CHAPTER 2

ANTHROPOLOGY

Doctoral Theses

01.   ARORA (Gunjan)
        Body, Gender and Social Space: An Anthropological Study of Working Women's Health an Social Adaptation in Delhi.
        Supervisor: Prof. Subhadra Channa
        Th 23115

Contents

1. Introduction. 2. Theoretical underpinnings. 3. Fieldwork, methodology and field area. 4. Gendered bodies: relation with paid employment. 5. Narrations on motherhood and childcare. 6. Phenomenology of menstruation and menopausal bodies. 7. Harassed body: Navigating gendered public space. Conclusion: Health and social adaptation. References and appendix.

02.   AURORA (Heemanshu)
        Tuberculosis, Efficacy of Treatment and its Socio-Demographic Determinants among Adults of Delhi.
        Supervisor: Prof. Satwanti Kapoor
        Th 22964

Abstract
(Not Verified)

The present study was a cohort study in nature with the main aim to assess the impact of treatment on biological, physiological, biochemical and health related quality of life markers over a period of six months treatment regime and to determine the socio-demographic risk factors for TB in the study population. Socio-economic indicators like education, occupation and income of adult males and females among cases and controls were assessed. The association of tuberculosis (TB) with socio-economic status (SES) shows a strong positive gradient. Housing conditions among cases were found to be more conducive for the proliferation of TB bacilli than controls. The significant differences were found among cases and controls regarding their anthropometric, physiological, as well as adiposity indices and body composition profile. A gradual improvement during the course of six months treatment was observed among cases with respect to their biological variables and health related quality of life markers. Cut-off values of various adiposity indices for assessing undernourishment among cases have been evaluated on the basis of BMI and MUAC using ROC curve analysis. Various potential risk factors have been identified which interact with one another and predispose a person to tuberculosis. The cause, consequence of TB and its treatment are well known by now so are the reasons for non-compliance, but still people all over the world are suffering from this much curable disease. This highlights the need to go to public on awareness campaigns about different types of TB, their symptoms, when to get diagnosis, treatment and cure.

Contents

1. Introduction. 2. Materials and methods. 3. Results. 4. Discussion. 5. Summary and conclusion. References and Annexures.

03. BANSAL (Astha)
Psychosociobiogenetic Determinants of Adverse Cardiovascular Variables among Sunni Muslims of Delhi.
Supervisor: Prof. P.C. Joshi
Th 22964

Abstract
(Not Verified)

Cardiovascular diseases (CVD) have been leading cause of morbidity and mortality in India. Not much data is available on Sunni Muslim community of Delhi and understanding the CVD associated risk factors in such population group may be useful in combating the forthcoming adversities. The aim of the present study was to estimate the distribution of psychological, social, biological and genetic cardiovascular risk variables and their interaction with methylenetetrahydrofolatereductase (MTHFR), methionine synthase (MTR) and Cystathionine–B-Synthase (CBS) gene among the Sunni Muslims of Delhi. A total of 406 individuals (125 males, 281 female) in the age group of 35-65 years participated in the study. The association between cardiovascular risk variables and psychological variable (stress and depression) were assessed. The study highlighted the point that females are more vulnerable for stress and depression as compared to males. Socio-economic status showed increase risk of depression and stress. The study assessed the presence of metabolic syndrome using IDF and Modified NCEPATP III criteria and also determines the optimal cut off values of different parameters for the detection of metabolic syndrome. The generalized and regional obesity indicators like BMI, waist circumference, waist hip ratio and waist height ratio showed increase risk for prehypertension and hypertension. The mean values of all the lipid variables were higher among hyperhomocysteinemic individuals than those with normal homocysteine, though the difference was statistically significant only in non- HDL. The study failed to find any significant association of MTHFR, MTR and CBS polymorphism alone for the risk of metabolic syndrome, hypertension, hyperhomocysteinemia or depression. However, it is noteworthy that MTHFR polymorphism was associated with increased risk for metabolic syndrome, hyperhomocysteinemia, hypertension or depression when combined with MTR and CBS genotype. The data suggest that there might exist synergistic effect of these three polymorphism upon causation of metabolic syndrome, hyperhomocysteinemia, hypertension or depression.

Contents

1. Introduction. 2. Materials and methods. 3. Distribution of cardiovascular Disease risk variables. 4. Association of cardiovascular disease risk variable with psychological variable (stress and depression). 5. Association of cardiovascular risk variable with metabolic syndrome, hypertension and hyperhomocysteinemia. 6. Genetic and cardiovascular risk variable. 7. Gene-gene interaction using multifactor dimensionality reduction (MDR). 8. Summary and conclusion. References and list of publications.

04. CHANDIOK (Ketaki)
Adverse Pregnancy Outcomes vis-a-vis Cardiovascular Adversities- A Genetic Study among Jat Women of Haryana State.
Supervisor: Dr. P.R. Mondal
Th 22964

Abstract
(Not Verified)

The present study attempts to document the demographic profile of the studied Jat population and the reproductive performance of the Jat women. It further tries to understand the relationship between reproductive life events and cardiovascular adversities and elucidate the role of the selected four genes in the causation of adverse pregnancy outcomes and cardiovascular adversities (mediated via adverse

pregnancy outcomes). In this retrospective cross sectional study, data pertaining to demographic, somato-metric , physiological, biochemical and molecular variables were collected from 1014 women (from 15 villages of Palwal district, Haryana) unrelated up to first cousins (aged 30-75 years). The demographic profiling revealed that there are prevailing gender disparities in the community. The literacy level among the females is low as compared to the males. Nearly three fourth of the women are reported to be getting married before the age of 18 years. Present age, age at marriage, education status and family type are the major factors that affect the fertility in the studied population. Total number of conceptions and family type are the major factors that contributed to prenatal mortality. In contrast to this, number of live births and occupation are the major factors contributing to postnatal mortality in the population. Menarche is found to be cardio-protective. Natural menopause, hysterectomy, parity (≥5), miscarriage history are found to confer cardiovascular risk. Gene-gene interaction of MTHFR (rs 1801133), GCKR (rs 1260326) and GAL3ST1 (rs 2267161) gene are responsible for adverse pregnancy outcomes and miscarriages, although the findings are not found to be significant. MTHFR (rs 1801133) and GCKR (rs 1260326) polymorphism are mediating the association between miscarriages and central obesity and not overweight. The results are not found to be significant in both the cases. Further validations of these findings are needed to develop right interventional strategies and therapeutics.

Contents

1. Introduction. 2. Area and people. 3. Selection of participants, materials and methods. 4. Demographic profile of the jat community. 5. Reproductive performance of the jat women. 6. Reproductive variables and cardiovascular adversities. Summary and conclusions. References, annexure and list of publications.

05.   DAS (Soumi)
Molecular Genetic Basis of Dilated Cardiomyopathy.
Supervisor: Dr. Benrithung Murry
Th 23116

Abstract
(Not Verified)

Present study documented Demographic, Clinical, Biochemical, Physiological, Life style and Genetic predisposition of DCM patients leading to clinical severity of DCM. Similar to previous studies prevalence of the disease is higher among males compared to females. In the current study there was a significant difference among males and females for symptom frequency with males having less frequency of symptoms compared to females. Among all the risk factors eNOS T786C, Body fat percentage, Diet pattern, total cholesterol, HDL and LDL has much higher risk of developing symptoms compared to those who do not have these risk factors. Sequencing of LMNA (exon 3 and 4) and MYH7 (exon 23) lead to the identification of splice site mutation in LMNA and a rare variant in MYH7 suggesting that double heterozygote condition leads to the severity of the disease outcome. Whole exome sequencing of a family was performed leading to the identification of two novel variants (c.T1619A, c.T3098A) in gene RyR2. RyR2 protein is commonly present in sarcoplasmic reticulum of cardiac muscle which plays an important role in Ca2+ release during systole. For contraction of cardiac muscle Ca2+ influxes through L type calcium channels which further binds to RyR2 and get released into the cytosol. RyR2 mutations may lead to altered Ca2+ release termination. Defective RyR2 function may lead to abnormal Ca2+ release leading to sudden death. Thus, present study suggests that whole exome sequencing should be performed for disease like DCM where private mutations are common in different families. Other environmental and life style risk factors should also be taken into consideration for better understanding of disease outcome. ECG and Echocardiography screening should be done among the family members of the affected individuals. If any mutation is present within the family member without any symptoms, longitudinal clinical follow up should be done. Thus whole exome sequencing can have a promising future in the field of medicine.

Contents

1. Introduction. 2. Rationale and objective of the study 3. Review of literature. 4. Materials and methods. 5. Results and discussion. 6. Summary and conclusion. References, annexure and list of publications.

06.   DEVI (Chungkham Supriya)
        Folktales and Mythology among the Meitei Community in Manipur.
        Supervisor: Prof. Vinay Kumar Srivastava
        Th 23215

Abstract
(Not Verified)

Folktales exist in different forms in Meitei society. It is known as Phungga Wari in their dialect. Phungga means 'hearth' and Wari means 'story'. It is so called because in earlier times, folktales were narrated around the fireplace by the elderly to their children. Each and every tale aims to give a certain kind of message to the people. On the other hand, myths are the sacred narratives where the people believed them as true stories that happened in the past. Of various myths found among the Meitei, the creation myth is widely known by the people. Different kinds of folktales are found in Meitei society. Based on my observation, I categorized them into seven kinds. The level of entertainment and enjoyment of the folktales depend upon the skill of the narrator or presenter. A single folktale conveys many messages. Folktales reflect social structure, customs, beliefs, traditions and way of life. In some tales, hidden meanings are embedded and messages are given in the form of a metaphor. Myths are the base through which the Meitei explain how the earth, human and other living beings were created. Their myths also contain the stories of Gods and Goddesses, supernatural beings and heroes.The story of how people became mortal and journey of souls is reflected in myths. Leishemlon is the myth of creation. In this myth, the story of how the earth, human and other living beings were created by Ashiba (the first son of Tengbanba Mapu- the supreme of all Gods) is highlighted. The Meitei still worship Sanamahi (Ashiba) and Pakhangba (the last son of Tengbanba Mapu).The tales have an aspect of aesthetics. They entertain besides providing an identity topeople in their own way. They are great mental treasures that play an important role insocialization.

Contents

1. Introduction to the Meitei. 2. Methodology and fieldwork experiences. 3. The Settlement. 4. Mythology. 5. Folktales. 6. Conclusion. Glossary, References and Photographs.

07.   Joshi (Saakshi)
        Belonging to New Tehri: An Anthropological Study of Oustees of the Tehri Dam, Uttarakhand.
        Supervisor: Prof. Subhadra Channa
        Th 23218

Contents

1. Introducing my research. 2. Methodology: experiences during research. 3. Mutable imageries: Tehri dam over the years. 4. Occupying visthapit: positioning post-displacement. 5. From mangoes to apples: belonging to New Tehri. 6. Continuing the conversion. References and annexure.

08.   KHAN (Indelah)
Neuroanthropological Dynamics among Muslims of India.
Supervisors: Prof. Anup Kumar Kapoor and Dr. Rashmi Sinha
Th 23217

Contents

1. Introduction. 2. Area and people. 3. Materials and methods. 4. Results. 5. Discussion. 6. Summary, conclusion and suggestions. References, appendices and list of publications.

09.   KHAN (Simmi)
Reproductive Performance and Cardiovascular Adversities: An Anthropogenetic Study among Gaddis of Himachal Pradesh.
Supervisor: Dr. K. N. Saraswathy
Th 23221

Abstract
(Verified)

Reproductive health, from menarche to menopause, is increasingly recognized as sentinel of chronic diseases in later life. Cardiovascular disease (CVD) is the one of the foremost cause of deterioration in quality of life in women adding to the cruciality of understanding a chronic disease as a developmental process that evolves over the entire lifespan. The presently studied Gaddi tribe is expected to have higher risk of cardio vascular adversities due to higher altitude. So the study was conducted to understand the cardiovascular adversities in the women through reproductive performance. The demographic data of the population indicates that the population pyramid is disturbed. Gaddis have reportedly lower Crude birth rate indicating that the female health is affected. A majority of females attained menarche at relatively older age of 15 and above. The majority of Gaddi females are reported to get married at the age of 18 and above indicating towards the increasing awareness of the legal age of marriage which can be under influence of increasing literacy among the population. The women married at an age of 20-24 have higher reproductive success. Though late age at menarche as expected seems to be protective for the Gaddi females with respect to the dyslipidemia but they are found to have elevated blood pressure and metabolic syndrome. Menopause also seem to significantly affect the present population as women with natural menopause are observed to have a significantly high risk of lipid parameters, elevated blood pressure, metabolic syndrome and abdominal obesity. The present population is showing an increased number of women with bad reproductive performance having abdominal obesity. In Gaddis all selected gene polymorphisms are not found to be associated with bad reproductive performance but mutant homozygotes of all the polymorphisms are increased in women with bad reproductive performance, but difference is not statistically significant.

Contents

1. Introduction. 2. Materials and methods 3. Results and discussion 4. Summary and conclusion. References, annexure and list of publications.

10.   PANMEI (Tabitha)
Study of Genetic Structure of Zeliangrong Naga Tribes of Manipur.
Supervisor: Prof. Gautam K. Kshatriya
Th 23219

Abstract
(Not Verified)

The tribal groups of Northeast India belong to Tibeto-Burman linguistic family except the Khasi tribal group (Grierson, 1903- 1909). Manipur state is one of the eight states of Northeast India, lies on the ancient silk route and serves as a meeting point between the Southeast Asia and South Asia (Metei et al., 2010).

Objectives of the Study The objective of the present research is to investigate the origins and evolution of Zeliangrong Naga tribes of Manipur in the light of the current hypotheses about the history of these populations. Methods For achieving the objective of the present research work a total of 290 blood samples were collected from Zeliangrong Naga tribes, Zeme, Liangmai and Rongmei populations. The field area was randomly selected for the field work. Both primary and secondary ethnographic data was collected in pilot survey and field work. Sample was subjected to DNA extraction within a week of blood collection according to the standardized protocol recommended by Miller et al. (1988) and the samples were screened for 21 autosomal polymorphism markers (Alu InDels and Restriction Fragment Length Polymorphisms). Appropriate software was used for data analysis. Findings of the Study The present research findings suggests that the three study subgroups (Zeme, Liangmai and Rongmei) of Northeast India are genetically similar with each other and they are more close to Tibeto-Burman speaking tribal groups than with non-tribal Tibeto-Burman speaking groups of Northeast India. Moreover, close genetic similarities among the three study populations with Southeast Asian populations was observed.

Contents

1. Introduction. 2. Area and people. 3. Materials and methods. 4. Results. 5. Discussion. 6. Summary and conclusion. References, Appendices.

11. PONGEN (Imkongtenla)
     Risk Factors of Lifestyle related Diseases among Ao Nagas.
     Supervisor: Prof. Satwanti Kapoor
     Th 23216

Abstract
(Not Verified)

Considering the increased risk of lifestyle diseases in populations with rapid nutritional transition, urbanization, and globalization, an anthropological insight into the determinants of lifestyle diseases among the Aos, inhabiting different geographical places could channel out the changing perspectives of health and address the consequent health problem that might evolve in the population. Methodology: A cross -sectional comparative study was conducted among 1250 Ao Nagas (20-49 years) residing in Delhi and Mokokchung town and its adjoining villages in Nagaland using multi-stage stratified and snowball sampling. Data on lifestyle disease risk factors were collected using WHO STEP-wise approach for surveillance of Non Communicable Diseases (NCD). Stress and personality type were assessed using standardized psychological questionnaires. Association of ACE, TCF7L2 and UCP1 gene polymorphism with lifestyle disease risk were established by polymerase chain reaction (PCR). Statistical analysis was done using SPSS 17.0 version. Results: Overall the study showed a high burden of STEP 1 behavioral risk factors such as consumption of tobacco, alcohol use and insufficient intake of fruits or vegetables; STEP 2 risk factors such as abdominal obesity, overweight and hypertension; STEP 3 risk factors such as raised blood sugar and raised cholesterol. Type A personality and stress were also found to be risk factors for lifestyle diseases. Conclusion: The study revealed the blooming evidence of risk factors of lifestyle diseases among the younger set of adults and the 'Healthy Migrant Effect" may diminish with increased years of residency. Focused intervention to address the mounting lifestyle disease risk factors among the Ao Nagas is detrimental.

Contents

1. Introduction. 2. Methodology. 3. Results. 4. Discussion. 5. Summary and conclusion. References, annexures.

12. ROHATGI (Richa)
Fluorescent Powder Compositions for Developing Latent Fingerprints.
Supervisor: Prof. A.K. Kapoor
Th 22967

Contents

1. Introduction. 2. Materials and methods. 3. Ethnographic profile. 4. Results. 5. Discussion. 6. Summary, Conclusion and suggestions. References and appendix.

13. SAINI (Monika)
Handwriting Variations among Indian Population.
Supervisor: Prof. Anup Kumar Kapoor
Th 22968

Abstract
(Not Verified)

Handwriting is a complex and highly developed skill that requires coordination of cognitive, perceptual and motor abilities of a writer. Since handwriting is an acquired skill, it is largely influenced by the environment and culture of a writer. In a population group, people share common cultural and environmental traits that lead to a certain degree of similarity in their writing habits. Many studies have investigated the effect of sex, age, handedness, nationality and familial resemblance upon handwriting features. (Bandi et al., 2005; Al Maadeed and Hassaine, 2014 and Saini and Kapoor, 2015) But no work has been introduced in public literature which reflects handwriting variations among different population groups. Hence an attempt has been made in the present study to find out the variability in handwriting patterns among different population groups of India. A total of 2193 handwriting samples (1962 samples in Roman script and 231 samples in Devanagari script) were obtained from different geographical areas of India i.e. Jaipur (Rajasthan), Delhi, Daman (Daman & Diu), Nagpur (Maharashtra), Bangalore and Dharwad (Karnataka). The writer population consisted of eleven different population groups of India namely Sunni Muslim, Scheduled caste, Brahmin, Rajput, Punjabi (Khatri-Arora), Jat, Patel, Macchi, Halpati, Lingayat and Kunbi. To study the variability among Indian population groups, sixteen conventional and computational handwriting features were extracted from scanned image of handwriting. The findings revealed that pen pressure, handwriting style, height of handwriting, skew angle, aspect ratio of bigram 'th', height relation of 't' to 'h' in bigram 'th', and pattern matching of 'm', 'd', 'f' and 't' alphabets (Roman script writers) and pattern matching of 'स' character (Devanagari script writers) significantly accounted for variations among Indian population groups. This work is a step towards characterization of Indian population groups on the basis of unique characteristics of handwriting.

Contents

1.Introduction 2. Area and people: An ethnographic profile. 3. Materials and methods. 4. Results. 5. Discussion. 6. Summary, conclusion and suggestions. References, annexure and list of publications.

14. SHUMAYLA
Reproductive Health Profile and Quality of Life of Muslim Women in North India.
Supervisor: Prof. Satwanti Kapoor
Th 23220

Abstract
(Not Verified)

In the present cross-sectional study on reproductive health profile and quality of life of Muslim women in north India, data was collected using multi-stage stratified sampling and snow-ball technique from different parts of Delhi. Muslim women aged 15-49 years with a total sample size of 1000 were enrolled

in the study. Data was collected using different sets of self-administered proforma and standardized questionnaires. All standardized questionnaires were validated for the present population. Reproductive health is varying among Muslim women in North India. Higher age groups, better socio-economic status, higher age at menarche, fewer number of children, absence of long-term illness and any other kind of reproductive illness found to be important determinants of reproductive health among these women. Various socio-demographic and biological variables affected the attainment of age at menarche. Analysis of Brook's Gunn menstrual attitude questionnaire revealed four factors a women in reproductive age think of menstruation as: Menstruation a Debilitating Event, Menstruation a Bothersome Event, Denial of any effect of Menstruation, Menstruation a Natural Event. Also Moos distress questionnaire revealed that Unmarried women showed major behavioral changes during menstrual cycle. Important perinatal practices like breastfeeding, autonomy in reproductive decisions, practices involved, factors affecting these practices and knowledge about reproductive health etc, were revealed during KAP analysis. Knowledge regarding family planning, RTI and HIV/AIDS was adequate among the studied population, but other socio-demographic factors like religious restrictions and opposition from their partner and family are playing important role in utilizing services for family planning and seeking medical attention for gynecological issues. Adiposity indicators and physiological variables are significantly different among women with regard to onset of menarche, regularity of menstrual cycle and length of menstrual cycle. Association of consanguinity with ACE and TCF7L2 gene has also been analyzed using DNA analysis.

Contents

1. Introduction. 2. Methodology. 3. Results. 4. Discussion. 5. Summary and conclusion. References, annexure and publications.

15. THAKURIA (Garima)
Neolithic Culture of Assam.
Supervisor: Dr. Manoj Kumar Singh
Th 23222

Abstract
(Not Verified)

The Neolithic cultural phase or the New Stone age, characterised by the transformation of human beings' hunting-gathering or food collecting stage to the stage of food production, has been believed to exist about 10,000 years ago across different areas of the world. It has been observed that the Neolithic period of India is characterised by grounded and polished stone tools, handmade pottery, and domestication of crop plants as well as animals. In Assam and the northeastern region of India, shouldered stone celts and handmade cord marked pottery have been the pivotal findings. A literature review of Neolithic cultural period in global, Indian and northeast Indian contexts with special reference to Assam has been detailed in the thesis. Moreover, the results and analyses of the Neolithic findings from the explored sites of Bambowti, Khagra Abri, Marakdola, Garchuk, Rani and Hahim areas have been dissertated. The finds included celts- both axes and adzes and pottery- both handmade and wheelmade. Apart from these archaic finds, a geographical, environmental and anthropological consideration like material and non material cultures of the three communities, viz., the Karbis, the Garos and the Rabhas, living in the vicinity of the field study areas have been discussed. Further, ethnoarchaeological notes on pottery making tradition by the Hira and Kumar communities, megalith erecting practice by the Karbis and that of jhum cultivation by the Garos as well as wet cultivation by the plains dwellers have been undertaken. Moreover, a comparative study of the Neolithic remains especially the celts and pottery have been made with that from sites of Garo Hills and Khasi-Jaintia Hills of Meghalaya, eastern India including mid Ganga plain as well as East and Southeast Asia. Therefore, this study adds a little bit more knowledge to the already existing domains of Assamese Neolithic cultural period.

Contents

1. Introduction. 2. Geography and environment of the study area. 3. Neolithic: An overview in global and Indian contexts. 4. Reappraisal of Neolithic culture in the contexts of eastern India and Assam. 5. Findings from recent field explorations and

their analyses. 6. Ethnoarchaeological account of the study area. 7. Comparative study of material records of Neolithic culture phase of Assam with adjoining regions of Northeast India, East Asia and Southeast Asia. 8. Discussion and conclusion. References. Appendix.

16.   VISHNOI (Snigdha)
Organizational Culture: The Case Study of a Fertilizer Organization in Delhi.
Supervisor: Prof. Vinay Kumar Srivastava
Th 22969

Abstract
(Not Verified)

The present work is a result of keen immersion and inquisitiveness about the unison of dynamic spheres of organizations and culture. The cultural practices and rendering of a battery of meanings to people and processes reveals a lot about the humane side of the organization. Theoretical grounding and methodological practices in the discipline of anthropology were collated to produce an insider's understanding of the cultural essentialities at the organization. The experiences accounted for the challenges, negotiations and learning made all over the journey of conducting research on organizations. The epochal phases between the intellectual streams of anthropology and organizations reveal interesting points to reflect and research. The processual and contextual lenses of ethnographic practice provide and insider's perspective, so desirable in the age of globalization to make sense of work, identity and important processes. The perspective of interpretivism renders organizations as social constructs of being that are self evolving in nature and hence keep refining with differential exposures of time, space and people. The research study is able to bring to light (and life) the grounded and in-practice ideas on culture within the premise of organization and beyond. It highlights the emic categories on several practices inspired from the socio-cultural background of people plus their takes on organizational exposure and experience. It is inevitably scored that the organizational culture is conceived through a dialogue between predictability and contestations. The multiple voices, contestations, re-workings help all adhering, devising and adjusting to cultural beliefs and practices inside an organization.

Contents

1. Introduction. 2. Methodology and fieldwork experiences. 3. About the organization. 4. Organizational culture. 5. Women's voices on culture. Conclusions, references and appendix.