# CHAPTER 24

# HOME SCIENCE

# **Doctoral Theses**

01. AGGARWAL (Kanika)

Sustainable Consumption of Apparel among Youth: A Study.

Supervisor : Dr. Seema Sekhri

Th 25236

Abstract (Not Verified)

Clothing which is one of the three primary needs of a human being had become disposable in recent years due to mass production, industrialization, globalization, and lower prices of the garments. Fast fashion has made clothing cheap in terms of prices and quality. The data of the textile waste from the various countries of the world indicates the influence of fast fashion. Continuously changing fashion trends and styles made one feel to buy more to keep oneself updated. Celebrity fashion has grown in importance, particularly with young people. India is a country of youth, as the median age is 28.4 years. The youth who is highly influenced by the changing style trends, new fashion, and mass media, doesn't hesitate to spend money on their appearance. For the teenagers and young consumers, clothing is a social tool and their social definition is encoded through their clothing choices. The amount of clothing consumption and subsequent disposal has increased in the recent times. This increasing amount of textile waste which ultimately ends up in landfill has become a matter of concern as it causes environmental and societal hazards. The textile waste contributes to around 6% to the total municipal solid waste stream of India, which is around 11.3 million tonnes, a figure which needs urgent attention. Thus the study titled "Sustainable Consumption of Apparel Among Youth: A study" aimed 1. To investigate the consumption, disposal patterns of clothing and awareness regarding sustainable consumption among youth. 2. To develop and disseminate IEC material to generate awareness among the youth regarding sustainable consumption.

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- 1. Introduction 2. Review of literature 3. Materials and methods 4. Result and discussion 5. Summary and conclusions. Bibliography. Appendices.
- 02. ARORA (Neha)

Production of Sustainable Denim Using Nanofinishes for Antibacterial Properties.

Supervisor : Dr. Seema Sekhri

Th 25235

Abstract (Not Verified)

Denim remains young fabric even though it dates back to year 1864. It is an evergreen fabric and has always been classic in fashion cycle and offers comfort and versatility. Certain functional finishes are applied on denim which leads to their value addition. But the overall process of denim production and value addition is not eco-friendly in nature. Also, denim is

one such garment which is worn multiple times before washing and is worn for long duration. The present study aimed to explore the eco-friendly and sustainable method of value addition of denim production. In this study first process of conventional (powerloom) denim manufacturing process was explored and also sustainable methods of denim production are explored and documented. list of diffrences were drawn between both in terms of production, process, technology and cost. Also a comparison was also drawn between characteristics and properties of both conventional and sustainable denims. In other aspect of study nanofinishes were prepared from Chitosan and Curcumin for antibacterial properties. Chitosan which is extracted from shells of crustaceans and shrimps and curcumin is extracted from curcuma longa L which is a rhizome and its common name is turmeric are known to possess good antibacterial properties. In nanofinishing particle size gets reduced and surface area increases which leads to better penetration of finishes into the fabric. Analysis of magnitude or size estimation of particles was done to characterize the size of nanoparticles. Application of nano finish was done on three variants of denim (cotton denim, cotton-polyester denim blend, Handloom denim dyed with indigo dye). Direct exhaustion technique was used for application of the nano finishes on denim variants. Durability of these finishes was studied for laundering cycles up to 20 by evaluating its antibacterial efficacy. Also change in physical characteristics was studied after application of finish.

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# 03. DAWAR (Tinny)

Gender Concerns in Content and Delivery of Curriculum: A Study in Municipal Corporation Schools of Delhi.

Supervisor : Dr. Sarita Anand

Th 25234

Abstract (Not Verified)

Childhood is a critical period in which family, school and teachers contribute to gender socialisation of children. The study explored the representation of gender in twelve Primary level NCERT textbooks. Perceptions of 54 female and male teachers teaching in Municipal Corporation Schools of Delhi related to gender sensitivity in the classroom were assessed. Also, 180 students of Grade V were interviewed to understand their perceptions related to adult occupations and sports. Gender role identification of another 200 children related to selected occupations were explored through their drawings. The textbooks adopted in schools and the way that information is communicated by the teachers become the key factors influencing the exposure of children. Gender-based analysis of textbooks revealed not only a disparity in the number of females and males in visuals and text but also the depiction of females in traditional roles of cooking, child-rearing, and teaching. Female role models in terms of occupations and sports were rare. It is important that teachers using these textbooks do not further perpetuate male dominance in occupations requiring mobility and female dominance in household chores. Mann Whitney Test revealed that female teachers were more sensitive as compared to male teachers related to gender issues in the classroom. Although a low percentage of children had seen females engaged in traditionally masculine occupations and sports, the result of independent samples t-test revealed more girls than boys had seen females engaged in occupations like doctors and police officers. The study concludes that children learn even the subtle signs of stereotypes and discrimination practiced by their teachers and projected through their textbooks. Therefore, the curriculum in schools must challenge their pre-learned stereotypes so that the individual talent of each child is nurtured irrespective of their sex and stereotypical beliefs traditionally held by society.

### **Contents**

1. Introduction 2. Review of literature 3. Methodology 4. Finding & discussion 5. Summary, conclusion & recommendations. Bibliography. Annexures.

## 04. DHOLAKIA (Para)

Development of Gluten-Free Cookies From Amaranth Based Composite Flour.

Supervisors : Dr. Anupa Sidhu and Dr. Ranjana Singh Th 25240

Abstract (Not Verified)

Gluten free cookies were developed with amaranth, pearl millet and chickpea flour. Standard cookie recipe was selected and ingredients were identified on the basis of the objective and literature survey. This was followed by characterization of flours for physicochemical properties and proximate composition. Amaranth flour was found to have high water and oil absorption capacity, protein, ash, fat and crude fibre. Chick pea flour had the highest protein. Multi-factorial experiment design was used to finalize product formulation. Flour composition, fat, sugar, coco powder and curd had significant effect on physical properties of the cookies i.e. spread ratio and hardness. Cookies showed high sensory scores on 9-point hedonic scale by a semi-trained sensory panel. Product formulation was finalized on the basis of the results. Standardization of composite flour was done using mixture experiment design. Composition of the composite flour was finalized after using regression equations. Product was formulated from this composite flour and the standardized formulation. This was followed by the proximate and nutrient analysis of the product and analysis of physicochemical properties of the composite flour. The cookies had high amount of protein, iron, calcium, dietary fibre and lysine content. Gluten content was well below the threshold value of 20 ppm. The composite flour and cookies showed good total phenolic and flavonoid content, free radical scavenging activity and antioxidant activity by FRAP. Cookies had a shelf life of 5 months, when stored in a laminate of BOPP-metPET- BOPP. Free fatty acids and peroxide value were within the acceptable limits. In the last phase, consumer survey was done which showed high acceptability of the product among the subjects. The study made a successful attempt in developing gluten-free cookies with good nutritional value. Overall, the results showed a promising future of amaranth in gluten-free products.

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1. Introduction and objectives 2. Review of literature 3. Methods and materials 4. Result and discussion 5. Summary and conclusions. References. Annexures. List of publications.

## 05. JAMWAL (Kalpana)

# Symbolic Development and Scale Estimation in Young Children.

Supervisor : Dr. Punya Pillai.Dr. Nandita Chaudhary and Dr. Neerja Sharma Th 25548

Abstract (Verified)

There is a great need to extend the knowledge on genesis of symbolic play and to investigate the role of replica objects in facilitating it. The objectives of the study were to understand the processes that facilitate children in becoming aware of symbol-referent relationship with replica objects in their socio-cultural context. The process of scale estimations was investigated in two ecological settings, that is, urban areas of Delhi and rural areas of Mandi, Himachal Pradesh. Following existing research findings, the linkages between inhibitory control and scale estimations were also investigated. The present study utilized a mixed methods approach, using both qualitative and quantitative techniques. Field observations of spontaneous manifestations related to symbol use and scale errors of children at play were captured through participant observations and semi-structured play sessions with children in their naturalistic settings. An interview schedule was also prepared to understand the social context of the child. The study was conducted with 50 children and their families. The data was analysed qualitatively using Atlas Ti 7.5.5 software and quantitative techniques of analysis were conducted using Microsoft Excel 2007 and Statistical Package for the Social Sciences (SPSS software). The findings of the study provided evidence that children engage with both physical and symbolic aspects of objects simultaneously. Children's responses to size estimations reflected role of developmental factors and socially distributed solutions. The results of the study did not support the link between inhibitory control and scale estimations as expected, providing evidence that scale errors might not be caused by low inhibitory control. The study also corroborated the role of social inputs to encourage and guide children to appreciate symbolic aspects of replica objects.

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## 06. KAUR (Harmeet)

Indian Vegetarian Diets and Their Association with Cardiometabolic Health of Urban Adults in Delhi.

Supervisors : Dr. Bani Tamber Aeri and Dr. Rajesh Khadgawat Th 25239

Abstract (Verified)

The present study was planned to assess the cardioprotective benefits of vegetarian diets in urban adults residing in Delhi. The study was conducted among 200 vegetarians (VS) and 200 non-vegetarian (NVS) apparently healthy subjects recruited through 12 health camps organized in four zones of Delhi, after taking necessary permissions from the Resident Welfare Associations of the localities. Ethical clearances were obtained from the researcher's Institute. Data related to diet, lifestyle, physical activity pattern, anthropometry, blood pressure measurements and biochemical parameters in details were collected for all the enrolled study

participants. Data gathered were analysed using appropriate statistical tests. Correlation and regression analysis was carried out to quantify the association between anthropometric, biochemical and cardiometabolic risk parameters and independent variables like age, gender, type of diet, education, socioeconomic status and physical activity. The anthropometric profile of the subjects revealed that there was a high prevalence of both generalised obesity (VS 65%, NVS 57.5%, p=0.264) and abdominal obesity by WC (VS 64%, NVS 67 %, p=0.599) among both study groups which is an important predictor of the risk of CVD and related comorbidities. Data also indicated that VS and NVS were almost at par as far as various metabolic risk factors like obesity(p=0.264), hypertension(p=0.254), elevated blood glucose(p=0.427), dyslipidaemia(p=0.81), were concerned putting them both on an equal risk of developing cardiometabolic complications. Or in other words, VS did not seem to have any advantage over NVS (or vice versa) as far as a risk for metabolic disorders was concerned. Timely screening, regular health check-ups and nutrition education for better food choices are needed to prevent and manage further health complications.

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## 07. KHANNA (Preeti)

Association of Depression and Anxiety Symptoms on Dietary Intake of Adolescents (13-15 Years) Studying in Public Schools of Delhi.

Supervisors : Dr. Bani Tamber Aeri and Dr. Rajesh Khadgawat <u>Th 25241</u>

Abstract (Verified)

The present cross sectional study was conducted among 546 adolescent boys and girls (aged 13-15 years) studying in public schools drawn from five zones of Delhi. To assess the mental health (depression and anxiety symptoms) status of the adolescents, Child Behaviour Checklist (CBCL) was used. Data pertaining to sociodemographic profile, family history of diseases, health awareness, physical activity pattern (all gathered through a pre-tested questionnaire), eating behavior (Three Factor Eating Questionnaire), body image perception (standardized questionnaire), locus of control (standardized questionnaire), dietary intake and consumption pattern questionnaire (two day 24 hour recall and food frequency questionnaire), self-reported depression and aggression (Early Adolescent Temperament Questionnaire), and anthropometric parameters (height, weight, body fat%) were collected and statistically analysed to understand the determinants of depression and anxiety symptoms prevalent among these adolescents. In the present study, presence of dual burden of malnutrition was observed as 21% were underweight and 29% were overweight/obese, indicating the poor nutritional status of these subjects. Only 49% subjects had BMI in normal range. Almost a third of the subjects were suffering from depression and anxiety symptoms, indicating a poor mental health status. 22.71% also had co morbidity of depression and anxiety. Data from the study thus indicated that among males, studying in class VIII, a high pocket money allowance, uncontrolled and emotional eating during periods of stress, self reported aggression, self reported denial of depressive mood, skipping of breakfast, self perception of being lazy and BMI categories of underweight, overweight and obese were strong predictors for getting depression and anxiety symptoms. In females,

studying in class VIII, weight management practices like restrained eating, poor perception about body weight, skipping of meals, especially breakfast, self perception of being inactive and BMI categories of underweight, overweight and obese were strong predictors for depression and anxiety symptoms.

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- 1. Introduction 2. Review of literature 3. Methodology 4. Results and discussion 5. Summary and conclusions. Suggestions. Limitations. Bibliography. Annexures. List of publications.
- 08. MAGGU (Pooja)

Happiness at School: Exploring Children's Emotional Experiences.

Supervisor: Dr.Shradha Kapoor

Th 25242

Abstract (Not Verified)

Driven by a child-centered methodology, this research is a representation of children's lived experiences at school. School is thought to be as one of the most indispensable institutions for the child. A large part of childhood is spent in school. The experience that one encounters at school, in interaction with peers and teachers apparently has an important role to play. The study is significant as it proposes to integrate children's ideas of a happy school. The research was also steered towards exploring teachers' beliefs about children's emotional experiences at school. An objective was set out to also explore the role of a government in ensuring children's happiness at school. The research is based on the school experiences of 72 children of 8-10 year olds. Through classroom observations, interviews with children, children's drawings and narratives and a variety of other child-friendly and participatory tools and techniques, the research attempts to bring forth children's experiences at school. Eight teachers and two principals were interviewed as well. Thus, a total number of 82 participants were selected. Majority children expressed being 'happy' in school; however paradoxically they also expressed feeling 'unhappy' on grounds of being scolded and punished by their teachers at school. Physical punishment was found to be quiet prevalent. Children also described a feeling of 'fear' associated especially with teachers. Friendship emerged as yet another important component. Apparently, context plays an important role in shaping one's experiences, ideas and perceptions. Children's happiness was seen to be directly linked with relationships at school. Care emerged as an important component in children's descriptions about a good, effective teacher. Children's everyday emotional experiences at school were observed to have influenced their sense of self and well-being at school. To ensure children's happiness at school, it is important to provide for teacher's wellbeing as well.

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- 1. Introduction 2.Method 3. Result and discussion 4. Conclusion. References. Appendices.
- 09. MIRANI (Swati)

Cyber Campaigns on Violence against Women in India: Social Media for Mass Mobilization.

Supervisors : Dr. Parveen Pannu and Dr. Cahru Malhotra Th 25244

# Abstract (Verified)

Social media has transformed the communication and information-sharing amongst the masses, consuming several attributes of engagement. Cyber-campaigning, an outcome of this progression of technology, involves activities including discussions, online petitions and pledges, e-donations, with offline activities by individuals and non-profits for engaging people and building solidarity over their concerns. The study explored cybercampaigning in India, presenting a discourse into the application of social media for galvanizing and mobilizing people, focusing on violence against women (VAW) in India, using an exploratory research design and in a mixed methods approach for contemplating on the phenomenon. The study mapped 21 cyber-campaigns on VAW in India between 2009-2019, which focused on specific forms of VAW, and adopted a tailormade approach for campaigning based on the needs and interests of its target audience, used other mass-media with internet and offline methods, for engagement, disseminating the intended message on VAW. Knowledge attitudes and practices of internet users from Delhi and NCR reflecting several contrasting perspectives on peoples' engagement with cyber-campaigning and VAW, acknowledging the prevalence of VAW in India, and reflecting on underlying causes, various forms, probable perpetrators, immediate and long-term implications and the legal provisions addressing VAW. Active participation in cyber-campaign on VAW governed by sensitivity and barbarism associated with VAW, was reported. Though, the viewpoints expressed on SNS were believed to beinsignificant to policy makers; but social media was believed to influence attitudes of people about VAW. The study concluded a framework of parameters articulatin mobilizing geffectiveness of cyber-campaigns in galvanizing, and engaging masses on VAW, classified as: Audience-centric, which included knowledge about the target relevance of the issue, and engagement with audience; and message/content-centric, which included campaigning planning, understanding the issue, involvement of key stakeholders, designing message content, and modes of message delivery.

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- 1. Introduction 2. Review of literature 3. Research Methodology 4. Findings and discussions 5. Summary and conclusion. References. Annexures.
- 10. MORYA (Nity Nishant)

Use of Pesticides in Vegetable Farming In District Ghaziabad: Effectiveness of an Intervention Programme.

Supervisors : Dr. Rupa Upadhyay and Dr. Vinay Swarup Mehrotra  $\underline{\text{Th } 25233}$ 

Abstract (Not Verified)

India has an agriculture based economy although there has been a little shift from the traditional agrarian economy towards a service dominated one, but still a number of people are engaged in agriculture. Contemporary intensive agriculture has facilitated increase in food production leading to self-sufficiency andexport of food commodities. In the last few years faulty methods of pesticide application on crops has caused environment and health hazards. Taking into consideration the significance of this issue, Present study entitled "Use of pesticides in vegetable farming in district Ghaziabad: Effectiveness of an intervention programme" is undertakenin three blocks namely Muradnagar, Rajapur and Loni of the Ghaziabad district (Uttar Pradesh). The aim of the present study is to study the difference between pre and post intervention measurements of understanding regarding pesticides and plant protection practices performed by the vegetable farmers. Taking into consideration the

significance of this issue, Present study entitled "Use of pesticides in vegetable farming in district Ghaziabad: Effectiveness of an intervention programme" is undertakenin three blocks namely Muradnagar, Rajapur and Loni of the Ghaziabad district (Uttar Pradesh). The aim of the present study is to study the difference between pre and post intervention measurements of understanding regarding pesticides and plant protection practices performed by the vegetable farmers.

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# 11. NIGAM (Madhuri)

# Environmental Sustainability Analysis of Selected Textiles Products Using Life Cycle Assessment.

Supervisors : Dr. Bhawana Chanana and Dr. Sabina Sethi Th 25237

Abstract (Verified)

It is a well recognised fact that the consumption and production of textiles has increased enormously in the last few decades. Fast fashion, progressive developments in technology and expanding economy have boosted the industrial growth worldwide. Textile industry is known for its environmental impacts throughout the value chain. With increasing recognistion of environmental concerns, there is a need to understand and address the factors contributing to these impacts and find suitable alternatives to improve the existing processes and technologies. The approach of end of pipe solutions and pollution control will not help in prevention and would rather lead to costly solutions. Life Cycle Assessment (LCA) is a tool for identifying and evaluating the environmental aspects of products and services from 'Cradle to Grave' from the extraction of resource inputs to the eventual disposal of product. The need for life cycle assessment of textile production and processing is imperative, considering the ever increasing consumption of textiles in apparel and home. This study has investigated environmental sustainability aspect of the selected natural textiles, as outlined by the triple bottomline framework. Major contribution fom the study is compilation of life cycle data. Data generated as a part of this study was submitted to Ecoinvent database, to be a part of Indian textile datasets. The study focussed on comprehensive life cycle assessment of selected textiles: cotton, flax, sunnhemp and jute; and reported the environmental indicators such as Global Warming, Acidification, Eutrophication, Water Use, Land Use, Ecotoxicity and several others. This study has also addressed the allocation aspect of textile life cycle. Outcomes of the life Cycle Assessment were analysed to prepare a set of improvement strategies for the selected product systems.

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# 12. RAEES (Ayesha)

Moral Reasoning among 4 To 10 Years Old Children: The Cultural Relevance of Moral Development Theories.

Supervisor : Dr. Mila Tuli and Dr. Nandita Chaudhary

Th 25549

# Abstract (Not Verified)

1. North American and Euro-centric beliefs about children and development affect how childhood is constructed and how development is theorized around the world. Many theories have attempted to conceptualize development based on the standards set by the psychologists from the West. In the Indian thought, moral development is considered to be a lifelong process where the context is given primacy in arriving at moral decisions. According to cognitivist approach, a mix of intellectual skills and interpersonal experiences enables us to unearth moral truths from a person's perspective whereas according to the social intuitionist perspective, children's moral judgments are a result of intrinsic intuitive motivations. This study looked at moral judgment and reasoning in five domains portraying moral development among 4 to 10-year-old school-going children from rural and urban locations. For this purpose, culturally relevant tools were developed using picture cards, stories and videos films followed by interview sessions. Findings from the study showed that culturally adapted tasks worked well in generating responses from children about their perspectives on the events presented, as well as their imagined reactions under similar situations. Given the complex and nuanced nature of children's reasoning and judgement, the data was analyzed using qualitative rather than quantitative analysis. For instance, common judgements were found between the youngest and oldest age-groups and children in the age group of 6-8 years behaved differently than the rest, yet the reasoning between the youngest and oldest children were found to be different. In general, children tended to be more attentive while answering for themselves as compared to the protagonist. Moral reasoning was found to be guided by both controlled cognitive responses as well intrinsic moral motivations. Reasoning was found to be context, task as well as theme specific.

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- 1. Introduction 2. Method 3. Result and conclusion. References and appendices.
- 13. RASTOGI (Shreya)

Development of a Behaviour Change Communication Strategy for Promotion of Nutritional and Menstrual Health Care Practice among Adolescent Girls (13-15 Years) Attending Government School of Delhi.

Supervisors : Dr. Pulkit Mathur and Dr. Aparna Khanna

Th25243

Abstract (Not Verified)

The study had the objective of developing a behavior change communication strategy to promote nutritional and menstrual health of adolescent girls (13-15 years) studying in government schools of Delhi. A needs assessment using questionnaires and focus group discussions was done to identify gaps in the knowledge, beliefs and practices regarding diet and menstrual health of 250 girls from 4 schools. Based on that, a BCC strategy and a prototype BCC Tool Kit was developed and implemented in a separate school among 90 girls. The communication intervention consisted of conducting educational sessions through a flipchart and various other activities with the girls. The school staff and parents were involved in the conducting of different activities. The pre-post assessment results revealed that the mean nutrition knowledge increased from  $8.9\pm2.3$  (at baseline) to  $13.3\pm2.2$  (at completion of intervention) to  $14\pm1.5$  (6 months follow up). An increase in nutrition related beliefs was seen from a mean score of  $6.3\pm1.3$  to  $6.9\pm1.1$  after 3 months, and to  $7.2\pm1$  at the follow up. The mean practice score increased at the end of the intervention ( $3.7\pm1.9$ ) and at follow up ( $3.1\pm1.6$ ), as compared to  $2.5\pm1.5$ (pre-intervention). An increase in the macro and micro nutrients of

the diet of girls except carbohydrate and energy was observed. The dietary diversity scores of girls increased significantly from  $3.9\pm0.82$  (before intervention) to  $4.833\pm0.91$  after 3 months. A significant (p<0.05) increase in the mean menstrual knowledge score was observed at end of 3 months (5.4 $\pm0.7$ ) and at follow up (5.1 $\pm1$ ) as compared to pre-intervention (3.2 $\pm1.3$ ). A positive change from pre to post intervention (all levels) was also reported in the menstrual beliefs and practices of the girls. A need based multi-component behaviour change communication strategy is successful in improving and sustaining the health related knowledge, beliefs and practices of girls.

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## 14. SACHDEVA (Ishita)

An Exploratory Study of Customer Engagement on Purchase In Branded Retail: Physical Stores and Online Portals.

Supervisors : Dr. Sushma Goel

Th25603

Abstract (Verified)

Research entitled, An Exploratory Study of Customer Engagement on Purchase in Branded Retail: Physical stores and Online Portals, was conducted in Delhi, India and Santa Clara County, U.S. Stakeholders of the study were customers and retailers from physical stores and online portals. In the research, majority of the customers were upto 30 years in age, post-graduates, and employed in service. The products sold at outlets included apparels, footwear, accessories, electronics, grocery, jewelry, cosmetics, wellness, toys, home products. Majority of the customers visited outlet to purchase, while a few went for entertainment, escapism and edutainment. Edutainment remained most prime factor for visiting online portals by customers from both the locales as they wanted to gain information about the products that was limited in stores. However, most tech savvy stores were deploying touch-screens to navigate information. Customers found it convenient to browse online as they could view products at any time and place without physically travelling to retail stores. However, visiting retail stores lifted their mood. Factors considered for shopping that contributed to purchase by customers from Delhi included value for money, convenient layout and store décor while for SCC included customer service online, as human interaction was missing online. The findings revealed that Customer Engagement (i.e. physical, emotional and social aspect) was found to influence the purchases made by customers. Factors like store name, window, layout, colors, cleanliness, edutainment, lighting, entertainment were found to influence purchase in stores. Sensory information such as product images, zoom, 360 degree return, colors, edutainment, escapism and convenience influenced purchase online. They were happy, pleased and satisfied with the overall shopping experience due to above mentioned features. More customers were influenced by physical and emotional aspect of online portals than physical stores.

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1. Introduction 2. Review of literature 3. Methodology 4. Development of rating scales 5. Result and discussions 6. Summary and conclusion 7. References. Appendices.

#### 15. SAKSHI SHARDA

# Negotiating Self in Everyday Lives: Aspiration of Rural and Urban Adolescent Girls.

Supervisors: Dr. Mila Tuli and Dr. Nandita Chaudhary

Th 25550

Abstract (Not Verified)

This study proposed to trace the development of aspirations of girls, explore negotiation of familial and cultural expectations, study the continuity and variance with previous generations and find out zones of convergence and divergence between adolescent girls and their families. The contextual realities of social expectations and adolescent aspirations and the distance between these is a contributor to the developing sense of self in a global multicultural society. Participants included 52 girls of 15-17 years from rural Himachal Pradesh and urban locales of NCR from government and private schools to understand the diversity of the lives of adolescent girls. The active interview (Gubrium & Holstein, 1997), focussed group discussions and Personal Position Repertoire (Hermans, 2001) were used to address qualitative and quantitative methodology. Nature of aspirations was explored along with it's relationship with context of opportunities and personal values. Evolving from the gendered structure of opportunities was aspirational. Personal values of exploration and competence were prevalent. A temporal study of self displayed that participants wished to be in control of their future despite social expectations. Roles and expectations from adolescent girls across the contexts were of academic achievement, caring for the family and behaving well. Diverse ways of disseminating messages of compliance to roles and conformity to the family were present which were sources of conflict. Conflict resolution displayed adolescent girls' understanding of agency and response to authority. Intergenerational continuities were extension of care role, reciprocity and relationality. Variations depicted modern convictions like progress of the society regarding gender roles, having a social standing, and speaking up. Adult generation had the highest impact on adolescent girls' development, values of competence and autonomy were expressed with them. Notions of independence were co-constructed in family, parents maintained cohesion with some flexibility along with an understanding that family is the source of self.

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## 16. SINDWANI (Sakshi)

# A Study on Extraction and Application of Grewia optiva (BHIMAL) Fibres in Textiles.

Supervisors : Dr. Bhawna Chanana and Dr. Simmi Bhagat Th 25238

Abstract (Not Verified)

Plants yielding fibres have undoubtedly been second to only food growing plants in their usefulness to mankind. An exemplification of the same are bhimal fibres have been extracted by traditional method of retting in water bodies by dipping branches for 45-50 days which consumes time and pollutes the water body. The present study was envisaged with the aim of extracting textile grade fibres from bhimal branches.

Dried branches of bhimal tree were sourced from Dehradun, Uttarakhand and a pilot testing of extraction with different chemicals was attempted which included alkalis, acids, sodium benzoate, HTHP treatment and urea. Retting in urea gave bhimal ribbons with a good degree of removal of gummy substances. Bleaching was carried out on extracted fibres and a softener was applied to complete the process of extraction. The composition analysis of extracted bhimal fibres was carried out. Bhimal fibres had a high amount of cellulose and lignin, and low hemi-cellulose. Morphology of the fibres was studied using scanning electron microscopy which indicated removal of cementing substances and X-ray diffraction inferred that crystalline regions increased with each treatment. The fibres were also tested for various physical and chemical fibre properties using standard test methods. Bhimal fibres were coarse, had good strength and high elongation at break. Moisture content and regain were higher than most cellulosic fibres. On dyeing, bhimal fibres showed excellent dye uptake and excellent fastness. In the last phase of the study, extracted fibres were spun into yarn by blending with a natural fibre-cotton (BhiCo) and a man-made fibre-viscose (BhiVi) in different ratios and different yarn properties were compared. These yarns were woven into fabric and fabric performance properties were compared. Bhimal fibres were also used in the core of sanitary napkins and they had comparable properties as that of branded napkins available in the market.

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