to androgenisation and estragenisation during critical periods of prenatal development and the ratio is age stable including less influenced by allometry. The underlying mechanism for the association between 2D:4D and prenatal sex hormone levels may be the action of the Homeobox genes, which control the differentiation of digits but also of the gonads, that is, testes and ovaries. In this background, the present study conducted on 187 apparently healthy ever married natural post-menopausal women (46.78 ± 1.71 Years) without nullipara from Bengalee Population, India. Lengths of the second a fourth fingers were measured following standard technique. No bilateral differences were found on digit ratio values, participants were divided into two groups as low 2D:4D ≤50th percentile and high 2D:4D ≥50th percentile. Examination on the association of digit ratio and age at menopause revealed strong association (p<0.001) with higher age at menopause and higher 2D:4D digit ratio. However, the present study did not find any association with digit ratio with socio demographic variables such as, occupation, education and parity. The findings might encourage studies of the independent role of duration of the reproductive period on the risk of breast cancer and endometrial cancer, since these cancers have been associated with exposure to estrogens and progestogens and the present study envisaged additional possible utility of 2D:4D ratio as economizing biomarker.

Abstract – 12
Association of Anthropometric and Body Adiposity Measures with Thyroid Dysfunction among the two ethnic groups of Manipur, North East India

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The present study aims to understand the association of anthropometric and body adiposity measures with Thyroid Dysfunction in two ethnic groups of Manipur, North East India. The study included 160 Meitei patients and 152Thadou-Kuki thyroid dysfunction patients undergoing treatment under medical specialists. Anthropometric data and related adiposity measures were collected along with the medical data. Hypothyroid represents 70.83% and hyperthyroid 29.17% of the total samples included in the study. The incidence of hypothyroid and hyperthyroid, irrespective of ethnic groups, is higher among females (87.49%) than males (12.49%). Hypothyroid individuals are significantly heavier and have higher adiposity measures than hyperthyroid, which is more significantly observed among the ThadouKuki. Significantly higher waist circumference (WC) and weight to height ratio (WHtR) among the hypothyroid

patients put the notion of adiposity deposition, apart from just water retention. Ethnic variation in the association reflects socio-economic intervention in the management of thyroid problems. In conclusion, proper dietary intake or supplements in the course of thyroid dysfunction treatment is important as it can complicate the thyroid dysfunction patients with other associated comorbidities.

Abstract – 13

Title: Being a mother: An ethnographic study on parents of the autistic child especially mothers.

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Introduction: Anthropologists have worked relentlessly to know how people perceive the world around them and adapt to every challenge imposed on them being a member of human society. (Elinor Ochs and Olga Solomon 2004, 2010; Gil Eyal 2010, 2011; Roy Grinker 2007) . Throughout their life, people gather information from relatives, teachers, and other people around them. Anthropologists target a holistic study about the whole mentioned process sinking deep into their lives through ethnography. (Miller 1982; Health 1983; Lareau 1989; Moffat 1989; Kalmar 2000; Gundaker 2007). Autism has become a widely discussed topic nowadays as it is affecting around 1 in 160 children in the world (WHO 2021). Parents mostly mothers face several consequences while taking care of their autistic children. Ethnographic studies can conveniently show a wide scenario of their life (Goffman 1961; Merleau-Ponty 1962,1973; Hacking1999). **Objectives:** This ethnographic study examined how the parents of children with autism become socialized with the world – what practice they adopt to deal with the behavior of their child and the behavior of the people around them? What was the impact of the diagnosis on them? How do parents learn to live with and support their children with the help of educators, teachers and interventions? **Methodology:** Interviews and group discussions were done among ten mothers while five respondents were educators. To understand the underlying background of the interaction, the data were divided into four themes. **1.** The initial reaction and feeling after knowing about the problem of their child. **2.** The decision making about intervention method. 3. Changes in lifestyle while growing with the child. 4. Dealing with an autistic child in a different environment(i) Family(ii) School (iii)Society **Results and Discussion:** A range of contrasting views was observed under every theme. Most of the parents were shocked to know for the first time that their child is having autism, whereas few of them took it sportingly and decided to take the challenge. The "Trial and error" method regarding the intervention method resulted in a delay in the selection of a proper intervention method. To take care of their child parents had to do a lot of adjustments in their day-to-day life from quitting jobs to researching through the internet and books about autism. Parents deal with experiences with their child in different setups like home, school and social gathering either skillfully or with frustration. **Conclusion:** This study provided useful insights into the parents

especially the mothers' life experiences of raising and caring for a child with childhood autism in Kolkata. Several consequences like a social and financial burden, family problems, social problems were highlighted in the current study.

Abstract – 14

Title: Cultural Aspects and Health Seeking Behaviour of Paniya Tribes

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The concept of health, illness and treatment of tribes are entirely different from that of main stream people. Physical health is a very important measure of tribal people for their existence. Scientific bio-medical definitions of health and illness are not valid for tribes. Conceptualization of health, culture, social ecology, availability of health care services is some important measures of tribal health. Elder members of community believe that the cause of ill health is evil spirit or hatred of God. Some diseases are treated as blessings of particular Gods. Paniya tribe are considered as original inhabitance of Kerala. Mostly seen in northern districts of Kerala. Wayanad, Kannur, Kozhikode and Malappuram. Analyzing about their health condition, Tuberculosis (TB) is very much prevalent among them. Alcoholism and tobacco chewing are very prevalent among Paniya community. This led to cancers of various types. So, in this context this paper intends to investigate the cultural aspects and health seeking behavior of Paniya tribes in Wayanad district, Kerala.

Abstract – 15

Title: Prevalence and risk factors of stunting among under-five children from 1990-2020: A systematic review and meta-analysis

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Background: Stunting of under-five children have become worldwide epidemics, especially in developing countries. Comprehensive up-to-date information on levels and extent of undernutrition of under-five children is called for at this stage so that decision-makers can prioritize their actions and act accordingly. Prevalence rates of stunting vary across countries and regions in the world, which may be attributed to climatic, ethnic and temporal characteristics. **Objective:** This paper aimed to determine the prevalence and risk factors of stunting among under-five children through systematic review and meta-analysis. **Methods**: Non-repetitive papers had been collected using search engine PubMed, Endnote, Elsevier, Eric,

MEDLINE, Cochrane Library and EMBASE. A total number of 623 English papers were found by Endnote software and 24 papers were reviewed using PubMed. In this study, Q, I^2 statistics and Forest plot have been used. The key terms like child, stunting, wasting etc. were used to search for published papers during 1990-2020 on undernutrition of under-five children. **Results:** The prevalence of stunting among under-five children in the published literatures varied considerably from 9.7% to 65.5%. The pooled risk ratios ranged effect size from 20.00 to 41.73 for stunting of under-five children in world wide. This study revealed that no formal education of mother was the most important predicator for stunting of children. **Conclusions:** This study suggests that mother education should be increased for reducing the prevalence of stunting among under-five children in world wide.

Abstract – 16
Title: Influencing factors of multi-drug resistant tuberculosis patient's satisfaction: A hospital-based study in Bangladesh

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Background: Realizing the patients' need and improving the quality of services, a satisfaction survey can effectively help management and the patient. As multi-drug resistant tuberculosis patients were staying in chest disease hospital for a long time, family member's visit, other co-morbid condition, anti-TB drugs toxicity and behavior related factors such as smoking can contribute to patient's satisfaction. **Objective:** The aim of this study was to detect the influencing factors of satisfaction, dissatisfaction and emotional deviation while on treatment of multi-drug resistant tuberculosis (MDR-TB) patients in a tertiary level hospital in Bangladesh. **Methods:** A cross-sectional study conducted at Chest Disease Hospital (CDH), Rajshahi among 199 MDR-TB patients using two stage stratified random sampling technique. The CDH is a regional level government hospital where on an average 15-30 MDR-TB patients were available in each visit schedule and the study was started on April 2014 and ended on September 2017. As each patient was stayed at least four months' time period to cover intensive phase of treatment, the visit schedule was following same time interval. The entire treatment process was fully free including food. In addition, BDT. 1000.0 per month was given to patient as food choice. The health care providers were following roster duties. However, before data collection, approval was taken from ministry of health and family welfare and local management. A semi-structured questionnaire was used to collect basic, socio-demographic, behavioral and satisfaction specific data with ensuring no any risk for providing right information. Five point "Likert Scale" was used to measure satisfaction level. The relevant data were carefully coded and recoded for independent samples t-test and multinomial logistic regression analysis to see the difference and association of influencing factors of satisfaction. **Results:** In this study, 65.8%, 80.4% and 85.4% was male, married and Muslim respectively. The mean age of MDR-TB patient was 39.8 years with range from 16 years to 62 years. In this study, 90% patients were

satisfied with behavior of care providers. Around 50% and 29% patients were satisfied with hospital environment and supplied food respectively. We also found that old age group, male, smoker, business or service holder was significantly more satisfied than their counterparts (p<0.05). In addition, less educated, diabetic, Muslim, married, high income and less expenditure group also more satisfied than their counterparts (p>0.05). The multinomial logistic regression analysis showed that young age group (≤40 years) was five times more dissatisfied than adult or old age group (≥40 years) (OR=5.345, 95% C.I: 1.123-25.448; p<0.05). Receiving monthly money from the program positively impacted on satisfaction. Similarly, drug toxicity, length of stay and loneliness was negatively impacted on satisfaction. **Conclusion**: Considering the mentioned influencing factors can strengthen the national tuberculosis control program effort at CDH, Rajshahi. Similar study in other chest disease hospitals located mostly in different divisions can also help comparing the factors for nationwide improvement.

Abstract – 17

Association of water, sanitation and house type with the nutritional status among the pre-primary school-going children living at Habra, West Bengal, India.

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Background: Around 2 billion children worldwide are reported suffering from malnutrition. Nutrient deficiency, unhygienic house-setting, inaccessibility to safe drinking water and sanitation are common problems among the children in low-income communities which are significant factors leading to undernutrition however studies show inconsistent association of these factors with nutritional status. **Aim of the study:** Keeping the view in mind, present cross-sectional study aims to find out the association of drinking water, sanitation and socio-economic factors with the nutritional status of 200 pre-primary school-going children (108 boys and 91 girls) of 3-6 years age living in 8 villages of Beraberi Gram Panchayet under Habra Block no. ll, West Bengal, India. **Materials and methods:** Height and weight were measured using the standard protocol. Socio-demographic information was recorded from the parents. 'Height for age', 'weight for age', and 'weight for height' were assessed based on the WHO technical report, 1995. Kuppuswamy's socio-economic scale updated for 2019 was used to determine the socio-economic class of the children. Statistical analyses were performed using SPSS 16.0. Children were selected after the verbal consent from the guardians and school authorities. **Results:** Descriptive statistics shows higher mean height and weight among the boys than girls but t-test revealed no significant sex difference. Chi-square test reveals statistically significant sex difference in height for age, weight for age, and weight for height based on the house type, sanitation facility and source of drinking water (p <0.01). **Conclusion:** Mild undernutrition is prevalent in the population. Association of drinking water, sanitation, and house type with the nutritional status among the children under study is evident.

Abstract – 18

Title: Prevalence and associated factors of depression among adolescents in Rajshahi district Bangladesh: a decision tree approach

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Background: Depression is the most common psychiatric disorder that appears in adolescents and it has an adverse effect on mental as well as physical health. **Objective**: The aim of this study is to determine the prevalence of depressive symptoms among adolescents of Rajshahi district, Bangladesh and subsequently identify its risk factor. **Methods**: Two-stage random sampling technique was used in this cross-sectional study to collect 400 adolescent students in Rajshahi district. Nine-item Patient Health Questionnaire (PHQ-9) was used to measure adolescent depression. Descriptive statistics and chi-square test were used to find the prevalence of depressive symptoms and its associated factors. Decision tree algorithmis used to identify the most important risk factors of adolescent depression. A value of $p<0.05$ was considered as statistically significant in the analysis. **Results and Discussion:** The prevalence of depressive symptom among adolescent was 30.7%, with a greater proportion in urban (40.70%) than rural (21.40%) areas of Rajshahi district. Multiple factors including residence, family type, BMI, migraine problem, existence chronic disease, father's occupation, parent's education and family monthly income were significantly associated with depression. Decision tree analysis suggested that adolescent migraine problem was the most important significant risk factor ($p<0.001$) for their depression. About 65% respondents who are suffering from migraine problem have reported depressive symptoms. Existence of chronic disease was the next most important factor. About 73% of respondents having migraine problem and chronic disease reported depressive symptoms. Education of father was also found to be a significant factor for depression. Prevalence of depressive symptom was 82% among respondents with migraine problem, chronic disease and literate father compared to 52% those with literate father. Depression symptom was found to be 53% among respondent having migraine problem and family history of depression compared to 10% among those not having family history of depression. Prevalence of depressive symptom was higher (72.2%) among overweight respondent. However, 37.1% of respondents having chronic disease reported depressive symptoms even normal weight. Depressive symptom was 37.8% among underweight respondent with illiterate mothers. As a whole, migraine problem, existence of chronic disease, overweight problem were most important factors for adolescent depression. In addition, family history of depression and parent's education enhance the prevalence of depressive symptoms. **Conclusion**: The prevalence of depressive symptoms was common among adolescent students of Rajshahi district. Therefore, government should consider the significant risk factors and take some initiatives like school-based counseling program, and family-based prevention strategies in order to prevent depressive disorders in young age.

Abstract – 19

Title: Study on misuse of medicine for body fitness among female sex workers in Rajshahi City, Bangladesh

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Background: Female sex workers (FSWs) are considered as a high-risk population for sexually transmitted diseases (STDs). Although, several studies investigated STD of FSWs in Bangladesh, however study on misuse of steroid among FSWs was poorly documented in this country. The aim of this study was to investigate the storied misuse and its associated factors among FSWs trading sex in Rajshahi city, Bangladesh. **Methods:** The study was designed as a cross-sectional nature among FSWs in Rajshahi city, Bangladesh. A total of 225 FSWs were recruited for this study, and they were selected using by multistage sampling. Data was collected from July'2015 to December'2016 using a standard semi structure questionnaire. Descriptive and chi-square test was used to determine the associated factors of steroid misuse and STDs among FSWs. **Results:** This study revealed that 58.7% of FSWs misused steroid, while 41.3% of them used vitamin and calcium related drugs to make an attractive body shape for receiving more clients. Rural living FSWs had more likelihood being misused steroid than urban living FSWs (AOR-2.290, 95% CI: 1.502-3.493; $p<0.001$). Ever married FSWs had more likelihood being misused steroid than unmarried FSWs (AOR-1.447, 95% CI: 1.098-1.908; $p<0.005$). Nuclear family members FSWs had more likelihood being misused steroid than joint family members FSWs (AOR-1.438, 95% CI: 1.097-1.885; $p<0.005$). Primary level of educated FSWs had more likelihood being misused steroid than no educated and secondary and above level educated FSWs (AOR-1.821, 95% CI: 1.232-2.691; $p<0.005$). **Conclusion:** This study reveals that a large number of FSWs were misused steroid. Our findings recommend that the government and non-government health sectors should work to create awareness on misuse of steroid among female sex workers in Bangladesh.

Abstract – 20

Title: Socio economic impact of COVID-19 among the general people in Bangladesh: A cross-sectional study in Rajshahi district

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Background: The COVID-19 pandemic has twisted the world of work upside down. It is having a theatrical effect on the jobs, livelihoods and well-being of workers and their families and on enterprises across the globe, particularly the small and medium sized. **Objectives:** The aim of the study was to measure the socioeconomic impact of COVID-19 pandemic on the general people in Rajshahi district, Bangladesh. **Methodology:** This cross-sectional study was conducted from August 10 to October 25, 2020. Data were collected with a semi-structured questionnaire from 391 adult respondents selected by using a mixed sampling technique. Frequency analysis, chi-square test, and logistic regression model were utilized in this study. SPSS (IBM, Version 22) was used for data analysis. 95% confidence interval and p-value=0.05 were accepted for statistical significance.   **Results:** Only 16.6% of the respondents' purchasing power had increased during pandemic period. Only 9.2% female subjects' purchasing power increased during pandemic period. Near about 6.5% and 6.8% higher level of educated and rural subjects' purchasing power increased in this reporting period respectively. Urban subjects had more likely of being increased purchasing power than the respondents of rural subjects (AOR=7.846, 95% CI: 4.170-14.763; p<0.001). The respondents with monthly family income of ≤16,000 BDT showed less chance of having increased purchasing power during COVID-19 than the subjects with monthly family income of ≥16,001 BDT (AOR=0.355, 95% CI: 0.192-0.655; p<0.001). **Conclusions:** In this study it was revealed that   a very few numbers of subjects had increased purchasing power during pandemic period in Bangladesh. The government of Bangladesh, policy makers and donor agencies should consider the findings and take immediate steps for improving purchasing power.

Abstract – 21

Title: Menstrual health among adolescent girls of Delhi
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Background: Present work is a cross-sectional study designed to understand the menstrual-health status of school going adolescent girls, as adolescence marks an important physiological event of menstruation. **Methodology**: Two schools in the New Delhi region of India were approached for data collection, wherein multistage stratified sampling was used. Age range of 10 to 18 years girls were asked to fill the standardized proforma in this respect. Those who volunteered for the study, as permitted by their parents, were allowed to enroll in the study. The study was conducted among 492 adolescent girls, out of whom 295 were included in this

study, corresponding to a response rate of 60%. **Results**: Age of attainment of menarche ranged from 10-15 years with mean age of menarche as 12.23 ± 0.96 years among the participants. As per the respondents, number of days for which periods lasted on an average- in the beginning and at the time of inquiry were 5.6 and 5.4 days, respectively; while the number of days after which it reappeared on an average in the two-time frames were 30.5 and 30.2 days, respectively. 67.5% girls had regular menstrual cycle 'in beginning' while 78.5% had that nature in flow 'by their last cycle'. 29.2% girls had blood flow for 5 days in the beginning whereas 38.0% had the flow for the same duration at the time of survey. Also, 34.2% and 34.6% participants menstruated for 6 days, at menarche and at the point in time when asked about it, respectively. 74.4% and 80.2% girls had periodicity of 28 to 31 days in the beginning and then when inquired, correspondingly. Common distressful events experienced during menstruation included physical pain and cramps, sporadic menses and overflow, and mood swings and emotional upheaval; upon that very few girls sought healthcare facilities. **Conclusion**: Knowledge gaps and misconceptions about menstruation leaves the young girls unprepared on coming in terms with menarche and navigating the challenges associated with its management; leaving them in angst. Thereby menstrual discomfort leads to higher dropout rates from school, withdrawal from social settings and disrupting routines.

Abstract – 22

Title: **Knowledge on home remedies self-treatment behavior in the self-care and practices among diabetic patients: a cross sectional study**

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Background: The term diabetes describes a group of metabolic disorders characterized and identified by the presence of hyperglycemia in the absence of treatment. The heterogeneous aetio-pathology includes defects in insulin secretion, insulin action, or both, and disturbances of carbohydrate, fat and protein metabolism. The global prevalence of diabetes is 8.8%, and is expected to increase every decades especially contributed by increasing prevalence from low and middle income countries. Nepal reports prevalence of diabetes above 8% from studies done at communities' level by different medical schools. **Objective:** The aim of the study was to survey knowledge on home remedies self-treatment behavior self-care among diabetic patients in Nepal. **Methods:** A cross sectional study was conducted over a period of 6 months from October 2019 to February 2020inJhorahatt PHC area, Morang Nepal. One thirty-four (134) known diabetic(diagnosed) cases were selected for the study. Data was collected by predesigned and pretested questionnaire about knowledge of self care and it practices. The data was analysis by frequency distribution and Chi –square test. **Results**: The present study comprised of 76 (56.71%) male and 58 (43.28%) females. In the study 104 (77.61%) people informed self-care decreases complications of diabetes. Among 134, 86(64.17%) went for

regular blood checkups, 34 (39.53%) checked their FBS, 14 (16.27%) PPBS, 32 (37.53%) both and only 6 (6.97%) checked their FBS+HbA$_1$. For blood sugar control, 124 (94.02 %) patients took medication and of them 14 (11.29%) were on insulin treatment. Among 104 people who informed self-care decrease complication only 88 (84%) people knew about home remedies self-care treatment but among them only 38 (43%) people had practice home remedies treatment. Twenty-three subjects had good knowledge on diabetes, of them 5 (20.00%) had average knowledge on self-care, 4 (28.57%) had good and 3 (8.19%) had poor knowledge on self – care. However, an association between level of knowledge on diabetes and level of knowledge on self-care was found to be statistically significant (χ^2 =22.321, p<0.01) **Conclusion:** This study showed that two third of patients had knowledge of self-care treatment, and among them 84% had knowledge of home remedies and only less than half had practice home remedies. Health authorities of Nepal should take special care of diabetic patients.

Abstract – 23

Title: Prevalence and Determinants of pre-hypertension and hypertension among married women in Bangladesh

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Background: Hypertension is one of the most important risk factors for cardiovascular disease. Detection of hypertension in right time, proper treatment and medication use may reduce the risk of some chronic disease such as heart disease, stroke. **Objective:** The purpose of the study was to detect the determinants of pre-hypertension and hypertension among married women aged 35 to 49 years in Bangladesh. **Methods:** Secondary data was used in this study which extracted from BDHS 2017-18 dataset. BDHS 2017-18 collected information regarding pre-hypertension and hypertension from Bangladeshi ever married women by using two-stage stratified sampling. Descriptive statistics, Chi-square test and multinomial logistic regression analysis were used in this study. A total of 2979 ever married women were included in the study. **Results and Discussion:** It was found that the prevalence of pre-hypertension and hypertension were 24.4% and 15.4% among Bangladeshi women aged 35 to 49 years respectively. The χ^2-test exhibited that having television, age, educational level, marital status, told by a doctor to have high blood pressure, taking prescribed medicine to lower blood pressure, body mass index (BMI), arm circumference, division and wealth index were significantly (p<0.05) associated with hypertension. Multinomial logistic regression model demonstrated that women living Khulna [p<0.05] and Rajshahi [p<0.05] division were more likely to get pre-hypertension than the women living in Dhaka. Widow women were more likely to get pre-hypertension than married women [p<0.05]. Underweight women were less likely to get pre-hypertension than normal weight women [p<0.05]. On the contrary, overweight [p<0.05] and obese [p<0.05] women were more likely to get pre-hypertension than the normal weight women. Poor women were less likely to get per-hypertension than the rich women

[p<0.05]. The model also demonstrated that women living Barisal [p<0.05], Khulna [p<0.05], Rajshahi [p<0.05] and Rangpur [p<0.05] division were more likely to get hypertension than the women living in Dhaka. Widow women was more likely to get hypertension than married women [p<0.05]. Underweight women were less likely to get hypertension than normal weight women [p<0.05]. On the contrary, overweight [p<0.05] and obese [p<0.05] women were more likely to get hypertension than the normal weight women. Women with poor [p<0.05] and medium [p<0.05] wealth index were less likely to get hypertension than rich women. Women whose education level was primary [p<0.05] and secondary [p<0.05] were more likely to get hypertension than women with higher education. Women who were taking prescribed medicine to lower blood pressure were more likely to get hypertension than their counterpart [p<0.05]. **Conclusion**: In this study, some modifiable and non-modifiable factors were found as predictors of hypertension among married women in Bangladesh aged 35-49 years. These factors might be considered to reduce the number of pre-hypertension and hypertension patients in Bangladesh.

Abstract – 24

Title: The impact of COVID-19 and its affected people's World View of disease

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I am going to focus and describe four anthropological principles that inform the current COVID-19 pandemic and underlie the discipline of public health more broadly. In my paper I am going to focus how the COVID-19 pandemic was emerged and entered into Indian subcontinent due to its infectious and pandemic nature, how the people had been suffered and lost their lives. Further, my paper also illustrates further how it was perceived or felt by the inhabitants of Indian origin rather what kind of problems or symptoms they have experienced and how they had lacked several medical/health care services in order to overcome the pandemic effect of COVID-19.Based on my observation, my paper further analyses how a biased opinion of the people added fire to the fuel in accelerating the process of infection among the public, therefore due to lack of available health care resources and medical facilities, the public have faced confusion and fear after infection of COVID-19 and how it affected their entire life and family members. Using anthropological techniques and observations attempts were made to collect certain information about the entire study. Further, what is the role of the health care providers and health care services had been supplied to the patients who were after its check, declared as positive. The global COVID 19 pandemic has caused a national disaster in the United States as the whole world. India was also affected to it in unprecedented in recent history in magnitude and societal complexity. Despite the availability of extensive resources and renowned agencies devoted to preparedness, protection, and public health, the U.S. response has resulted in remarkably high rates of infection and death in comparison with many other nations, and to severe social and economic disruption. Responses to the pandemic have been enmeshed with political debates and alliances, interagency conflict, and public challenges to science, authority, and legitimacy. Many policies are in question, and much uncertainty

remains. In this paper, I am going to focus and describe four anthropological principles that inform the current COVID-19 pandemic and underlie the discipline of public health more broadly. The Chinese President has explained his references to China as a geographic matter of fact: the first cases arose in the Chinese city of Wuhan. In defense of the President, some political commentators have also cited the fact that censorship by Beijing hampered the country's response to COVID-19 (Chiu, 2020). The President and others have argued that in pinpointing China as the source of the infection, they are holding that country's leaders accountable to its people, and at the same time, combating a disinformation campaign meant to cast the US military as the cause behind the pandemic (Myers, 2020). In my paper I am going to focus how the COVID-19 pandemic was emerged and entered into Indian subcontinent due to its infectious and pandemic nature, how the people had been suffered and lost their lives. Further, my paper also illustrates further how it was perceived or felt by the inhabitants of Indian origin rather what kind of problems or symptoms they have experienced and how they had lacked several medical/health care services in order to overcome the pandemic effect of COVID-19.Based on my observation, my paper further analyses how a biased opinion of the people added fire to the fuel in accelerating the process of infection among the public, therefore due to lack of available health care resources and medical facilities, the public have faced confusion and fear after infection of COVID-19 and how it affected their entire life and family members. Using anthropological techniques and observations attempts were made to collect certain information about the entire study. Further, what is the role of the health care providers and health care services had been supplied to the patients who were after its check, declared as positive. It is very important to study in the case of migrating labouring communities and wage workers How they have been affected and suffered a lot due to their migration from their travel places metropolitan cities to their homes in various parts of villages. Related available information have been collected from them. Here as we define "anthropology" broadly, not requiring that contributors have official training or degrees in the discipline, but that they attend to the perspectives of others, recognize variations in forms of societal organization, and bring understanding of how diverse perspectives and forms of organization of one's own and other populations' deeply affect human life and interaction. Anthropology is a discipline that examines the organization of societies, their political and economic institutions and processes, their industry and labor, their system of laws and justice, their system of health care, and their cultures. A culture includes values on which people base their judgments and decisions, their prescriptions and proscriptions for behavior, their beliefs about the world, including ideas about sickness, its causes, its remedies, and the appropriate behavior of patients and healers, including physicians. Anthropology also examines interactions among societies and cultures whose understandings of and prescriptions for sickness often differ. In addition to being an academic discipline, anthropology is also a practice insofar as scholar/practitioners deploy their discipline in the solution of societal and global problems, including problems in public health.

Abstract-25

Aspects of Water in Culture and Health Issues: An Ethnographic study on some villages of Barasat, West Bengal, India

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Water is one of the most precious resources not only for human being but also for all other living beings. In Bengali it is said "*Joleropor naam jeebon*" ("জলেরঅপরনামজীবন"), i.e. "The other name of water is life". Thus, one of the missions of Department of Drinking Water and Sanitation of Government of India is "Jal Jeevan Mission" which envisage to provide safe and adequate drinking water to all households in rural India by 2024.Human body contains 70% of water. Water and health are related to each other deeply that can be traced out from different religious scriptures where water is described as the most sacred gift of God. In Hinduism and Islam, cleanliness of the body is prescribed before performing any ritual. The author is carrying out an intensive survey in some villages within the district of North 24 Parganas, West Bengal, India. Data collection is almost complete for Ahira and Berunanpukhuria villages which consist of mainly Bengali Hindus and Muslims. Except these two religions, there are some tribal populations (Oraon), who follow their own religious practices. The people in the villages traditionally follow some rituals related with water and also use water as medicine to treat certain kinds of diseases such as fever, joint pain, cough etc. The phenomena, observed, are believed to be similar in other regions in India, though it is not the intention of the author to generalize these. It is narrated in the paper how the villagers use water (warm water and cold water) as health precaution. The religious practices related to water have been evolved in course of time to adjust with the changing scenarios. The main issue is water pollution. Barasat is known to have spots where arsenic contaminations in water have been found but the effect of arsenic in human health is not clearly visible in the studied villages. But a visible skin disease is seen because of the pond water contamination such as itching, rashes etc. Still the villagers use the same water as because there are no alternatives to them. The study reveals that over the time because of the sake of health of the villagers the religious leaders make some changes in the traditional water related practices such as not drinking and frequently bathing in Ganga water. The required data collected through Participant Observation method with Structured and Unstructured Interview technique and the Purposive Sampling used to collect data from Hindu and Muslim population of the villages. Except this some data also taken from secondary sources such as books, articles etc.

Abstract – 26

Indigenous Healers, Healthcare and Modern Medicines in life of the Tribal People of Duddhi Region in Uttar Pradesh: Exploring Health, Disease and Development in pandemic Covid-19 scenario

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The present research paper explores the health, disease and development in pandemic Covid-19 scenario experienced by the people of Duddhi region of Uttar Pradesh. The research article traces the role of indigenous healers, healthcare and modern medicines for the people in the Covid -19 scenario in Duddhi region of Uttar Pradesh. The challenges faced by the people and the frontline health professionals in the Covid-19 pandemic and its impact on the life of the people is also tried to understand by this study with special reference to the study of interface of indigenous and modern medicines on the health status of the tribal people of Duddhi region in Uttar Pradesh. This research article is based on both primary and secondary sources of data. Fieldwork was conducted for the study, observations from the field with in-depth interview of various stakeholders is taken as primary source of data in analyzing the health, disease and development of the tribal people of Duddhi region in particular and non-tribal people in general. This research paper also throws some light on various health problems and diseases including Covid-19 and its influence in daily life of the tribal people as well as non-tribal people of Duddhi region in Uttar Pradesh and the way people faced the pandemic and their future strategies on issues of health and disease and the way forward.

Abstract – 27

Title: Factors associated with duration of breastfeeding in Bangladesh: evidence from Bangladesh demographic and health survey 2017-2018

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Background: Breastfeeding for optimum duration is one of the most effective ways to reduce infant morbidity and mortality and confirms expected growth and development of children. The objective of this study was to determine the effect of socio-demographic and anthropometric determinants on duration of breastfeeding (DB) among mothers in Bangladesh. **Methods:** The data was extracted from the Bangladesh Demographic and Health Survey (BDHS)-2017-2018. A total of 3541 married non–pregnant and currently non-breastfeeding Bangladeshi mothers in reproductive age who had at least one child aged 0–36 months were included in this study. Independent sample t-test and one-way analysis of variance (ANOVA) were used to find the

significance difference in DB between two and more than two groups respectively. Multiple linear regression model was utilized to determine the effect of socio-economic, demographic, anthropometric and health related variables on DB. **Results:** This study revealed that the mean and median of DB among Bangladeshi mothers were 15.05 and 15.00 months respectively. Independent sample t-test and ANOVA showed that DB among Bangladeshi mothers was significantly influenced by (a) ANC visits, (b) religion, (c) mothers' occupation and (d) geographical location. Multiple regression analysis demonstrated that mothers' age at first birth, ANC visits, mothers' occupation, geographical location, religion and body mass index were important predictors of DB. **Conclusions:** Health policy and decision makers can take into account current findings to make plan for counseling of mothers and family members to boost optimum DB practice in first 2 years of baby's life.

Abstract – 28

Family history of type 2 diabetes mellitus and maternal gestational anthropometric changes: A longitudinal study among an Asian Indian obstetric population living in and around Kolkata, West Bengal, India

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Background: Rapid gain in weight and body mass index (BMI) are the two most convenient factors contributing to the development of type 2 diabetes mellitus (T2DM) but little has been written about the possibility that excessive gestational weight (GWG) and BMI gain (GBMIG) may be independent predictors of T2DM development in postnatal life. Because of the familial nature of T2DM, individuals with a positive family history (FH) of T2DM are expected to be susceptible to obesity traits which leads to greater weight gain than those without a positive FH of T2DM. **Aim of the study:** Based on the fact, present study aims to find out the association of maternal anthropometric changes during pregnancy with the FH of T2DM among 218 Asian-Indian obstetric women living in and around Kolkata, West Bengal, India. **Materials and methods:** The present investigation is a part of a longitudinal study conducted among the women with singleton pregnancy and of ≥20 years who started their antenatal medical consultation on or before 4th week of pregnancy at two multi-specialty nursing homes at Kolkata. Written informed consent was obtained from each participant included in the study. Height and weight at each trimester were measured following standard protocol. In addition, FH of chronic diseases were also recorded. The population was divided into three groups based on the FH of T2DM; 'no FH', 'either parents', and 'both parents'. Multivariate analysis of covariance was performed to find out the association of FH of T2DM maternal trimester-specific weight and BMI as well as GWG and GMIG. Maternal age, parity and gravidity were considered as covariates. **Results:** The age of the participants is 28.97±4.719 years and monthly family income is 69144.495±130406.537 INR. 75.22% participants have completed their college education and 26.60% have salaried job. According to the Kuppuswamy's socioeconomic scale,

39% participants belong to upper-middle class, 26.1% and 31.2% participants belong to lower-middle and upper-lower class, respectively. There was a statistically significant association of maternal weight and BMI of each trimester but the association was not significant in GWG and GBMIG (p<0.05). **Conclusion:** Positive FH of T2DM can be considered as one of the factors influencing the attainment of weight and BMI throughout the pregnancy although more extensive research is needed to understand its association with the gestational anthropometric changes.

Abstract – 29

SEXUAL HEALTH AMONG THE MSM OF INDIA: EXPLORING PRACTICE AND PERCEPTION

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In India, male sexual practice (also with same sex) related to health gained the positive stance of academy and activism since before the first reported case of HIV in 1986. Sexual practices among the men who have sex with men (MSM) has been studied after the report of National AIDs Control Organization (NACO) that revealed the prevalence of HIV infection among MSM was rapidly increasing. Since then, in India MSM are one of the vulnerable and targeted population. They bear an erratic pressure of sexually transmitted infections (STIs), including HIV/AIDs. The research has tried to understand the perception and practices regarding HIV risk prevention among the local MSM categories and the connection between sexual behaviors to HIV risks to understand sexual health. This research has been carried out in two states of India, i.e. West Bengal and Uttar Pradesh. It has used ethnography and employed descriptive statistics along with chi square method for supporting qualitative data. Snowball technique seems very useful in this regard. Data revealed MSM are at risk position for the transmission of STI/ HIV. The choice regarding the usage of condoms is influenced by cultural and social norms, social networks, and gender roles. Maintaining multiple sexual partners is common practices among men who have sex with men remain dangerous while they engaging in casual sex without using condoms consistently. To improve the health of individuals' policies and interventions should therefore remain a priority that promote regular testing, condom use, and safer sex behavior and practice among MSM who are at risk of infection. Government and non-Government intervention should be needed in priority basis for the upliftment of public health.

Abstract – 30

Socio-economic status, iron deficiency Anaemia and COVID-19 disease burden – an appraisal

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COVID-19 is a novel infectious disease, declared as pandemics, caused by severe acute respiratory syndrome-2 (SARS-CoV-2). It is a severe, complex, and multifactorial disease, driven by a combination of genetic and exogenous (epigenetic) factors and possesses varying degrees of susceptibility and lethality worldwide. Interestingly it is globally observed that, countries (United States, Canada, Europe, Australia) with higher Socio-economic status (SES) have considerably lower prevalence of Iron Deficiency Anaemia (IDA) but higher Case Fatality Rate (CFR) rate due to COVID-19 while, low SES countries for example Africa (poorest continent of the planet) and India is characterized by the higher prevalence of IDA, are less affected to COVID-19 infection and found to have less CFR, which is almost half to that of the higher SES counterpart. **Aim:** In this background, the aim of this present discourse is to provide a complementary overview of possible explanation of low iron stores and mild anaemia offers protection from infectious diseases like COVID-19 by restricting the viral replication and also to suggest some potential adjuvant therapeutic interventions. **Material and methods**: Therefore, we performed a literature search reviewing pertinent articles and documents. PubMed, Google Scholar, Chemrxiv, MedRxiv, BioRxiv, Preprints and ResearchGate were investigated using the following headings and keywords, linked to the words COVID-19 or Sars-CoV-2: hemoglobin, heme, erythrocyte, hematopoiesis, erythroblast, hemolysis, hypoxia, hypoxemia, iron, hepcidin, ferroportin, ferritin, ferroptosis, hemochromatosis, iron chelation, translational medicine, oxidative stress, drugs, nutrition, food supplements, CD147, CD26, thromboembolism. **Analysis of the literature:** Although there is fewer information about anaemia or iron regulations in SARS-CoV-2 patients, some evidences could be observed based on previous viral infections such as SARS, MARS, HIV-1. Studies reported that, iron is crucial for both the host and the pathogen. Many Viruses, most likely including HCoVs rely on iron for their protein synthesis and genome replication in host cells. Virus also use intracellular iron for their propagation alongside of heme iron. Furthermore, studies reported many viruses including SARS-CoV-2 disrupts iron homeostasis (induced by hemolysis) and increases the intercellular iron load, leads to the faster viral replication and ultimately the severity of the disease. Increased iron storage in Macrophages also facilitates its replication which are presumed to be infected by SARS-CoV-2. Thus, it is likely that SARS-CoV-2 requires iron for viral replication and for its functions. **Conclusion:** Present review presumed that, low iron stores and mild anaemia may play a beneficial role in some cases by offering protection from infectious diseases as low iron restricts the viral replication. Thus, suggested iron chelation or iron sequestration as an alternative beneficial adjuvant in treating COVID-19 infection.

Abstract – 31

A Study on Hair Trace Element in Human: A Review

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Background: Hair incorporates a unique potential to reveal retrospective information about the nutritional status and exposure of the individuals. Trace elements are incorporated into the hair during the expansion process and reflect the composition of trace elements in plasma at the time of formation. Hair as a biological material is exclusive and in Anthropology, it provides an insight for better identifying the hair histological variations within and between populations also as the genetic basis of hair traits. The determination of trace elements in human hair has also provide an understanding that the content of chemical elements in hair reflects not only the effect of diet, age, sex, race but also the growing effects of individuals socio-economic conditions, the content of chemical elements in drinking water, geographical location and environmental pollution. Nowadays, clinical research indicates that levels of certain trace elements in hair are highly correlated with pathological disorders. It is very important in biological, medical, environmental, and forensic disciplines because it represents a stimulating biological matrix for various studies. **Objective:** To conduct a critical review to achieve comparative status of presence and effects of trace elements over human hair. **Methodology:** This present attempt is a review paper that shows a summarization of the effects of trace elements over human hair that will help us to incorporate the hair histological variations within and between populations also as the genetic basis of hair traits and also its correlation with pathological disorders. To achieve the purpose the search has been done through all possible online resources like – PubMed, Google Scholar etc. **Discussion:** This present attempt provides insight to identify the usefulness of measurements of trace elements in hair associations of various factors which influence results, and experimental work where comparative systemic and hair trace element concentrations have been determined. Factors like the age and sex of the individual, the location of growth and therefore the colour of hair are all related to variations within the concentrations of trace elements in hair. Together with shampoos, dyes and other hair treatments, water supplies can also affect concentrations. The trend for greater concentrations of trace elements in the hair of women may simply reflect the higher inorganic content of such samples. **Conclusion:** Hair analysis provides an opportunity to define abnormal intake of trace elements, to select the influence of a single element or several trace elements and to evaluate the level of geochemical stress on populations and also hair element analysis is useful in screening tests for the biomarkers of various cancer diseases as well as several other metabolic disorders in female populations. This concern should be addressed in future human studies.

Abstract -32

An Observation in Respect of Misdiagnosed Cases of FCPD among Indian Population: A Brief Review

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Introduction: Fibro Calculous Pancreatic Diabetes (FCPD) and Diabetes Mellitus (T2DM) are the most commonly seen pathological conditions which can lead to severe life-threatening state and at the same time neglected widely until it leads to a condition between life and death. Due to the complex similarity of FCPD & T2DM, the exact aetiology, prevalence, epidemiology and diagnosis of the pancreatogenic diabetes or FCPD is not clearly understood. **Objectives:** To find out the factors responsible for Pancreatogenic Diabetes and whether it requires early screening with a distinct treatment. **Methodology:** Published research works of Fibro calculous Pancreatic Diabetes based on Indian population have been chosen for reviewing of this present study. All the published articles and additional information have been taken from Acamedia.edu, Research Gate and Pub Med. **RESULT AND DISCUSSION:** Calcification and presence of calculi in the pancreatic duct are common and frequently associated with the Chronic pancreatitis due to alcohol consumption but there is no specifically clear background which can be responsible for showing non-alcoholic tropical calcific pancreatitis, hence no considerable aetiology of FCPD has been found yet .The variation of microbial dysbiosis to the relation with variously shaped physiological and pathological factors of those gut microbial and significant difference in the species level taxa was found in patients having FCPD and calcification in their pancreas. Study among microorganism from a research paper showed a unique gut bacterial signature which was not similar to Type-2 diabetic patients. **CONCLUSION:** Beside the genetic & environmental factors, Diet & life style plays a vital role in determining the severity of non-communicable diseases like diabetes and pancreatitis. From the current reviewed study, it can be concluded that in Indian population patients with FCPD have calcification in the pancreas and all have mild to moderate abdominal pain, sometimes leading to a severe condition which is dependent on the quantity of accumulated calculi. Although, no permanent cure has been found but both of the conditions have some distinct pathogenesis and thus FCPD seeks different medication for the treatment. Proper screening, investigation and clinical interventions should be done among the lean patients with recurrent abdominal pain and as well as among the patients with already having T2DM, so that the onset of FCPD can be prevented and treated well.

Abstract -33

Title: Mode of birth and academic performance among primary school students in Rajshahi district, Bangladesh

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Introduction: The cesarean delivery rate has increased globally in the past few decades. In Bangladesh the rate is very high and in recent time it has been increased by 51 percent. There has always been an asking question with physicians and health staff whether mode of delivery have effect on child intelligence. The objective of this study is to investigate the real situation of students' intelligence and health condition related to mode of birth in Rajshahi district, Bangladesh. **Methodology:** A total number of 350 primary school students (207 male and 143 female) were considered in this study, they were selected by multistage stratified random sampling. In this study, frequency distribution, Chi-square test and logistic regression model were used to determine the prevalence of mode of birth and academic performance, association between academic performance and mode of birth by different socio-economic, demographic and anthropometric factors, and effect of socio-economic and demographic factors on academic performance of primary students respectively. In addition, t-test was utilized to compare different quantitative variables between groups. **Results**: We observed that the prevalence of C-section delivery among primary school students in Rajshahi district, Bangladesh was46.6%. The highest number of students (50.3%) spent 2 to 4 hours per day for their study purpose, 66.0 % students had private tutor and 56% parents spent 2 to 4 hours with children for their study. Interesting that still 67.1%students had subject anxiety. More than 67.7%students obtained GPA less than 5. Parents' education level and family health related expenditure were significantly associated ($p<0.01$) with high academic performance of primary students. We found that half of the obese children obtained GPA 5, however the association between BMI and academic performance was highly significant ($p>0.01$). We controlled the effect of other factors, and it was found that the effect of mode of birth on the academic performance of primary students was not significant. **Conclusion**: This study revealed that near to 47% children was born by C-section, and there was no association between mode of birth and children's academic performance. However, some modifiable socioeconomic and demographic factors were associated with academic performance of primary students. This study can help to enhance the academic performance of primary school going children in Bangladesh.

Abstract – 34

A Study on Cervical Cancer in Global Scenario: A Brief Review

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Background: Widespread prevalence as second leading cause of cervical cancerous (CC) death in women is affecting mortality distributed upon global position like developing to developed

country. Vaccination has no result unfortunately for patients who are already affected. HPV (Human Papillomavirus), viral protein E6, E7 with several epigenetically influencers are responsible vividly in due course. **Objectives:** A critical review to better identify the occurrence of cervical cancer and for identify the factors associated with Cervical Cancer this study has been designed. **Methodology:** The study has been made on reviewing published articles and papers from different Online databases like Scopus, Spinger, Jstore, Sage, ResearchGate and also Search engines like Google scholar, & Pubmed. Through identified few methods as namely Situational Awareness (SA) Model, Protein expression analysis by Gel Electrophoresis, Genotyping of the SNPs, Self-collection instructions using of Evalyn Brush, Mass spectrometry etc. **Result and Discussion:** In molecular level mutational analysis of FAT1, MLL3, MLL2 and FADD gene mutation pattern effects by HPV 16,18,33,52 variants induce carcinogenesis by oncoprotein E6 and E7 activities by inhibiting function of p53. Not the only viral cell in together Host cell methylation analysis used for the detection of CIN3. Genetic alterations detect cellular genes functional inactivation such as TP53, LKB1. Overexpression of p16 was seen in 70% cases with regards to CC and mimecan, actin from aortic smooth muscle and lumican proteins showed an increased expression. Otherwise, education is a cofactor in detection awareness of CC. Even smoking, oral contraceptive gives direct enhanced mutagenic effect. With possible biomarkers, KNTC1 gene has been completely responsible in survival prognosis cisplatin, nanomedicine raised for public health. **Conclusion:** Precancerous lesion to forming of cancer cell inhibit through such potential biomarker, and pap smear screening, colposcopy, as well as surgery, chemotherapy, radiotherapy nevertheless somatic cell mutation, gene inactivation, and variation in molecular structure rising intraepithelial neoplasia to cervical cancer.

Abstract – 35

Title: Indian Indigenous Fermented Foods can be a Preventer for Metabolic Syndromes: A Review

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Background: Diet alters the structure and activity of human gut microbiota, with direct effects on host health. Shifts in gut microbiota have been linked to host metabolism dysfunction and low-grade chronic inflammation; these disorders of metabolism are implicated in the development of metabolic syndromes (MetS) like obesity, Hypertension, Cardio vascular diseases, Type 2 Diabetes. Changes in lifestyle with alter diet pattern is, the most effective non-pharmacological factors for the prevention and treatment of this metabolic syndrome. Food with probiotic effect has a crucial part in regulating metabolic health with lowering inflammation based metabolic dysfunction. Here traditional Indian fermented food with probiotic effect can give beneficial effects on human health **Objectives:** This study is to

enlighten the population about including fermented food in diet to help reduce metabolic risk factors. So that, chances of non-communicable disease occurrence will reduce. **Methodology:** This is a narrative review paper that shows a summarized metabolic syndrome and fermented food works that will help us incorporate the probiotic effect in metabolic health. The search has been done through all possible online resources like- Pubmed, Google Scholar etc. **Discussion:** The literature provides some information on the bioactivity and mechanisms mediating the impact of fermented foods in health and disease prevention. The health benefits of fermented food are associated with preserving of normal function of gut health and by this improving pathogenesis of chronic inflammatory disease like obesity and other associated metabolic disorder. **Conclusion:** The literature on fermented food is characterized by a wealth of in vitro data, whose positive results are not corroborated in humans due to the absence of random control trials (RCT). None of the RCTs were specifically designed to address the impact of food fermentation on health. This concern should be addressed in future human studies.

Abstract – 36

Title: A Study on Alzheimer's Disease: A Systematic Review

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Background: Alzheimer's disease is a neurological disorder in which the death of brain cells causes memory loss and cognitive decline. It is a common form of dementia. Dr. Alois Alzheimer was the first person who discovered the disease. AD was named after him. He discovered this disease when he observed his patient August Deter. **Objective:** My objective is to study the prevalence of Alzheimer's disease and to identify the probable factors of Alzheimer's disease. **Materials and methods:** Therefore, performed a literature search reviewing pertinent articles and documents, PubMed, google scholar and research gate were investigated using the following headlines and keywords linked to the word Alzheimer's disease, Genetic factors, Environmental factors and prevalence. **Result and Discussion:** The number of AD patient is growing day by day. AD affects about 15 million people around the world and by 2040. Most important genes are APP, PSEN1, PSEN2, APOE that involves the cause factors of AD. Senile plaques and tangles are formed in brain for those genes. **Conclusion:** There is no cures of Alzheimer's disease. New treatments that maintain cognitive ability and stop progression of AD are needed. The government must develop a strategy to respond to the growing need for care from early diagnosis to end of life care of the disease patients.

Abstract – 37

Title : A study on non-alcoholic fatty liver disease: A brief review

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Introduction: Non-alcoholic fatty liver disease is a most common chronic liver disease in which fat accumulates in the liver of those people who drink little or no alcohol. Non alcoholic fatty liver and nonalcoholic steatohepatitis. Objectives: To elaborate the present scenario of non-alcoholic fatty liver disease in the global scenario. To study the factors related to NAFLD. Methodology: This present attempt is a review paper to gather the knowledge about NAFLD and its effects on health. To achieve the purpose the search has been done through all possible online resources like – PubMed, Google Scholar etc. Result and Discussion: The prevalence of NAFLD has been increasing rapidly and it's vary among different population and different countries. Several factors are related with NAFLD. Obesity is the major factors for NAFLD and dietary habits, irregular exercise, obstructive sleep apnea also associated with it. T2DM is a major factor related with this. Metabolic syndrome is other factors that includes high blood pressure, blood sugar, waist circumference, cholesterol etc. Not only obese people also seen in lean people. Genetic factors are also included in NAFLD. TM6SF2 Gene is a regulator of liver fat metabolism. Psychological factors, sedentary life style and TSH are also the important risk factors for development of NAFLD. There is no specific treatment for NAFLD. Improve diet, physical activity, help to reduce this disease. Conclusion: mention It is known from some paper NAFLD liver related mortality will be the main cause in the next twenty years and 2nd most common reason for liver transplant. And it increases the risk of death.

Abstract-38

A Kinanthropometric Study on Footballers: A Review

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Introduction: To achieve the outcomes, new techniques and methodology is highly mandatory in sports sciences and physical education. The developing tendencies in international sports, both in individual in team games are identified as the growth in game tempo, tougher body game and greater variability in technique and tactics. An increased performance level can only be achieved by working and training of all major components i.e. technique, coordination, tactics, physical capability, physiological and psychological potentials. Kinanthropometry is the

study of human size, shape, proportion, composition and gross function of the body in order to understand growth, performance, nutrition and exercise. Football is a game in which anthropometric characteristics are important factors for specific gaming positions. Morphological characteristics successfully distinguish footballers compared to the competitive level and the game position. For a football team, there are many important factors for success and it is difficult to detach anthropometric and physiological characteristics as crucial factors in sports performance. Evaluation of body composition in soccer players helps to improve their performance and evaluate applied training plan. **Objectives:** To find out the anthropometric profiles among footballers according their playing position comparing physical characteristics of footballers in global scenario. **Methodology:** Data for this work has been drawn from PubMed, Google Scholar, Jscr, SagePub, Semantic Scholar, ResearchGate. The databases were searched from the inception English language restriction. **Results and Discussion:** Soccer is characterized by different physiological needs in the many field positions, which leads to different physical characteristics. Therefore, a comparison between values should always be made with caution. There are significant differences in the anthropometrical variables among the soccer players of different playing positions like, defenders have greater foot length than midfielder and forward. Midfielders have greater upper leg length than the defenders and forward players. The lower leg lengths of forwards are greater than the midfielders and defenders. The weight and height of defenders is greater than the midfielders and forwards. The calf girth and mid-thigh girth of defenders are greater than the midfielders and forwards. Goalkeepers are the tallest and heaviest. There are significant differences in each age group in each player position on body composition. **Conclusion:** Soccer is now being played in more than 210 countries throughout the world. Soccer is popular because of the fact it is a simple game requiring very minimum infrastructures and equipment. Differences in height, weight and body fat mass in relation to the playing position notices that there are significant differences during the development process that have an impact on playing position performance. The maturation state of young players has been shown as a selection factor. There are significant differences in anthropometric measures across playing positions, as well between age categories.

Abstract – 39

Title: A Study on the Transition of Main Line Formula over the Decades among the Bengalee Hindu Caste Population of West Bengal, India

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Introduction: Dermatoglyphic traits are frequently used as an ethnic variation marker in Anthropology. Among several dermatoglyphic traits Main Line Formula (MLF) is a potential marker of population variation. **Objective:** Present study is an attempt to understand the occurrence of White [D C B A; 11. 9. 7. (3-5)] Negro [D C B A; 7. 5. 5. (3-5)], American Indian [D C B A; 9. 7. 5. (3-5)]and other types (based on the variation of the termination points of four palmar main lines; A, B, C & D) of MLF among the Bengalee Hindu Caste Population. **Methodology:** To achieve the purpose 100 adults (55 males and 45 females) have chosen from Bengalee Hindu caste population of Kolkata, West Bengal, India. Bilateral Palm prints of every individual were collected according to the standard ink and roller method (Cummins and Midlo, 1943) and classified according to Schaumann and Alter's (1976) classification. The MLF was computed by the tracing and recording the termination point numbers of the four palmar main lines (inter-digital triradius) A, B, C & D (Cummins and Midlo, 1961). All the data were interpreted and analyzed in SPSS (version 16.0) and the cut off value were set as p = 0.05. **Results and Discussion:** Present study revealed that the significantly (p<0.05) increase of White and other types of MLF as well as the significantly (p<0.05) decrease of Negro and American Indian type of MLF than that of the previous documentation. Present study also revealed the emergence of 25 other types of MLF within the Bengalee population. **Conclusion:** It was revealed that the Negro and American Indian types of MLF was in desecrating level among the Bengalee population. However, MLF was in a transitional phase, which revealed by its newly emerged types among the Bengalee Hindu Caste population.

Abstract – 40

Title: Prevalence of Thinness among Birhors of Korba District, Chhattisgarh, India

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Introduction: The rising problem of malnutrition, commonly envisioned as double burden due to increasing rate of both under-nutrition and obesity in third world including country like India; where prevalence of undernutrition is very high, which is assess by thinness more precisely. **Objectives:** The present study aims to assess the prevalence of thinness among Birhor tribe of three villages of Korba district, Chhattisgarh, India. **Method:** The data was collected from each available individual of every household of the villages on the day of investigation. The social and demographic profile was personally collected by interviewing them and the anthropometric measurement (height, weight, BMI and MUAC) was taken using standard procedures. All the statistical analysis was analysed in the Statistical Package for Social Science (SPSS) version 16.0. The prevalence of thinness was evaluated by Cole et al., (2007) among children (below and equal 18 years) and principal WHO cut-off points (WHO, 1995) among adult and elder (above 18 year). **Result:** The study revealed that sex combined prevalence of thinness was found higher among children (86.6%), elderly (70%) and adult (58.2%) population than normal. The over-all

age and sex combined prevalence of thinness is 64.2 % (of which 21.1% were came under grade III thinness, 10.1% were fall within grade II thinness and 33% were in grade I thinness) and 35.8% were normal. No statistically significant sexual difference ($\chi2$ =0.86, df = 3, P>0.05) was found among them. **Conclusion:** The high prevalence of undernutrition shows their critical nutritional situation. The study suggests assessment of the Birhor's health status at regular intervals and implement new or revise strategies especially for these particularly vulnerable tribal groups.

Abstract-41

Title: Impact of Viral load on the surveillance of COVID-19

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Introduction: World Health Organization (WHO) declared Corona virus disease 2019 (COVID-19) as a global pandemic. Real time Reverse Transcriptase Polymerase Chain Reaction (Real -Time RT-PCR) is the gold standard test for detection of SARS- COV-2. The semiquantitative capacity or Real time RT-PCR, determining the viral load through cycle threshold (Ct) values can be leveraged for prognosis and infectiousness of patients can aid in patient management decisions. This information if generalized can be used in predicting the epidemiologic trends of the SARS-CoV-2 disease. **Objectives:** To contribute in the surveillance of COVID-19 to monitor the longer term epidemiologic trends and the impact of pandemic on the health care system and the society. **Methodology:** Viral load analysis method: We used the cycle threshold (Ct) value as the semiquantitative measure of viral load. Ct value is inversely proportional to the amount of genetic material (RNA) in the starting sample and lower Ct values generally correlate with high viral load. Systematic Literature Review: Pubmed, Embase and Cochrane searches are being conducted at present on a search strategy of Ct value or viral load and SARS- CoV-2. Data are extracted from studies reporting the presence or absence of an association between Ct values and clinical outcomes to aid in the surveillance of COVID-19 and determine the epidemiologic trends of COVID-19. **Observation:** The Ct value can reveal early warning of illness severity. A higher shedding risk with a low Ct value in less symptomatic patients can make important contributions in containment strategies. This information can help in public health policy, guide clinical infection control and guide occupational health decisions.

Abstract- 42
Title: Politics of Modern Midwifery: A study on maternity and newborn care in the late nineteenth and early twentieth century

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Most of the women of Bengal in the nineteenth century were *pardanashin*, debarred to accept treatment from male physicians. Therefore, they were dependent on *dai* (traditional midwives) for their gynecological and obstetrics treatment. But the knowledge of traditional midwives was based on the knowledge of their mother or grand-mother knowledge, without any book or institution-based education. Due to their ignorance, a lot of mothers and infants would die during childbirth. Europeans viewed this as an unscientific, unhygienic method of midwifery. So, the British people tried to reform this method of delivery. But, the identification of the problem and the method of solution were different among different groups. They analyzed the problem according to their benefit of point. Colonial government imagined this problem as the backwardness of Indians, compared the death rate of mothers and newborns with other European countries. Therefore, they added this problem to their civilizing mission and used it as a tool to consolidate their empire. They introduced the western method of midwifery training schemes which was regarded as scientific and hygienic. Also, organized maternity wards in the hospitals under seclusion from the 1870s. But they failed to solve the actual problem. British women saw it as the miserable condition of Indian women. Due to the unavailability of women doctors they were dependent on ignorant *dai*. Then British women considered it as Indian Women needing help from their British sisters. For the newly emerged British women doctors, it was a vacuum space for their professional carrier in India. Large numbers of Indian *pardanashin* women were unable to treat their obstetrics and gynecology diseases with the help of male physicians. So, it was a great opportunity for the British female doctors to make it their professional space. They organized Dufferin Fund with the help of Maharani Victoria, the viceroy's wife, and Indian donors. Indian nationalists outlined the traditional system of midwifery as a barrier to national development as well as national health. A hygienic and scientific method of western midwifery fused with the nation development project. So, they supported the new western method of midwifery. A lot of articles on the benefits of the scientific method of midwifery were published in the Bengali periodicals from the 1880s. Also, every family judged this from their social position. Western-educated middle-class families accepted new scientific methods of midwifery for raising their social status. On the other hand, normal people hesitate to accept the new method to protect their traditional social status. Normal village people protect their social rank by practicing their family, religious, caste-based rituals. A lot of rituals were attached with *anturghar* which was impossible to fulfill in the western method of midwifery. So, they hesitate to accept this new method. Hence, normal people became conservative and unscientific people from the viewpoint of the western educated middle class. Then the question is, what was the role of women in this reform movement, which was organized for their well beings? Women did not have any particular role in this process. Even they were not too much concerned about their health hazards. They played their role according to their family position. They did not have a personal opinion or if it was, then no one cared about it.

Abstract – 43

Title: Understanding the occupational health and hygiene status of women in the rural areas of Barasat, West Bengal, India during Covid-19 pandemic

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Occupational health and hygiene are factor of concern in the rural areas. During the lockdown imposed due to Covid-19 pandemic, women from poorer socio-economic sections have suffered various health issues due improper sanitation and lower ration supplies. These unhygienic conditions due to unemployment and lack of resources might have resulted in diseases like ovarian cysts, infertility, irregular menstruation cycle, UTIs and malnutrition along with psychological setbacks and domestic violence. Apart from these, poor drainage and sanitation system has led to mosquito-borne diseases. The present survey was carried out to understand hygiene related awareness and issues in women and incidence of infections in rural areas of Jagannathpur, Subhashnagar and surrounding villages of Barasat, North 24 Parganas. Primary data was collected through door-to-door field survey and questionnaires. Apart from this, women were requested to provide information regarding current economic status, number of earning members, means of income and information on prevalent diseases that frequent the area. A total of 150 women were surveyed, majority of them belonging to small families. 68% of them had their personal toilets; 24% of them used mineral water for drinking purpose; above 80% have regular menstruation cycle where 37% use clothes and 54% use sanitary napkins. About 75% of women got pregnant before the age 21. About 73% of them lost their daily jobs during the pandemic since most of the families were involved in making of fire crackers, which resulted in   poor food habits and poor lifestyle. Farming did not suffer much and was the lifesaver. Due to decrease in income during 2020-2021 pandemic, there was a fall in the education rate of children since most did not have secure internet facility. There was a high trend of infection due to SARS CoV2 during the middle of the year which then receded, following the general worldwide pattern. Severe infections and breathing problems were encountered in 20% of the surveyed population. Maintenance of drainage system was poor and mosquito-borne diseases were frequent in the area. Garbage collectors and dustbins were rarely observed. These practices have led to water blockage and spread of malaria. The survey reveals that the firecracker industry has suffered a huge loss which has led to decrease in the overall income in the area. Lack of awareness in hygiene has resulted in poor health standards in women in the age group of 18-38 years. Health education and monitoring system needs to be enhanced in the area with involvement of local bodies to overcome the setbacks.

Abstract – 44

Title: Overuse of Agro-Chemicals in West Bengal: Emerging Health Hazards

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I**ntroduction**: In India modernization in agriculture was introduced in the era of the green revolution (1960s) where lots of chemicals, pesticides, insecticides, and a high variety of seeds were used in the Punjab Haryana belt to increase production. To mitigate various types of agricultural problems, the agricultural sector expands with deferent governmental programs and agricultural extension services. India became self-sufficient in agricultural production but in a later stage, adverse effects dominated the benefits of production. Nowadays pesticide is an important input to achieve food security for the largest population of India but the sad reality is during the last four decades we have been using different agrochemicals at an increasing rate. Pesticides are potentially toxic to humans and can have both acute and chronic health effects, depending on the quantity of exposer, incase people come into contact with large quantities of pesticides, this may cause acute poisoning or long-term health effects, including cancer and adverse effects on reproduction(WHO,2018). According to many researchers, overuse of pesticides or pesticide mixed fertilizers can cause severe environmental impurities. Such contaminated food and water can cause serious health issues like early aging, birth abnormalities, and several types of cancers. Lung problem, and hypertension, etc. OBJECTIVES: This paper aims to provide an overview of chemical input uses in the agricultural sector of West Bengal and analysis of probable health effects caused for the overuse of agro pollutants. METHODOLOGY: The data has been collected from secondary sources in different zonal level conferences related to plant protection for Rabi and Kharif seasons. The NPK data 1990-2019 and chemical pesticide used data for 2016-2021 have been considered for this study and the health profile of the study area is also monitored from the data of the district health centre and hospitals. The application of agricultural input estimated over the period and also the impact of health has been determined from previous studies. RESULT AND DISCUSSION: Analyses revealed that the use of NPK per kg hectare has increased double from 1990-2019 and the use of pesticides from 2016 -2021 increased approx. 38.34per cent. Hence the result is the use of NPK and fertilizer use in the agriculture of West Bengal increases day by day. In high pesticide exposer, the risk of allergic and non-allergic asthma increases twice.(Hoppinet al., 2009). The hypothalamic-pituitary-gonadal axis is directly affected by high pesticide exposer, it lowers sperm levels well below the limit for male fertility (Sengupta and Banerjee,2013). Restrictive lung dysfunction is associated with low-level organophosphates exposure (Peiris-John, et al. 2005). There were several pieces of evidence in past research works and reports that mentioned related to the negative association of agrochemicals and health profile. The present study has also assumed that the increasing rate of agrochemicals may cause a severe impact on the health profile of West Bengal with the increasing rate of associated diseases. CONCLUSION:

Overuse of pesticides is harmful to the environment as well as its effect over short- and long-term periods on health. Through the air, water, soil, fruit, and vegetable agrochemicals contaminated and its impact our health. We can't say health problems like cancer, asthma, early aging, hypertension, birth abnormalities are caused only for the overuse of agro pollutants but it is one of the parameters which can increase the risk factors for the above health hazards. For food security, we need to sustain our agriculture and should take proper measures to control chemical use and adopt alternative methods like organic farming, Integrated Pest Management, Bio pest, and Green Technologies.

Abstract-45

Title: Awareness and practice measures of Breast Cancer: A study in Nagaland, North East India

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With increasing incidence of breast cancer and being the most frequently occurring life-threatening malignancy, its upsurge calls for concern and awareness in various groups. Awareness and attitude have been described as a common measure to several factors determining the stage at which patients with breast cancer present to hospital. Lacking in which leads to detection at advanced stage and eventually culminating to difficulties in curing then. But early detection proves a boon to good prognosis. In this background, present study aims to gather information pertaining to breast cancer awareness among women in Nagaland. To achieve the purpose, data were collected from 250 women with age group 20 years and above. Specially prepared structured questionnaire was used to collect data pertaining to awareness, sign and symptoms of breast cancer. Examination on the obtained, information revealed 72% of the participants knew of someone diagnosed with breast cancer. Awareness about breast lump formation was known to 58.4% among the participants. Only 3.2% of the participants went for breast self-examination (BSE) and 0.1% mammogram. Majority of the participants informed about the source information about breast cancer from friends and others. In conclusion, the present attempt discerned that, women lack knowledge about breast cancer. Considering the fact, that breast cancer is increasing in North East, the study calls for greater knowledge of breast cancer and strengthen practices for prevention and early detection in Nagaland. It is in need of the hour to remain aware and practice measures for early detection

Abstract- 46

Title: Determinants of Age at Menarche: Possibility of Digit Ratio (2d:4d) As A Prenatal Biomarker

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Menarche, a first menstrual bleeding, is a significant event in the reproductive life of a woman and onset is preceded by a complex cascade of hormonal changes during puberty. Endocrine regulation of sexual maturation is susceptible to various factors from the very beginning of prenatal life. Over the time cross-cultural studies on different ethnic groups reported the effect of biological (genetic) and extrinsic factors (socio-demography) on Age at Menarche (AAM), and the secular trend of early AAM, which in turn increases the risk of non-communicable disease such as breast cancer, diabetes (Type2), cardiovascular disease, fertility impairment, psychological disorders. AAM, is one of the major landmarks in the study of maturation status in Auxology and associated and with growth and development, for example, Peak Height Velocity (PSV), breast tissue development (thelarche). The contribution of biological (genetic) factors to AAM is estimated to be about 57–82% and despite the major role of genetic factors, such as Oestrogen receptor α (ESR 1) gene may be taken as a candidate gene for AAM. Despite the major role of genetic factors in AAM, extrinsic factors (socio-demography) have gained increased attention and result of the studies concluded the influence of nongenetic factors on AAM are still inconsistent. Earlier studies vindicated that age at menarche is a strong indicator for the duration of women's reproductive period. On the other hand, 2D:4D (2nd finger and 4thfinger) ratio used for testing different traits related to androgenisation and estragenisation during critical periods of prenatal development and the ratio is age stable and less influenced by allometry. The underlying mechanism for the association between 2D:4D and prenatal sex hormone levels may be the action of the Homeobox genes, which control the differentiation of digits but also of the gonads, that is, testes and ovaries. In this background, the present study conducted on apparently healthy 187 women (age range 9 – 16 years) and the mean age at menarche was 12.7±1.46 years from Bengalee Population, India. Lengths of the second a fourth fingers were measured by standard technique. No bilateral differences were found on digit ratio value, participants were divided into two groups as low 2D:4D ≤50th percentile and high 2D:4D ≥50th percentile. Examination on the association of digit ratio and AAM revealed strong association ($p<0.001$) with early AAM and low 2D:4D digit ratio. The present study might stimulate more study to utilizes 2D:4D ratio as additional parameter for determining AAM.

Abstract – 47

Title: AGEING AND CHROMOSOMAL TELOMERE: POSSIBLE POTENTIAL FOR LIFE STORY

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Ageing is not a stage of life, but a biological process that starts from the intrauterine life; and it is due to the interaction of individuality with the environment. At the biological level, aging results from the impact of the accumulation of a wide variety of molecular and cellular damage over time. Telomeres are tandem DNA-protein complexes present at chromosomal ends and are responsible for maintaining genome integrity and as well as protect the ends chromosomes from fusion with nearby chromosomes, and facilitate effective replication of DNA. Each time a cell divides, 25–200 base pairs are lost from the terminal sequence of chromosomes, but

telomere protect essential genes from being shortened, truncated and inactivated. Telomere length is maximum at birth and decreases progressively with advancing age and therefore is considered as a biomarker of biological ageing. Therefore, telomere attrition may ultimately provide both 'seed' and 'soil' for loss of tissue homeostasis. Studies reported telomere shortening are triggered by inflammation, oxidative stress and the rate of telomere shortening throughout life is determined by various endogenous (genetic) and exogenous (nongenetic) factors. Moreover, recent studies have demonstrated that genetic makeup explains the variation in Telomere length (TL) among various Ethnic Groups and possibly researches on telomere has potential importance in anthropological importance in health and especially geriatric aspects. Reduction in the length of telomeres leads to the cessation of cell division and thus cellular senescence and apoptosis. promoting disease and contributing to the phenomena of ageing. The susceptibility to diseases progressively increases as we age, telomere driven diseases mainly include deficient immune function, diabetes mellitus, depression, cognitive decline, cardiovascular diseases (CVDs), Alzheimer's diseases and also cancer. Evidence is presented that objectively demonstrated the concomitant effects of genetic and possible lifestyle factors, psychological factors and environmental stress on the pace of ageing and onset of age-associated diseases. The purpose of this review is to highlight the importance of telomeres in human health and ageing and to summarize possible lifestyle factors that may affect health and longevity by altering the rate of telomere shortening.

Abstract – 48

Title: Dermatoglyphics A Possible Biomarker for Schizophrenia and Autism

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Dermatoglyphics, is the scientific study of patterns of ridges of fingers, palms, toes and soles; permanently formed by the second trimester of pregnancy and age unalterable obvious traits. Schizophrenia is a complex mental illness with multiple etiological factors and Autism is a complex developmental disorder typically appears during the first three years of life. Dermatoglyphics and brain structure have a common developmental origin from the ectodermal embryonic germ layer. The current study aimed to review on the possibility of dermatoglyphics as a biomarker of Schizophrenia and Autistic patients. This study included peer-reviewed articles examining a range of dermatoglyphic measure in individuals with autism, schizophrenia and controls. Relevant articles were identified using the search engines like PubMed, ResearchGate etc., using search terms like "schizophrenia and dermatoglyphic" and "autism and dermatoglyphic", "difference between autistic, schizophrenia patients and normal controls" etc. Examination on the reported results discerned lower Total ridge counts (RC), ab-RC, higher Aberrant palmar creases and wider *atd* angle among individuals with autism relative to normal controls; results also indicated lower TFRC, TABRC, AFRC and larger *atd* angle among Schizophrenia patients than controls. Thus, these evidences were sufficient to indicate the correlation between abnormalities in dermatoglyphic patterns and development of schizophrenia and autism i.e., neurodevelopmental disorders. Therefore, present discourse,

envisaged dermatoglyphics may be possible and potential biomarker for prognosis of autism and schizophrenia as an additional method as these diseases are manageable.

Abstract – 49

Title: Physical Growth and Nutritional Status among the Adolescence (Boys) of Nyishi Community, Doimuk, Papum Pare District, Arunachal Pradesh

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The study was based on cross-sectional data of sample size of 125 boys belonging to the age group 10 to 18 years collected from households and schools. The study focused on two main hypothesis – the anthropometric measurements of Nyishi boys will be different from those of CDC and ICMR data, and environmental influence may have strong implication in the growth trend and nutrition of the region. Statistical constant of mean ($\bar{x}$), with Standard error of mean (SE $\bar{x}$), and Standard deviation (SD) were used for each 10 anthropometric parameters. Stature, weight, head circumference, chest circumference, waist circumference, hip circumference, mid-upper arm circumference, bicep skinfold, tricep skinfold, and subscapular skinfold were analyzed. The study shows the data were different from the data of CDC and ICMR. The rate of growth fluctuates throughout the age groups which gradually decreases after 10 years of age. The nutritional status of the Nyishi boys was slightly undernourished, in BMI for age about 58 individuals (46.4%) out of 125 total individuals falls within the range of <16-18.5 category which lies in ≤ 5th percentile value for adolescence. 13 individuals out of 125 individuals with a percent of 10.4% were mild stunted. 24 individuals (19.2%) were mild underweight and 3 individuals (2.4%) were moderately underweight. Comparison of stature and body weight of Nyishi boys was also done with available data on Meitei, Kabui and the Poumai. The studied population needs awareness on health programs as low nutritional health may lead to serious health problem.

Abstract – 50

Title: Covid-19 and International Student Mobility from Punjab

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Introduction: Outbreak of Covid-19 pandemic shook the world. Life came to a near standstill because of the pandemic. Each and every phase of everyone's life has been affected by the virus in one way or another. Lockdowns, travel bans, physical distancing were some of the new terms introduced to human beings because of the crisis. Migration is one of the important areas with is deeply affected by this novel virus. **Objective**: The aim of the present paper is to

study the impact of Covid-19 pandemic on the international student mobility from Punjab. **Methodology**: The present research paper is based on secondary sources. **Discussion**: International student migration is a common phenomenon seen in the state of Punjab. Every year 1.5 to 2 lakh students from Punjab move to Canada, America, the UK and other countries on study visa. But due the outbreak of global Covid-19 pandemic, admission to these foreign universities were put on hold. The students who had enrolled with these universities before pandemic were stuck in their home country as they could not fly due to Covid-19 restrictions. The students were in a fix to join the online classes offered by the universities and preferred to postpone their session as they wanted to attend physical classes. Because of the pandemic many have to reconsider their plan to shift to different country. **Conclusion**: It was seen that a health crisis can have a serious impact on the process of migration flow. The pandemic affected the lives of many individuals and puts a break on the flight of dreams of many students in Punjab to go abroad for higher education. It is also anticipated that mass exodus of students to foreign land will be seen in the post pandemic world.

Abstract – 51

Title: Contemplative Practices and Neuroanthropology: Prospects for well-being

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Almost every culture has contemplative practices which can influence changes in functioning and structure of the human brain in their unique way. Meditation, prayer and like discipline are practices covered under a greater umbrella category known as contemplative practices. These practices are in use for developing attention based cognitive capabilities, calming, compassion, presence and the like. Contemplative practices are rooted in contemplative tradition-based methods which are religiously oriented, but there are emerging trends which scientifically approach contemplation and are being used for overall well-being. The studies coming out from these trends are facing the problem of validity of introspection and capturing the complexity of meditation experiences. Neuro-anthropology is a recent field of investigation for understanding the role of the brain in culture and also culture in the brain. This also can be defined as biological basis of culture and cultural basis of the brain. The methods from Neuro-anthropology can be applied to overcome the problem faced in the field of meditation studies. Present paper is an attempt to discuss the various contemplative practices and traditions; explain the meditation and its present scientific perception along with Neuro-anthropological overview and its methodological application for better understanding of the meditation.

Abstract – 52

Title: Occupational Risks and Health Problems among the Traffic Police Personnel in Imphal City of Manipur

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Introduction: Occupation plays a significant role as a health determining factor. One of the many occupations involving exposures to potential health hazardous factors is traffic policemen. **Objectives:** To determine the prevalence of work-induced health problems among the traffic policemen and assess their awareness status on work-related health hazardous factors and its preventive measures. **Methodology:** Across-sectional study was carried out among 77 male traffic policemen serving in Imphal city, Manipur. Information on behavioural habits, morbidities, awareness status and preventive measures against health hazardous factors were collected along with anthropometric and physiological measurements. **Results:** The results showed a higher percentage of body pain (85.71%), vision problems (77.92%) and hearing problems (75.32%) among the traffic policemen. The prevalence of anxiety (77.92%) and hypertension stage I (32.47%) are found to be high occupational risks among them. A total of 47% of the personnel were found to have mild anaemia, while 9.09% were in moderate anaemic condition. Only 28.75% of the traffic police personnel wore face mask daily while carrying out their duty and none of them used earplugs as precautionary measure. **Conclusion:** Traffic police personnel are constantly exposed to health hazardous factors due to the nature of their occupation. Periodical health check-ups are needed to monitor the impact of occupational health hazards on the traffic policemen.

Abstract – 53

Title: Why Menopausal Health Matters: A Study on   Reproductive Aging in Women

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 "Being a woman is a god's gift. The origin of a child is a mother, a woman" - Sushmita Sen. These were the words that made an ordinary girl the First to win the most coveted beauty pageant title for India, and well she's a woman too. So, all in all being a woman is indeed a blessing but as the saying goes "every rose has its thorn" and a woman's life is no different. Whereas both men and women as human beings undergo numerous physical, mental and emotional health problems in their lifetime, one can't deny the fact that some health issues affect women differently and more commonly. Not just this but many women's health conditions go undiagnosed and most drug trials do not even include female test subjects. Even so, women bear exclusive health concerns, such as breast cancer, cervical cancer, pregnancy

and menopause. And of all, menopause is an inevitable part of a woman's life, every woman past a certain age will experience menopause. Menopause actually marks the culmination of reproductive aging. Reproductive aging as defined by the North American Menopausal society (2001) is a natural process that begins at birth and proceeds as a continuum. As life goes on, we can see a lot of changes occur in women's life cycles. Women's reproductive health is vulnerable to many hazards and needs timely awareness and treatment. Today, most women live long enough to become postmenopausal. In the developed world, the percentage of women over 50 years of age has tripled in the last 100 years (US Census Bureau,2011). By 2030, this proportion is expected to increase drastically everywhere around the world. Health is the most important aspect for the well-being of a person. Menopause is one of the critical periods in women's life during which various age related biological problems in the body occur. There are several causes for this problem, one clearly related with hypo-oestrogenism and others depend on age favouring increase, ignorance, poverty and self-awareness on health consciousness. Menopause is diagnosed as one of the major problems seen in older women. The consequences of menopause are threatened by lack of knowledge regarding it. There is variation in prevalence of menopausal symptoms in Indian women from different regions. Early management related to menopause helps women to make sensible and informed decisions about their health practices. Proper care with respect to diet, medication, exercise, and attitude can bring a huge difference. The psycho-social health of women and their reproductive lives in socio-culturally defined borders of aging is a lacuna still to be explored on human societal developments with the changing times in Northeast India.

Abstract – 54

Title: Suicidal behavior among couples in Rajshahi City, Bangladesh: A household study

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Background: About 10% of the people with suicidal behavior (SB) ultimately complete suicide that is a major public health problem in the world including Bangladesh. The study of SB is necessary for the prevention of suicide but research on this issue is poor in Bangladesh. **Objectives:** This study was designed to determine the prevalence and risk factors of SB (suicidal ideation and suicide attempt) among couples in Rajshahi City, Bangladesh. **Methodology:** We recruited 354 couples for this household cross-sectional study and used a multi-stage random sampling for selecting them. SB was determined by (i) SI and (ii) SA using two questions: (i) Did you ever think of committing suicide in last six months? and (ii) Did you ever attempt to commit suicide in last six months? We applied frequency distribution, Chi-square test, and binary logistic regression models for data analysis. **Results and Discussion:** The overall SB was found among 8.3% of the participants. Joint family (p<0.01), ≥26 years of age at the first marriage

(p<0.05), twice or more marriage (p<0.01), conjugal life of ≥16 years (p<0.05), having no child (p<0.01), having 1–2 children (p<0.01), chronic physical problems (p<0.01), mental disorders (p<0.01), stress-anxiety (p<0.01), history of mental disorders in the family (p<0.01), history of suicide/suicide attempt in the family (p<0.01), substance abuse (p<0.01), poor relationship with spouse (p<0.01), and poor relationship with other family members (p<0.05) were found to be the most contributing risk factors of SB. In a Muslim majority country like Bangladesh, suicide and suicide attempt are considered sin and crime, and the person, and even the family as a whole, is socially stigmatized. That is why people try to keep most of the incidents of SB unreported or hidden. That might be a reason for the lower rate of SB. **Conclusion:** The prevalence of SB is remarkably high among the study population. The findings of this study can help the government and concerned non-government health authorities improve their policies and undertake necessary measures to prevent and reduce suicide in the country.

Abstract – 55

Title: Health- Seeking Behavior among Digaru Mishmis and Sherdukpens of Arunachal Pradesh

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INTRODUCTION: Health-seeking behavior has drawn noteworthy attention from researchers for the last two decades, essentially in developing countries. Health seeking behavior has evolved with time and has ultimately became a tool for accommodating how people engage with health care systems in their respective socio-economic, socio-cultural, and demographic circumstances (Shaikh et al., 2008). Health seeking behavior is concerned with how people manage and respond to symptom and how symptoms change over a course of an illness and how it affects the behavior corrective action taken and response to treatment (Anwar et al., 2012). Abundant works have been carried out all over the globe in different social cultural setting including South Asia. Globally if we see we find wide network of health organization, mainly in the public sector but the health delivery system has failed to bring about enhancement in health status, generally of rural inhabitants. Health system in India is not evenly delivered but operated in a top-down hierarchy system with multiple levels which led to compromise in effectiveness and quality of services. Although considerable progress has been made in last few decades with expansion of the health infrastructure but then mere existence or increasing the availability of services do not increase their utilization (Jain et al., 2006). When it come to North Eastern part of India we can realize that because of remoteness from mainstream India, delay in development activities together with high level of poverty, difficulty in accessibility to the existing services made the tribal communities specifically vulnerable to various health problem. In spite of many studies on health and health care-seeking behavior among other part of the mainland India comparatively few studies have focused particularly on tribal groups in the country, but almost nothing in state like Arunachal Pradesh. Study on Tribal Health has largely focused on other aspect of health-related issues like profile of illness and health rather than

people's knowledge, practices, choice of and approaches toward, in the rural tribal settings (Umpo, 2016). Considering the present scenario, the present study will make an attempt to understand the differential health seeking behavior among two ethnic populations – Digaru Mishmi and Sherdukpen of Arunachal Pradesh.

Abstract – 56

Title: Food habits and body adiposity among the adolescents of Manipur.

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Introduction: Increased exposure and consumption of a broader range of foods, primarily Western foods have resulted to Obesity, overweight, and other diet-related non-communicable diseases, which have become a major public health concern. **Objectives**: To assess the risk factors of food habits associated to body adiposity among the adolescents of Manipur. **Methodology**: 728 adolescents (470 boys and 259 girls) were recruited. Height, weight, waist circumference was measured to the nearest 0.5 unit, as per standard protocol. The dietary intake of the participants was assessed using a questionnaire. Body adiposity was measured by Body mass index (BMI), waist circumference (WC), and waist-height ratio (WHtR). **Results and Discussion:** Obesity, overweight, and underweight prevalence rates are 5.5%, 10.0%, and 5.5%, respectively. 10.6% and 16.8% of adolescents are at risk for central obesity as per waist circumference and waist-height ratio, respectively. Obesity affects 5.5% of males and 5.4% of females. 10.0% of males and 10.1% of females are overweight. 10.6% of males and 10.5% of females are at risk for central obesity as per WC; and14.9% of men and 20.2% of women as per WHtR. Consumption of junk foods, oil-rich foods, non-veg consumption, and milk consumption are significantly associated with body adiposity measures. **Conclusion**: Widespread fast-food restaurants and eating establishments in every nook and cranny of Manipur make junk food readily available to children. Such widespread lifestyle changes in Manipur raise the alarm about the risk of childhood obesity.

Abstract – 57

Title: Depression and Marriage: A case study among the Meiteis of Manipur, India

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Introduction: Depression affects every individual imparting the daily functioning of life. Depression alone accounts for 40% of the mental disabilities covering 13% of the global disease burden. People with depression lower their life expectancy rate and increase 40 to 60 % chances of dying early than healthy people. Its rate varies by age and occurs predominantly

among older adults, with 7.5% among females and 5.5% among males. It is well documented in different studies that marital status is associated with major depression. Contrasting findings were obtained, indicating mixed results for the association of marital status with depression (among married and unmarried individuals). **Objective:** The present study determines the prevalence of depression and its determinants among the married individuals. **Methods:** A community-based, cross-sectional study was conducted among the married individuals, i.e., the Meitei, an indigenous population of Manipur, India. Individuals of 18 to 65 years of both sex who are willing to participate were recruited after obtaining written consent. Those having a history of illness were excluded. Depression was assessed by interviewing the participants using Patient Health Questionnaire 9 (PHQ-9). In the present study, individuals with a PHQ-9 score of ≤ 5 as Normal, 5-9 as mild depression symptoms, and ≥10had major depression symptoms. Statistical significance was accepted at $P < 0.05$. Statistical analysis was performed using IBM SPSS Statistical Package version 20.0 for windows.   **Results:** The overall prevalence of depression among married individuals is 28.1%, with 23.9% (mild depression) and 4.1 % (major depression). It is more prevalent among females ($p<0.001$), individuals having lower mean marriage age ($p<0.001$), rural residents ($p<0.001$), lower education level (illiterate and primary) ($p<0.001$), unemployed and daily wages workers ($p<0.001$) and, dependent individuals ($p<0.001$), lower-income family ($p<0.001$). Controlling all the potential risk factors, the female gender (OR 1.97, 95% CI 1.28-3), illiterate (OR 12.26, 95% CI 1.43-105.67), and individuals having education up to primary level (OR 11.36, 95% CI 1.34-96.34) were significantly associated with depression. **Conclusion:** The higher prevalence of depression among married individuals indicates major health concerns. Depression remains undiagnosed and untreated as there is a lack of proper mental health education. So, awareness programs about the harmful effects of depression and the importance of mental health need to be organized to reach the unreached sections of the population and sensitize them to become aware citizens.

Abstract – 58

Title: Health and Nutritional Status of Hill Kharia: A Particularly Vulnerable Tribal Group of Odisha

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World Health Organization defines human health as a 'state of complete physical, mental and spiritual well-being and not merely the absence of disease and or infirmity'. Health is a pre-requisite for human development and it is an essential component for the well-being of the common man. The importance of good health has been well recognized over time. Health may be conceived as a product of many factors and the communities contribute to share the responsibilities of its maintenance and become conscious about health and its hazards. Good health is a condition of the human body, mind, and the absence of any disease. The health and nutritional status of an individual depend on the food he eats. Man needs a wide range of

nutrients to lead a healthy and active life and these are derived through the diet they consume daily. Good nutrition is a basic component of health. About a half of the autochthonous people with 705 (8.6%) tribal groups and subgroups and 75 Particularly Vulnerable Tribal Groups live in India. The state of Odisha occupies a unique position in the tribal map of India having 62 scheduled tribes and 13 Particularly Vulnerable Tribal Groups comprising a population of over 84 million constituting about 22.21% of the population of the state (2011). They are more susceptible to undernutrition which is recognized as a prevalent health problem mainly because of their uncertainty of food supply, which has serious long-term consequences for the individual and adversely influences the development of the nation. The assessment of nutritional status is of paramount importance because it impels to identify malnutrition which is an aggravation of morbidity and mortality. Human life is materially and socially productive and culturally meaningful if one is endowed with their environment are both biological and of health, disease, illness, and sickness are inextricably intertwined with social, cultural, and economic factors which are influenced by the well being of family members and on their access to the resource. The life and livelihood of tribal people in Odisha are sustainably influenced by the geo-physical structure they live in. The present study was undertaken to study the health status and to access the nutritional status of Hill Kharia of Mayurbhanj district of Odisha. Hill Kharia of Odisha state is declared as one of the Particularly Vulnerable Tribal Group (PVTG), based on their pre-agriculture technology, low literacy, and stagnant population. The study was carried out in the four villages i.e. Kalatamak, Bhalujodi, Khejri, and Matiagarh. A total of 100 households were studied. Anthropometric measurements were taken to assess the nutritional status. The nutritional assessment was made on the 282 individuals, with 138 males and 144 females in the age group 3-40 years. A semi-structured schedule, interview, and group discussions were employed to collect the information. This paper also deals with the utility of various anthropometric cut-off points in the evaluation of the nutritional and health status of the Hill Kharia.

Abstract – 59

Title: Cardiovascular disease (CVD) risk factors among Meena tribal population: A cross-sectional study, Delhi (North India).

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Background: Non-communicable diseases (NCDs) have become a major concern for global health. Cardiovascular diseases (CVDs) contribute 48% of the total deaths due to NCDs in India. Though several studies have been conducted in urban and rural areas, there is a lack of literature on tribal communities. Therefore, the aim of the present study is to examine CVD related risk factors with respect to obesity, hypertension and dyslipidemia among Meena tribal population residing in Delhi. **Methodology:** The present cross-sectional study was conducted among 90 tribal people of either sex, aged between 20 and 65 years, from South-West Delhi

district, New Delhi, India. Fasting blood samples were collected to determine lipid profile. Anthropometric and physiological data were collected to calculate obesity variables and hypertension status; respectively along with socio-demographic and lifestyle information. Statistical analysis was done utilizing SPSS ver.22 and MS Excel. **Result:** In the present study 21% of studied participants were found to have obese BMI. Higher number of individuals were at risk for abdominal obesity on the basis of waist circumference (48.9%), WHR (81.1%) and WHtR (55.6%). Further hypertension among the study population was found to be 18.9%. In terms of dyslipidemia, high total cholesterol, high triglyceride, low high-density lipoprotein, high very low-density lipoprotein and high low density lipoprotein were found to be 35.6%, 32.2%, 24.1%, 31% and 9.2% respectively. Sex-wise distribution of cardiovascular disease risk factors demonstrated female participants had higher obesity, hypertension and dyslipidemia as compared to male participants. **Conclusion:** The examined high prevalence of cardiovascular diseaserisk factors is a majorpublic health concern which need an immediate health intervention. Treatment and management of CVD risk factors should be an important component of a national strategy to reduce the increasing burden of CVDs in India.

Abstract – 60

Title: A Study on The Expression Profiling of Fanconi Anemia Among Indian Population: A Review

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Introduction: Human cell consists of FA pathway with FA gene complementation group (FANC) made of FA proteins thus take part in DNA repair mechanism especially in Interstand Cross Link (ICL) and also plays roles in cell cycle and haemopoesis and keeps genomic stability. Genomic instability occurs due to disruptions to these FA genes and caused to a rare inherited genetic disorder with efficacy of DNA repair mechanism and several clinical conditions known as Fanconianemiain which a patient usually undergo progressive bone marrow failure (BMF) and cancer predisposition. It can be inherited as autosomal recessive or autosomal dominant or X-linked manner. In 1927, Swiss pediatrician, Dr. Guido Fanconi first describe FA as a disease later several aspects are reported by further research. FA patients have wide range of congenital and haematological abnormalities and reported in many ethnic groups around the world including Indian population. **Objectives:** Looking into the scenario worldwide through structured literatures this review put focus to identify the genetic condition of Fanconianemiaand understanding of its effects among Indian population. **Methodology:** Aiming to gather and highlight knowledge on Fanconianemia as a disease and its gene expression this review done on the basis of present studies searched through possible online sources like –PubMed, Google Scholar , ResearchGate, Academia.edu etc.

Result and Discussion: The literatures on the profiling and analysis of genes of Fanconi Anemia highlighted responsible gene complementation groups, other functional genes with dysregulation and different expressions, deregulated tumour suppressor genes and cancer predisposition, deregulated EMT regulating factors and presence of induced oncomarker and defected mitochondria among FA patients of Indian population. Mutations has been documented in 16 FA genes that participate DNA repair pathway, a fundamental pathway in the development of disease and the presentation of its characteristic symptoms. Certain symptoms like oxygen sensitivity, haematological abnormalities and impaired immunity and carcinogenic conditions suggested that FA proteins could participate independently and can control other pathways as well. **Conclusion:** FA has reported as a complex, chronic, multigenic disorder of individual life span with several clinical and differentially expressed genetic condition caused defected phenotype, morbidity and less survival rate among population even generations with risk development among the population of India which is often not correctly diagnosed. It is one of the best examples of rare in born error caused by autosomal inheritance in man. Timely diagnosis can give a healthy and independent life instead of disability and frequent or prolonged hospital visit. Though several serological, epidemiological and molecular control and screening techniques gave a very little information on FA, the clinical trials are undergoing as well as research towards better therapeutic approach for future management. Genetic expression analysis considered as useful approach towards better understanding, treatment and management of this rare genetic disease.

Abstract – 61

Title: An Anthropological Study on Alzheimer's Disease: A Systematic Review

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BACKGROUND: Present study is conceptualized to understand the genetic prevailing factors of Alzheimer in an Anthropological perspective. Alzheimer's disease (AD) is the most common type of dementia. The genetic approach to the study of Alzheimer's disease undoubtedly continues to provide a significant contribution to understanding the pathogenesis, the diagnosis and the therapeutic perspectives with important ethical implications. The review highlights the role of genetics in understanding the pathogenesis of Alzheimer's disease and highlights that genetic predisposition for AD is associated with ePVS in CS. **OBJECTIVES:** Present study is an attempt to reveal the underlying facts of Alzheimer disease. The study attempts to understand the factors of Alzheimer disease. **METHODOLOGY:** For the present purpose, published works on the genetic factors of Alzheimer disease have been taken into account. However, Google search is conducted in terms of 'Alzheimer', 'Alzheimer type of Dementia', 'Gene associated with Alzheimer', 'Anthropology and Alzheimer', 'DSM', 'Alzheimer in India', 'Risk factors of Alzheimer' and 'Alzheimer and neuro-developmental imbalances.

Academia.edu, ResearchGate and Google Scholar portal is considered as a web source of literature accumulation. Mentioned line references which are stated inside the collected literature are also taken into account as a source of information as per the need of present study. **DISCUSSION:** Underlying modifiable factors of Alzheimer disease: Type 2 diabetes mellitus, hyperlipidemia and hyperhomocysteinemia Aging Physical activity Education Life Exposure Nutrition. Underlying Non-modifiable factors of Alzheimer disease: Single nucleotide polymorphism, APOE-ε4 carriers, suggesting that only those with a higher genetic predisposition to AD. BIN1 polymorphism risk for AD. enlargement of perivascular spaces, APP, PSEN1, PSEN2, progranulin (PGRN) and microtubule associated Tau protein (MAPT) genes, Gene mutations DNA damage Epigenetic alterations. **CONCLUSION:** This review highlights significant gaps in our current knowledge of risk factors for Alzheimer disease. Although the human and societal cost of AD is staggering, there is hope that earlier and better diagnosis, increased knowledge of its natural history with support of the patient and family throughout the disease stages, effective symptomatic drugs, and potentially effective disease modification strategies will have a dramatic impact on the number of persons affected in the future, and the quality of life of persons currently affected. The fast pace of research and development in AD is unique in neurological history, and should lead to a better future for aging populations. Taking advantage also from genetic studies, the main goal for the research in the future will be: to understand the pathogenesis of AD, characterize biomarkers for an early identification of pre-symptomatic subjects, develop preventive strategies to stop the disease progression in asymptomatic patients, identify specific neuronal targets susceptible of therapeutic intervention, and to get pharmacogenomic and pharmacoepigenomic strategies for drug development.

Abstract – 62

Title: Prevalence of Overweight And Obesity in Reation With Socioeconomic Factors, Life Styles And Food Habits among Adult Males And Female of yangyang, South Sikkim.

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The prevalence of overweight and obesity is global epidemic health problem. Overweight and obesity is rapidly increasing in both developed and developing countries. the data for the present study was collected through random sampling method from adult males and females of Yangyang, South Sikkim. the sample consists of 50 males and 52 females. The prevalence of overweight and obesity has been evaluated by using Asian cut- off points. The results shows that the prevalence of overweight/obesity 36 Percent found among adult males and 44.23 percent were found among adult females. The study also observed that the prevalence of overweight and obesity is higher relation with higher income group 73 percent in males and 76 percent in females. This study further discusses the prevalence of overweight and obesity in relation with different lifestyles, socioeconomic condition and food habits.

Abstract – 63

Title: Associated factors of psychological, financial and career among Bangladeshi undergraduate students in COVID-19 pandemic: A web-based cross-sectional survey

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Background: In December 2019, officials in Wuhan City, China, first reported COVID-19 human cases and it has already spread worldwide in the form of a pandemic. In March 8, 2020first reported the first three COVID-19 human cases in Bangladesh. The current COVID-19 pandemic situation has profoundly affected normal human life. Specially, students have suffered psychological, financial, and career losses. **Objectives:** The aim of the study was to identify the factors associated with psychological, financial problems and career among Bangladeshi undergraduate students before and after COVID-19 pandemic situation. **Methodology:** The cross-sectional survey was performed online via multiple social media sites such as Facebook, Email, WhatsApp, where 723 students took part in the survey. The collected data were analyzed by Chi-square and binary logistics regression for getting the factors associated with psychological, financial problems and career of university students of Bangladesh. **Results and Discussion:** This study showed that 68.11% of students suffer from depression, 60.86% anxiety, 61.98% mood disorder, 63.23% financial problems, and 94.29% career effect. Binary logistic regression demonstrated that student's gender, feeling helpless, worried, lost interest, educational expenses, opinion of solve the problems and problems for prolonging education system were the risk factors of career effects. On the other hand, student's gender, marital status, feeling bad about yourself, symptoms of corona virus, feeling nervous, short term memory loss, mood change, communicating problem, lost interest, feeling helpless, continue of income, study interrupt, irritable mood were associated factors of psychological problems. Family income status, feeling bad about yourself, lost interest, educational expenses, continue of income source, study interrupt, reason of study interrupt, were the factors associated with financial problems. **Conclusion:** This study found some cases for psychological, financial problems and career among university students in Bangladesh during COVID-19 pandemic. To alleviate those problems of the students, the government, the university administration, and their families have to take the necessary steps from their respective places; simultaneously, students need to be aware of these issues.

Abstract – 64

Title: Factors influencing nutritional status of children aged 6-59 months in Bangladesh: Survey in Rajshahi district

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Background: Adequate nutrition and care is the crucial factor for developing brain, maintaining growth and health in children. The socio-demographic, socio-economic and behavioral factors are influencing in child growth and development. The malnourished mothers from low socio-economic condition delivered malnourished children. Subsequently, poor hygiene and inadequate breastfeeding and diverse complementary feeding are causing child malnutrition which are linked to maternal knowledge, behavior and economic condition. **Objective:** The objective of this study was to measure the nutritional status among children aged 6-59 months with in-depth investigation of the effect of socio-economic and behavioral factors among mothers in Rajshahi, Bangladesh. **Methods:** A cross-sectional study was conducted from April to June 2019 among 453 children in Rajshahi district. The socio-economic and behavioral data were collected from each mother. Three indices were used to measure the nutritional status of children: (i) stunting, height–for– age (ii) wasting¸ weight–for–height and (iii) under-weight ¸ weight–for–age. Z-scores to categorize the nutritional status. Chi-square (χ^2)-test and multiple logistic regression model was used to see the association between nutritional status and socio-economic and behavioral factors and their effects on under-five children. The height was properly measured using height-board and weight was measured using lightweight SECA scales with digital screens, designed and manufactured under the authority of the United Nations Children's Fund (UNICEF) and then stunting, under-weight and wasting was analyzed according to WHO cut-off value. In addition, the parent's socio-demographic and other necessary data were collected for measuring the association and effect. **Results:** In this study, 25.6%, 35.5% and 22.7% children were stunted, under-weight and wasted respectively. Higher stunting was observed among urban (31.8%) children than rural (22.5%). In this study, a large portion (22.7%) of children were stunted who belongs to young adult mothers (20-34 years). Similarly, we found a significant association between chronic malnutrition and parent's education. The primary or below level educated parents had higher stunting children (30.6%, 27.6%) than secondary or higher (19.9%, 23.3%) educated parents. The Chi-square test revealed that socio-demographic, socio-economic and behavioral factors were the significant determinants of all three indices of child nutritional status. These significant factors were: type of residence, age of mothers, age of fathers, mothers' education, father's education, age of children, wealth index, type of house, child birth weight, and gestational age of children, initial breastfeeding, and exclusive breastfeeding.

Abstract – 65

Title: Significance of Water-Bodies in the Poumaiculture: A Landscape Archaeological Approach

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There is a well-known fact that there is always a relationship between the physical setting of the environment and the humans, and the interaction between the two components somehow always leaves a significant remark. Each piece of land may it be water bodies, is deeply embedded with culture specific symbolism, understanding these meanings helps one understand nature-human processes and relationships. In every society, may it be great or little, there is often a myth or oral history related with places that surrounds us. The objective of the study is to reconstruct past human life-ways through both the material and non-material remains of a particular landscape. And here the paper elucidates reconstruction with special reference to the water bodies of LiyaiKhullen Village inhabited by Poumai Community, namely: LikhaoDziikhao(Eagle pond), KhaoduDziikhao(Tiger pond), PeoriDziikhao(Elephant pond), and KhaakhaohDziikhao(Fish pond), which acts as the sources of drinking water for the village. The water bodies are in threat of destruction due to changes in the lifeway's of the people. And thus, documenting it will be of immense help for the society as a whole as well as academically.

Abstract - 66

Title : Body Adiposity Determinants of Adolescent Hypertension in Manipur

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Introduction: Adolescent hypertension has been one of the neglected health, being associated with body adiposity. The present study attempts to determine adolescent hypertension in Manipur (Northeast India) through body adiposity measures. **Methodology:** A total of 728 adolescents aged 15 years and above were included in the present study after consent. Blood pressure and related anthropometric data were collected. The prevalence rate was calculated. The odds ratio (OR) was also calculated to assess the likelihood of risks. The receiver operating characteristic (ROC) curve analysis was performed to find the measured parameters' predictive cut-off values. **Results:** The prevalence of adolescent hypertension is 29.12%, and elevated blood pressure is 20.47%. Boys are more hypertensive than girls. Obese adolescents are more prone to hypertension. Overweight, obese, and abdominal volume index (AVI) has 2.31, 5.15, and 3.41 OR to develop hypertension significantly, irrespective of gender. Among the boys, waist circumference (WC), AVI, and waist to height ratio (WHtR) are better predictors with area under curve (AUC) values reaching 0.7. Among the females, the BMI reaches AUC 0.7, making it a better assessment for hypertension. **Conclusion:** The study highlights the concerns of

adolescent hypertension among Northeast Indian adolescents, which needs attention. More studies in different regions must be conducted to understand the problem's crux to enable health policymakers to promote adolescent health.

Abstract – 67

Title: Online Classes and Its Effect on The Health of Adolescences During The Pandemic: A Study Among The Students Belonging to Age 14 - 17 Years

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Background: The appearance of Covid-19 had shifted the traditional mode of learning to the online mode. Online classes had saved the students from being affected by the coronavirus but on the other side, the digital form of the classroom had shown a negative effect on the health status which included both the mental and physical health of the students. The recent mode of teaching had left a great impact on the socio-demographic factors which include the family income and occupational types, birth order and size, presence of electronic gadgets, and the need for internet connections. The rapid change in the socio-economic, demographic, and epidemiological status in India had further contributed to the adoption of online classes thus resulting in the rise of mental and physical health problems. **Objectives**: To understand the effect of online classes on health which includes the socio-demographic factors which directly affect the mental and physical status of the students during COVID-19. **Methods**: A questionnaire was used to study the effect of online classes on the health of adolescents. A total of 200 students (100 boys and 100 girls) were included in the study residing in the rural area of Gossainpur, Bagdogra. The data were collected four days after the schools re-opened, maintaining the COVID-19 protocols. **Results and Discussion**: The results clearly showed an increase in various health-related factors, where the prevalence of mental health was found to be higher during the pandemic period than pre-covid. The prevalence was found to be higher among girls than boys. The physical health problems (eye strain, headaches, body pain) showed higher prevalence during the pandemic among both adolescents. **Conclusion**: The paper here concludes that Covid-19 had transformed the teaching-learning process into online mode, which though had saved the students from the virus but had resulted in an increase in mental and physical health-related problems. Thus, as school reopened proper initiatives should be implemented to reduce the health-related problems among the transitional group.

Abstract – 68

Title: Prevalence and Determinants of Short Birth Interval in Northeast India: Evidence from National Family Health Survey 2015-16

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Background: Short birth interval (SBI) is associated with a variety of adverse perinatal, neonatal, child and maternal health outcomes, including infant and maternal mortality. Short birth interval is more common among women in low- and middle-income countries. The median birth interval in India is 32 months, which falls under the SBI category. Therefore, the objective of this study is to determine the prevalence of short birth interval and associated factors among childbearing mothers in Northeast India. **Methods:** The study included data from 49260 women in eight states of Northeast India, obtained from the 4th National Family Health Survey of India (NFHS-4). Outcome variable was Short birth interval, ascertained as spacing of birth between last-children and their immediate elder siblings was less than 33 months recommended by WHO. Data on maternal and socio-demographic characteristics were used as explanatory factors. Binary logistic regression was used to determine the relationship between the outcome variable and explanatory factors, adjusted odds ratio with 95% CI was calculated. To examine the significance of relationships in the multivariable analysis, the cutoff point for p-value was taken as <0.05. **Results:** Short birth interval between mothers aged 15 to 49 years occurred in 43.4% of all recent-child births in Northeast India. Nagaland (55.7%), Mizoram (50.5%) and Meghalaya (48.2%) were the top three states with the highest SBI. Various factors influenced on SBI, which differed by states. Overall in Northeast India, SBI was almost three times (aOR: 2.76, 95% CI: 2.51-3.02) more prevalent among mothers under the age of 24. The prevalence of SBI had doubled (aOR: 2.14, 95% CI: 1.95-2.34) for mothers who lost her previous child. The SBI was found to be more in mothers with lower education; religious Muslims, Christians and Buddhists; and tribals. Families with lower wealth index (poor) were more likely to have SBI than wealthier families. The SBI was positively associated with birth order, and both decrease simultaneously. **Conclusion:** The study provides insights into the coexistence between short birth interval and multiple factors, including maternal education, wealth index, and under 2 year's child mortality. It is proposed that the government should take immediate initiatives to prevent infant and child mortality, control marital age, improve maternal education and increase the household wealth index. It will play an important role in achieving the third Sustainable Development Goal of UN in North East India.

Abstract – 69

Title: Effect of CAPN10 (SNP-19) genetic polymorphism and obesity in T2DM: A study on Bengalee Hindu caste population of West Bengal, India

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Background: Type 2 diabetes mellitus (T2DM) is a metabolic disorder characterized by high blood glucose levels due to defects in insulin secretion from pancreatic β cells and peripheral insulin resistance. It is a multifactorial disease caused due to induced obesity and the influence of genetic polymorphisms. Calpain-10 (CAPN10) gene and its genetic polymorphism (SNP-19) significantly alter insulin sensitivity assayed by the synthesis of a mutant protein and/or altered transcriptional regulation, which could contribute to the diabetes risk. The role of CAPN10 genetic polymorphism in T2DM has widely been studied in different populations and obtained variable results. Considering the variable results in different ethnic groups, the effect of genetic polymorphism with induced obesity might yield imperative result in Bengalee Hindu caste population for pathogenesis of T2DM. **Objective**: The present study is an attempt to understand the association of CAPN10 (SNP-19) genetic polymorphism and obesity with T2DM in Bengalee Hindu caste population. **Methodology**: The present study consisted of 104 clinically diagnosed type 2 diabetes mellitus male patients (Age range = 23–80 years) and 176 apparently healthy males (Age range = 18–79 years) without T2DM and family history of T2DM from Bengalee Hindu caste population. Genomic DNA was isolated from mouthwash using phenol-chloroform method with slight modifications. PCR method has been used to perform genotyping of (CAPN10 snp-19). Anthropometric and physiological variables have been collected by using standard method. **Results**: Overall, the distribution CAPN10 (SNP-19) genotypes revealed no significant difference between T2DM patients and control group. However, T2DM patients with II genotype have significantly ($p < 0.05$) higher WHR compared to ID and DD genotypes. Individuals with DD genotype demonstrated significant ($p < 0.05$) higher risk associated with T2DM than (II+ID) genotype with increase in BMI, WC, and HC. **Conclusions**: The findings of the present study might incorporate as criterion for early prognosis of T2DM in Bengalee Hindu caste.

Abstract – 70

Title: Impact of COVID-19 and pandemic lockdown on youths

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Background: Interception in the domestic and social way of life poses a challenge to the people's psychological resilience, social, and economic life. Physical distancing has impacted

mental health by preventing social interaction. **Objective:** In the present study, an attempt was made to determine the impact of the COVID-19 pandemic lockdown on mental health and activities of daily living among the youths of Manipur. **Methods:** An online survey was performed from 15 June until 20 June 2020. 279 participants, out of which 70% females and 30% males belonging to youth aged ≥16 years in the population of Manipur. The data was analysed using MS Excel and Chi square test where a p- value<0.05 was considered statistically significant. **Results and discussion:** During the pandemic lockdown, females tend to get significantly more worried and anxious than males. Moreover, the pandemic lockdown has a greater impact on females than males with respect to concentration on things, frustration, helplessness, unusual behaviour, and worry over academic career, job or financial condition during this pandemic lockdown. However, these differences are not statistically significant. Females were more depressed and sadder than males. On the other hand, males more participated in assisting others during the lockdown than females, and the difference is found to be statistically significant. **Conclusion:** The present study revealed the impact on mental distress, mainly among the female population due to the COVID-19 lockdown. Moreover, the present study also highlight the impacts in activities of daily living, which needs adjustment in eating habits, and sleep patterns, and digital dependence. There is a need to take appropriate interventions during and after the pandemic.

Abstract – 71

Title: Perceptions of Disease among the Kom Tribe of Manipur

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The disease has been part and parcel of human evolution though we like it or not. Since time immemorial, it has evolved along with human's physical, mental and technological changes. So does its perception by people changes while acquiring its knowledge. Thus, apart from the biological perspective of disease, the social view of disease also plays a vital role in understanding the health care system of a society. Therefore, people often face a dilemma in managing and treating disease based on their acquired knowledge. This paper is an attempt to study the perspectives of the Kom tribe towards understanding, management and treatment of disease. The Kom are one of the 34 scheduled tribes of Manipur who resides mainly in the hilly districts of the state. To understand people's perception of health and disease, we will focus on how the Kom people accepted and managed different diseases before and after modern medical science intervention. And the changes they embracedwith the advent of Christianity brought a new dimension to the concept of disease.

Abstract – 72

Title: Prevalence and associated risk factors of adverse pregnancy outcomes among the Meitei women of Manipur, India

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Backgrounds: In India, about 20-30% of pregnancies belong to the high-risk category, responsible for 75% of perinatal morbidity and mortality. The common causes of adverse pregnancy outcomes are poor socioeconomic status, lack of contraceptive knowledge, religious issues, desire for the male child, the concept of a large family, and women conceiving from marriage to menopause. Therefore, the present study aimed to explore the prevalence and associated sociodemographic factors of adverse pregnancy outcomes among Meitei women in Manipur. **Methods:** A cross-sectional study was conducted by carrying out household surveys through a simple random sampling technique. A total of 833 ever-married women was collected during October 2019 and 2020. The present study was carried out among the Meitei women of Manipur, India. An adverse pregnancy outcome was defined as the occurrence of miscarriage, stillbirth, or birth before 37 weeks of gestation. Data on socioeconomic, pregnancy-related hypertensive disorders (PRHDs), gestational diabetes, fetal presentation, mode of labor, and neonatal complications were collected. Data analysis was done by IBM SPSS statistics version 25, and the association of variables were evaluated using Pearson's chi-square test with statistical significance considered at 5% level. **Results:** Of the 833 women recruited, 38.4% of Meitei women reported at least one pregnancy complication in their recent pregnancy. The most reported obstetrics complication among women was abortion (24.01%), gestational hypertension (13.68%), gestational diabetes (12.60%), and preterm birth (8.76%). The result showed that women with lower socioeconomic status are more likely to experience adverse pregnancy outcomes. The illiterate and unemployed, along with higher parity women, were more likely to experience adverse pregnancy outcomes. Moreover, inadequate antenatal care (<8 visits) was significantly associated with adverse pregnancy outcomes. **Conclusion:** The present findings confirm a higher prevalence of adverse pregnancy outcomes in Meitei women. Low literacy and lower socioeconomic status were some of the crucial indicators of adverse pregnancy outcomes. Hence, increasing access to health institutions, developing strategies to prevent and treat complications, and providing focused antenatal care follow-up for pregnant women.

Abstract – 73

Title: Assessing the Antibiotic Resistance Pattern in Nontuberculous Mycobacteria (NTM) and its socioeconomic effect on Aquaculture in Murshidabad District of West Bengal.

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Nontuberculous Mycobacteria are environmental opportunistic pathogens causing zoonotic infection in human and aquatic species, other than M. tuberculosis and M. leprae, leading to fish mortality. NTMs are usually opportunistic pathogens which infect person who have an underlying comorbidity and causative agent of fish tuberculosis. This paper highlights the change in antibiotic resistance pattern and its impact over a period of years (2015-2019) on the fishermen and aquaculture practice in Murshidabad district of West Bengal, due to prevalence of NTMs in the ecosystem. Water samples were collected in sterile Tarson bottles from aquaculture ponds 'Beels' and river Bhagirathi while fishermen were interviewed with visible positive signs of NTM infection like lesions on hand and feet. Samples were identified using standard biochemical procedures along with PCR. For test of antibiotic resistance and susceptibility MTT assay was performed. An average increase of 8.23% per year was observed for NTMs in water samples. 13.7% average increase per year was observed in NTM positive infection samples. An increase of 17.17% per year was observed for antibiotic resistant NTM samples, which is significant, while a marginal 3.5% increase per year was recorded with respect to antibiotic susceptibility. An increase of 12% per year was observed over a span of 5 years in detection of NTM positive samples overall. From the analysis it is clearly established that antibiotic resistant NTMs are growing in the environment at a much faster rate. Increased anthropogenic pollution and climate change along with increased production demands can be an underlying cause. Socio-economic condition of the area is also being affected due to loss in aquaculture production. An increase in antibiotic resistance means greater usage of broad spectrum antibiotics including chances of horizontal transfer. Incidence of lesion and hemorrhage in fish handlers is alarming since many of these are going untreated as the infection is under-documented. General awareness and proper hygiene can reduce the chances of infection in the population and also the spread of antibiotic resistant species in the environment.

Abstract – 74

Title: Association of Menstrual Irregularity with Body Composition among the Poumai women of Manipur

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Introduction: Irregular menstruation can affect the fertility of a women, which in further deteriorates her psycho-social health. Various factors such as hormonal imbalances, stress, and lifestyle can cause it. Body composition or body types are also often referred as one of the important influencing factors of menstrual irregularities. **Objective:** The objective of the study is to assess the association between Menstrual Irregularities with Anthropometric indices among the adolescence and adult of Poumai women community in Manipur. **Methods:** This cross-sectional study was conducted on 999 women who are in the reproductive age groups. The respondents are grouped into adolescents and adults. Anthropometric parameters were measured and related indices of body composition parameters such as waist hip ratio (WHR), Waist to height ratio and body mass index (BMI) were calculated. **Results:** The mean age and age at menarche of the participant were 22.40±7.510 years and 13.71±1.244 years, and occurrence of menstrual irregularity was 37.94%. Irregular menstrual cycle was found to have a significant association with age ($p<0.05$), as adolescents have significantly higher menstrual irregularities (44.91%) than the adult (33.22%). There was a significant association of menstrual irregularities with height ($p<0.05$) and hip circumference ($p<0.05$). Obesity, BMI ≥30kg/m^2 among the adult women has a significant association with menstrual irregularity ($p<0.05$). Further, the odds ratio value shows that, the adult with abnormal body mass index are 1.43 (underweight), 1.62 (overweight), and 3.86 (obese) times more likely to have irregular menstrual cycles. **Conclusions**: A significant association between obesity and irregular menstruation highlights the importance of adapting effective and simple lifestyle and behavioural modifications in the reduction of excess weight thereby leading to healthy reproductive life among women.

Abstract – 75

Title: Cultural aetiology of Anaemia: A case study of Ranchi district

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Health and diseases are closely related with the socio-cultural behaviours of the population. Therefore, a study of socio-cultural influence on a medical phenomenon is a must to understand the phenomenon in its totality. In fact, the socio-cultural study of a medical phenomenon is revelatory of the attitude, beliefs and customary actions of population. There is a dynamic interaction among human biology, psychology and socio-cultural factors. Socio-cultural factors are so general that they hardly gain attention in day-to-day life. They become inseparable and part and parcel of life. Anthropological approach to study the health is deeply involved with the manner in which people perceived their world and the characteristics of socio-cultural environment. Health behavior of any society is conceived as a consequence of the process of knowledge leading to action and then continuing practices. Thus, health is a

multifaceted entity possessing physical, mental, social and cultural diversions. Therefore, a holistic approach is needed to understand the biological and cultural aspects of health. This paper is an attempt to explore the socio- cultural aspect of one of the most prevalent disease" iron deficiency anaemia" (IDA). Anaemia and women are a very famous combination throughout the world. According to WHO anaemia among women is one of the major factors of the global burden of diseases. Besides child mortality and maternal mortality it negatively affects cognitive and physical development of children and work productivity in adults. Anaemia is characterized by low level of heamoglobin in blood. Heamoglobin is a respiratory pigment that plays a vital role in energy generation in body. Mainly deficiency of iron is main cause for IDA. Because of its wide spread and intergenerational effect various programs to eradicate the disease has been started but still its prevalence is very high. It is because IDA has very strong connection with the socio-cultural sphere of any society.

Abstract – 76

Title: Dreams, Dilemmas and Despair: Understanding the Emotional Worlds of Infertile Couples Seeking Assisted Conception

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Background: Infertility is largely defined as the failure of reproductive system and the inability to conceive after twelve months of regular, unprotected sexual intercourse. However, infertility is also a social disease and a mental burden for couples, especially women who find the weight of bearing children resting more heavily on their shoulders. It is estimated that about 40 per cent of women attending infertility tertiary care facilities experience clinically significant depression and anxiety (Chen et al. 2004). Apart from these clinical stress indicators, women also deal with a range of emotional challenges in their everyday life and find their lives invariably stifled by the experience of infertility and its treatment. **Objectives:** The paper explores the challenges of infertility and its treatment as experienced by women undergoing assisted conception in infertility clinics. The paper attempts to highlight the relation between infertility and psychological well-being by documenting the emotional journeys of infertile couples and how they cope with the immersive hopelessness around them. **Methodology:** The data for this paper comes from my doctoral research on infertility, its experience and treatment in the infertility clinics of Lucknow, Uttar Pradesh. I conducted six months of fieldwork in a private infertility clinic in the year 2020 using the methods of participant observation and in-depth interviews of twenty-five treatment seeking couples. Informal, unstructured interviews were conducted with more than fifty couples. **Results and Discussion:** The dream of bearing a biological child for most infertile couples takes a long and arduous journey. It is realized (in most cases not realized) after enduring long and repeated cycles of treatment where bodies are stripped of the self, medicalized and treated as unfeeling vessels. Emotions are prescribed by the clinicians and couples find themselves retreating into the shell of their failed bodies, their minds plagued by uncertainty, dilemma and despair. Coping with deteriorating emotional well-

being, most couples seek refuge in household work, family and faith. Spousal support also serves as one of the key coping mechanism allowing patients to take on unending challenges of infertility and function on a day to day basis. **Conclusion:** Emotional well-being of couples undergoing assisted conception is invariably influenced by the term of infertility, the number of treatment cycles, length and stage of a particular treatment cycle, spousal support, and family and kinship ties. The general pattern, however, was a recurring cycle of despair and gloom, intensified by the failure of the treatment. With every failed treatment cycle, the dreams of parenthood became blurry and couples would experience prolonged bouts of self doubt and helplessness. It was observed that couples with comparatively positive emotional journeys had stronger spousal and familial support, their infertility seen as a result of a fractured fate rather than a failed body and self.

Abstract – 77

Title: Why Maternal Obstetric Morbidity and Their Concomitants Differ between Sedente and Migrant Groups? The Case of the Oraon tribal populations of Eastern India

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Background: There is a consensus that diversity in ecology may result in the variation in obstetric morbidity. The cascade of obstetric complications to a great extent is governed within the matrix of biological, social, cultural and economic components of a local ecology and if the ecological conditions are sufficiently perilous and unfavourable, reproductive cost becomes steeper. **Aim:** we asked in our research whether, the obstetric morbidities at three stages: antepartum, intrapartum and postpartum, and its concomitants differed significantly between sedente and migrant Oraon tribal populations. **Subjects and methods:** 403 Oraon women [203 sedente and 200 migrants] aged between 15 and 49 years, who were in wedlock and had at least one child within the last two years from the time of interview, were studied. Data on antepartum, intrapartum and postpartum morbidities, socio-demographic and health care variables were collected using semi structured schedules. We estimated the burden of obstetric morbidity of each participant by assigning a score against two domains: antepartum and intrapartum morbidities, and postpartum morbidities. Based on the nature of our variables, we used Categorical Principal Component Analysis (CATPCA) that transformed the large number of correlated socio-demographic and health care variables to four uncorrelated components (PCs); Component 1 was highly loaded with 'religion, socio-economic and health care' variables; Component 2 with 'socio-demographic and reproductive variables'; Component 3 with 'reproductive variables'; and Component 4 'socio-economic variables'. To find out the risk indicators of obstetric morbidities we applied Poisson regression as multivariate analysis. **Results:** Bivariate analysis showed significant (p≤0.05) sedente-migrant differences in antepartum, intrapartum and postpartum morbidities and socio-demographic characteristics, and health care variables. Multivariate analysis showed that migrant participants were more

likely (p≤0.05) to experience ante and intrapartum morbidities than the sedentes. Moreover, it also appeared that all the PC scores (baring PC1 to PC4) could significantly (p≤0.05) predict ante and intrapartum morbidities. But neither migration status nor any of the PC scores were the significant predictors of postpartum morbidities. But variables that signify direct availing of the health care services during and after delivery significantly predicted postpartum morbidities. For example, it appeared that participants who delivered their child in health institutions and had episiotomy were more likely (p≤0.05) to experience postpartum morbidities but the condition reversed for those who availed PNC within the first 24 hours of delivery. **Conclusion:** Sedente and migrant participants, despite hailing from the same ethnic group, sharply differed in prevalence of obstetric morbidities and its concomitants owing to differential local ecological attributes.

Abstract – 78

Title: Population structure and marriage pattern: A study on four populations of Tripura, Northeast India

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In human society marriage as one of the major institutions play an important role towards social, cultural and biological connotations. Mating and thereby procreation in human is generally governed by the institution of marriage. Human mating is therefore not simply the biological phenomenon only but also constitutes a part of important social institution known as marriage. India occupying the centre stage of Palaeolithic and Neolithic migrations and at the cross-roads of migration, Indian populations have undergone complex and ancient admixture events over a long period and have been the melting-pot of disparate ancestries originating from different parts of Eurasia and South-East Asia. Since, the contemporary ethnic India is a land of enormous genetic, cultural, and linguistic diversity, therefore, the present study attempted to discern the effect of possible admixture and/ or endogamous nature of four Tibeto-Burman linguistic, aboriginal tribal groups (Tripuri, Hrangkhawl, Rupini and Kolui) of Tripura North East India. Present study consisted of four hundred (400) participants 100 each from above mentioned population groups. Polymorphic blood group markers such as ABO and RhD were done by antigen-antisera agglutination test and Polymorphicplasma protein HP types were determined by Polyacrylamide Gel Electrophoresis (PAGE) following standard techniques. Allele frequencies and Fst (The fixation index - FST is a measure of population differentiation due to genetic structure) were calculated using standard formula. The result of the present study revealed very low Fst values of three polymorphic markers were evocative for low differentiation among these groups, indicating least admixture and prevailing endogamous nature of these population. The overall calculated genetic difference (G^2 analysis) revealed

highest distance between Tripuri and Hrangkhwal tribes and least distance between Rupini and Kolui tribes.

Abstract – 79

Title: Prevalence and correlates of diabetesmellitus: A cross-sectional study
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Background: Diabetes Mellitus is one of the most common metabolic diseases. It is characterized by chronic hyperglycemia associated with carbohydrate, fat, and protein metabolism disturbances due to absolute or relative deficiency in insulin secretion and/or action. Globally, diabetes affects many diverse ethnic groups. The primary cause of death in individuals with diabetes is not merely from diabetes itself but from the complications associated with diabetes such as cardiovascular disease (CVD), hypertension, and failure of various organs, especially the kidneys, eyes, nerves, and blood vessels. The pace of growth and complications of diabetes demands a concerted, global effort to focus on prevention and appropriate treatment of this epidemic. Therefore, identification of hyperglycemia in the earliest stages (prediabetes) and proper treatment are the primary needs for effective and affordable actions to tackle the critical health issues caused by diabetes. **Objectives:** To estimate the prevalence of prediabetes and T2D among the Meiteis of Manipur and identify the potential risk factors with special reference to anthropometric and physiological variables. **Methodology:** A community-based, cross-sectional study was carried out. A total of 911 individuals aged 18-65 years were randomly screened in the present study after getting their consent to participate in the study. It covers both rural and urban populations from valley districts of Manipur, in which Meiteis are predominantly inhabited. **Results and Discussion:** In the present study, approximately 12% of the participants were diagnosed with type 2 diabetes and, 36.6% were prediabetes. The frequency of both prediabetes and diabetes increases with an increase in age. All the anthropometric and physiological variables considered in the study (except DBP) shows significant differences when compared between normal and prediabetes, and in between normal and diabetes group ($p<0.05$). Odds ratio analysis reveals that participants with prediabetes and diabetes are more than one-fold increased risk of having obesity i.e., 1.62 CI 1.18-2.23 (0.003) and 1.93 CI 1.17-3.18 (0.009), respectively. However, central obesity (high WC and WHR) are found to have more than one-fold and three-fold increased risk among the diabetic participants. A significant increased risk of hypertension was also observed. Moreover, women are at higher risk than men w.r.t. anthropometric and physiological variables among the studied population. **Conclusion**: Environmental and lifestyle changes resulting from urbanization and migration to the urban environments from rural settings may be responsible for the rise in diabetes in India. The factors causing diabetes (anthropometric and physiological variables) are significantly different between males and females. As several of the factors associated with diabetes are potentially modifiable, the

epidemic of diabetes can be substantially reduced by increasing physical activity and reducing obesity rates in adults, and most importantly, in children. There is an urgent need for screening diabetes on large scale along with providing educational awareness at community-family levels.

Abstract – 80

Title: Culture as a driver to understand the anthropology of health and disease: concepts, methods & actions

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Novel corona virus has been declared a pandemic and has spread across 213 countries & territories around the world with severe implications. It directly affects all Socio-Cultural demotion of people. Health situation of indigenous people are always poorer than non-indigenous. They suffer from lower life expectancy, high infant and child mortality, high maternal morbidity & mortality, malnutrition and stunted growth. In this paper an attempt has been made to understand the corona virus and its effects on health of indigenous people based on available literature. They are not able to take advantage of the health care assistance offered by the government and NGOs because of the Communication problem and Cultural differences. Moreover, Social, Cultural, Economic and nutritional features have a profound impact on health and together they shape the local experiences of illness of indigenous people. This study is an anthropological attempt to understand how COVID19 has impacted the tribes and the challenges faced by them. The findings are discussed in the paper.

Abstract - 81
Title: Socio - cultural Behaviour and its Impact on Health and Nutritional Status of Birhor's of Hazaribag

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Health problem is prominent in Jharkhand specially in economically backward communities. Birhor's one of the PVTGs of Jharkhand are vulnerable in health status. Under nutrition, skin disease, malaria are major problems among Birhor's of Hazaribag. Under nutrition is caused due to insufficient intake of nutrients. Major factors that influence health among Birhor are socio - cultural behaviour. Insufficient access to food, negligent behaviour towards nutrition, practice and sanitation, lack of education and economic inequality, Cultural influences on food habits along with several religious taboos and social customs also causes nutritional deficiency. The main objective is to study the socio - cultural behaviour and its impact on health and nutritional status of Birhor's of Hazaribag. The study has been conducted in 'Kandsar' and 'Sijhua' two Birhor tandas of Hazaribag district. Anthropological measurements and dietary survey data of daily energy intake has been collected from 120 adults (60 males and 60

females) from two birhor tandas of Hazaribag. Malnutrition, skin disease, malaria and diarrhoea are major health issues among Birhor's of Hazaribag. Negligence towards sanitation, cleanliness, unhygienic and lack of nutritive foods causes various health issues. Drinking habit among 80% of male causes health and economic issues. Undernutrition and uncontrolled pregnancy causes maternal and infant mortality and increases low birth weight babies. This paper will discuss about the issues and causes related to health and nutrition among Birhor tribe of Hazaribag.

Abstract – 82

Title: Sharing experience of treatment, counselling and research on PLHAs attending a clinic in Pune: Critical ethical issues in a Randomised Clinical Trial using yoga intervention for improving quality of life.

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I**ntroduction:** The present study was carried out with People Living with HIV/AIDS (PLHAs) at two of its ICMR-NARI clinics during 2011-2014.A meeting with healthy PLHAs, defined as those who are not entitled to free ART treatment given through the government, as it was based on CD4Count being above 500cucm.The possible interventions discussed with the then healthy PLHAs included maintaining good health, diet, life-style including yoga. The Research team responsibility was to give non-invasive, non-pharmacological low cost intervention that one could practise at home like Yoga practice. A research study with using the gold standard of the Randomised Clinical Trial approach was planned. This presentation highlights how rigours in the research methodology procedures enabled in its completion, disseminating research findings and publishing. **Research Design**. The study was proposed as a Randomised Clinical Trial with a Pilot Study for three months of observation with an approval of NARI's Scientific Advisory Committee and Ethics Committee. The pilot study included 60 healthy PLHAs (CD4 count above 500 cu.cm.), both men and women, who were randomised to the intervention arm and control arm. **Tools Used:** A standardized, tested tool by WHO for HIV –QOL Bref. Scale was used. The WHO Quality of Life Scale is a composite of six domains: physical wellbeing, level of independence, psychological, social, environmental and spiritual domains. The study used monitoring tools for daily practice of yoga at home along with their monthly health records during the follow-up visit at clinic. **Intervention:** The literature search indicated use of yoga intervention for life style diseases like and very few on communicable diseases. This study was the first RCT using yoga intervention for PLHAs. The study used Sudarshan Kriya Yoga (SKY), a standardised practice of Yoga given by trained teachers of Art of Living. As part of the AOL program the participants were trained in SKY practice at 6-day 22-hour workshop to prepare the participants to practice yoga at home and maintain a record in a daily diary. Each week the learners practice yoga at the follow up centre with the help of teacher so they can continue bettering their SKY practice. (IJMR Jan 2015, Mawar etal90-99). This weekly activity brings solidarity, something that was considered important for a PLHAs. **Results and Conclusion**: The study covered 60 participants randomised to both the intervention and controlled groups.

Significant changes were observed in both groups. Those in the intervention arm had higher scores than the ones in control arm (p. 0.016) for the six domains: physical (p.0.004), level of independence (p.0.001), psychological (p 0.023) were statistically significant while it was not so for social (p. 0.644), spiritual (p 0.661) and environmental (p0.805) domain, the difference was not as marked during the observation period of 3months. In the intervention arm those with higher dose of yoga practice had higher scores. Gender differences were observed in practice of SKY at home as observed from their daily diaries and the SMS message response. (Mawar 2015, IJMR) The study concluded that yoga can be an adjunct to the medical intervention for PLHAs. To make it a standalone intervention, long term studies would be needed. This study was disseminated at an International Yoga conference at AIIMS held at IIT, Delhi, Aug 2014, at a FERCI Ethics Meeting at Coimbatore 2013, at International FERCAP meeting at 2017 at AIIMS and published in their Proceeding volume and in IJMR Jan 2015 where trial registry number was asked. This study was carried out prior to the start of International Yoga Day in 2015 and much before the Test and Treat Policy was introduced by The National AIDS Control Program in 2017 and calls for more projects to be developed.

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