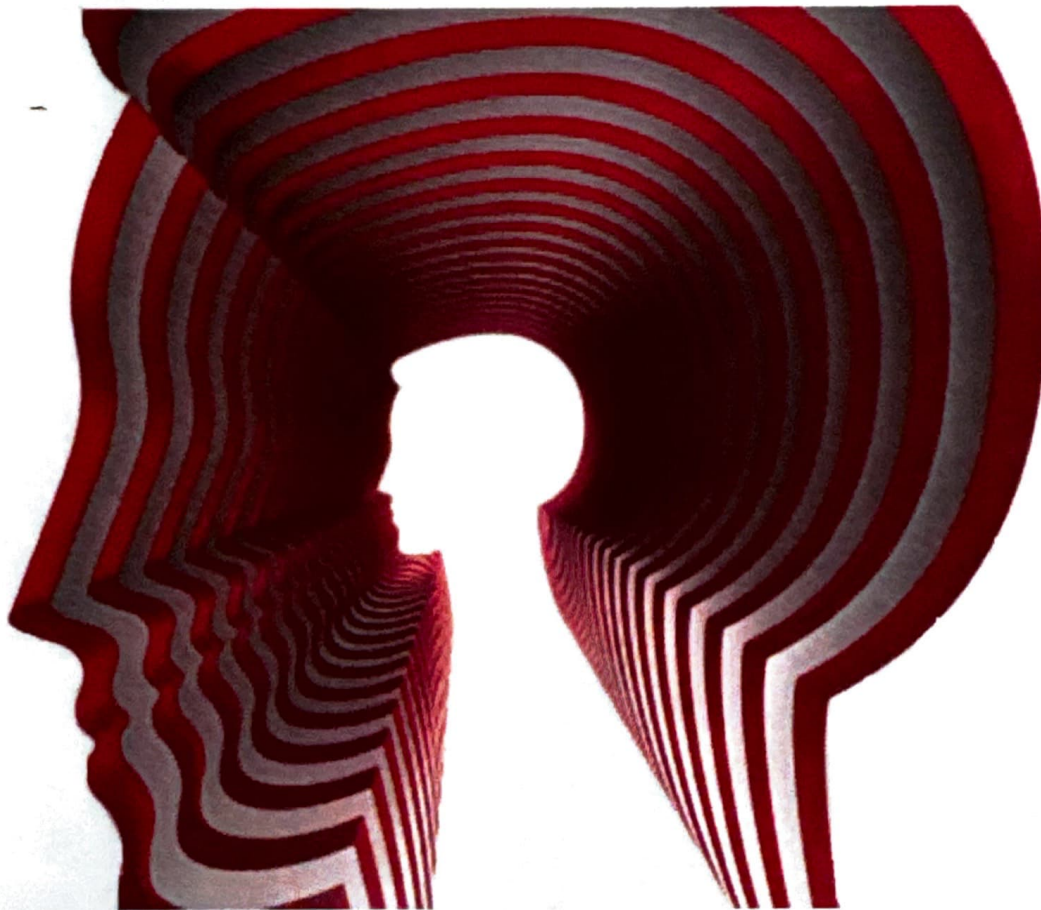




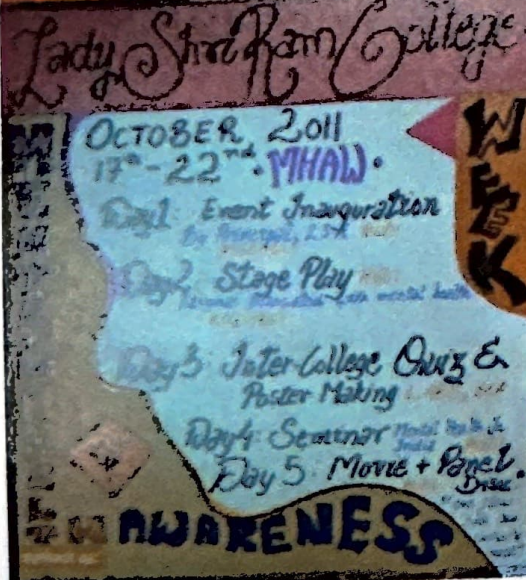
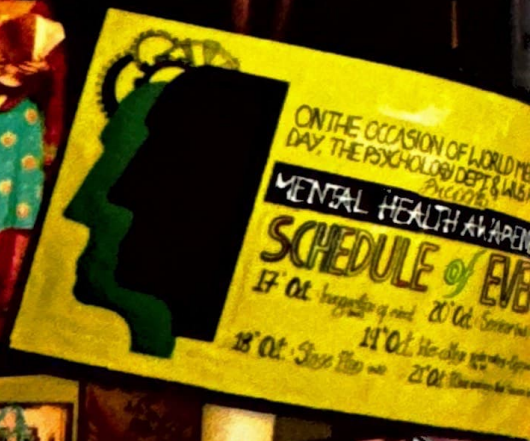
THE LEARNING CURVE
ANNUAL ACADEMIC JOURNAL



DEPARTMENT OF PSYCHOLOGY
LADY SHRI RAM COLLEGE

2012





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NOTE BY THE STUDENTS' UNION

It gives us immense pleasure to be writing for this journal. The department of psychology has been successful in re releasing the annual academic journal- The Learning Curve. This journal serves as a platform for faculty and students to showcase their work of research on many themes in psychology. It also offers an opportunity for others departments to know of various trends currently prevailing in the discipline of psychology. The contribution of the editorial board has been fundamental in this regard and it has been because of their effort that this journal received its present shape. We thank them for all the hard work put into this endeavor.

THE EDITORIAL NOTE

The editorial board is proud to present the first annual academic journal of the Psychology Department- The Learning Curve. It was a challenging task to review and select the articles to be published from the colossal number of insightful and intriguing entries received. We thank our fellow classmates for the overwhelming response. While working on this journal, we stretched ourselves on time and effort, discovered new capacities in ourselves to wriggle our way through bottlenecks and on the way, found great friends amongst ourselves. The academic journal aims at providing a platform for the faculty and student body of the department to exchange scholarly ideas to enhance and diversify their knowledge in the field of psychology. We hope that this platform is made available to them for the years to come.



Ashima Mandla

IIInd Year



Divyanshi Chugh

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Mental Health Awareness Week

An Overview

The World Health Organization defines mental health as “a state of well being in which the individual realizes his/her own abilities, can cope with the normal stresses of life, can work productively and fruitfully and is able to make a contribution to his/her community.” Thus mental health is not merely the absence of mental illness; it also subsumes emotional well being and the capacity to live a full and creative life. Twenty out of every thousand Indians suffer from severe mental illness, and nearly ten million go without adequate treatment. The chief causes of this are the lack of knowledge on treatment availability and the potential benefits of seeking treatment.

On the occasion of World Mental Health Day, the Psychology Department and World University Service at LSR collaborated to organize the Mental Health Week from the 17th to 21st of October 2011. This week long event was an attempt to address the pressing issues of mental health in India and aimed to generate awareness about the various facets of emotional and psychological well being. Each day of the week witnessed a creative and academic engagement with matters of psychosocial relevance wherein students and experts debated, discussed and presented ideas on mental health awareness, and on finding solutions to the current challenges that psychology as a science faces in India. The week included events like a street play that addressed the stigma of mental illness and the discrimination and isolation it results in; an inter-college poster-making competition, a quiz on mental health, a seminar with a panel of experts on the topic; as well as a film screening followed by a discussion. The event aimed to revisit some old questions on mental health like the very concept of mental illness as an illness, as well as explore paths to new concerns and movements in the field of Psychology with special relevance to its status in India.

Day 1: “A WORLD OF SCARECROWS” REACHING OUT

The students of the psychology department of Lady Shri Ram College presented a stage play on the Second day of the Mental Health Awareness Week. The play, titled “A world of Scarecrows” portrayed the deep conflicts and disturbances felt by the mentally ill, and the associated stigma and stereotyping of such illnesses as well the affected themselves.

The play touched on four disorders revealing the typical progression in the conduct of the family, the acquaintances and the society at large, when they come across a mentally challenged person. The challenges faced by the people suffering from Schizophrenia, Anorexia, obsessive compulsive disorder and attention deficit hyperactivity disorder were poignantly brought to life by a sensitive and sincere performance from the cast of the play. It brought home the message that empathy towards the affected as well as awareness about mental health is crucial for the acceptance and integration of the mentally ill with the societal mainstream.

Day 2: Misconceptions exist everywhere in the world and some of them are in dire need of clearance. And there are some about Mental Health too! Many associate mental health with asylums. This is precisely what the conceivers of the mental health awareness week decided to do away with and thereby the Inter College Poster Making and Quiz Competitions were held. Themes for the Poster Making Competition were

- a) Mental Health and Family
- b) Mental Health and Gender
- c) Stigma of Mental Illness
- d) Mental Health and Media

Sonal Khosla and Sonia Dahiya, students of Daulat Ram College who bagged the first prize, successfully discoursed the importance of family support in achieving a healthy mental life, through non-verbal mean. This was absolutely the pupose of organizing this event i.e. Poster Making Competition wherein students creatively use the medium of art to explore the idea of Mental Health and facilitate others to do the same

Inter-College Quiz: Through an elaborate screening process, 6 out of 15 teams were selected. The quiz had multiple rounds containing audio-video clips, Myth or Fact Questions and MCQs. It was a cut-throat competition and Daulat Ram College took the cake! Sreepriya, First Runner-up, said that the quiz increased students' awareness about the implicit aspects of health. Myth Busters appealed the most! For the audience, it was surely a rich and enlightening experience!

Day 3: Panel Discussion On Mental Health Awareness

Day 3 of the "Mental Health Awareness Week" witnessed an extremely interesting panel discussion on the issues of mental health plaguing the society today. The panelists were Dr. Nimesh Desai and Dr. Rajat Mitra. Dr. Desai, Director at the Institute of Human Behaviour & Allied Sciences spoke at length about the emerging concerns in the field of Psychiatry today such as the stigmatization and ostracization of the mentally ill. He expressed concern about the "over psychologization" and the American influences on psychology.

Dr. Rajat Mitra, Director at a non-rofit organization called Swanchetan, explained the state of mental health through the gender lens. Dr. Mitra described the bleak conditions of the victims of sexual assault and the role of psychologists in assisting survivors of rape, in reconstructing and recalling details of the crime. Answering questions about the state of mental health, particularly in India, both panelists maintained that a decadent lifestyle was to blame for the deteriorating state of mental health of people today. Various myths about mental health were laid to rest and the discussion helped in increasing awareness about the sensitive issue.

Day 4: Are you sane? Questions you will be forced to ask yourself

The Mental Health Awareness week concluded with a movie screening. The audience was treated to an English classic "One Flew over The Cuckoo's Nest" starring Jack Nicholson. This was followed by a panel discussion on the movie. The panel consisted of Dr Amit Sen (Senior Consultant Child & Adolescent Psychiatrist, Child & Adolescent Mental Health Program (CAMHP), Sitaram Bhartia Institute of Science & Research), Mr Pulkit Sharma (Clinical psychologist VIMHANS) and Ms Diana Cherian.

The movie tells the story Randle Patrick McMurphy (Nicholson), a recidivist and a criminal who has been sentenced to a fairly short prison term for rape and his battle of wits with the head nurse (Fletcher) of the ward at a mental institution where he is transferred. The movie goes on to talk about McMurphy's attempts at galvanizing the ward against the obsessively

strict routines of the nurse and the consequences that follow hence, culminating into a riveting and agonizing climax.

The panel discussion was on the topic, Pure "lexicalization" or "institutionalization of mental health assistance channels and rigidity of structure and hierarchy in the asylums." Dr. Sen spoke about the different therapies that have been developed since the movie released. The status of Electro-convulsive therapy in India was deliberated upon. The climax of the movie was also discussed at length. The focus of the discussion then shifted to the issue of normality and abnormality. To what extent can individualization allow a person to stray from norms, and when does a person become dangerously deviant were some questions pondered upon. Also, what amount of structural hierarchy and discipline is required and how can they be properly supplemented with qualities like empathy, tolerance and emotional assistance in order for mental health institutions to function effectively were also discussed.



Gandhi: The Psychoanalyst of the Nation

Diana Cherian Ahluwalia

Assistant Professor- Department of Psychology

Gandhi's presence in the minds of Indians is unmistakable. His definitive and inimitable influence whether one agrees or disagrees with him and his principles, on the Indian psyche, are unequivocal. Gandhi's ideologies, his enigma as well as the controversies surrounding him continue, even after more than six decades of his assassination, find their mark in the Indian way of life. Ironically, it took a Westerner, more specifically an American to dwell into Gandhi's own way of life. Erik Erikson's 'Gandhi's Truth: The Origins of Militant Non-Violence' was the first and a brilliant attempt to decipher the mind of Gandhi- complete with his vulnerabilities, ambiguities, strengths and conflicts. Much has been spoken of understanding Gandhi through the psychoanalytical lens since then with renditions by more contemporary psychodynamic thinkers. These have often, though not always, drifted toward poking at Gandhi's sexuality and his struggles with his punitive superego and impulsive id. However, to assume that complicating a man's already complex sexuality and mind, is all that psychoanalysis has to offer for Gandhi would be an oversight of the potential of the discipline and of the individual. While analysis has its roots in uncovering intrapsychic dilemmas, it also has the ability to explain wider social and cultural phenomena.

This discussion of Gandhi as the Indian's analyst will bring to light not just some internal mental characteristics of this intriguing man but will also include a commentary on the traces of Gandhi in the Indian psyche. To this purpose, excerpts are borrowed from the likes of Ashish Nandy's writings who proposes four distinct 'Gandhis' that exist in different sections of the Indian society. In addition, and this is perhaps the thrust of this paper, is the discovery that the man who was Gandhi, by embodying the forces, frustrations, spirit as well as liabilities of the Indian mind, became the Mahatma. Much like an endearing psychoanalyst, Gandhi absorbed complexities of the Indian mind, held it within himself and in so doing became the object onto which India projected her inner conflicts. Gandhi reflected back to us, not our mayhem of dilemmas and perplexity but the possibility of peace and simplicity, thus in a curious way, adopting the position of an analyst vis-à-vis a client. It is then, in this process of transference of the Indian mind and counter-transference from Gandhi that has transpired and that continues, the ideals of the "Mahatma", and therefore by implication the principles of the Indian mind emerges.

Erikson's psycho-biography of Gandhi allows the reader to appreciate the various psycho-social conflicts that Gandhi appears to have battled with through many years of his eventful life. However, that's not all this remarkable piece of analysis does. Erikson offered many more points to dwell on which included the following two themes that in particular struck this reader.

Drawing parallels between Freud and Gandhi : As Freud once fancied he might become a political leader, so Gandhi thought of going into medicine. All his life Gandhi ran a kind of health institute, and Freud founded an international organization with the ideological and economic power of a movement. Both men came to revolutionize man's awareness of his wayward instinctuality and to meet it with a combination of militant intelligence and

the basis of caste and religion. The second Gandhi is the 'intellectual' Gandhi- remaining alone in the intellect Indian's mind. This is another circumscribed manifestation of Gandhi and he lives off the first Gandhi. This identity of Gandhi exists in intellectual exchanges, in some symbolic actions (hand spinning of textile, rejecting anything remotely 'foreign' to further the propaganda of 'swaraj') and critical discussions of the pitiful state of Indian politics. The young Indian mind however is disillusioned with this Gandhi and seems disappointed in him. Gandhi was not just a man of introspection and dialogue but also a man of action- of initiative and agency (as has been discussed before while talking of Erikson and Gandhi). The action need not be determined by its popularity or magnitude- as is demonstrated by individuals like Baba Amte or Anna Hazare.

This second trace of Gandhi has left the youth of India somewhat distant from him and this is unfortunate because the second Gandhi hasn't broken the shackles of conference rooms and seminar halls to enter into the real life and real dilemmas of the Indian society. You and I, if we limit ourselves to these endless discussions like the present one and not convert thought into action, will be guilty of being proponents or embodiments of this second Gandhi.

The third Gandhi is perhaps more true to the original man and closer to his original ideals of 'swaraj' and 'satyagraha'. The ones who embody this third Gandhi are the sore points in what often appears to be the obvious road to development for our society/economy. They believe and act on the virtue of truth, many a times to the discomfort of the larger society or the state. They question, confront and compel their adversaries to reconsider. This Gandhi, who lives in the minds of an increasing number of Indians, is a cynic but also welcomes different vantage points. He is a menace to the common sense that passes as sanity but can be actually called, adapting an expression used by the founder of psychoanalysis, Sigmund Freud, 'psychopathology of everyday public life'.

This Gandhi does not resemble the original Gandhi in appearance and habits as much as in action and ideology. Nandy cites the example of the likes of Medha Patkar who has fought tirelessly against the State endorsed Narmada dam. This is the Gandhi who has the courage that Gandhi himself possessed- of questioning and confronting the powerful with persistence and faith. Mr. Sanjiv Bhatt, an officer of the IPS cadre who took on the powerful and influential Narendra Modi in the state of Gujarat is perhaps another case in point of the third Gandhi.

This fourth Gandhi that Nandy enlists, in many ways, is similar to the Gandhi that is co-created as mentioned in the previous section of this paper. It is this Gandhi who is the beacon of hope, of strength, of endurance and promises success at the very end of the long, enduring road of non violence. This Gandhi is what people of India 'want' to see as real rather than the 'real' Gandhi himself. The man Gandhi wasn't free of ambiguity, self doubt or vices but then this Gandhi would be too real, too raw for the palette of the Indian mind which again finds itself at social, political and economic crossroads- much like at the time of British rule and its struggle for independence. Like Nandy says in his opening lines of this write up, perhaps it is not important to ascertain which the real Gandhi is. If the creation of a certain portrait of Gandhi in the minds of young India allows us to find purpose and direction, then why not?

The final section of this paper is on exploring this very fourth Gandhi that Dr. Nandy has also illustrated. As mentioned previously, the proposition that the 'Mahatma' and his

nonviolence. Gandhi pointed a way to the "conquest of violence" in its external and manifest aspects and, in the meantime, chose to pluck out the sexuality that offended him. Freud, in studying man's repressed sexuality, also revealed the internalized violence of self-condemnation, but thought externalized violent strife to be inevitable.

The "truth methods" of psychoanalysis and of satyagraha do indeed represent "a convergence in human values which may well be of historical, if not evolutionary, significance"

Erikson suggests that satyagraha and psychoanalysis are counterparts: "by dint of always being a self-analysis paired with an attempt to understand another man's inner conflicts" ; because they both confront "the inner enemy nonviolently" ; because each "instrument of enlightenment" was forged "to include self-analysis, that is, the acceptance of himself as a person who shared [others'] inner mechanisms" ; "by replacing moral suppression with the belief that truth has enough force to make the patient [or the opponent] reveal what he had repressed". Through an incredible insight, Erikson brought together two men and their ideas that overtly appear in opposition to each other. This, the reader believes has been an important revelation to both- loyalists of psychoanalysis and those who identify themselves as 'Gandhians'.

Co creation of Satyagraha: The recognition of recurrent motivational themes in Gandhi's life history, and the demonstration of how they matured in satyagraha, though necessary for a psycho historical study, is by itself not sufficient to explain how it also met the needs of the followers in such a way that both the leader and the followers could make history together. The question arises that, if satyagraha can be shown to be an actualization of Gandhi's pervasive motivational trends, then how did it also develop into a historical movement which revitalized the Indian masses?

Erikson's answer to this is through the concept of identity, which in its core is both individual and social. Tracing the psychological effects of British rule and the effect of its economic, political, cultural, and spiritual policies in the damage done to the Indian identity, "the four-fold disaster" as Gandhi called it, Erikson shows that satyagraha not only actualized Gandhi but also actualized the followers by reconstituting their fragmented sense of identity which could be expressed and consolidated through the creation, or, rather, the re-creation, of "new" and specifically Indian institutions.

From Erikson's psychobiography of Gandhi, the first psychoanalytic understanding of the intriguing man, one moves to read the more recent renditions of Gandhi by psychoanalysts. Ashish Nandy wrote an obituary on the 50th anniversary of Gandhi's martyrdom that traces four 'kinds' of Gandhi in the minds of Indians today. As is typical of Gandhi himself, Nandy proposes a conflicting picture of these traces of Gandhi. He calls them troublesome as well as useful. Perhaps it is through the nature of these 'Gandhi identities' of being troublesome that their utility lies- what use can be a phenomena/ individual/ social construction that does not flutter feathers and question basic concepts? The first Gandhi that Nandy discusses is an 'absent' politician but a 'present' saint- this is the identity of Gandhi that India's political mind has adopted. By ascribing Gandhi the status of a 'Mahatma', the political mind of the Indians has neutralized Gandhi's ideologies as having potential for political application. This Gandhi has been constrained in idols and memorials built all over India albeit his philosophies of ahimsa, secularity and casteless society have become merely the sermons of a saint-who must, of course, be devoid of the worldly politics. This Gandhi is circumscribed-devoid of his life-long propagation of action, and is mocked every time a communal riot breaks out in India or whenever politicians exploit vote banks on

Similar to an endearing psychoanalyst, Gandhi absorbed complexities of the Indian mind, held it within himself and in so doing became the object onto which India projected her inner conflicts. Gandhi reflected back to us, not our mayhem of dilemmas and perplexity but the possibility of peace and simplicity, thus in a curious way, adopting the position of an analyst vis-à-vis a client.

Gandhi then is the ultimate psychoanalyst to the Indian mind.

(This is an excerpt from the talk delivered by the reader at LSR for the team of students visiting from the Ohio Wesleyan University for an academic module on Gandhi)



Role of Health Promotion in Preventing Workplace Bullying

by Dr. Garima Yadav, Asst. Professor, Lady Shri Ram College and Komal Chawla, Research Scholar, Amity University Rajasthan

This paper was was selected at International Conference on Psychological Sciences and Behavior, Hong Kong

Introduction

During the past few decades we have seen a growing interest in analyzing workplace bullying phenomena. Although presented under different labels such as mobbing, victimization, social undermining, emotional abuse and workplace incivility, studies uniformly seem to indicate that such negative behavior in the workplace may have severe detrimental consequences both for the targets and for the organizations concerned.

Bullying can take many forms and encompass a number of different negative behaviors such as social isolation or silent treatment, attacking the victim's private life or attitudes, excessive criticism or monitoring of work, withholding information or depriving responsibility, and verbal aggression. Thus it may include apparently minor acts, such as offensive remarks, rumors, or refusing to say hello, which may seem rather trivial on their own. However, it is important to note that the major differences between normal conflict and bullying is not necessarily what and how it is done, but rather the duration and repetitiveness of what is done.

Moreover it has been seen that psychological basis for Bullying is coercive power i.e. is the ability to influence a person to do something you want done, or the ability to make things happen the way you want them to happen .

It is interesting that Doyle (1995) sees power as real or perceived. 'Harassment is about power, real or perceived and it is used to make people do things they do not have to, or stop people doing things they are entitled to do'. This perception comes from both parties. The bully thinks they have power to continue inappropriate behavior. The victim perceives the bully as having the power to make them feel inadequate and intimidated.

An interesting suggestion by Galbraith (in Campbell 1997) is that an individual's pre-conditioning arises as a source of power. Learned behavior from family life or schooling could have conditioned the bully to behave this way. Some of the research suggests that bullying starts in the home, continues at school and/or university, becomes an issue at work, and has a major impact when the individual starts his or her own family.

It is important to draw a line between friendly banter and jokes in the workplace and bullying, just as sexual harassment, is about behavior that is unwelcome by the target (Pryor and Fitzgerald, 2003). Thus, bullying and inappropriate treatment is about that has that has the potential to endanger the health and well being of targets.

Understanding the causes of workplace bullying

During the past few years several studies have been undertaken on the causes of workplace bullying and other inappropriate treatment in the workplace. Whereas some articles have focused on the characteristics of targets, others have primarily focused on contextual factors, such as organizational environment. Despite the fact that most researchers today seem to agree that both personal and organizational factors and the interaction between the two are important for understanding the bullying process. Thus this paper focuses on these causes for developing potentially effective and successfully prevention and intervention measures. Why does it happen? On an individual level and between colleagues of roughly the same standing, it can be down to minor irritations and misunderstandings that get out of hand. Professional jealousy - usually unstated - is another common reason. When it emanates from more senior staff, the root cause can be genuine ignorance of how to motivate and lead a team, insecurity about their own position or a vague notion that being tough will prove their mettle as a strong boss. Institutionalized bullying serves to strengthen this misguided perception. Where ambitious junior managers see those above them riding roughshod over others - and getting away with it - they will emulate this to secure a place on the path to (supposed) success.

Consequences for Individuals

Workplace bullying can cause extensive health problems for employees exposed to this hazard, including physical and psychological illnesses and injuries. It can have detrimental effects and costs for the employer, as well as impacting on co-workers, clients, customers, business associates, family and friends.

Bullying can disrupt work to the extent that action has to be taken to restore order and confidence. The implications are even more serious if bullied employees suffer ill health and stay away from the workplace. The reaction of individual employees will vary according to the nature of the bullying. It is possible that employees who are bullied may experience some of the following effects: stress, anxiety or sleep disturbance, panic attacks or impaired ability to make decisions, incapacity to work, concentration problems, loss of self-confidence and self-esteem or reduced output and performance etc.

The costs to the organization include reduced efficiency, unsafe work environment, increased absenteeism, poor morale, increased workers' compensation claims and civil action. Therefore, it is in an organization's interest to maintain a bullying-free workplace rather than having to intervene or mediate during an established pattern of bullying.

Review of Literature

Generally speaking, bullying in the workplace goes largely unrecognized by both government and by employers alike. Research compiled by the University of Manchester Institute of Science and Technology however indicates that somewhere between one third and one half of all stress related illness is directly attributable to bullying at the workplace. Despite this staggering fact however, it has to be said that until recently, even trade unions never realized the full extent of the problem and chose instead to remain in denial for many years.

Several studies with bullies have envisaged the serious negative impact bullying may have on both health and well being. Although negative effects of bullying and harassment at work may also be observed on an organizational level, most of our research on effects has been on the individual victims of workplace bullying, as will be summarized below. However, in our study among Norwegian union members, 27% claimed that harassment had influenced negatively on the productivity of their organization (Einarsen et al., 1994). In the study among 500 male industrial workers, a significant negative association was found between exposure to bullying and psychological health and well being (Einarsen and Raknes, 1997). Exposure to harassment explained 23% of the variance in self-reported psychological health and well being. The strongest relationship existed between experiences of personal derogation and psychological well being. In our study among Union members (Einarsen et al., 1996), significant relationships were found between experienced bullying and psychological, psychosomatic and muscle-skeletal health complaints. The strongest correlation was found between bullying and psychological complaints where experienced bullying predicted 13% of the variation. A total of 6% of the variation in muscle skeletal problems could be statistically predicted by the different measurements of exposure to bullying.

A national survey conducted in Ireland found that approximately one third of respondents had experienced bullying from co-workers. Further many studies link the prevalence of bullying to characteristics of workplace organization. Several factors appear influential, including workload, organizational culture and managerial styles. Biabik (Victorian Trades Hall Council, 2002) noted that "the organizational chaos that typifies many of today's rapidly growing downsizing and merging companies is an ideal environment for bullying behaviors".

Workplace bullying has psychological health effects and costs for the victims. These effects include: feelings of helplessness and isolation, withdrawal, fear of being labeled as a troublemaker, fear of dismissal or loss of job promotion opportunities, fear of being transferred to dead-end or mundane jobs, anxiety, feelings of self-blame, suicide, stress, nervous breakdown, depression, loss of appetite, eating disorders, reliance on medication, increased drinking, smoking, insomnia, fatigue, lack of concentration, headaches, nausea, backaches, stomach aches, infections and other illnesses, ill health or early retirement due to stress related illness, low morale, low self-esteem, poor job performance, absenteeism, physical violence to others, and additional impacts on victims' family life and relationships (Alderman 1997; Beasley & Rayner 1997; Hindell 1997; MacLeod 1996; Mendelson 1990; Overell 1995; Queensland Nurse 1998; Spiers 1996)

Workplace bullying occurs regularly and is costly for employers and employees. Reporting levels are slowly increasing (Smith, 1999). In the United Kingdom, one in eight employees, responding to an Institute of Personnel and Development (IPD) study, agreed they had been bullied at work during the last five years (Luxton, 1995). This compares with research done with students from Staffordshire University, where it was found that one in two of the students had been bullied at work (Rayner, 1997). This research suggests that victims feel that workplace bullying is a common occurrence. Assuming that the IPD members were at a higher level in the organization than the students, then bullying may occur less frequently at higher levels. This assertion would be consistent with the theory of power's role in bullying, since higher level positions have more legitimate power and, therefore, may be less vulnerable.

Objectives

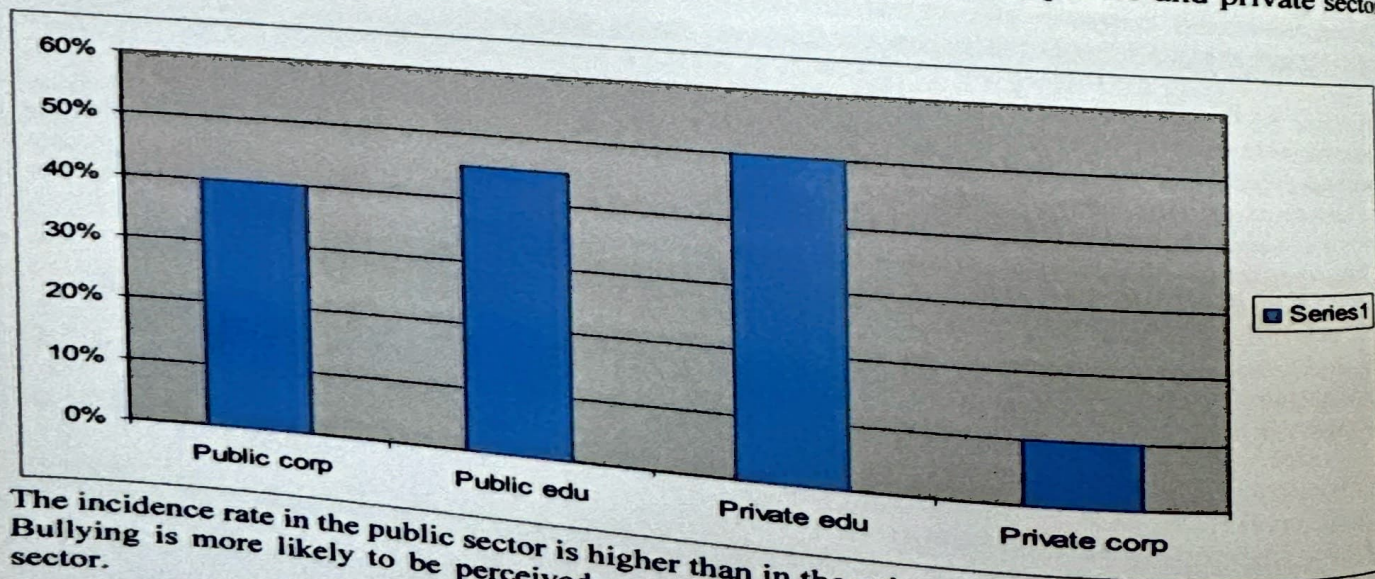
- To determine prevalence of workplace bullying in private & public sector
- Identify kind of health problems related to workplace bullying
- To develop framework to alleviate workplace bullying

Research Design

- Descriptive research
- Minimal researcher interference
- Probability sampling design: Stratified random sampling techniques is used
- Sample size: 60 employees of Private and Public sector, having min. 5 years of working experience. Further two sub categories of 30 each were made under both sectors i.e corporate organizations and educational institutions
- Cross-sectional study
- Rating scale – Are you the target by Tim Field was administered.

Result

The results of study relating to workplace bullying, in both the public and private sectors indicated the following information:



The incidence rate in the public sector is higher than in the private sector. Bullying is more likely to be perceived as a problem in the public sector than in the private sector.

It is more likely to be perceived as a problem in larger rather than in smaller organisations. Public sector organizations are more likely to report that bullying by colleagues and by clients is a problem. The results explain that 40% of employees complained of bullying in

PAPER PRESENTATION COMPETITION AT ZEITGEIST, 2012

ABSTRACTS OF TOP PAPERS SELECTED FOR PRESENTATION (FOUR PAPERS ARE PUBLISHED IN FULL-LENGTH)

- Impact of Meditation on stress and emotional intelligence by Ms. Sakshi Sethi, Keshav Mahavidyalaya

The aim of the research is to find the relationship between meditation, stress level and emotional intelligence. Research has proved that meditation tends to increase the emotional intelligence of the person and decreases the stress level of the person. There are two psychometric tools used for this purpose i.e. Perceived Stress Scale (PSS) and (ESAP). The data collection is in process and data is to be collected from Barahmakumari's centre. The data of 75 subjects aged between 30-45 years will be collected and will be divided into three groups i.e. A (one who are practicing from past 6 months), B (practicing from past 1 year) and C (more than 5 years). The statistical technique of ANOVA will be used to find out the results. It is hypothesized that there will be significant differences in the stress level and the emotional intelligence of these three groups.

- Effect of Dance movement therapy on well being & family adjustment of blind children by Aastha Malik, Keshav Mahavidyalaya

The dance movement therapy is the use of body movements as an emotional, physical and behavioral therapy. It is thought to decrease emotional, cognitive, social, behavioral and physical disturbances. Keeping this into mind, the study aimed at studying the impact of Dance Movement Therapy on the Well-Being and Family Adjustment of the Blind children with multiple impairments (physiological and neurological) of 10-17 years of age. A sample of 40 students has been taken from National Association Of Blind. The study is conducted on 40 students divided in two groups: 20 in experimental group, on which DMT was done and 20 in control group where no therapy was provided. It was hypothesized that the adolescents who are provided DMT will possess better psychological well being and adaptive family adjustment as compared to the control group. The conduction is in process; therefore results will be discussed during the presentation.

- Religious significance of name by Bhargavi, Daulat Ram College for Women

Social identity means how we perceive and make sense of each and is fundamental to all interactions. The aim of the study is to examine the affect of religion on the process of naming a child under the Muslim culture. The data was drawn from 2958 names from a book called 'Muslim Names' by Salahuddin Ahmed. Method used for this study was qualitative in nature. This method is used for the topics for which no specific solution or a conclusion is present and is very delicate and subjective in nature. For this, rational scale was used as the basis for selecting items and grouping them together into a theme. The results showed that though there were common themes present for both the categories (male and female) still gender differences were present and have a significant role in the process of naming a child under Muslim culture.

Indian culture has always encouraged a collectivistic approach to the organization of society. Based on the need for affiliation, the joint family provides a psychological safety net for individuals (O'Reilly 2005). Emotionally well connected family members act as a forum for the individual to seek advice, financial help and emotional support. Perhaps that's why the need for therapy is lower in the oriental world compared to the west. My research paper focuses on the art of storytelling, a practice commonly associated with grandparents and grandchildren. Storytelling can have various benefits including producing children's susceptibility to pathology. So, with a preventive approach towards psychological disorder, the power of mythology in boosting psychological immunity in children is highlighted here. In sum, this paper focuses on the healing qualities of storytelling and how the act is dying with the rise in nuclear families and reduced interaction between children and their grandparents.

- Psychological Immunity through the Art of Storytelling by S. Anandavalli, Jesus and Mary College

Music has long been an effective and efficient means for triggering moods and thus influencing, consumer marketing. This paper examines the role of music on consumer behavior. Through this study, an attempt was made to understand whether the background music used while advertising a product influences consumer's choice. The subjects (N=40) were presented with 5 products (similar in color and size), each of them paired with music from different genres (Heavy metal, Hindustani, Jazz, Pop, Western Classical). They were then asked to vote for their most liked product. The subjects were presented with the same products with interchanged music after an interval of 1 week. Their product preferences in both settings were correlated to examine whether similar music was selected on both occasions. Results and their implications on marketing strategies were then discussed.

- Music, Mood & Marketing by Akansha Malik and Sumangir, Jesus and Mary College

People with mental illness have a hard time bearing the "label" of being mad. Today, media, particularly popular commercial cinema plays a crucial role in influencing people's attitudes. The present study compares the depiction of mental illness in popular commercial cinemas. Using the grounded theory method, a comparative analysis of 10 hollywood and 10 bollywood highest box-office grossing movies in the past 20 years depicting mental illness as their central theme is carried out. It was found that the portrayals of mental illness in cinema paralleled the broader political and socio-economic trends in Indian and Western society. An interdisciplinary review of the literature integrating resources from film history, the social sciences, mass communication etc is discussed. Suggestions for further research are also discussed.

- Cinema of the insane by Kavya Bhardwaj and Kanika Chaturvedi, Jesus and Mary College

Winning Papers at Paper Presentation Competition, Zeitgeist 2012

1. Synthesis of the senses- A historical review of synesthesia & its connection to creativity by Tanya Mehta & Purbasha Mazumdar, Lady Shri Ram College for Women

Introduction

Synesthesia, from the ancient Greek *syn* "together," and *aisthēsis*, "sensation," is a neurologically based condition in which an otherwise normal person experiences sensations in one modality when a second modality is stimulated. A person experiencing this phenomenon is called a "synesthete". For example, a synesthete may experience a specific colour whenever she encounters a particular tone (e.g., E-sharp may be green) or may see any given number as always tinged a certain colour (e.g., '7' may be blue and '6' may be red). It isn't known with surety when first this quirky phenomenon was recognized as being a human trait. However, speculations abound. It has been surmised that Newton experienced this phenomenon. Multiple artists have been known to exhibit this condition.

Synesthesia was first documented systematically and studied scientifically by Francis Galton. In 1892 Galton published a small article dedicated to this oddity in the prime science journal *Nature*. This was one of the lesser known articles authored by the great scientist and was more or less ignored by the scientific community. Since then, it has been the norm for scientists to brush this condition aside as a mere neurological anomaly. However, there are a band of scientists today who are convinced that this is a real phenomenon and indeed an extremely important one, a phenomenon that provides valuable insights into the most intriguing aspects of the human mind, and posits to answer questions about what makes us uniquely human.

Synesthesia might have lacked supporters in the scientific field through the 19th and 20th centuries but the present story isn't quite as gloomy, a host of brilliant researchers have taken up the study of synesthesia and it is a blooming field of study. Richard Cytowic was one of the first neurologists who pioneered the study of this phenomenon as being something "real". He wrote two books about it: *Synesthesia: A Union of the Senses* (1989) *The Man Who Tasted Shapes* (1993/2003). Other key scientists involved in synesthesia-related research include V.S. Ramachandran, Ed Hubbard, Baren-Cohen, Campen, Domino etc.

General Description

Synesthetes are normally functioning in the conventional sense. They appear bright and clinically, seem mentally balanced with their MMPIs scores being unremarkable except for non-stereotypical male-female scales. Standard neurological exams are also yield normal results. However, they do have excellent memories because of their parallel sensations for different stimuli, saying for example, "I know it's 2 because it's white." Synesthetes perform in the superior range of the Wechsler Memory Scale. They also have superior but uneven cognitive skills. They may have dyscalculia or subtle mathematical deficiencies such as lexical-to-digit

transcoding and right-left confusion (allochiria).

Synesthesia is also sometimes reported by individuals under the influence of psychedelic drugs, after a stroke, during a temporal lobe epilepsy seizure, or as a result of blindness or deafness. Synesthesia that arises from such non-genetic events is referred to as "adventitious synesthesia" to distinguish it from the more common congenital forms of synesthesia. Adventitious synesthesia involving drugs or stroke (but not blindness or deafness) apparently only involves sensory linkings such as sound → vision or touch → hearing.

Estimates of the prevalence of synesthesia vary dramatically. Cytowic (1989; 1997) estimates that it occurs in 1 in 20,000 people, while Galton (1880) placed the prevalence at 1 in 20. More recent, systematic, studies have estimated that synesthesia occurs in 1 in 2,000 people (Baron-Cohen et al., 1996). Ramachandran's estimates suggest that as much as 1 in 200 could possess this condition (Ramachandran et al., 2001). Some of this variability is likely due to differences in definitional criteria used by different researchers, but some of this might also be due to the different subtypes examined by different investigators. It has also been found that women synesthetes predominate with Cytowic (1989) finding a female to male ratio of 3:1 in the U.S. and a ratio of 8:1 in the U.K. (Baron-Cohen et al. 1993).

The study of synesthesia becomes more challenging due to the idiosyncratic nature of synesthetic experiences. However, some scientists also contend that the most intriguing aspect of this condition is the variability inherent to it. There are multiple types of synesthesia and also individual differences within these types (e.g., vividness, spatial extent, affective components).

There are various forms of synesthesia, for example:

1) Grapheme → color synesthesia : Individual letters of the alphabet and numbers (collectively referred to as graphemes), are "tinged" with a certain colour and individuals usually do not report the same colors for all letters and numbers, studies with large numbers of synesthetes find some commonalities across letters. In study of 172 "colored letter" synesthetes alone, by Sean Day, 43% perceive the letter A as red; of 123 synesthetes, 57% perceive the letter O as white. The letter I holds interest: of 119, 38% perceive this letter as white, 28% as black, and 12% as gray; that is, 78% perceive it as non-hued; likewise, 75% perceive the letter O as non-hued. Of 93 synesthetes, 44% perceive Y as yellow. This is only a simple example that demonstrates the multivariate nature of synesthetic experiences.

2) Sound → color synesthesia : In this form of synesthesia, environmental sounds such as clattering dishes or dog barks trigger color and firework shapes that arise, move around, and then fade when the sound ends. For some, the stimulus type is limited (e.g., music only, or even just a specific musical key); for others, a wide variety of sounds triggers synesthesia.

3) Number form synesthesia: A number form is a mental map of numbers, which automatically and involuntarily appears whenever someone who experiences number-forms thinks of numbers.

4) Ordinal Linguistic synesthesia: In this form ordered sequences such as days, weeks, months appear as distinct personalities. This is the most ignored form of synesthesia.

There are various other forms of synesthesia but researchers have looked most intricately into grapheme-colour synesthesia which has also been proposed to be the most commonly experienced form of synesthesia (Day, 2001). For the purpose of our present review, we have also generally discussed this form of synesthesia.

First Hand Accounts

There are/have been many famous personalities who have/had synesthesia. Here we highlight a few most-intriguing and curious accounts. The world renowned composer Franz (1811-1886) was a synesthete. He is said to have made the following to his orchestra in Weimar (1842), who were, needless to mention, astonished.

"O please, gentlemen, a little bluer, if you please!
This tone type requires it!" Or: "That is a deep violet, please, depend on it!
Not so rose!"

Vladimir Nabokov (1899-1977), the very controversial and extremely talented author of *Lolita* was one of the most famous people to possess this condition. In Nabokov's memoir *Invitation of a Beethoven*, Nabokov details how his synesthesia has affected him in his life. He writes "The long 'a' of the English alphabet . . . has for me the tint of weathered wood, but a French 'a' evokes polished ebony. This black group also includes hard 'g' (vulcanized rubber) and 'r' (a sooty rag being ripped). Oatmeal 'n', noodle-limp 'l', and the ivory-backed hand-mirror of 'o' take care of the white. . . . Passing on to the blue group, there is steely 'x', thundercloud 'z' and huckleberry 'h'. Since a subtle interaction exists between sound and shape, I see 'q' as browner than 'k', while 's' is not the light blue of 'c', but a curious mixture of azure and mother-of-pearl." (Cited in Lemley, 1999)

Luria diagnosed Shereshevskii with an extremely strong version of synesthesia, fivefold synesthesia, in which the stimulation of one of his senses produced a reaction in every other. For example, if Shereshevskii heard a musical tone played he would immediately see a colour, touch would trigger a taste sensation and so on for each of the senses. The images that his synesthesia produced usually aided him in memorizing. For example, when thinking about numbers he reported:

"Take the number 1. This is a proud, well-built man; 2 is a high-spirited woman; 3 a gloomy person; 6 a man with a swollen foot; 7 a man with a moustache; 8 a very stout woman—a sack within a sack. As for the number 87, what I see is a fat woman and a man twirling his moustache."

"Whenever Francesca closes her eyes and touches a particular texture, she experiences a vivid emotion: Denim, extreme sadness. Silk, peace and calm. Wax, embarrassment. She sometimes feels subtle nuances of emotions. Grade 60 sandpaper produces guilt and grade 120 evokes 'the feeling of telling a white lie'". From *The Tell-Tale Brain* by V.S. Ramachandran.

Perceptual Reality of Synesthesia

Synesthesia is still brushed under the carpet by many in the scientific community with the label of being an anomaly. As has been mentioned earlier, this standard stance was ignored by Cytowic, who is considered a pioneer in this field of research. Cytowic proposed that the phenomenon was a kind of evolutionary regression to a more primitive brain state wherein the senses hadn't quite separated and were being mingled in the emotional core of the brain. "MWs cortical metabolism dropped so low during synesthesia that he should have been blind, paralyzed, or shown some other conventional sign of a lesion. Yet his thinking and neurological exam were unimpaired. Such a depression of cortical metabolism during a distinct behavioral state disturbs traditionalists, who regard the more recently-evolved cortex as the seat of higher analysis and reason, while assigning the limbic system (the sub-cortical ring of tissue that encircles the brainstem and is much older in evolutionary terms) to handle the more "primitive" functions of emotion, memory, and attention." From *Synesthesia: A union of the senses*. This idea of an undifferentiated primitive brain hasn't settled well with contemporary scientists, for if Cytowic's claims are to be taken seriously one would assume that the senses would just blend into each other creating a blurry mess. However, this is in exact contradiction to the experiences of synesthetes who claim to have very distinctive experiences.

A second explanation that is often posed is that synesthesia arises out of previously formed memory associations. Scientists in favour of this theory propose that the condition merely results out of, for example, associations that form in childhood while playing with refrigerator magnets or coloured blocks. Hence, synesthetes when experiencing the phenomenon are merely "remembering" these associations vividly, akin to how "normal" people recall the smell of a rose or the taste of curry. This theory has major pitfalls. For instance, it doesn't explain why only some people remain stuck with such vivid sensory memories. Moreover, V.S. Ramachandran has also been able to identify a colourblind synesthete who has never experienced colours in "reality" that he is able to "see" during his synesthetic experiences (Ramachandran and Hubbard, 2001).

The more accepted explanation by contemporary neurologists is that synesthesia has a neurological basis and isn't merely a result of childhood memories nor is it people being exaggeratedly metaphorical or tangential in their speech in order to gain attention.

Genetic Basis of Synesthesia -

In spite of the variability in estimates of its prevalence, almost every study of synesthesia has agreed that synesthesia seems to run in families. Initial family studies showed that the trait seemed to be passed along the X-chromosome, and that it may have been dominant (Bailey & Johnson, 1997). However, the researchers weren't able to identify the exact genetic loci and preliminary results from a molecular genetic study of synesthesia indicates that synesthesia may not be solely X linked (J.E. Asher). When large-scale random sample studies are carried out, there is no gender bias, suggesting that early studies suffered from an under-reporting by male subjects (J. Simner). Other recent findings, including a pair of mono-zygotic twins who were discordant for synesthesia (Smilek et al., 2002) and data suggesting that synesthesia can skip

generations (Hubbard and Ramachandran, 2003) are hard to reconcile with dominant transmission. In sum, recent data suggest that the genetic mechanisms underlying synesthesia may be more complex than the straightforward X-linked dominant account proposed by early researchers. It has been proposed that synesthesia is most likely a polygenic condition since it involves various types. It has also been put forth that certain varieties of synesthesia could have an epigenetic basis.

Synesthetic Associations are Stable over Time –

Scientists have proposed and subsequently proved empirically that synesthetically induced colours are consistent across months or even years of testing (Baron-Cohen et al., 1993). Baron-Cohen et al. asked nine synesthetic subjects and nine controls to give colour associations for a list of 130 words. Control subjects were told that they would be tested one week later, while synesthetic subjects were retested one year later and were not informed prior to testing that they would be retested. Synesthetic subjects were 92.3% consistent, while control subjects were only 37.6% consistent. The color associations of synesthetes also tend to be highly specific (Baron-Cohen et al., 1993, 1996; Mattingley et al., 2001).

Cognitive Studies of Synesthesia – Although studies of consistency are useful in differentiating between synesthetes and non-synesthetes, they are too superficial to allow exploration of the underlying cognitive, perceptual, and neural bases of synesthesia. Consistency suggests that there is some difference between synesthetes and non-synesthetes, but it does not educate us of exactly what that difference is. Recently there has been an explosion of studies examining these questions with more sophisticated behavioral techniques. With modified Stroop interference paradigms, recent research has shown that synesthesia is automatic and perhaps obligatory (Dixon et al., 2000; Mattingley et al., 2001; Mills et al., 1999). In the standard Stroop paradigm, color names are presented in colored ink, such as the word RED printed in either red or green ink. An incongruence is evoked in the subject by printing the word RED in green ink which consequently yields a larger response time. Similarly in the Synesthetic-stroop paradigm, the synesthete is first tested on some preliminary tests in order to identify what the specific colours experienced by the synesthete are.

Knowing this, thus, two varying conditions can be created in the Stroop test which are likely to yield varying response times akin to the Stroop test conditions employed for non-synesthetic Stroop subjects. In one of these conditions the colour of the word is made to match the automatic synesthetic colour experienced by the subject, this is known as the congruent condition. In the other condition, called the incongruent condition, the word is written in a colour that does not match the automatic synesthetic colour evoked naturally in the subject. Responses in the incongruent condition are typically much slower than in the congruent condition. The consistent finding that synesthetes are slower in the incongruent condition than in the congruent condition demonstrates that synesthetic colors are automatic and not under voluntary control. Subsequent research has shown that synesthetic Stroop interference can be induced simply by thinking about or imagining the eliciting stimulus when it is the solution to a math problem (Dixon et al., 2000; Jansari et al., 2005) and can be eliminated by masking the target grapheme before presenting a colored grapheme (Mattingley et al., 2001).

McCollough Effect –

The most exciting finding in the field concerning the automaticity of synesthesia has been the reported result that projected photisms evoked through synesthesia can induce the McCollough effect

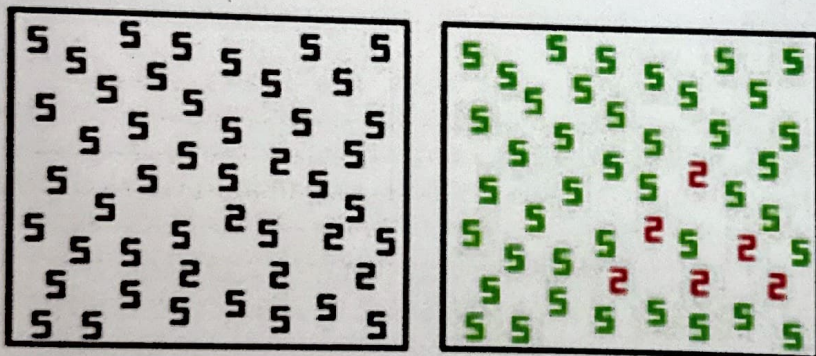
(Blake

et

al).

Pop – out Effect –

Synesthetically induced colours are known to produce to pop-out. Subjects were presented with displays composed of graphemes (e.g., a matrix of randomly placed, computer-generated '2's). Within the display, a shape had been embedded, such as a triangle, composed of other graphemes (e.g. computer-generated '5's; (see fig.a). Since '5's are mirror images of '2's and made up of identical features (horizontal and vertical line segments), non-synesthetic subjects found it hard to detect the embedded shape composed of '5's. Synesthetes, on the other hand, were able to identify the '2's as one colour and the '5's as a different colour, so they claimed to see the display as (for example) a red triangle amidst a background of green '2's. When their performance was measured, it was found that they were significantly better at detecting the embedded shape than non-synesthetic control subjects (Ramachandran & Hubbard, 2001), making it clear that they were not confabulating and could not have been 'faking it'. Perceptual grouping and pop-out are often used as diagnostic tests to determine whether a given feature is genuinely perceptual or not (Beck, 1966; Treisman, 1982).

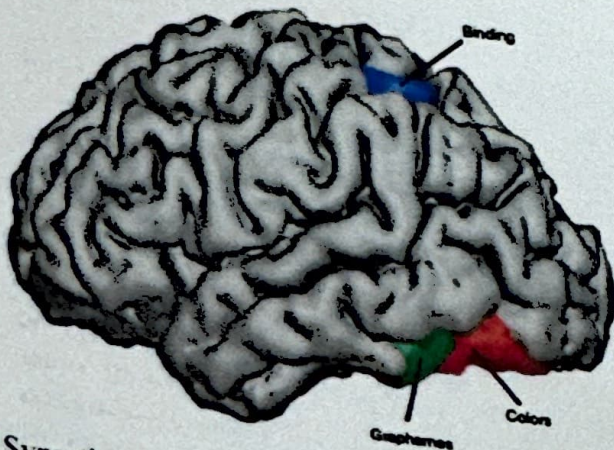


The Cross Activation Hypothesis

Synesthetes were initially considered to be crazy or at best "acid junkies" or "pot-heads". As mentioned before, these conjectures are not accepted by the scientific community today. Synesthesia has been accepted as being a neurological and automatic condition, shaped by learning. However, the underlying cause of synesthesia is still open to hot debate. The most competent hypothesis regarding the etiology of synesthesia is the "cross-activation" hypothesis which has been around for about a century, but more systematic work in shaping and elaborating this theory has been done by Ramachandran and Hubbard (Ramachandran and Hubbard, 2001). The key insight comes from anatomical, physiological and imaging studies in both humans and monkeys, which show that colour areas in the brain (V4; Lueck et al., 1989; Zeki & Marini, 1998 and V8; Hadjikhani et al., 1998) are in the fusiform gyrus. It has been found that, remarkably, the visual grapheme area is also in the fusiform (Allison et al., 1994; Nobre et al., 1994; Pesenti et al., 2000), especially in the left hemisphere (Tarkiainen et al., 1999), adjacent to V4. This has led Ramachandran to speculate (Ramachandran and Hubbard, 2001) that synesthesia arises out

of cross-wiring between these two areas. Since synesthesia runs in families, Ramachandran (Ramachandran and Hubbard, 2001) suggests that a single gene mutation causes an excess of cross-connections or defective pruning of connections between different brain areas. Consequently, every time there is activation of neurons representing numbers, there may be a corresponding activation of colour neurons.

One potential mechanism for this would be the observed prenatal connections between inferior temporal regions and area V4 (Kennedy et al., 1997; Rodman & Moore, 1997). In the immature brain, there are substantially more connections between (and within) areas than are present in the adult brain. Some of these connections are removed through a process of pruning and others remain. It has been shown that there is a much larger feedback input from inferior temporal areas to V4 in prenatal monkeys. (Kennedy et al., 1997). Hence, if a genetic mutation were to lead to a failure of pruning (or stabilization) of these prenatal pathways, connections between the number grapheme area and V4 would persist into adulthood, leading to the experience of colour when viewing numbers or letters.



Synesthesia and Creativity- Art, whether it is in the form of poetry, painting, sculpture, or music, requires one to make mental leaps and relate seemingly unrelated concepts. In this way, creation of art is not very different from synesthetic experiences and it is purported to be more common in artists, poets and novelists (Dailey et al., 1997; Domino, 1989; Root-Bernstein & Root-Bernstein, 1999). Many famous artists, novelists, musicians are/have been known to have synesthesia for example Vladimir Nabokov, Alexander Scriabin, Wassily Kandinsky, Franz Liszt etc.

In 1989 Domino published a study reporting that in a sample of 358 fine-arts students 23% experienced synaesthesia. This figure was much larger than any reported for the general population suggesting that synesthesia is more prevalent in artists and creative people than it is in the general population. Domino also tested 61 of the self-reported synaesthetes and 61 control subjects (equated on gender, major, year in school and verbal intelligence) on four experimental measures of creativity. He found that, as a group, synaesthetes performed better than controls on all four experimental measures of creativity.

Evidence also suggests that creative individuals have access to primary process modes of thought and they engage in both synesthetic and physiognomic perceptions involving a unity between different sensory modalities and a fusion of affect and perception. Mednick & Mednick

(1967) used the Remote Associates Test to measure creative potential. Similarity judgments were made between auditory stimuli (pure tones and pure vowel sounds) and colors to measure synesthetic-like phenomena. Colors were rated using adjectives with emotional connotations to measure physiognomic perception. Results showed that more creative participants exhibited significantly stronger associations between colors and pure tones, vowels, and emotional terms.

In another experiment, involving 210 participants, the relationship between self-reported synesthesia and verbal creativity was explored through the Remote Associates Test and pun generation and a significant correlation between scores on Synesthesia and Verbal Creativity was obtained. (Sitton and Pierce, 2004)

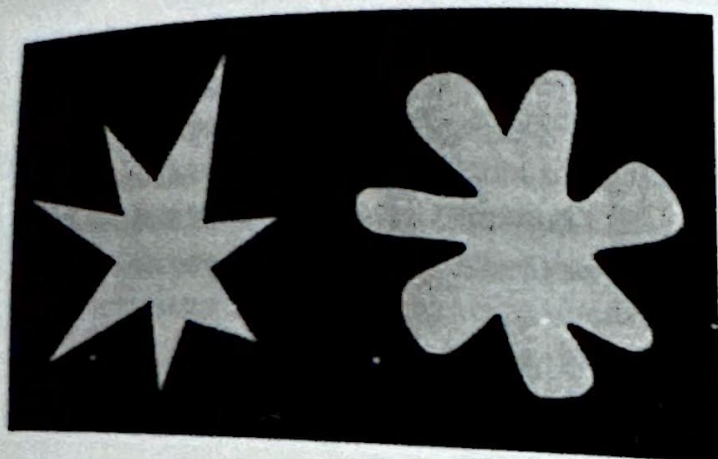
How can the cross-wiring hypothesis explain these results?

Ramachandran has pioneered the research concerning the link between creativity and this curious condition. He utilizes the cross-activation hypothesis to propose a unifying theory which deems to explain both these phenomena. One thing that artists and synesthetes have in common is a remarkable facility linking two seemingly unrelated realms in order to highlight a hidden deep similarity (Root-Bernstein & Root-Bernstein, 1999). When Shakespeare writes 'It is the East and Juliet is the sun', our brains instantly understand this. One doesn't say, 'Juliet is the sun. Does that mean she is a glowing ball of fire?' . Instead, our brain instantly forms the right links, 'She is warm like the sun, nurturing like the sun, radiant like the sun' and so on. (Ramachandran and Hubbard, 2001).

It has often been suggested that concepts are represented in brain maps in the same way that percepts (like colours or faces) are. One such example is that of the concept of number, a fairly abstract concept, for which neurologists have been able to identify the specific brain regions (the fusiform and the angular) which are involved. Perhaps many other concepts are also represented in non-topographic maps in the brain. If so, Ramachandran suggests (Ramachandran and Hubbard, 2001) one can think of metaphors as involving cross-activation of conceptual maps in a manner analogous to cross-activation of perceptual maps in synesthesia. If this idea is correct then it might explain the higher incidence of synesthesia in artists and poets. If mutation-induced cross-wiring selectively affects the fusiform or angular gyrus someone may experience synesthesia. However, if this mutation is more diffusely expressed it may produce a more generally cross-wired brain creating a greater propensity and opportunity for creatively mapping from one concept to another.

Are we all synesthetes in a sense?

Inferring from the above mentioned lines it can be put forth that synesthesia is best considered as an example of subpathological cross-modal interactions which can be a signature of creativity. But it can also be seen that normal everyday language is replete with synesthetic metaphors and even in nonsynesthetes, a great deal of what goes on in their minds is a result of normal crossmodal interactions that are nonarbitrary. Hence, there is a sense in which all of us are synesthetes. To illustrate this Ramachandran used the Buba-Kiki experiment which had been initially devised by Köhler in 1929. The Buba/Kiki Effect is a non-arbitrary mapping between speech sounds and the visual shape of objects. This experiment first conducted on the island of



Tenerife, Köhler showed forms similar to those shown below and asked participants which shape was called "takete" and which was called "baluba". Data suggested a strong preference to pair the jagged shape with "takete" and the rounded shape with "baluba".

In 2001, Ramachandran and Hubbard repeated Köhler's experiment using the words "kiki" and "bouba" and asked American college undergraduates and Tamil speakers in India "Which of these shapes is bouba and which is kiki?" In both the English and the Tamil speakers, 95% to 98% selected the curvy shape as "bouba" and the jagged one as "kiki", suggesting that the human brain is somehow able to extract abstract properties from shapes and sounds. Recent work by Daphne Maurer and colleagues has shown that even children as young as 2.5 (too young to read) show this effect. The reason proposed for this effect is that the gentle curves and undulations of the amoeba-like figure mimic the gentle sound of the word "bouba". On the other hand, the sharp wave forms of the sound kiki and the sharp inflection of the tongue on the palate mimic the sudden changes in the jagged visual shape.

This has led Ramachandran to suggest that such nonarbitrary crossmodal neural associations hold important keys to understanding uniquely human traits such as language, metaphors, and creative thinking.

Conclusion

Synesthesia has been able to intrigue a band of talented scientists in fields ranging from linguistics to cognitive sciences to neurology. This sudden interest in this age-old phenomenon is due to the fact that increased understanding of this oddity has led scientists to believe that it holds answers to the most perplexing questions that have been ever posed such as the riddles of consciousness, creativity and language origin. Thus synesthesia provides possible answers not only the ivory tower-like academic concerns of specialist scientists but it also perhaps provides a window into the soul that each of us inherit through language and literature.

An Evaluation of Brief Interventions- Cognitive dissonance And Media literacy On Body Dissatisfaction in undergraduate women

By Jayanti Bhardwaj

(Under the supervision of Dr.KanikaKhandelwal)



The present study aimed to compare the effectiveness of two interventions namely cognitive dissonance and media literacy, in reducing body dissatisfaction in undergraduate women. Participants (N 100) were randomly assigned to dissonance-based intervention (N 34), media literacy intervention (N 31), or control group (N 35). Both Interventions consisted of a single two hour session. The design employed was pre-post test with control. The analysis employed was t test for independent samples. Thin-ideal internalization (IBSS-R), negative affect (PANAS-X), and body dissatisfaction (Satisfaction and Dissatisfaction with Body Parts Scale) were measured. Results showed that the dissonance-based program was successful in reducing negative affect, thin-ideal internalization and body dissatisfaction. The media literacy intervention successfully reduced negative affect. Results provide evidence that a single intervention can be effectively used to help women cope with body dissatisfaction, which in turn can help prevent eating disorders, depression and anxiety.

Keywords: Body dissatisfaction; Negative Affect; Thin Ideal; media literacy intervention; dissonance based intervention

Introduction:

Concern with physical appearance has always haunted womankind. Physical appearance becomes very influential in social relations and psychological functioning (Jackson, Hunter, & Hodge, 1995).

Excessive worry and preoccupation with one's physical appearance has become a serious health concern. Body dissatisfaction represents a risk factor for myriad physical and psychological disturbances like eating disorders (Keel, Fulkerson, & Leon, 1997; Stice, Presnell, & Spangler, 2002), unhealthy weight control behaviours (Neumark-Sztainer, Paxton, Hannan, Haines, & Story, 2006), low self-esteem (Paxton, Neumark-Sztainer, Hannan, & Eisenberg, 2006), depression (Stice & Bearman, 2001), suicidal ideation (Brausch & Muehlenkamp, 2007), negative affect (O'Dea, 1995; Twamley & Davis, 1999), higher levels of anger, negative mood (Pinhas et al, 1999), confusion and anxiety (Cash & Pruzinsky, 2002) among many others. Body dissatisfaction is a common characteristic among many women. It expresses itself in terms of discrepancies between perceived, actual and desired body size, feeling fat and behaviourally it expresses itself in terms of attempts to restrain food intake and episodes of overeating (Herman and Mack, 1975; Cash and Pruzinsky, 1990, 2002; Muth and Cash, 1997; Grogan, 1999; Ogden, 2003).

Several studies have shown that women are more likely to experience body dissatisfaction than men (Klesges, Mizes, and Klesges, 1987; Rozin and Fallon, 1988; Brodie, Slade, and Riley, 1991; Jeffrey, Adlis, and Forster, 1991). Review has shown that girls' and women's mean levels of body dissatisfaction are consistently higher than that of boys' and men's (Bearman, Presnell, Martinez, & Stice, 2006; Keel, Baxter, Heatherton, & Joiner, 2007). Body dissatisfaction and disordered eating patterns have been found to be an especially prevalent issue in college females (Schwitzer, Bergholz, Dore, & Salimi, 1998; Stice & Whitenton, 2002). Review has shown that body dissatisfaction is a robust risk factor for the development of disordered eating and has been associated with the prediction of eating disordered pathology (Abrahamson and Valene, 1991; Harrison and Cantor, 1997; Engeln and Maddox, 2005). Given the severity and difficulty of treating eating disorders, improving body satisfaction in women and young people can be considered an important goal that may lead to amelioration of significant clinical psychopathology.

Interventions used in the present study:

Cognitive dissonance refers to the tension that develops when people experience inconsistency in their thoughts, beliefs, attitudes, and/or behaviour (Brehm & Cohen, 1962; Festinger, 1957). The cognitive dissonance intervention consists of training participants to voluntarily adopt an anti-thin stance. The goal of the Cognitive Dissonance intervention is for participants to reject the thin-ideal. Cognitive Dissonance is one of very few prevention programs to meet the American Psychological Association's (APA) criteria for an efficacious intervention (APA, 1995).

Media literacy promotes adaptive behaviour by teaching individuals to evaluate media critically and, consequently, to reduce the credibility and persuasive influence of media messages. Several studies have shown that women could be successfully taught to be more critical of the methods used by the media (Stormer and Thompson, 1996; Thompson and Heinberg, 1999; Oliver, 2001; Yamamiya et al., 2005).

Cross cultural perspective on body dissatisfaction : Body dissatisfaction and a preference for thinness have been reported in various cultures and ethnic groups, for instance among Australians and Italians (Durkin, Paxton, & Sorbello, 2007), Israelis (Barak et al., 1994), Mexican Americans (Ayala et al., 2007), Asians (Croll et al., 2002), Chinese (Chen, Gao, & Jackson, 2007) and Japanese (Yamamiya, Shroff, & Thompson, 2008), among others. French et al. (2002) found that more than one-half of girls in each of the ethnic groups surveyed (African American, Asian American, Hispanic, Native American and White) engaged in unhealthy weight control behaviors and were concerned with their weight.

Norms for thinness are becoming more insistent in Indian culture (Srinivasan et al., 1998). Research on body dissatisfaction in young women holds beauty advertisements responsible for extending this dissatisfaction in adolescents from India (Shroff and Thompson, 2004). In a study, similar levels of eating attitudes were found across samples of participants from Japan, India, Oman, and the Philippines to those reported in Western samples (Kayano et al., 2008). In sum, evidence suggests that prevention programs aimed to decrease body dissatisfaction are necessary for all ethnic groups, especially young Indians.

The Present Study:

The present study aims to design Interventions that would effectively help adolescent girls and young women resist sociocultural pressures to conform to this ideal and reduce their pursuit of thinness. This study aims to develop interventions that would reduce thin ideal internalization, body dissatisfaction and negative affect.

The results and findings of such a research may be utilized in gaining a deeper understanding of body image issues that affect young women today. Since most interventions have been designed and used in the Western context, it is hoped that the modified activities used in these interventions will be more culturally valid and help in improving body satisfaction among young college going women in India. It's hypothesized that there will be a significant difference in body dissatisfaction, thin ideal internalization, and negative affect in the three conditions

Method:

Design

The present study aims to investigate the effectiveness of two single session interventions of two hours each, namely, cognitive dissonance and media literacy intervention in reducing body dissatisfaction, thin ideal internalization, and negative affect in young women. In the present research, a pre-post test with control design was employed.

Participants

The sample consisted of 100 undergraduate students. The mean age of the sample was 19 years. 37% were in their first year, 28% in their second year, 33% in their third year, and the remaining 2% in their fourth year. Demographic variables like educational qualifications, age, gender, and socio-economic status were controlled by selecting a sample of only those presently enrolled in an undergraduate programme.

Measures

- **Body Dissatisfaction**

Satisfaction and Dissatisfaction with BodyParts Scale, developed by Berscheid, Walster and Bohrnstedt (1973), and adapted by Stice, Maxfield and Wells (2003) was used to assess body dissatisfaction. This scale asks participants to indicate their level of current satisfaction with nine body parts (weight, figure, body build, stomach, waist, thighs, buttocks, hips and legs) on a 5-point scale ranging from extremely satisfied=1 to extremely dissatisfied=5. Items were summed for analyses, with high scores indicating greater dissatisfaction. The scale has acceptable internal consistency ($r = 0.94$), temporal reliability (3 week test-retest $r=0.90$), and predictive validity (Stice, 2001), and has been previously used on female undergraduate students (Stice, Maxfield, & Wells, 2003).

- Negative Affect

The fear, hostility, guilt and sadness subscales from PANAS-X were used to assess negative affect (Watson & Clark, 1991a). Participants reported the extent to which they were currently feeling 23 negative emotional states (e.g., sad, ashamed, angry, nervous, etc.) on a 5-point scale ranging from very slightly or not at all=1 to extremely=5. Items were summed to form an overall negative affect composite, with high scores indicating greater negative affect. PANAS-X has been shown to have acceptable internal consistency ($M = 0.87$), temporal reliability (2-month test-retest = 0.71), and convergent validity (Watson & Clark, 1991a). Furthermore, self-reported negative affect on the PANAS-X shows agreement with peer reports (Watson & Clark, 1991b).

- Thin-Ideal Internalization

Internalization of the thin-ideal was assessed with the Ideal-Body Stereotype Scale-Revised (IBSS-R; Stice, 2001). The scale consists of six items (e.g., Slender women are more attractive, Women with long legs are more attractive). Participants responded using a 5-point response format ranging from 1 (strongly disagree) to 5 (strongly agree). Items were averaged for analyses. Higher scores indicating higher thin ideal internalization. This scale has acceptable internal consistency ($\alpha = .89$), 10-month test-retest reliability ($r = .63$), and predictive validity (Stice, 2001).

Procedure: Participants were recruited through flyers posted in the college and postings on web discussion forums. Upon initial contact, each participant was randomly assigned to one of three conditions (control condition, media literacy intervention, cognitive dissonance intervention). The protocols were delivered within a single two hour session. In addition to the utility of a single session for college students, who often experience considerable time constraints, a single-session intervention reduces the likelihood of sample bias created by attrition across multiple sessions.

- The pre- test phase:

All participants irrespective of the condition they had been assigned to filled the scales Ideal-Body Stereotype Scale- Revised (IBSS-R) , the fear, hostility, guilt and sadness subscales from PANAS-X , Satisfaction and Dissatisfaction with Body Parts Scale, measuring internalization of the thin-ideal , negative affect and body dissatisfaction respectively.

The three conditions:

The control group condition: After a period of one month the participants once again filled the scales IBSS-R, fear, hostility, guilt and sadness subscales from PANAS-X and Satisfaction and Dissatisfaction with Body Parts Scale.

Cognitive dissonance intervention: The protocols used in the current study are modified versions of those used by Stice et al. (2001). The intervention consisted of the activities adapted from the 'Body Acceptance Class Manual' Developed by: Eric Stice, Heather Shaw, Paul Rohde. The manual outlines a dissonance-based body acceptance intervention that has been developed and used at Stanford University, the University of Texas at Austin, and Oregon Research Institute.

The intervention consisted of the following activities:

- First, an overview of the purpose of the study was provided to participants and informed consent was obtained
- Next, we collectively defined the thin-ideal, the origin of the thin-ideal, how it is perpetuated, the impact of thin-ideal messages and who benefits from it.
- This was followed by the Mirror activity which involved the participants to stand in front of a mirror, observe themselves and write down at least 6 positive qualities about themselves. The sheet provided to the participants to write the same can be found in the appendix.
- The Verbal challenge form required each participant to generate a counter thin-ideal statement in response to the "thin-ideal" statements. The sheet containing the thin ideal statements that were handed out to the participants can be found in the appendix.
- The participants were divided into small groups. Each group engaged in a role play to discourage the pursuit of the thin ideal.
- The participants took a pledge to resist pressures to be thin and combat any negative comments about their body. The pledge the participants were requested to take has been attached in the appendix.
- Finally, a positive auto suggestion reinstated that they can and will love and accept their body.

Immediately after the two hour intervention, the participants filled the scales IBSS-R, fear, hostility, guilt and sadness subscales from PANAS-X and Satisfaction and Dissatisfaction with Body Parts Scale.

Media literacy intervention: This intervention focused on teaching women to think critically about the media. This is thought to be successful because of the strong association between media exposure and body image concerns. The intervention involved the following activities:

- Similar to the dissonance based intervention, after an overview of the purpose informed consent was obtained. Next, we collectively defined the thin-ideal.
- After this the participants were shown a power point presentation about media's distortion of reality. It was adapted from the PPT used by Jane Ogden and Faye Sherwood in the paper 'An evaluation of the effectiveness of an air-brushing educational intervention on body dissatisfaction'. This presentation was modified to make it more culturally valid.

- o The participants were shown a movie which demonstrated both the convenience by and the extent to which photoshop can alter one's appearance.
- o This was followed by showing participants the movie 'Killing Us Softly' by Jean Kilbourne. The movie has been used in several media literacy interventions (Foreg, Rabak-Wagener et al., 1998; Irving and Berel, 2001; Watson and Vaughn, 2006) . It described media's portrayal of unrealistic ideals of perfection, objectification of women by the media and the violence it subsequently leads to.

Immediately after the two hour intervention, the participants filled the scales IBSS-R, fear, hostility, guilt and sadness subscales from PANAS-X and Satisfaction and Dissatisfaction with Body Parts Scale.

Results:

An analysis was conducted on 100 undergraduate participants. Analyses verified that the groups did not differ significantly on any of the study variables at the time of pre-test.

Table 1 One way ANOVA of pre-test scores

Variables under study	Pre- test control group	Pre-test dissonance group	Pre-test media literacy group	F	p
Body dissatisfaction M SD	23 6.96	25.32 7.07	24.70 7.00	0.976	0.381
Thin ideal internalization M SD	17.68 4.05	18.70 3.95	18.62 4.09	0.668	0.515
Negative Affect M SD	33.77 8.22	35 5.16	34.41 4.83	0.316	0.730

Note: $p > 0.05$ hence there is no significant difference on any of the variables in the three groups at pre-test.

Independent samples t-tests were used to evaluate the effectiveness of the intervention:

Table2:Independent samples t-test scores for control group

Variables under study	Pre-test	Post-test	t	df	p
Body dissatisfaction					
M	23	22.8	0.122	68	0.903
SD	6.96	6.56			
Thin ideal internalization					
M	17.68	17.4	0.293	68	0.770
SD	4.05	3.98			
Negative affect					
M	33.77	33.68	.043	68	0.966
SD	8.22	8.26			

Table3:Independent samples t-test scores for dissonance group

Variables under study	Pre-test	Post-test	t	df	p
Body dissatisfaction					
M	25.32	20.56	2.812*	66	0.006
SD	7.07	6.58			
Thin ideal internalization					
M	18.70	15.55	3.293*	66	0.02
SD	3.95	3.93			
Negative affect					
M	35	30.70	3.372*	66	0.001
SD	5.16	5.17			

Note- *=p<0.05

Table4: Independent samples t-test scores for media literacy group

Variables under study	Pre-test	Post-test	t	df	p
Body dissatisfaction					
M	24.70	22.77	1.076	60	0.286

SD	7.00	6.92			
Thin ideal internalization					
M	18.62	16.58	1.942	60	0.057
SD	4.09	4.14			
Negative affect					
M	34.41	30.93	2.796*	60	0.007
SD	4.83	4.81			

Note- $*=p<0.05$

Negative affect:

A non-significant difference in negative affect between pre-test and post test results in the control group is obtained $t(68)=.043, p=.966$. There is a significant difference between the pre-test and post test results of the dissonance intervention group $t(66)=3.372, p=.001$. There is a significant difference between the pre-test and post test results of the media literacy intervention group $t(60)=3.372, p=.001$.

Thin ideal internalization:

A non-significant difference in internalization of the thin ideal between pre-test and post test results in the control group is obtained $t(68)=.293, p=.77$. There is a significant difference between the pre-test and post test results of the cognitive intervention group $t(66)=3.239, p=.02$. There is a non-significant difference between the pre-test and post test results of the media literacy intervention group $t(60)=1.942, p=.57$.

Body dissatisfaction:

A non-significant difference in the body dissatisfaction scores between pre-test and post test results in the control group is obtained $t(68)=1.942, p=.57$. There is a significant difference between the pre-test and post test results of the cognitive intervention group $t(66)=2.812, p=.006$. There is a non-significant difference between the pre-test and post test results of the media literacy intervention group $t(60)=1.076, p=.286$.

Discussion:

Results indicated that participants in the dissonance intervention showed significant reductions in thin-ideal internalization, negative affect, and body dissatisfaction, there was a significant reduction only in the negative affect for the media literacy intervention, while there was no significant difference between pre-test and post-test results for control group.

The cognitive dissonance intervention directly targets thin ideal internalization.

As with the dissonance-based intervention, participants' reduction of internalization of this unrealistic ideal putatively contributes to reductions in negative affect and body dissatisfaction (Stice 2002).

The adoption of an anti-thin ideal stance is clear from the counter thin ideal statements the participants generated, for e.g.:

A few examples of Thin ideal statements	Some responses by participants
My classmate said, "No guy is going to ask me out unless I Drop some weight."	"No guy is going to ask you out if you're insecure about something so trivial", "You've been saved from someone shallow"
Look at the fatso over there.	"It's more important to be a good per so don't talk like that", "Why don't you gaze inwards and work for the betterment of your attitude"
My mother said, "Mrs Gupta has really let herself go. I think she has put on 3 kgs"	"And losing 3 kgs is what will make the world a better place", "Good she's eating to her hearts content"
My boyfriend said, "Girls should exercise. Anyone could have the body of a supermodel if they really tried"	"Alternatively supermodels should eat more it'll make them look better", "Girls don't need to look like models everyone is beautiful in their way."

After the intervention some participants said, "I feel more confident about my looks", I've decided to not let anyone else define beauty for me, "I feel more comfortable with my body"

The role play exercise also targeted the thin ideal. (Neumark-Sztainer et al., 1995) have found role-play exercises effective in reducing pressures to be thin.(Miller, 1983) said that discussing the costs of the thin ideal helps people in adopting an anti-thin stance.

The findings of the present study are consistent with past research wherein cognitive dissonance programs were found to be superior to media advocacy in reducing body dissatisfaction (for e.g., Becker, Smith, & Ciao, 2006).Also, because of the cumulative impact of years of media exposure, it might be difficult for brief interventions to counteract such effects(Stormer& Thompson, 1995).

In the media literacy intervention, the participants felt good about being equipped by the knowledge of media distortions and the perfection being artificially created and unattainable which explains the reduction in negative affect but it seems that the process of appearance comparison did not occur. Some participants said that, "Being thin is their job not ours, "These images are far from reality", "These models have an extremely different lifestyle."

According to social comparison theory, the development of negative self-attitudes involves a two-stage process; first the individual compares herself to an idealized media image (i.e., "upward comparisons"); second, as a result of such comparisons, the individual develops negative attitudes about the attribute being evaluated (e.g., one's body; Richins, 1991). In the present study, lower levels of realism and similarity may represent an interruption of the initial "comparison" stage in this process. Yet media is an important cause of body dissatisfaction making media literacy interventions important.

Importantly, the positive effects in the current study were achieved using a single-session brief workshop format, in contrast with the multi-session approach used by Stice and colleagues. It

Limitations and suggestions for future Research:

The limitations of the present study are, firstly, the use of fairly homogeneous undergraduate females as research participants limits the generalizability of the current findings to other populations. Other limitations are no follow-up period, and a modest sample size. The programme was also of short duration (single two hour session), and, so the effects may not be maintained over a longer period of time. Future studies examining the effectiveness of such interventions should include larger and more diverse samples, and follow-up intervals.

Body dissatisfaction is a serious public health concern. The present study shows that interventions can be used to help women cope with body dissatisfaction, be more critical consumers of the media and learn to effectively cope with pressures to be thin.

Future studies should determine ways to enhance the magnitude and duration of the effects of these two prevention programs and test whether increasing the number and duration of intervention sessions, or an intervention component targeting parents improves effects. In addition, future research should investigate whether the dissonance and media literacy interventions can be integrated to produce even stronger effects. Researchers should also consider adapting components from other programs that produced promising intervention effects. Additional rigorous research will bring us closer to realizing the goal of reducing the overall prevalence of body dissatisfaction.

Media & Psychology (Societal Acceptance of Homosexuality)
by Shatarupa Chakraborty and Shivangi Talwar, Keshav Mahavidyalaya College

Hypothesis: - "Closeted homosexuality is a consequence of fixated disgraceful representation of homosexuality by the various forms of media."

"The wrong way he talks is better than a hundred right ways of others"-Rumi, Moses and the Shepherd.

Under Section 377 of the Indian Penal Code, whoever voluntarily has carnal intercourse against the order of nature with a man, woman or animal shall be punished with imprisonment of life, or with imprisonment of either description for term which may extend to ten years, and shall also be liable to fine.

Fire, Deepa Mehta's film which threw light on closeted homosexuality, hiked protests. The moral brigade criticized the "indecent" portrayal of housewives and questioned the names of the lesbian characters (Sita and Radha). (1997). My Brother Nikhil, a small budget film which made big news for its underlying homosexual inclination and HIV-AIDS stigmas, was appreciated in the newspapers for the subtle representation of a homosexual. (2005). Ugandan tabloid newspaper Rolling Stone published the names and pictures of gay activists in the front page with the heading "Hang Them!". Three months later, David Kato was found murdered at his home. (2011)

The Oxford Dictionary defines a homosexual as "a person who is sexually attracted to people of their own sex". Homosexuality is the form of love which breaks the barriers of the societal norms by connecting people of the same sex not just physically but emotionally as well.

In the forefront mainstream life, the attraction, the affection and the love between a man and a woman has always been celebrated. This does not however, mean that the love of a man for a man or that of a woman for a woman, no matter how intense or consummate, is any less or depraved.

Homosexuality in History:

In the ancient Hindu text, Ramayana, Maharaja Dilipa's death encouraged his two wives to make love and conceive a child, Bhagiratha, with the blessings of Lord Shiva to have an heir for the Sun dynasty. Kamasutra describes the techniques by which masculine and feminine types of the third sex perform fellatio. It also describes the feminine-type and the masculine-type homosexual. Jesus Christ believed in the sanctity of marriage and taught about the relationship of a man with a woman. He considered lust a sin and was clear about his ideas on sexual immorality. However, his silence cannot be mistaken as contempt for homosexual behaviour but the Bible considers any relationship outside the realm of marriage of a man with a woman as a sin.

The Quran vehemently condemns homosexuality but it acknowledges the fact that homosexuality was prevalent in the Muslim community. However, this rules out the claims of Hindu extremist groups that homosexuality is a new age western concept.

Media and Stereotypes

Media plays a solid role in formation of stereotypes in our minds. The definition of stereotypes is "characteristics ascribed to groups of people involving gender, race, national origin, sexual orientation etc." Media stereotyping is inevitable, especially in advertising, entertainment and news industry. Stereotypes act like codes that give audiences a quick, common understanding of a person or group of people—usually relating to their class, race, gender, sexual orientation etc. But stereotypes can be problematic. They can reduce a wide range of differences in people to simplistic categorizations, transform assumptions about particular groups of people into "realities", be used to justify the position of those in power and perpetuate social prejudice and inequality.

Homosexuality in television

Media educators Larry Gross and George Gerbner argue that the media participate in the "symbolic annihilation" of gays and lesbians by negatively stereotyping them, often consigning them to the margins of entertainment media, playing either "colourful" and "flamboyant" characters or dangerous psychopaths, the lesbians often ascribed the roles of either the over-sexuctive temptress or the over-masculine, loudmouthed butch.

However, there has been some improvement in the representation of homosexuals in mainstream television with the popularity of shows such as Queer Eye for the Straight Guy. Though mainstream television and movies continue to "sanitize" the portrayal of gay and lesbian life, Queer as Folk, a UK miniseries portrayed homosexuals as over-sexed.

Homosexuality in Films

Homosexuality has been present in Indian cinema since ages. Though it has been continuously argued that films like Andaz and Sangam are about the love between the two lead heroes and the heroine(s), the third angle of the love triangle, have been used to keep the love between the men veiled, it was never really accepted. The first out and out gay character, Pinku in Mast Kalander (1991) played by Anupam Kher was appreciated by the public. However, it cannot be ignored that he was portrayed as overtly feminine, dressed in bright coloured clothes and always laughed upon.

Also, portrayal of homosexuals is almost always negative with movies like Basic Instinct (in Hollywood) portraying them as dangerous psychopathic serial killers. Such a depiction promotes homophobia among the common public. Also, in movies there is a serious lack of character development of the gays and the lesbians. Also, in movies there is a serious lack of used for comic relief.

During the years of 1930s to 1950s, the religious and women's groups criticized Hollywood movies for contributing to immorality. During the 1960s and the 1970s, the homosexuals were becoming more vocal about their rights in reality but their depiction in the films was increasingly homophobic.

The first serious gay film in India was *Bomgay* (1996) which focused on the underground and complex nature of gay identity in urban India. However, *Fire* (1996) was the first film which made news for its homosexual storyline. Even though the love between the sisters-in-law was illustrated with subtlety, the Hindu extremist groups protested against the "unnatural" relationship between two women.

In *Page 3* (2005) and *Life in a Metro* (2007), one of the female leads played by Konkana Sen Sharma, in both the films, discovers that her boyfriend is gay. Fear of ostracization pressurizes them to conform to the societal norms.

Kal Ho Naa Ho (2003) had the stereotypical but inoffensive scenes of misunderstood intimacy between the two male leads by the maid. *Dostana* (2008) focused on two straight men who pretend to be gays in order to get a rented apartment. In the film, Abhishek Bachchan's mother, who is a typical Indian mother, is shattered when she comes to know that her son is gay. This film, however, renders homosexuality in a positive light.

My Brother Nikhil (2005) covers the social stigma of HIV AIDS along with homosexuality. The protagonist played by Sanjay Suri is the state all rounder swimming champion and his friends and family adore him. When they learn that he is HIV positive, they start treating him as an untouchable and the Goa public health keeps him in isolation. His sister and his secret boyfriend are the only ones who support him in the time of crisis. They run an AIDS assistance organization, Positive People, despite the threats from the community. He wins back his respect and his homosexuality is also accepted.

Memories in March (2010) depicts a mother who deals with the bereavement of her son and soon discovers that he was in a relationship with a man. She is horrified by the news and feels that she was responsible for this "abnormality". Later, she realizes that her son may not be in love with a woman but his love for the man, played by Ritoparno Ghosh, was true and equally beautiful.

Homosexuality and the News

News is that channel of media which strive to provide the most accurate information. However, at times, it tries to facilitate the way we think. Critics argue that news media still systematically ignore and distort the lives and experiences of gays and lesbians.

In a 1998 study that analyzed 50 years of coverage of gay and lesbian issues in *Time* and *Newsweek*, Lisa Bennett found that news media reinforce prejudice and discrimination against gays and lesbians. She observes that gays and lesbians are often linked to deviant or criminal behaviour without evidence to support such claims; and that the media often reprint offensive and homophobic comments.

Activists and academicians such as Simon Watney, Douglas Crimp and Jan Zita Groer argue that news coverage of HIV/AIDS has consistently drawn on negative stereotypes about gays and lesbians reflecting mainstream society's fear of and dislike for the gay community, essentially blaming gay men for AIDS.

Homosexuals in Advertisement

In 1994, furnishings company IKEA aired an advertisement which showed two gay men shopping for a dining room set. IKEA was the first company to use gay-positive advertising. Their target group was gays and lesbians living in cities with a large amount of disposable income.

Case Studies:

ADAM LAMBERT- He is an American songwriter, singer and an actor. During the American Idol competition, he was clicked kissing a man and he later accepted that he is gay. At the American Music Awards (2009), Adam Lambert kissed a male bassist, grinded a dancer's head against his pelvis and grabbed the crotch of another dancer. He wanted to promote freedom of expression and art. In August 2011, he was honoured with the Equality Idol Award during the Equality Awards for being a role model for the LGBT community. He and his mother were given the honour of authentic voice at the PFLAG (Parents and Friends of Lesbians and Gays) National Los Angeles. He gave a video message for It Gets Better campaign which discourages suicides and bullying among the youth dealing with their identity. He said that there is more to a person than his/her sexual orientation. He launched his own Peace pendant and the proceeds from it went to The Trevor Project. He is a part of GLAAD, HRC, GSA, GLSEN, The Trevor Project and It Gets Better.

RITUPARNO GHOSH- He is a director and an actor. He is open about his homosexuality and a major part of his cinema focuses on the acceptance of such relationships. He gathered the courage to come out of the closet after his mother passed away. Also, while he was editing an article on Singur, he realized that if he could write against the Tata Nano group, he had the strength to admit that he is gay. In Memories in March, he plays a gay ad film maker who deals with the sad demise of his lover. He does not dress up in the stereotypical gay manner and is not effeminate. The film won the National Award for Best Feature Film. In Just Another Love Story, he plays a transgender documentary film maker who is in a relationship with the married bisexual cinematographer of the film. They work on a film on the life of Chapal Bhaduri, a transgender theatre person. Once he said "Kolkata can't ignore me. Nor can it accept me completely".

TYLER CLEMENTI- He was an eighteen year old student at Rutgers University, New Jersey. He confessed to his parents that he was gay and his father accepted him. At the college hostel, his roommate Dharun Ravi suspected that Clementi was "awkward" and joked about him with his friends. Ravi's harassment reached at its peak when he left his webcam on before leaving. Clementi and his boyfriend alone in the room on the nights of 19 September and 21 September. Ravi and his friend watched them kissing on another computer and posted about the incident on

Twitter. On the night of 22 September, Clementi went to the George Washington Bridge and sent his final message on Facebook saying that he is committing suicide and apologised for it. Five minutes after Clementi's post, Ravi messaged him apologizing for what he had done and did not mind him being gay. However, it was too late and Ravi faced the consequences for this invasion of privacy. In The New Yorker, Ian Parker has accused the media for exaggerating Ravi's role in the incident as the video was not uploaded on the internet and Clementi was not closeted.

Online Hate Crimes against Homosexuals

According to FBI, hate groups have a "primary purpose to promote animosity, hostility, and malice against persons belonging to a race, religion, disability, sexual orientation, or ethnicity/national origin which differs from that of the members of the organization."

Few of the hate groups are:-

1. Abiding Truth Ministries- Formed by Scott Lively

This particular group accused the homosexuals for running the Nazi Party and vehemently fought for terming homosexuality as an "abnormality". According to him, the gay movement is an aggressive, anti-social, evil institution aimed at destroying a "marriage-based society" and propagating promiscuity. Ironically, during the Nazi regime, homosexuality was a crime; with its punishment only death.

2. Americans For Truth About Homosexuality (AFTAH) - Formed by Peter LaBarbera.

LaBarbera in 2002 compared the alleged dangers of homosexuality with those of "smoking, alcohol and drug abuse". LaBarbera also accused gay men of pedophilia.

3. Concerned Women For America- Formed by Beverly LaHaye

LaHaye has blamed gay people for a "radical leftist crusade" in America and has occasionally equated homosexuality with pedophilia.

Closer home, Baba Ramdev claimed that homosexual activities are not only against public morality, public health and a healthy environment but also against the interest of the society. He feels that it could be treated like any other congenital defect through yoga, pranayam and other meditation techniques.

Interviews of Homosexual and Straight Individuals

Three individuals of different orientation and gender were taken and their views asked. The responses that we got were as follows:-

A: 19 years old, straight female feels that media distorts the depiction of homosexuals. They do not necessarily dress up in pink clothes or hit on every member of their own sex. Films like Girlfriend shows the issue in the most vulgar way and to some extent, the filmmakers are scared to portray the issue. One of the few films that handled the topic well was Page 3.

B: 51 year old, straight male feels that the different forms of media do not go to the roots of the subject. Homosexuality has been prevailing for a long time and is the basic right of an individual. What two people do inside a room is of no concern to us and the media should also not cross the line.

C: 19 years old, homosexual female feels that the media believes in the two prototypes of human species, male and female. It tries to "heterosexual-ise" homosexuals by presenting gay as comical and lesbians as "dirty and witchy". She finds such a picture derogatory and offensive.

On being inquired about their own views on homosexuality:

A: They are not very different from us. She argues that if they do not have a problem with us being straight, we should not have a problem with them being homosexuals. In a society where honour killings are accepted, letting someone live their lives is not.

B: They should be allowed to live their lives peacefully. We are no one to judge their private activities and we should respect the individuality of an individual.

C: Such labelling is not required. The society would not be appreciative of her sexuality but it is, in no way, different from heterosexuality.

On being asked about the actual representation of homosexuals:

A: They should be shown in the same light as any other actor. There is no need to dress them up in a particular way. It is not necessary that the homosexuals are over-seductive or over-sensitive.

B: Just as we do not go out of our way to show straights in a special light, same treatment should be given to the homosexuals. They have their own style of expression, we have our own. They do no crime in the society, they are not criminals.

C: A gay is not feminine or a lesbian is not masculine. They cannot be generalised as every human being, despite his/her sexuality, has his/her own way of dressing up or behaving in the presence of others.

On being asked about the rights that should be granted to the homosexuals:

A: They should be granted the basic human rights and parental acceptance. Since God has made them like that, we should accept and love them and not try to change them. They are not deviant or weird, and the religious bigots should be jailed for their foolish statements.

B: They should be given the rights of equality, freedom of expression and brotherhood.

C: The citizenship rights have been made for a healthy, heterosexual man. She questions how her sexual preferences define her thinking.

On being asked about their reaction if they found out that a close family member was homosexual:

A: I would be a little surprised, but would overcome it. The sexual orientation would make no difference and I would want that person to be in a healthy and happy relationship. Homosexuals should also accept themselves as who they are and not feel ashamed about themselves. Also, in a country where religion is embedded into our psyche, the religious leaders should also give the correct angle on homosexuality.

B: I would be surprised at first and feel why this happened to me. Then, I would try to change the orientation, which would be a futile exercise. In such a case, counseling of the family members becomes critical.

C was asked about her friends' and family's reaction to her homosexuality. She said that she confessed she likes a woman but it was not accepted by her family and some of her friends. Also, she accepts that she would not be able to come out of the closet as she fears the reactions of the society.

All in all, with the proliferated acceptance of homosexuality and films like 'I Am' winning the National Award, it can be said that homosexuality is finding its way into the lives of common people. But, the bottom line is — closeted or open, the 'third gender' remains alienated by the mainstream, marginalized, emotionally abused and misunderstood because they have the courage to choose and to live by their choice.

Depression is a Precursor or Resultant Factor of Coronary Heart Disease

Ashima Mandla, IInd Year

(Selected paper to be presented at the National Heart Summit, 2012 at New Delhi)



Both Coronary Heart Disease and Depression are categorized as 'non-communicable diseases'. Nowadays, they are being referred as 'lifestyle diseases' because they are largely dependent on the kind of lifestyle an individual maintains.

CORONARY HEART DISEASE (CHD)

Coronary artery disease is "narrowing of the lumen of one or more of the coronary arteries, usually due to atherosclerosis; myocardial ischemia; can cause congestive heart failure, angina pectoris, or myocardial infarction. CHD is a narrowing of the small blood vessels that supply blood and oxygen to the heart. It is also known as *Coronary Artery Disease*. Coronary heart disease is generally caused by *atherosclerosis* - when plaque (cholesterol substances) accumulates on the artery walls, causing them to narrow. *Ischaemic or ischemic heart disease* (IHD), or *myocardial ischaemia*, a disease characterized by ischaemia (reduced blood supply) of the heart muscle, can also cause it. It commonly causes *angina pectoris* (chest pain), shortness of breath, heart attack (*myocardial infarction*), *congestive heart failure* and other symptoms. The coronary arteries bring blood and oxygen to your heart and thus play an integral role in the normal functioning of the heart.

Atherosclerosis (also known as arteriosclerotic vascular disease or ASVD) is a condition in which an artery wall thickens as a result of the accumulation of fatty materials such as cholesterol. It is a syndrome affecting arterial blood vessels, a chronic inflammatory response in the walls of arteries, caused largely by the accumulation of macrophage white blood cells and promoted by low-density lipoproteins (plasma proteins that carry cholesterol and triglycerides) without adequate removal of fats and cholesterol from the macrophages by functional high-density lipoproteins (HDL).

Myocardial infarction (MI) or acute myocardial infarction (AMI), commonly known as a heart attack, is the interruption of blood supply to a part of the heart, causing heart cells to die. This is most commonly due to occlusion (blockage) of a coronary artery following the rupture of a vulnerable atherosclerotic plaque, which is an unstable collection of lipids (fatty acids) and white blood cells (especially macrophages) in the wall of an artery. The resulting ischemia (restriction

in blood supply) and oxygen shortage, if left untreated for a sufficient period of time, can cause damage or death (infarction) of heart muscle tissue (myocardium).

The factors underlying CHD can be divided into mainly two categories:

1. Factors that CANNOT be controlled by an individual.
2. Factors that CAN be controlled by an individual.

The risk factors for coronary heart disease that you CANNOT change are:

- Age – Research has shown that the risk of heart disease increases with age.
- Gender - Men have a higher risk of getting heart disease than women who are still getting their menstrual period. After menopause, the risk for women is closer to the risk for men.
- Genetic component - If your parents or other close relatives had suffered from heart disease, you are at higher risk as research suggests. However, the importance of genetic factors in the majority of the cases is largely unknown.
- Race – Research has also shown that one's race can also affect CHD. African Americans, Mexican Americans, American Indians, Hawaiians, and some Asian Americans also have a higher risk for heart problems.
- Personality – Type A personality (Friedman and Rosenman) is associated with competitive drive, restlessness, hostility and a sense of urgency or impatience. Type A personality individuals are more prone to coronary heart disease, hypertension. The risk of developing CHD with Type-A is sometimes greater than the risks caused by smoking, hypertension and elevated serum cholesterol levels.

The lifestyle related risk factors for coronary heart disease:

- Diabetes mellitus- the risk of CHD is 2-3 times higher in diabetics than in non-diabetics. CHD is responsible for 30 to 50 percent of deaths in diabetics over the age of 40 in industrialized countries.
- Hypertension- it accelerates the atherosclerotic process (fatty depositions inside the arterial walls), especially if hyperlipidemia (high cholesterol) is present.
- Serum Cholesterol; Low levels of HDL-C Cholesterol, high levels of LDL block the arteries, which can result in CHD. Vast body of evidence has shown a triangular relationship between habitual diet, cholesterol-lipoprotein and CHD.
- Substance abuse- is an independent risk factor for CHD. In terms of alcohol intake, 75g or more per day can lead to CHD. Whereas in terms of smoking, carbon monoxide

induced atherogenesis, nicotine stimulation of adrenergic drives raising blood pressure and myocardial oxygen demand can together lead to CHD.

- Vascular Diseases - People with narrowed arteries in another part of the body (examples are stroke and poor blood flow to the legs) are more prone to CHD.
- Being overweight- sedentary life-style is associated with a greater risk of development of early CHD. There is evidence that regular physical exercise increases concentration of HDL and decreases body weight and blood pressure, which are beneficial for cardiovascular health.
- High levels of stress and Depressive tendencies - The incidence of heart attacks and sudden death have been shown to increase significantly following the acute stress of natural disasters like hurricanes, earthquakes and tsunamis and as a consequence of any severe stressor that evokes "fight or flight" responses. Coronary heart disease is also much more common in individuals subjected to chronic stress and recent research has focused on how to identify and prevent this growing problem, particularly with respect to job stress. In many instances, we create our own stress that contributes to coronary disease by smoking and other faulty lifestyles or because of dangerous traits like excess anger, hostility, aggressiveness, time urgency, inappropriate competitiveness and preoccupation with work. The relationship between stress and depression and either of them with CHD is complicated. As per research it is still difficult to determine whether stress or/ and depression lead to CHD or it is the other way round.

Depression

DSM-IV (Diagnostic and Statistical Manual of Mental Disorders) classifies depression into mood disorders. Mood disorders can be defined as psychological disorders in which individuals experience swings in their emotional states that are much more extreme and prolonged than is true of most people.

Causes of Depression:

Biological causes: Neurotransmitters

Within the brain, there are special chemicals called neurotransmitters that carry out many very important functions. Essentially, they help transfer messages throughout structures of the brain's nerve cells. Of the 30 or so neurotransmitters that have been identified, researchers have discovered associations between clinical depression and the function of three primary ones: serotonin, norepinephrine, and dopamine. These three neurotransmitters function within structures of the brain that regulate emotions, reactions to stress, and the physical drives of sleep, appetite, and sexuality. Structures that have received a great deal of attention from depression researchers include the limbic system and hypothalamus.

Theories about how neurotransmitters may be related to a person's mood have been based upon the effects that antidepressant medications can have on relieving depression in some people. It is believed that these medications are effective because they regulate the amount of specific neurotransmitters in the brain. However, the role that neurotransmitters play in the development or treatment of clinical depression is not completely clear. For instance, it has been shown that many people who are depressed have low levels of the neurotransmitter norepinephrine. The use of some antidepressants can increase the level of norepinephrine in the brain, and subsequently relieve depressive symptoms. On the other hand, it has also been shown that some other people who are depressed have high levels of norepinephrine. This same scenario may be true for other neurotransmitters.

Another reason that the effects of neurotransmitters are not clear-cut has to do with the fact that antidepressant medications do not work for everyone. If there were a direct causal link between the level of a neurotransmitter in the brain and depression, then we would expect a much higher rate of success with medication. Further, although antidepressant medications can change the level of a neurotransmitter in the brain immediately, it normally takes a few weeks for a person with depression to feel better. What seems to boil down to is that there appears to be a strong relationship between neurotransmitter levels in the brain and clinical depression, and that antidepressant medications work for a great many people, but we are not absolutely certain of the actual relationship between neurotransmitters and depression.

The reason we do not know more about the effects of neurotransmitters has to do with that fact that they are so difficult to study. Neurotransmitters are present in very small quantities, they are only available in certain locations within the brain, and they disappear very quickly once they are used. Researchers can only measure what is left over after their use in the brain. The substances that remain are called metabolites and they can be found in blood, urine, and cerebrospinal fluid. By measuring these metabolites, researchers can gain an understanding of the effects of changes in neurotransmitters in the brain. It is unknown whether changes in levels of neurotransmitters cause the development of depression or depression causes changes in neurotransmitters. It may happen both ways. Researchers believe that our behavior can affect our brain chemistry, and that brain chemistry can affect behavior. For instance, if a person experiences numerous stressors or traumas this may cause his or her brain chemistry to be affected, leading to clinical depression. On the other hand, that same person may learn how to change depressed thoughts and behavior and cope with stressful events. Doing this may also change brain chemistry and relieve depression.

Cortisol: Of those individuals who are clinically depressed, about one-half will have an excess of a hormone in their blood called cortisol. Cortisol is secreted by the adrenal glands. Located near the kidneys, the adrenal glands assist us in our reactions to stressful events. Cortisol may continue to be secreted even though a person already has high levels in his or her blood. This hormone is believed to be related to clinical depression since the high levels usually reduce to a normal level once the depression disappears. People who are not depressed tend to have

secretions of cortisol at certain times of the day. Cortisol levels are highest at approximately 8:00 a.m. and 4:00 p.m., and then lowest during the night. This normal cycling of cortisol levels does not occur in some people who are depressed. For instance, they might have a consistent level of cortisol all the time, or highest amounts in the middle of the night.

Psychological factors: A variety of psychological factors appear to play a role in vulnerability to these severe forms of depression. Most likely, psychological factors are completely responsible for other forms of mild and moderate depression, especially reactive depression. Reactive depression is usually diagnosed as an adjustment disorder during treatment. To state them briefly, people who have low self-esteem, who consistently view themselves and the world with pessimism, or who are readily overwhelmed by stress are more prone to depression. Psychologists often describe social learning factors as being significant in the development of depression, as well as other psychological problems. People learn both adaptive and maladaptive ways of managing stress and responding to life problems within their family, educational, social and work environments.

These environmental factors influence psychological development, and the way people try to resolve problems when they occur. Social learning factors also explain why psychological problems appear to occur more often in family members, from generation to generation. If a child grows up in a pessimistic environment, in which discouragement is common and encouragement is rare, that child will develop a vulnerability to depression as well. A serious loss, chronic illness, relationship problems, work stress, family crisis, financial setback, or any unwelcome life change can trigger a depressive episode. Very often, a combination of biological, psychological, and environmental factors are involved in the development of depressive disorders, as well as other psychological problems.

Depression is very common and is in fact experienced by 21.3 percent of women and 12.7 percent of men at some time during their lives (Kessler et al, 1994). This nearly two-to-one gender difference in depression rates has been reported in many studies (Culbertson, 1997) especially in studies conducted in wealthy, developed countries. Gender differences may also stem, at least to a degree, from the fact that females are more willing to admit to such feelings than males, or from the fact that women are more likely to remember such episodes (Wilhelm & Parker, 1994). Individual also suffer from double depression in which they recover from major depression but continue to experience a depressed mood (dysthymic disorder) or some cases unusual irritability.

THEORIES AND RESEARCHES

Glassman and Shapiro suggested that the impact of depression on cardiac mortality depends on baseline cardiac disease status because the risk of cardiac events that depression confers seems to be smaller in subjects with cardiac disease status than with cardiac disease status.

Macrophage Theory of Depression (Smith, 1991): suggests that excessive secretion of macrophage monokines is proposed as the cause of depression. Monokines when given to volunteers can produce the symptoms necessary for the Diagnostic and Statistical Manual of Mental Disorders, Third Edition Revised (DSM-III-R) diagnosis of major depressive episode. Interleukin-1 (IL-1) can provoke the hormone abnormalities linked with depression. This theory provides an explanation for the significant association of depression with coronary heart disease, rheumatoid arthritis, stroke and other diseases where macrophage activation occurs. The 3:1 female/male incidence of depression ratio is accounted for by estrogen's ability to activate macrophages. The extraordinary low rate of depression in Japan is consistent with the suppressive effect of eicosapentanoic acid on macrophages. Fish oil is proposed as a prophylaxis against depression and omega-6 fat as a promoter. Infection, tissue damage, respiratory allergies and antigens found in food are some of the possible causes of macrophage activation triggering depression.

There are many factors contributing to the development and progression of CHD: smoking, dislipidemia or hyperlipidemia, hypertension, diabetes mellitus and age (Grundy et al, 1998). Current research suggests the role of psychosocial factors contributing to CHD, specifically depression (Frasure-Smith et al, 1995 a).

The link between depression and CHD is well documented and has indicated depression is predictive of developing CHD in initially healthy individuals (Aaroma et al. 1995, Barefoot and Schroll 1996, Pratt et al. 1996, Ford et al. 1998, Mendes de Leon et al. 1998, Whooley and Browner 1998, Ferketich et al. 2000) as well as predictive of secondary cardiac event and mortality in cardiac patients (Frasure-Smith et al. 1995a, 1995b; Lesperance et al. 1996; Frasure-Smith et al. 1999; Lesperance et al. 2000; Lesperance et al. 2002). Depression appears to increase the risk of CHD through both physiological mechanisms and behavior patterns (for a review, see Rozanski et al. 1999). Depressed CHD patients also appear to be at direct physiological risk for future cardiac events via autonomic dysregulation through hyperactivity of the pituitary gland (Carney et al. 1995, Musselman et al. 1998, Carney et al. 2002), reduced heart rate variability and increased heart rate (Carney et al., 1995, Carney et al. 2000, Gorman and Sloan, 2000; Stein et al. 2000, Carney et al. 2002), inflammatory processes (Miller et al. 2003), platelet function (Glassman and Shapiro 1998, Musselman et al. 1998, Feng et al. 1999, Lederbogen et al. 2001), and immune response (Ladwig et al. 2003, Miller et al. 2003, Lesperance et al. 2004).

Depression may place CHD patients at greater risk indirectly through unhealthy behavior patterns: cigarette smoking (Barefoot and Schroll 1996, Ford et al. 1998, Mayou et al. 2000, Brummett et al. 2003), decreased physical activity (Mayou et al. 2000, Brummett et al. 2003), poor diet (Mayou et al. 2000, Ziegelstein et al. 2000), and medical adherence problems (Carney et al. 1995, Ziegelstein et al. 2000, Romanelli et al. 2002, Wang et al. 2002), all of which have been found to be associated with depression. Major depression occurs in 15 to 20 % of

hospitalized CHD patients with some 30 to 50% demonstrating at least some depression symptoms (Lesperance & Frasure-Smith, 2000).

Different sets of mechanism may link CHD and depression at different points in the disease process. Decreased heart rate variability is one of the mechanisms by which depression may lead to cardiac events. There is evidence that the beat-to-beat variation in heart rate is reduced in depression (Carney et al., 2001). Decreased heart rate variability is thought to reflect increased sympathetic tone, decreased vagal (parasympathetic nervous system) activity or both. Post myocardial infarction patients, people with congestive heart failure, and diabetics all have reduced heart rate variability, and the greater the reduction in variability, the worse their prognosis. Depressed patients with CHD tend to have even more pronounced decreases in heart rate variability than non-depressed CHD patients. Thus, changes in heart rate variability may at least partially account for depression's negative association with cardiac prognosis. Although it is also possible that depression and its physiological sequences are not the cause of cardiac disease, but rather its consequences; the evidence for this mechanism is not very strong.

Indices of cardiac severity, such as poor pumping function and the number of blocked coronary arteries, are moderately associated with the level of depressive symptoms, depression's association with cardiac prognosis is statistically independent of these factors.

Models discussing the link between Depression and CHD :-

Vascular depression hypothesis of depression suggests that in advances atherosclerosis, blockages in the brain arteries may compromise blood function of nerve cells in brain regions involved in mood and cognition, leading to depression (Alexopoulos et al., 1997). Similarly, atherosclerotic blockages in coronary arteries produce CHD. Thus, the link between depression and CHD, at least in elderly, may be the result of generalized atherosclerosis. The cytokine model of depression focuses on the inflammatory nature of the atherosclerotic process (Dantzer, Wollman & Yirmiya, 2002). The buildup of cholesterol and other substances in the linings of the arteries contains immune cells that produce cytokines, chemicals that orchestrate the inflammatory response and have widespread systematic effects. Cytokines can produce, what is called sickness behavior, which includes loss of appetite and interest, fatigue, and social withdrawal; these behaviors being closely related to depression. It is well established that increased levels of inflammatory markers predict worsening of cardiac prognosis, these patterns are similar in patients with depression.

A relative deficiency in the polyunsaturated omega-3 free fatty acids, found primarily in fatty fish is associated with an increased risk of CHD, as well as with depression (Frasure-Smith & Julien, 2004). Research has shown that the more fish in the average diet, the lower the incidence of CHD. Also, omega-3 supplementation may have anti-depressant properties. Thus a deficiency of polyunsaturated omega-3 free fatty acids could be a risk factor for both CHD and depression, and a diet rich in omega-3 could be beneficial for both conditions.

Changes in blood clotting may also be a mechanism linking depression and CHD. Both myocardial infarction and unstable angina involve the formation of a blood clot within the arteries of the heart. This process is often triggered by the rupture of the atherosclerotic plaque, which releases material that activates the blood platelets. Platelets contain serotonin and have the capacity to secrete, respond to and reabsorb serotonin. One of the antidepressants, the selective serotonin reuptake inhibitors (SSRI's), is thought to affect depression by decreasing the reabsorption of serotonin into platelets, thereby decreasing its availability. Studies suggest that heightened platelet activation and propensity to form blood clots are associated with depression, and some evidence that SSRI's may decrease platelet activation. A genetic predisposition to serotonin dysfunction in the brain that leads to depression, can also independently lead to increased platelet activation and coronary events.

One line of research examining depression and CHD has taken place in cardiac rehabilitation (CR). Cardiac rehabilitation consists of three phases:

- Phase I CR is the inpatient phase, emphasizing patient education about healthy behaviors and emotional stress reduction (Ku et al 2002).
- Phase II CR is an outpatient phase consisting of three 60 minute exercise sessions per week with electro cardiograph (ECG) monitoring for a maximum of 12 weeks (Paul-Labrador et al. 1999). This phase is typically covered by medical insurance (Centers for Medicare and Medicaid, 2002)
- Phase III CR consists of some supervision with little or no ECG monitoring (Balady et al. 2000). This phase is typically not covered by medical insurance and thus results in a out-of-pocket-pay.
- Phase IV CR is considered the maintenance phase and continues throughout life (Watson, 2002). This phase consists of ECG monitoring at intervals and little supervision from the doctors. No coverage is given by medical insurance and a patient in this stage requires to pay the cost for the follow-up treatment.

Depression in CR patients is typically dependent the patient's desire to continue the struggle to maintain themselves in order to live and thus adhere to the physician and psychiatrist or psychologists' recommendation. Virtually all of the research on depression in CR patients has been performed on Phase II CR patients (Milani et al 1996, Yoshida et al 1999, Zeigelstein et al 2000 and so on). Very little research has been performed on Phase III/IV patients and the research performed has not examined differences in depression scores between Phase II and Phase III/IV CR patients (Turner et al 2002)

Research Studies: Donoho, Stalls, Sydeman (2011), in an original article, used the Beck Depression Inventory (BDI) on patients of phases II, III and IV. The purpose of this study was to determine whether there is a difference in the levels of depression in individuals in Phase II and

III/IV as previous research concentrated on only phase II patients. The authors of this article speculated that the lack of research on depression and CHD in Phase II and III/IV patients may be due to a need for an out-of-the-pocket expense in Phase III and IV resulting in people belonging to lower socio-economic background to back out. This study hypothesized that depression would be more prevalent in Phase II CR patients as compared to phase III/IV patients. BDI was used to categorize the patients as suffering for high or low depression. A score on BDI ≥ 10 was categorized as high depression whereas a score < 10 was categorized as low depression. A cut score of 10 was utilized because of its common use in cardiac studies (Frasure Smith et al. 1995). 32 participants from Cardiopulmonary Rehabilitation Clinic were recruited with a mean age of 64 years. The sample consisted of 72% females and predominantly Caucasians. The results indicated that Phase II and III/IV patients do not differ in prevalence of depression. Statistical analysis indicated that 4 of 12 (33%) phase II patients and 5 of 20 (25%) phase III/IV patients were high in depression.

In a study by Penninx, Aartjan et al (2001) in an original article conducted a longitudinal community based study on elderly persons from 11 districts of Netherlands. This study examined and compared the effect of significant depressive symptoms (minor depression) and major depression on cardiac mortality with an elderly sample of both with and without cardiac disease. A total of 2847 men and women aged 55 to 85 years were evaluated for 4 years. 450 out of 2847 were confirmed myocardial infarction, angina pectoris or congestive heart failure. The sample population was adjusted for smoking, alcohol use, hypertension and body mass index. The Epidemiologic depression scale (CES-D) was used to diagnose minor depression. A score of 16 was used as a cut off for diagnosing the individual as suffering from minor depression. For major depression, the criteria given in the DSM-III was used.

Thus if an individual scored 16 points or above and did not meet the criteria given by DSM-III, then it is categorized as minor depression and if both criterion is meet then it is categorized as major depression. The Cox Proportional Hazard Regression model was used and was found that the risk of cardiac mortality is higher with age, especially in males, affects individuals with lower educational backgrounds, individuals with low Body Mass Index(BMI), diabetes mellitus or any vascular diseases.

In the 50 months follow up, it was seen that depressed older persons were more likely to die irrespective of their cardiac previous condition. Thus, an increased cardiac mortality risk associated with depression was present, similar in both subjects with or without cardiac disease. For cardiac disease patients, the relative risk of subsequent cardiac mortality was 1.6 times for minor depression and 3 times for major depression (a statistical result obtained using 95% confidence). For subjects without cardiac disease, at baseline, similarly increased cardiac mortality risk found was 1.5 times for minor depression and 3.9 times for major depression. This study thus, could not find evidence strong enough to conclude that a stronger affect of depression is seen in cardiac patients vs. non-cardiac patients.

Frasure-Smith and Lesperance (2005), in a review article, stated that depression is associated with both the incidence and prognosis of CHD, in contrast to the Phennix, Aartijan et al (2001) study . They hypothesized that depression increases cardiac mortality by 2 times. They administered the Beck Depression Inventory (BDI-1987) to 896 Canadian patients, hospitalized for an acute myocardial infarction and followed them for 5 years post discharge. A significant relationship was found between the BDI scores and cardiac mortality. The increasing risk of cardiac mortality began to be apparent, in these subjects, below the usual level of symptoms considered to indicate depression ($BDI \geq 10$) and was independent of the severity of cardiac disease, as well as factors such as age, sex, education and marital status. As per the statistical analysis, correlation between cardiac death percentage and BDI score was as follows : scores on $BDI \geq 5$ with a corresponding cardiac death percentage of 7%; cardiac death percentage of less than 15% for scores on $BDI \geq 9$; scores on $BDI \geq 19$ with a corresponding cardiac death percentage of less than 20% and scores on $BDI \geq 19$ with a corresponding cardiac death percentage of 30%. Thus, concluding that depression increases the risk of cardiac mortality by 1.6 times in cardiac patients.

In a study by Ariyo, Haan, Tangen et al. (2000), the purpose was to establish whether depressive symptoms constituted a risk for CHD and mortality among healthy Americans. A sample population of 5888 elderly Americans, among 65 years of age, enrolled in Cardiovascular Health Study(CHS). Out of which 4493 (80% whites and a 60 to 40 ratio of women to men) participants free of cardiovascular disease at baseline provided annual information on their depressive status, which was assessed using the Depression Scale of the Center for Epidemiological Studies. These 4493 subjects were followed for 6 years for the development of CHD and mortality. The Wilcoxon-Mann-Whitney test was used for categorical covariates and the Spearman correlation for continuous covariates to assess the association between the covariate measures and the baseline depression scores. A multi-variant analysis adjusted for age, sex, education, diabetes mellitus, hypertension, smoking, cholesterol, triglyceride level, congestive heart failure, the hazard ratio obtained for depression to CHD was 1.15 times. The researchers of the study thus concluded that among elderly Americans, depressive symptoms constitute an independent risk factor for the development of CHD and mortality. Incremental risks associated with increasing levels of depressive scores were demonstrated.

Also, women reportedly suffer more than men from the adverse vascular effects of a depressive state; speculated due to the higher prevalence of depressive symptoms in women than men. Whooley, Jonge, Vittinghoff et al. (2008) in their study hypothesized that depressive symptoms predict adverse cardiovascular outcomes in patients with coronary heart disease. The sample population consisted of 1017 outpatients (2002), in San Francisco, with stable coronary heart disease with survival mean age of 4.8 years. All participants were made to go through electrocardiography to study the left ventricular function. The Patient Health Questionnaire (PHQ), a self-report instrument measuring the frequency of depressive symptoms corresponding to the DSM-IV, was administered. A standard cut-point of 10 or more was used to diagnose

minor depression. The presence of major depression was ascertained using the Computerized Diagnostic Interview Schedule for the DSM-IV. Out of the 1017 participants, 199 patients were diagnosed with having depressive symptoms (PHQ score ≥ 10). Using the Cox Proportional Hazard Model, it was assessed that 341 cardiovascular events occurred during the 6-year follow-up. The age-adjusted annual rate of cardiovascular events was 10% among the 199 patients with depressive symptoms (PHQ score ≥ 10) and 6.7% among the 818 participants without depressive symptoms (95% confidence interval). When the data was adjusted for age, physical activity and left ventricular function, increase in depressive symptom score was associated with a 15% greater risk of cardiovascular events. Thus, concluding that in the given sample population, of the outpatients with coronary heart disease, the association between depressive symptoms and adverse cardiovascular events was seen.

CONCLUSION: The objective of this review paper was to establish whether Depression is a precursor to Coronary Heart Disease or a resultant factor of it. For this purpose, original articles and review papers were analyzed in the context previous research done in the field of depression and coronary heart disease. As research shows it, the mechanism linking the relationship between depression and coronary heart disease is complex and multi-faceted. Thus, making it difficult to pin-point the bio-chemical and psychosocial factors influencing these variables. Through the process of putting together this paper, the author was able to gain an insight that depression and coronary heart disease share a significant relationship such that depression may precede the development of clinically evident CHD by years; and development depression may adverse cardiac mortality in a patient suffering from CHD, the absolute mechanisms, yet uncertain.

The studies conducted to study this phenomenon suffer from many drawbacks, which are discussed as follows:-

Firstly, Even though the majority of studies are longitudinal in nature, but the sample population is not representative in terms of a world population. The studies are concentrated in America and Europe and thus, do not take in account the socio-cultural variations, which affect the onset of depression and coronary heart disease, across regions and nations. Thus, the research obtained is low on external validity, that is, it cannot be generalized to the world population. The eating habits, sleeping habits, physical activity, social relations and variables like these differ across cultures and play an important role as a causative factor for both the diseases.

Secondly, there have been differences in the study structures, that is, inpatient vs. outpatient. Thus, making it difficult to ascertain the difference in the extent of depression in in-patients with coronary heart disease, in comparison to the extent of depression in outpatients with coronary disease. In other words, it difficult to assess whether there were signs and symptoms of depression before the patient was hospitalized or depression developed post hospitalization. This leads to the relationship between depression and coronary heart disease being categorized as uncertain and complex. Apart from being concentrated geographically, the sample size in most

of these studies is not large enough to be able to generalize the pattern of these variables in individuals. It varies from 32 to 5888. Still, some of the sample sizes are excessively small. This is a serious limitation because the nature of the normative sample determines the population it can be used for.

The sample population is not studied using in-depth information extracting tools, like case studies, which in themselves include various techniques of data collection, used together. The studies heavily rely on self-report measures for measuring the psychological disorder, depression. It is suggested that further research done in this field should include tools, which go beyond these self-report measures and hopefully give further insight in decoding and understanding the multi-faceted mechanisms for both depression and coronary heart disease. Also, this method would take into consideration the individual differences which may operate in the onset of these diseases across individuals. The methods thus used should be such that it makes it easier to find commonalities between the diseases, which are so diverse.

The limitations of self reporting measures are as follows :

- Social desirability: the tendency on the part of the respondent to endorse items in a socially desirable manner.
- Acquiescence: is the tendency to agree with items/questions irrespective of their contents, thus not providing a reliable estimate of the characteristic being measured.
- People may not have as much self-knowledge as the researchers assume
- Technically, they measure a perceptions of a construct rather than measuring it directly, and researchers must assume that this perception is an accurate enough reflection of the 'real' thing to be useful.

Other methods such as observations, projective techniques, behavioral analysis are useful too, each to an extent. Therefore, a combination, if possible should be used.

The research paper by Donoho, Stalls, Sydeman (2011), signified that not enough research has been done in Phase III and IV of Cardiac Rehabilitation (CR). One explanation of this was that since Phase III/IV demand expenses from the pocket of the patient and is not covered by the medical insurance, thus, majority of people hesitate in coming forward to participate in the same. Further research on similar lines must include phases III and IV as coronary heart disease is best studied in a longitudinal study structure, which includes all the phases of cardiac rehabilitation and not just limited to Phase II, which is an early stage. Also, across studies, the factors that are taken into consideration vary. For instance, a factor such as the age of the subject, which is seen to be an influencing factor for both depression and CHD, is not always given the importance it deserves. Another factor, in the same context is that studies pertaining to these variables are concentrated for the elderly population. The dizzying environmental changes have ma

individuals at a much younger age, prone to these diseases. Thus, the sample population should not have a restricted range. Talking of restricted range, majority of the studies have sample populations which have a concentration of the white population. In this way, it is not taking into account the socio-cultural differences across different races.

From the gender perspective, research has shown that males are more prone to developing CHD whereas females are more prone to clinical depression. Again, adding complexity to the relationship between CHD and clinical depression. Adding a gender specific dimension can be speculative of some biological predispositions, pertaining to the neural wirings in both sexes. One major gap in the present scenario of research is that the majority of studies address the question of whether "Clinical depression leads to an increment in the cardiac mortality in a CHD patient?" or whether "Patients with CHD are at a greater risk of developing depression and increasing the chances of subsequent cardiac mortality. Extensive research needs to come up in the area addressing whether or not 'the onset of clinical depression can predict the development of CHD and subsequent cardiac mortality in the patient?'

On a concluding note, the research presented above offered new directions for further possible researches. But the aim of the research whether "depression is a precursor or a resultant factor of CHD" could not be met because of lack of evidence, both in terms the research not being exhaustive from the author's perspective and that previous research yet has not found a concrete mechanism pertaining to the relationship between clinical depression and coronary heart disease. Therefore, it can be assumed that only a more extensive research can enlighten us and throw us into new directions.



The Motivations behind and Conditioning of Corruption

By Divyanshi Chugh, 1st year

(Selected for Young Psychologist-2012, National Paper Presentation Competition, Christ University)

Introduction: India is ranked 87th out of 178 countries in Transparency International's Corruption Perceptions Index and 55% of Indians had first-hand experience with corruption.

Corruption can refer to a wide variety of actions and/or behaviours, referring to a dynamic process as well as the outcome of it. Corruption is an inherently multi-level phenomenon. It can operate at Individual, group, organizational and industry level. This study defines corruption as "a process which perverts the original nature of an individual or group from a more pure state to a less pure state". As corrupt firm behaviour is necessarily underpinned by the actions of individuals, individual-level corruption is the focus of the study. In order to standardize the notion of morality, we'd consider 'appropriate' as what is 'appropriate' as under law and unethical, vice versa.

Method

Aim:

To theoretically analyze individual level motivation and conditioning to corruption, and apply the principles to formulate anti-corruption strategies.

Research Design:

Application of classical motivation theories and learning principles of various schools of thought and collection, along with review and qualitative analysis of secondary data.

What motivates individuals to be corrupt?

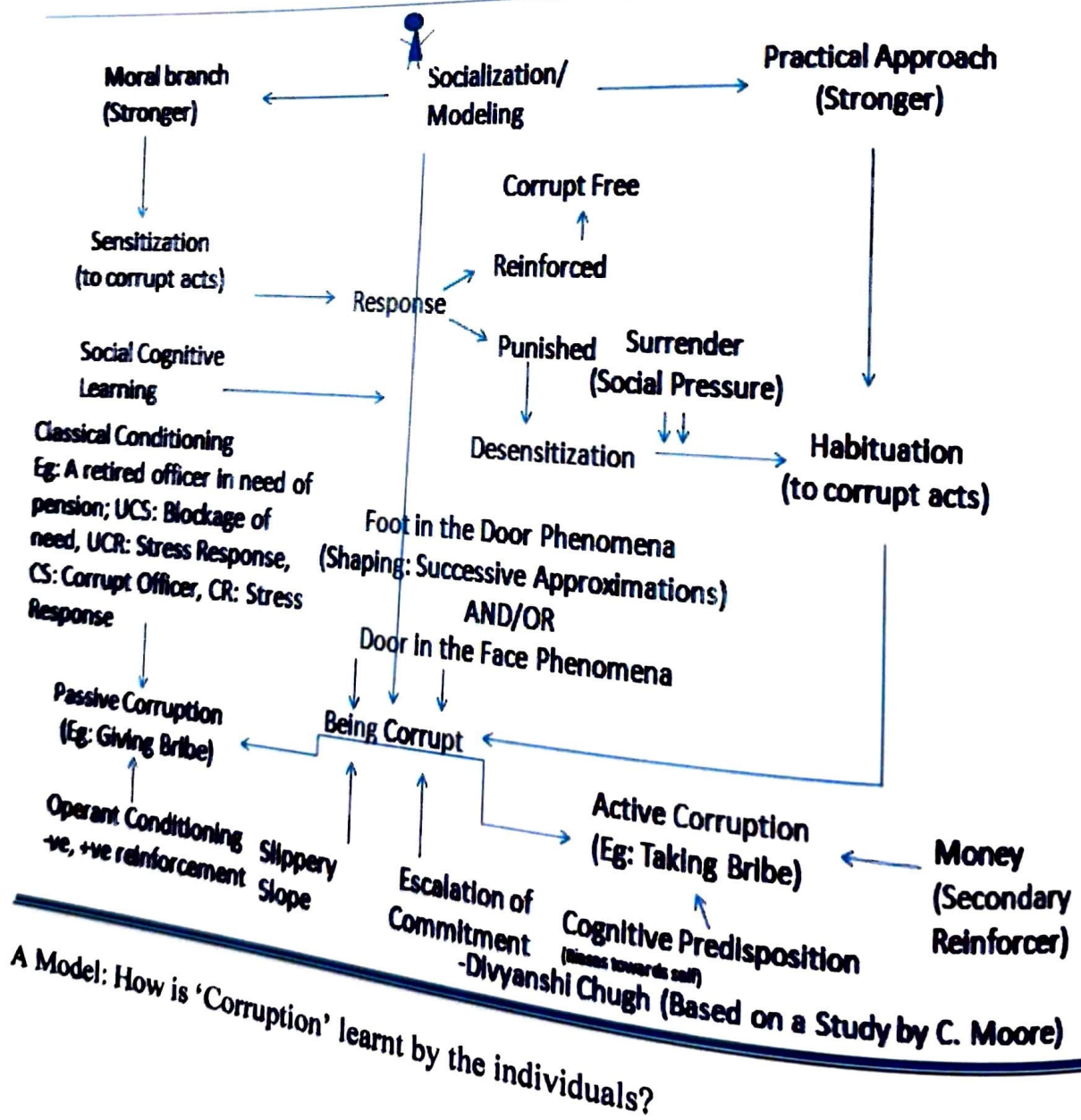
Individual level motivation is a key to understanding why corruption occurs in the first place, i.e. why people are willing to engage in illegal or immoral behavior. Structural reasons can only be secondary causes of corruption for people are hard-wired to believe that corrupt behavior is normal or beneficial.

William Mc Dougall's one of the 18 instincts: "Acquisition or gathering possessions" presents a basis for motivation behind acquisition of wealth. The Need for Power (nPow, given by McClelland) (to have control or influence over others) and the desire to prevail may motivate people to actively engage in corruption. While power and money act as external incentives for engaging in corruption, according to expectancy value theory, anticipation of success by engaging in the corrupt act based on the past experience of having observed a successful corrupt act will lead to adjustment of one's actions according to the cognitive expectancies.

Dr Sam Vaknin (Author, Researcher on Narcissistic Personality Disorder) psychological need motivates politicians to binge on endless quantities of lucre, accumulated through corrupt acts. The balances in their bulging bank accounts were of no practical import or intent. They merely cater to their psychopathology

Causes of Corruption: Application of Learning Principles

Figure 1.



The authority figures as well as the peers act as important socializing agent in the individual's environment. There are two contradictory behaviours present in the child's environment. At one level, the child is given moral teachings. And at the same time, s/he observes various forms of corruption in his/her environment. He may have a strong moral branch or may learn that corruption is a natural human tendency to search out normative behaviours in groups. Both authority figures and peers have separate coercive effects on the corruption of individuals. Experimental evidence indicates that when the authority figures and peers both exert an influence towards corruptive behaviour, their effect is amplified. This may shape the minds of people into expecting that corruption is acceptable. People who have a strong moral branch get sensitized to corrupt acts. But, upon responding, if their resistance is not reinforced or rather punished, they will tend to get desensitized.

Also, although people decry corruption in government, they also find acts such as paying off fixers to expedite transactions as more acceptable. The problem with this is where one draws the line between small and large acts? Big acts start with small ones. People become habituated to corrupt acts. Through Socialization, they learn that corruption is a widespread behaviour and that there is an approval of this problem behaviour, thus they get habituated to corrupt acts.

Compliance Tactic, Foot in the Door Phenomena operates as the individual gradually complies with relatively bigger acts. Door in the Face Phenomena operates as people deny employment in extremely large corrupt act; accede to a more reasonable second request. Individuals first cross their morally ambiguous zone, and as behaviour within the zone becomes more acceptable, they slide down the slippery slope i.e. it then becomes easier to extend the boundaries of moral ambiguity out farther into previously unconsidered territory, leading to escalation of commitment. People who engage in negative behaviors will typically seek to justify their behaviours by denial of responsibility or denial of injury so they do not feel conflicted.

Through association, certain stimuli cause patterns of behavior to be expressed as developed reactions. Example: For a retired old man who is in need of pension, is denied of the pension by the corrupt official, unless he pays an exorbitant amount as bribe. The blockage of the motive of the old man will elicit a stress response in him. In order to lessen his stress, he agrees to give bribe (thus, passively engaging in corruption). Through such experiences, he gets classically conditioned and starts associating people in authority with corruption.

One explanation for the differences in attitudes toward corruption between socioeconomic classes is reinforcement. For those with higher income, the cost of corruption is minor compared with its benefits. The amount paid to a cop is inconsequential in comparison with the hassle of retrieving a confiscated license.

The responses of the middle and lower classes suggest that what is salient to them is how they are being victimized by corruption, seeing how their tax money is being squandered on poor service or official's personal gain. For actively engaging in corruption, money acts as a secondary reinforcer. Bribe giving is positively reinforced by the work that is timely done and negatively reinforced by the removal of threat by the corrupt official. If the individual refuses to comply to the demands of the corrupt official, s/he may be threatened to be given

positive/negative punishment (by misusing ones authority). Thus this behaviour of resistance is suppressed.

Humans have a tendency towards self-serving biases, leading to unethical behaviour. (Johns, 1999; Moore and Loewenstein, 2004). When people fail to escape from corrupt acts repeatedly, they develop 'learned helplessness'. Their past experiences of repeated failure inhibit escape from an unpleasant situation. Thus, despite such anger toward corruption, there also appears to be a sense of helplessness in doing something about it.

Anti Corruption Strategies (Offering solutions by applying learning principles)

The corrupt-free government officials should be rewarded so as to positively reinforce their moral and loyal behaviour. Increments in Salary based on performance should be given following 'Partial Fixed Ratio Interval Schedule of Reinforcement'. Example: the official gets a coupon (token) for every successful completion, and at the collection of 30 such coupons he can redeem. (Token Economy)

"Rewards/Special Recognition" should be given following 'Partial Variable Ratio Interval Schedule of Reinforcement' implying better quality of responses (Performance). A Transparent System to be put in place where there are adequate checks on the behaviour of the officials. Doing so will ensure that officials don't most of the time engage in corrupt practices. And if they do, citizens have an easy access to reporting the corrupt act. The response of 'reporting the corrupt practice' will increase as it will provide a negative reinforcement by the removal of an aversive stimulus (threatened by the corrupt official/being asked for bribe by the corrupt official). Besides, Stringent aversive punishments should be formulated for corrupt officials and Whistleblowers should be rewarded at each and every step. Like first, when they approach the Anti-corruption Authority; Second, when they narrate the instances; Third, when they provide the evidence, so on and so forth.

Also, the Official should be charged a fine/punished for not performing the task on time. Example: If the Official doesn't issue a license within the stipulated time/on the stated date of issuance, then he should be charged a fine which will act as a negative punishment as it involves taking a part of salary as a consequence of an undesirable response. Suspension of the officer for few days, as a punishment for committing a corrupt act will act as Time Out.

Effective and Popular use of the 'ZERO RUPEE NOTE', fantasy money paid in protest by angry citizens to government functionaries who solicit bribes in return for services which are supposed to be free, as a means of helping to fight systemic political corruption, will act as a Positive Punisher as seldom do the officials encounter resistance by ordinary people that they become scared when people have the courage to show their Zero Rupee Notes, effectively making a strong statement condemning bribery.

Figure 2.



Zero Rupee Note

Vicarious Learning, learning through observation, powerful socializing agents like Anna Hazare and Awareness Campaigns like Tata Tea's Jaago Re takes the issue of corruption, urges citizens to awaken and fight against it and acts as a powerful vehicle of change.

Non Governmental Organizations like Association for Social Transparency, Rights and Action (ASTRA) that fights corruption at a grass-roots level in Karnataka, India by working directly with villagers and factory labourers should be set up. The villagers and the factory labourers learn by observing and acquiring the belief that they can actively stand against corruption.

Results and Discussion

The objective of the paper was to study the various psychological processes that underlie corruption and attempts to find solutions to the same by altering these very processes, using the principles of learning. The various Approaches to Motivation and Classical, Operant, Social and Cognitive Schools of Learning were applied so as to understand the underlying causes of corruption. Various Psychological Processes, like Anchoring, Framing, Compliance Phenomena, Self Serving Biases, Inability to Judge Outcomes, Escalation of Commitment, Surrender, Seduction, that operate to determine corrupt behaviour have been captured through the course of research. Corruption today has become a lifestyle and it not only requires a macro level change in the system, it also requires an alteration in the psychological processes that underpin corruption. The Application-based research is solution centric and proposes various Anti-Corruption Strategies, based on learning principles, which can be implemented in India.

Conclusion

A theoretical analysis, backed by observations of corruption at the individual level indicates that corruption is a widespread phenomenon which is increasingly a normative behaviour and can be curbed through effective implementation of various schedules of reinforcements, punishments, transparency, accountability, awareness, modelling, and psychological strategies to understand and combat corruption. One of the single largest deterrents of the speed at which public and private investment and sectoral and social reforms can impact the life of the Aam Admi (common man) is corruption. Our real problem in India is not political; it is psychosocial



On Living...

Rudrani Raj, IInd Year

I'm quite certain I am not the only one with such a worked up life. Who am I kidding, I bet every reader of this article must already be mentally going through all the hundreds of things s/he has to get done today or else face the wrath of teachers, parents, bosses and yes, even your dog. So hopefully by now I have got your eyes open, heart racing and feet tapping. No, no as a psychologist in training the last thing I want to do is give you a panic attack, now wouldn't that be a blow to my career. So tolerating me up to this point might have got some of you wondering as to why this girl doesn't get straight to the point and quit beating around the bush. That my dear friends is the exact point I want to make. Most of us have got so caught up in the whirlwind of day-to-day material life, moving from one activity to another that for even a moment we have not stopped and reflected on whether there can be a life sans all this mayhem.

A lot of us by now may have realised that nothing stays with us forever, be it our job, car, or family. Hard to accept isn't it? Something that we have all painstakingly worked to obtain??obtained only to watch it disappear after a period of time has elapsed is certainly something difficult to come to terms with. In fact with time even our minds and bodies shall wither away. However ancient Indian sages, scriptures and more specifically the philosophical system of yoga believes that in thinking so, we are seeing only one side of the coin. It espouses the belief that all of us could lead our lives from a completely different perspective, with slightly altered attitudes that would help us not be overwhelmed or be defined simply by social roles and demands that all of us are expected to fulfill. According to yogic philosophy there is something that is permanent and eternal and that is your very own real self. Realizing our real self can give us so much happiness that even me who has been blabbering non-stop shall have no words for.

We tend to associate the Self with our minds and bodies but in yoga the self is akin to pure consciousness. This pure consciousness, unlike the mind and body is permanent and everlasting. For those who are familiar with Maslow's hierarchy of needs, it is not self-actualization that I am talking about. The concept of Real self moves far beyond the idea of self-actualization.

For an ordinary person like you and me, our day-to-day lives come to be associated with many problems and miseries and such miseries may be related to loss, hurt, egos, anger and disrespect. But let us question why we experience such debilitating emotions in the first place? Yogic philosophy says it is because we associate and confuse the real self or pure consciousness

with the material world. The material world is clearly ever- changing and we have no control over it , however much we may try to "keep things under control". So what is this real self I am referring to again and again? The real self is synonymous with the concept of soul that is believed to be never changing. It is that Self that can be completely at peace with itself and experience pure consciousness. During the pure consciousness experience one may become utterly silent inside, as though in a gap between thoughts, where one becomes completely perception- and thought- free. One neither thinks nor perceives any mental or sensory content. Yet, despite this suspension of content, one emerges from such events confident that one had remained awake inside, fully conscious. This Pure Conscious Event(PCE) has been identified in virtually every tradition and is defined as a wakeful but contentless consciousness. However due to ignorance we mistake the perishable non-self and body for the self, the impermanent for the permanent.

When something good or bad happens in the external world we take it as a blessing or blow to what we as people stand for. This is where our ignorance comes in. The mind plays Dennis-the-menace! It is uncontrolled and unrestrained. The contents of the mind are shaped by whatever is being attended to. Like a magnet it is immediately attracted to seek explanations for another person's behaviour or events occurring in the material world. We fail to understand that the mind is part of the material world and that the soul has the capacity to become aware. The mind instantaneously reacts depending on the combinations of the three different *gunas* or qualities present in the mind. These are *sattva* which stands for truth, discipline, clarity and goodness, *rajas* represents dynamic, egoistic energy and attachment to material gains and finally *tamas* that stands for inertia, lethargic life. Thus if a person is predominately operating by *rajas* or *tamas* , s/he is involved in continuous disturbing mental activity. This in turn sets in motion the cycle of karma. How so you may ask. In response I ask, don't we all do what our minds tell us to do?

Karmais thought to constitute all those traces left behind by ones experiences and actions that are accumulated and carried from one life to the next in unending cycles of birth and death. The mind carries within it all these residues. Hence it is assumed that when we are in the material world we are driven by ignorance, egoism, pleasure, lust, pain avoidance. These actions leave their own sets of traces and shape our karmas. As long as our actions are driven by such things , the cycle of karma in both life and death, shall continue. Hey, caught you there! Were you mentally cursing a professor who gave you too many assignments to do this break? Better be careful now then sorry later. Please don't accuse me of being cynical. If we reflect on our lives, we may realise that there is a logical reasoning to all of this.

How does one realize the real self? In yoga there is a concept called Samadhi which is usually a short-livedstate, lasting from a few hours to one day and only legendary yogis like Ramakrishna Paramahansa were said to be able to pass into for long periods of time. It is at this stage that one can experience pure consciousness and realize the impermanent nature of oneself. Should this deter you, I am not encouraging you to give up your studies, job or family but only seek to spread awareness that a person who has experienced a Samadhi state will release himself gradually from the miseries of everyday life.

Because Samadhi does not depend on any external stimulation or pleasure-seeking egoism, it tends to impede rather than perpetuate the cycle of karma. As more and more Samadhi experiences accumulate the person seeks inner bliss and prevents more and more tendencies to seek ordinary pleasures. Over a period of time, the yogi is able to eradicate the stranglehold of the burden of past karma and attain absolute freedom from the miseries of life.

Do not be misled however. Samadhi is not the next i-pill or disprin that will miraculously relieve you of your worries. I sincerely do not want to discourage you, but the process of attaining Samadhi is not for the faint hearted. As students the 3-Ds namely dedication, discipline, determination have been shoved down our throats and those who have been slightly inspired and I pray at least a handful of you have by yoga, would actually have you swallow it for real this time.

Yoga gives 8 techniques for the systematic control of the mind and they in turn will bring us closer to the knowledge of our real self. Starting from abstinence from stealing, lying, harbouring envy, it goes onto the cultivation of virtues such as cleanliness, self-control etc., then to certain *asanas* and breathing exercises. Finally it teaches to control the thought processes, contemplate about whatever object one has chosen to concentrate upon. It is only after one has gained complete control over these practices will s/he reach Samadhi which is the final eighth stage. Samadhi can be attained only through concerted effort under the guidance of a yogi or sage. In India, centers such as 'The Divine Life Society' carry out such programmes. To many, such practices may not seem practical. However, even by incorporating certain principles like restraint, observance and practicing the various *asanas*, *pranayama*, meditation one can have a healthier and a more controlled life style. We find ourselves in good health, the usual aches and pains disappear, we feel naturally more strong and sense a serene calmness or peacefulness of heart and mind. A feeling of being connected to ourselves and to other's develops, and we begin to see the world in a kinder and gentler way.

Indian psychology can take the world by storm and in fact it has succeeded in attracting the attention of many western countries where yoga is being actively practiced and propagated. In India, new age Gurus such as Baba Ramdev have revived yogic practices and their popularity is such that they have gone on to become, no less than idols in some households which is quite expected given the tendency of many Indians to glorify and idolise humans among a large number of other things under the sun. As rational individuals let us not dismiss yoga as something mystical but in fact strive to realise that in the long run we may all be the ultimate beneficiaries. Does the thought of leading a more yogic life bring to mind the picture of men with unkempt hair and dirty beards with no clothes? It most certainly might but then again book covers are misleading. There is no rule that a person in tune with his real self cannot live amongst others as an ordinary man, enjoying the company of his family, and going about other day to day jobs. In fact he/SHE could help others do likewise and contribute to a healthier society. No matter where we come from we are the masters of our own destiny, let's hope it's a fulfilling one.



Post Traumatic Growth in Cancer Survivors

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The psychological battles that individuals fight in the aftermath of cancer are not unequivocal in their tones. While it may be appropriate to assume that trauma of the like of chronic or fatal illness like cancer is bound to result in psychological and even physical distress, it is also essential to not ignore the possibility of experiencing positive personal change following a crisis. Systematic research in this area especially since the 1990's has revealed that major life disruptions of varying nature have elicited growth experiences which is now studied as 'post traumatic growth' (PTG).

Through this paper an attempt is made to understand the concept of Post traumatic growth (PTG) as described by previous research and the subsequent theories put forward to explain the phenomenon by particularly looking into cancer survivors. The present paper deals with the concerns regarding the concept of PTG, methodology, designs and tools used to examine the concept along with the drawbacks of such researches and further directions of future researches.

Cancer, is a class of diseases in which a group of cells display uncontrolled growth, invasion that intrudes upon and destroys adjacent tissues, and sometimes metastasis, or spreading to other locations in the body via lymph or blood. These three malignant properties of cancers differentiate them from benign tumors, which do not invade or metastasize. Cancer afflicts all communities worldwide, approximately 10 million people are diagnosed with cancer and more than 6 million people die of the disease every year. The burden of cancer is distributed unequally between developed and developing countries, with particular cancer types exhibiting different patterns of distribution. The total cancer burden is highest in affluent societies, mainly due to a high incidence of tumor associated with smoking and western lifestyle, i.e., cancer of the lung, colorectum, breast and prostate.

In light of the many stressors associated with the diagnosis and treatment of cancer, not surprising that psycho-oncology researchers have concerned themselves primarily with documenting its negative sequel. Psychological distress, including depression, anxiety, confusion, and anger, disrupted interpersonal relationships, vocational difficulties, and worsened body image and sexual functioning may be present following cancer (Holland & Rolland, 1989; Meyerowitz, Leedham, & Hart, 1998; Welch-McCaffrey, Hoffman, Leigh, Loescher, & Meyskens, 1989).

Any stressful or traumatic event such as cancer along with negative, distressing repercussions may also have positive consequences and this isn't a new idea. A number of theories have been put forward to explain traumatic life experiences.

Joseph and Linley in their 2006 paper discussed three important formulations- the functional descriptive model (Tedeschi and Calhoun, 2004), the person centered theory and organismic valuing theory (Joseph and Linley) and the biopsychosocial evolutionary perspective (Christopher, 2004). Tedeschi and Calhoun (1999, 2004) proposed that for any event to instigate growth in a person, it has to take seismic proportions i.e. be of a nature so intense and grave that the victim experiences shattering of his/her basic assumptions about life and the world. Such an intensely traumatic event will make the person engage in ruminative thinking about the event and its implications which may be automatic in the beginning but gets more deliberate later. With the presence of positive social support and new coping behaviors, the ruminative thinking gives way to the development of a new narrative that allows the victim to build a new meaning for his life and thus experience growth following adversity.

The person centered perspective on the other hand (Joseph 2003, 2004, 2005) borrows heavily from Roger's theory of a fully functioning person. It proposes that when a severe trauma strikes, a process of disintegration of the self structure results, which is conceived as a normal psychological manifestation of a process of breakdown. However, as humans, we are intrinsically motivated to grow and are cognitively capable of accommodating even distressing life events. Hence, according to this theory, when we restructure our self to accommodate for the distressing experience, we move towards becoming more fully functioning. Christopher (2004) attempted to integrate biology as evidence for post traumatic growth to be a natural consequence of trauma. He argues that "... the normal trauma response is better understood as an evolutionary inherited mechanism for meta-learning, which shatters and reconstitutes the meta-schema (i.e., concepts of self, society and nature), in which learning normally takes place..." (p.76). He goes on to say that the "... negative or maladaptive outcomes of trauma appear to be the result of a failure to adequately modulate the normal adaptive trauma response..."

These theories provide insights into the complex nature of growth and possibilities of human growth following an adversity. While they differ on how growth comes about or what propels it, each supports the view that PTG is a reality and does occur with human beings experiencing trauma. However, there has been research that does not conform to this view and thus offer interesting alternative explanations for the phenomenon that gets termed as PTG. Prior to discussing new possibilities in research with PTG, it is imperative to argue out its validity- is the conceptualization of PTG as a phenomenon and its indicators accurate enough?

Conceptual Reconsiderations of PTG: Is it a valid concept?

Tedeschi and Calhoun (2004) defined PTG as 'the experience of positive change that occurs as a result of the struggle with highly challenging life crises. It is manifested in a variety of ways including an increased appreciation of life in general, more meaningful interpersonal relationships, better understanding of oneself, an increased sense of personal strength, changed priorities and richer spiritual life'. Maercker and Zoellner (2004) suggested that PTG has a transcending, constructive side as initially proposed by Tedeschi and Calhoun and a self-deceptive, positive illusory side too. Not ascribing a negative connotation like denial or maladjustment to the positive illusory component, they explained its presence as a component of PTG by indicating that it may co-exist with deliberate ruminations of the trauma and as such, serves an acute coping and short-term palliative function only with no long term benefits or

adverse repercussions. Maercker and Zoellner said that this self deceptive component of growth is a natural initial response to the traumatic event and serves the purpose of acute coping which is not necessarily maladaptive. However, they, or any other research does not offer a technique to weed out this component from the assessment of growth. The models that emphasize the illusory nature of the processes of PTG identify assimilation as the main mechanism in operation. They question the presence of positive identity changes, understanding PTG as a coping strategy. It is claimed that this strategy aims at counteracting or defending the subject from the distress caused by the calling into question of the coherence, sense and self esteem of the subject's identity, as a result of the illness.

Another view that attacks the exclusivity of growth and benefit finding in the aftermath of trauma is the developmental perspective to growth offered by Aldwin and Levenson (2004). They suggest that growth, re-prioritization and enhanced interpersonal intimacy may also occur following certain events in the developmental cycle of human life. For instance, becoming a parent can also induce the positive changes mentioned above although it is a developmental phase and not a traumatic, negative event. Here again, one finds evidence of growth in terms of enhanced wisdom in the absence of any traumatic event. (Aldwin and Levenson, 2004).

It is perhaps this lack of refinement in the conceptualization of growth that is responsible for disparate findings of its indicators, while Tedeschi and Calhoun (1996, 1999) suggested five dimensions of growth- greater appreciation of life and changed sense of priorities; warmer, more intimate relationships with others; a greater sense of personal strength; recognition of new possibilities or paths for one's life; and spiritual development; other researches propose different indicators of PTG. For example Armeli, Gunthert, and Cohen (2001) proposed six dimensions of PTG-affect regulation, treatment of others, self-understanding, belongingness, personal strength, and optimism. These contrasting indicators of PTG found in different studies as well as the attention deserving questions on the very conceptualization of PTG illustrated above offer an appealing debate on the validity of scientifically and methodologically studying it.

Research Methodology

This section points out some of these concerns regarding the research designs and methodology adopted in studies investigating PTG.

There have been inconsistent findings regarding the incidence of PTG as well as its indicators and factors affecting its occurrence. The inconclusive nature of research at the very level of conceptualization of the concept of growth following adversity points towards the need for a re-exploration of the phenomena in different contexts. Unfortunately, most research conducted to probe this area has adopted either a descriptive or sometimes an explanatory structure whereas what the field requires is more exploratory work in varied populations and cultures in order to attain clarity on the conceptualization and operationalization of PTG. Growth, as a phenomena need not be rejected, but need to be studied and re-studied using an inductive approach instead of the deductive framework that most researches have adopted lately. As Linley and Joseph (2004) discuss in the implications of their review of literature, most of the research studies are nomothetic implying that their findings may not conform to any individual's personal experience of trauma. Nomothetic study allows only to draw an understanding of

general pattern and this may be conducted when either the phenomena under study is a simple, straight forward one or when the concept has acquired a fair degree of conceptual refinement. Neither is the case with the concept of PTG and thus, the need for idiographic research becomes crucial.

Sample characteristics:

Among the research papers reviewed, most included samples that consisted largely of White Caucasians or Europeans. Majority of them belonged to upper middle class strata of the society, were educated at least up to college and had an easy access to specialised oncology care. For e.g. in the cross-sectional study with breast cancer patients by Lelorain, Bonnaud and Florin (2010), the samples consisted mainly of White Caucasian females.

The representation of minority ethnic groups and other races has been minimal or practically nil. The sample characteristics have been largely limited to a single race. Such a trend has also been noted in researches that enumerate application of PTG for clinical interventions. Moreover, there has been limited research on posttraumatic growth among cancer patients outside of western industrialized nations. The experience of severe illness would be expected to be influenced in important ways by the healthcare system and broader cultural-religious context in which patients are embedded and these factors have not been explored. Apparently, only a few researches have been conducted in the Indian context (for example: Post traumatic growth among cancer patients in India has been studied by Thombre, A., Allen C. Sherman and Stephanie Simonton, (2010). They found that perceived growth was associated with greater meaning-focused coping (sense making, benefit-finding), and with reappraisal of worldviews and not related to subjective appraisals regarding illness threat or stressfulness.

The Indian healthcare system presents significant challenges for many cancer patients. Access to specialized oncology care is more limited than access to general medical services, and there are notable geographic and socioeconomic disparities in treatment (Chopra 2001; Kurian 2007; Okonkwo et al. 2008). Psychosocial support services are uncommon. At the same time, PTG might be facilitated by distinct aspects of Indian culture. Strong kinship bonds are often an invaluable source of support for patients (Mehrotra and Sukumar 2007). Religious beliefs may offer an additional resource.

Hence, there is a need for additional research regarding perceived growth in distinctive cultural contexts (Abraido-Lanza et al. 1998; Ho et al. 2004; Taku et al. 2008), such as India. Another trend that has been noted in researches dealing with PTG in cancer survivors is that most of them include adults. Most of the researches available focus on adults and demonstrate how they grow and evolve when confronted with an adverse situation. It is noted that almost no or very little information is available on children or adolescents. Of the few researches done in this field using children or adolescents, the study on Posttraumatic Growth in Adolescent Survivors of Cancer and Their Mothers and Fathers by Barakat, Alderfer and Kazak in 2006 is worth mentioning. The study investigated PTG in adolescent and their parents using a semi structured interview. The results showed that a majority (84.7%) of adolescent survivors of childhood cancer reported at least one positive consequence of having cancer. The researchers concluded that adolescent survivors who are more likely to recall their treatment experiences

(e.g., were age 5 or older at diagnosis) appear to perceive both challenging and adaptive aspects and impacts of the cancer. These patients are likely to understand and appreciate the support and encouragement they received during treatment and to understand that they showed strength in the face of treatment-related adversities, resulting in more positive outcomes (PTG). These findings are consistent with the developmental tasks and challenges of adolescence and suggest the importance of understanding how adolescent survivors process their experiences and formulate longer term cancer-related beliefs.

Thus, clarification of the concept and measurement of PTG after childhood cancer is warranted, as are prospective studies of the association of PTG and PTSS and the role of demographic variables and illness-specific appraisals.

Another variable that is most likely to influence the study of PTG is gender. However, gender as a variable hasn't been addressed properly in the investigation of PTG. Majority of the researches conducted has used women. But, it will be inaccurate to conclude that no research has been done considering gender as an influencing factor. For example: Tedeschi and Calhoun (1996) have reported significant associations between gender and PTG. It was observed that women tend to experience more stress related growth than their male counterparts. They showed the tendency of women to score higher than men on the Post traumatic growth inventory (PTGI) suggests that men and women differ in their responses to trauma. These authors also found that women have a tendency to utilize more of emotion focused coping mechanisms. Hence, again for better conceptualization further research is recommended.

Similarly, personality is also a factor that is of utmost importance and hasn't been addressed in researches pertaining to PTG. Tedeschi and Calhoun (1996) reported that there were many relationships between PTGI and personality. The PTGI scores were positively related with optimism, religiosity and all other major dimensions of personality except optimism. But, they or any other research does not offer a technique to weed out this component from the assessment of growth.

Sampling techniques:

Analysis of the papers selected for this review points out another anomaly in research on PTG- inappropriate sampling techniques and restricted nature of sample chose. Practically all research studies reviewed for this paper as well as the papers included in the meta analysis paper by Helgeson, Reynolds and Tomich (2006) have used non probability sampling and typically judgmental or convenience based sampling. While it is perfectly acceptable to use non probability sampling and it doesn't necessarily imply an unscientific approach, the severe lack of random sampling in research related to PTG is striking and makes one question the generalizability of the results obtained.

Only Schroevers, Ranchor and Sanderman's (2006) longitudinal study examined the long-term impact of a diagnosis of cancer on physical and psychological functioning, by comparing 8-year cancer survivors to a randomly selected sample of similar-aged references without cancer. This study utilised a matched control-group design to assess stress related growth in the victims thereby allowing an essential comparison between the actual victims and matched

Tools of Measurement of PTG:

Virtually all research on PTG has been based on self-perceptions of change, which may or may not correspond to veridical change. Researchers most frequently use self report instruments of positive change following an adversity and sometimes also utilize coding of interviews and open ended questions to explicate PTG. Very little research has attended to the issue of demonstrating instrument validity i.e, checking whether an instrument score corresponds to real-life changes. With the presented debate on validity issues of PTG, these self-report instruments may provide little more than individual's perception of growth. Frazier et al. (2009) wished to enquire this very same issue- does self- reported PTG reflect genuine positive change? They collected data from undergraduate students who completed standardized measures tapping typical domains of PTG at two different time spots which was compared with their scores on the PTGI. Interestingly, results showed no relation between PTGI scores and the actual PTG domains, thus leading the researchers to suggest that the PTGI, and maybe even other retrospective, self- report measure do not actually measure pre- to post- trauma growth. The most commonly used tools for assessing PTG include Post Traumatic Growth Inventory (PTGI; Tedeschi & Calhoun, 1996) and the Stress-Related Growth Scale (SRGS; Park et al., 1996). Data derived from questionnaires such as these are required to establish relationships between the subjective experience of growth or benefits and other variables.

All these measures share common features. They ask victims to report on whether they've made changes in a number of domains on a Likert-type scale. Items are summed and scores are considered to indicate the extent of growth. But there are many drawbacks of such forms of assessments. Firstly, each tool proposes different number and different names of domains of growth. Hence it is not possible for any single instrument to measure such an exhaustive list of domains. Also, response biases on the part of the participant due to social desirability or other factors may affect the results obtained. Many a times, although instructions were devised to minimize demand characteristics for endorsements of positive change, response bias may have occurred. Hence, other ways of assessing actual growth needs to be adopted.

Further Directions and Research

Culture permeates every action, gesture, spoken word and even one's beliefs regarding oneself and the world around. Yet, its study in literature of PTG is largely absent. Though many researchers have discussed about the inescapability of culture in truly comprehending PTG (Tedeschi and Calhoun, 2004; Pals and McAdams, 2004), culture as a variable has not been operationalized in the examinations of PTG. A handful of studies have been conducted on Eastern populations which allow valuable insights into how the experience of growth following an adversity is constructed differently from Western populations. A single study on PTG in Indian patients was identified. Thombre, Sherman and Simonton (2010) offered an examination of PTG and its cognitive correlates in an Indian sample of cancer patients. Unfortunately, neither of these researchers conceptualize culture in terms of beliefs, values etc. to grasp its association with the personal construction of growth. The above mentioned researches simply conducted an examination of PTG in different racial samples but did not operationalize the important variable of culture to grapple with its permeation into the experience of PTG.

group and thus helping with drawing valid conclusions. However, the authors reported that at 8 years after diagnosis, survivors' levels of psychological functioning and resources were similar to those in references. These results stand in stark contrast to most other research conducted to investigate PTG wherein prevalence rates of endorsement of positive items in the questionnaires used ranged from 3% to 98%- different rates for different kinds of trauma (Linley and Joseph, 2004). Thus, although Weiss (2004) reported low responses to growth statements in husbands of women suffering from breast cancer, some growth has always been reported in the target population. Likewise, most research studies conducted, (except the above mentioned study) support the presence and the high prevalence of PTG as a natural consequence of trauma.

The possibility that this consistent reporting of presence of some, if not all domains of growth in populations studied till date may be attributed to the absence of any true baseline and lack of reference point appears more real. Schroevers, Ranchor and Sanderman's findings thus, contest the popular notion that growth is possible only in the aftermath of intensely traumatic incidents and urge researchers to consider conducting more studies utilizing a controlled group design that can offer accurate understandings of what growth is.

Time frame:

Researches done so far to understand the aftermath of trauma have largely adopted a cross sectional design. Cross sectional studies are a form of research method that involves observation of all of a sample of population at one specific point in time, that is, these studies evaluate individuals or victims at a one-time assessment. This is usually administered using questionnaires. Also, out of the several studies conducted, many researchers have found that the time since trauma emerged as being related to positive well being. One study that explored the relationship between posttraumatic growth and several demographic and medical variables found that only time since diagnosis (positively) associated with PTG (Cordova, Cunningham, Carlson, & Andrykowski, 2001). But, again not all researches point towards the same conclusion. Many studies also reject time as a moderate variable and hypothesize that PTG is negatively correlated with time. Therefore, the relationship between posttraumatic growth and variables such as time should be examined in researches so that these variables can be controlled for if necessary.

The best way then to address this issue and the notion of PTG is to adopt longitudinal designs. Longitudinal studies involve repeated observation of the same variables over a long period of time-often decades. They are often used in psychology to study the developmental trends across the life span. Though, only few research studies have incorporated this study design, each of them offers an important contribution towards the subject matter. For example: Schroevers, Ranchor and Sanderman (2006) carried out a longitudinal study examining the long term impact of diagnosis of cancer on physical and psychological functioning by comparing 8 year cancer survivors with randomly selected healthy individuals. The results showed that, cancer survivors and references do not differ significantly on many dimensions.

The experience of severe illness would be expected to be influenced in important ways by the healthcare system and broader cultural-religious context in which patients are embedded. What gets classified as traumatic or distressing is itself a cultural construction. Hence, what is needed is that more researches are undertaken that extend beyond the western population. Now, more studies need to be conducted on Eastern populations that can allow researchers to examine how growth is experienced differently from a Western society.

Also it was noted that variables such as time, age, income etc have been found to have different correlations with PTG. In some instances a positive correlation was found, while in some a negative correlation was found. Such inconsistent results are indicative of lack of theoretical conceptualization or inappropriate tools being used to capture aspects of growth. Hence, a more concrete conceptualization is needed to study PTG in specially cancer survivors. Along with advancement in the tools of measurement. Another trend that was observed in almost all articles reviewed for this paper was that most of them have limited their research to a specific type of cancer- breast cancer. Only a handful of them have examined any other type of cancer. But again even these researches have listed their results while taking into consideration only breast cancer.

A major problem with this approach is that the type of cancer one has can also influence the type of growth (if at all) one experiences. Moreover, the site and stage of the diagnosis may also take a toll on one's life. For example: 2 people suffering from cancer can have totally different views on the positive or negative outcomes they experience. The experience not only depends on the gender but also the site of cancer. Person A might have pancreatic cancer while Person B may have lymphoma. But since pancreatic cancer is more likely to be malignant, chances are high that person A might appreciate or enjoy life more thinking that he/she may not survive. However, since most researches don't address this aspect it will be beneficial if future researchers take this into account and conduct researches and increase our understanding of the subject matter.

Conclusion

Post Traumatic Growth is a concept that needs to be explored in depth because of the consequences that it has on victims of a traumatic event, be it a deadly disease like cancer or any other episode. There are several compelling reasons for examining benefit-perception or growth in the context of the cancer experience. In many ways, cancer is a prototypical stressful event. It strikes without warning and poses a serious threat to current and future wellbeing. Cancer is also a particularly difficult diagnosis to reckon with because the processes involved in its etiology and development remain elusive. Although researchers have identified several risk factors for various cancers, the precise mechanisms and constellation of factors involved in their onset and progression are complex, and disease-management can be difficult. It would beyond doubt be a wealth to the society if further researches that would be carried out are more accurate with its findings and if it could address to the various aspects concerning it. It has a strong promise in its field and is of concern to more or less every individual around.



The Truth of 'Karma'

Sadhvi Krishnamoorthy, IIIrd year

Karma is a widely used and relevant term in today's world although it is rooted in Hinduism, Buddhist and Jaina traditions that date back to more than 1000 years. In its simplest sense, it can be understood as a theory of "what goes around, comes around"; meaning that individuals have to face consequences, whether good or bad in terms of the actions performed in the recent or remote and unknown past which ultimately will determine the life we have at present and to a certain extent what we will face in future due to our present actions. Such a concept seems to be very simplistic and attractive to follow, however it is extremely complex. All concepts pertaining to humans have been made and defined by humans and ultimately for humans. The fact that such a concept even exists, means that it has been given due importance and consideration by a mass of people for it to have existed, continued and strengthened over the years.

Biologically we are very much like animals, the actual meaning of human life and its distinction from those of the animals is established on when we focus on aspects like purpose of human life, beliefs, values, dispositions, morals, which act as an intervening variable in the way we respond to the environment. Morality is an important aspect of individual and collective life, a concept that gives cultural definitions of what is "wrong" and "right" for an individual, a society, a kind of judgment on individual's acts that cannot go unnoticed and a mechanism that ensures that these acts receive consequences whether good or bad. Why do we feel bad when we steal money from others? It is only because such an act has been defined as being "immoral". This is probably the reason why the concept of karma was introduced centuries ago, a mechanism introduced to induce responsibility in the individual for his/her own actions and regulate their behavior so as to ensure that each individual has a sphere within which certain acts are "allowed" to be exercised. This was done also through creating a sense of fear of punishment for indulging in acts that go beyond the moral prescription. It is human tendency to avoid any kind negative consequences, which is why when actions that have the probability of yielding negative, harmful consequences are indulged into, they create feelings like fear and anxiety about "what will happen in the future" as a consequence, and guilt about something that cannot be controlled because it is done over in the past.

I believe that the concept of "good" and "evil" also operate through the concept of morality, and form the fundamental basis of the theory of karma. Since only when there is a clear definition of what is good and what is bad, will there be good vs bad acts, and consequently the repercussions of those acts. Also, only when the evil exists can the good exist, because it provides a comparative standard through which we can contrast, understand and classify something as being evil or good, eg- in soap operas, only through the villains are we able to find out who the "hero" actually is.

The aim of this paper is not to get into the technicality of theory of karma and what it propounds, but rather to look into the fact that how such an ancient and archaic concept still holds relevance in an individuals life and to what extent; basically its practicality in real life setting, in today's world, where the concept is used by every household without realizing the meaning of its usage. Thus the concept of karma is very relevant in today's world; where

sanctions on individual's selfish actions need to be imposed through this theory to be able make the individual also see the larger picture, which includes everyone else in the surrounding.

Conception of karma

The term "karma" is a Sanskrit word which literally means "actions", everything that a human does. The term itself doesn't hold a significant meaning, which basically points to the fact that our understanding of what karma actually means and entails comes largely from the theory of karma, which establishes a cause and effect relationship between our actions and their consequences. Although the theory talks about only deeds or actions determining the consequences, some theorists believe that karma also includes the thoughts and words of an individual; holding a person responsible for nothing only what he/she does but also what he/she thinks and speaks. This is because they believe that the content in a person's heart is extremely important and not just what is outwardly expressed. Thus this theory becomes important from the point of view of society because everything that an individual does IS directed at others; this theory actually works in relation to others because individual deeds, words and actions are always directed at or received by others. The concept of good-evil, moral-immoral wouldn't exist if an individual was an isolated entity and didn't have any interaction with the "others" around.

Karma theory not only talks about the present existence but also all the past existences that we have had, and in that sense the deeds committed in the recent past (this lifetime) and the remote past (past existences), all come together to determine our present and future. It makes the past, present and future, then extend on a continuum, where if one wants to understand why our present is shaped in a certain way, we look at our past deeds, and if we want to see how our future will be, we look at what we are doing now, since we have a control over and regulate it accordingly. In this sense this theory makes life very deterministic, and gives explanations for all unknown and unexplainable events in terms of a person's conduct in terms of others by oversimplifying things.

When do we know that it is our past life karma that is actually causing an event to occur and not any other rational reason? The theory provides answer to this by stating that when events that have no meaning or relevance in our lives, have no logical reasoning and occur repeatedly, we should know that it is time for retribution of past karma. For example- when one repeatedly loses jobs despite immense individual efforts and for reasons that seem illogical, and this also happens to creep into the next generation, then the person can call it "job karma". However we don't know which deed in the past led to the creation of this karma.

Karma theory also then makes life and death a continuous process, freedom from karma cannot occur through death since it will be carried on to the next life in another form or body or carried on to the successive generations. Then the whole purpose of life can be understood in terms of battling it out with ones karma and regulating ones present karma in the hope to find a better life in the uncertain future. Thus an individual is always "tested" for ones deeds, if the test is passed, there is hope of shaping a better future, and if not then there will be anxiety regarding it. As far as the past is concerned, it seems that the individual is "condemned" to a life in the present, but has no control over it since it is determined by the past. Thus with the past there is

guilt and no hope, and with the future there is a little hope and possibility of improving one's conditions but only through regulation of one's actions in the present.

Bruce R. Reichenbach, in his paper- "law of karma and principle of causation"- 1988 talks about the difference between law of karma and law of universal causation. The law of universal causation is concerned with cause and effect of deeds irrespective of whom it affects and regardless of the intentions of the agents. It is also irrespective of moral judgments and is based on two events that are temporally conjoined with one another. However the law of karma is completely the opposite of above mentioned. It is best understood as an application of the law of universal causation to moral causation, with the only difference existing in terms of distinction between "phalas"- immediate and visible effects that agents bring about, which is true of law of causation; and "samskaras"- invisible, dispositions, and tendencies to act, think or experience in a way conducive to one's own happiness or unhappiness, which is true of law of karma. The distinction accounts for the specificity of the law of karma, the fact that karmic effects depends only on the intention, the fact that samskaras are not actualized till the appropriate environment is provided, seeds lie dormant till appropriate conditions are provided. For example- contraction of malaria is dependent on the susceptibility to the disease, which is created by some action of the past remained dormant until we encounter malaria carrying mosquitoes in our environment. He basically tries to suggest that karma is a special application of the universal causation; has some special modifications of the agent- dispositions and tendencies which have an important connection with moral actions.

Problems with the karma theory

Whitley R.P. Kaufman- "Karma, rebirth and the problem of evil", addresses the Indian thought about karma which combines retributionism and multiple incarnations so that suffering can be explained as an individual's wrongdoing in the past for which he/she will be punished in present or future. "All suffering can be explained in terms of the sufferer himself". There are certain general questions addressed by people like- why do the innocent suffer and wicked flourish, why is the world not ordered and just if law of karma is operating, does karma constitute a "theory" in the sense of a fully developed philosophical or theological account of the presence of evil? The purpose of his research was to debate whether suffering can be wholly explained and justified as the result of individual wrongdoing or not? Certain problems have been addressed:

- **Memory problem:** Paul Edwards and Bruce Reichenbach suggest that there is no recollection of past lives which further leads us to question whether we even had past lives or not. It raises certain moral issues because, justice demands that one who is punished should suffer for a past crime be made aware of his/her crime and understand why they are being punished for it. The karma theory then becomes random and unpredictable. Radhakrishnan suggests that we hardly ever remember past events nor is there any evidence that anyone has ever recalled a past life. Also, the mechanism is poorly designed for the purpose of moral education or progress given the apparently random and arbitrary patterns of reward and punishment. It also seems like it is a revenge theory than a retribution theory because satisfaction has been taken on the perpetrator of the crime ignoring completely a central moral element of punishment, that the offender be made aware of his crime and repent for it and attempt to atone for it. Reichenbach "lack of

memory prevents one from undergoing the moral process involved in repentance for one's crimes and even attempted rectification for them."

- Proportionality problem: Given the kinds and degrees of suffering we see in this life, it is hard to see what sort of sins the sufferers would have committed to deserve horrible punishment. The severity of the punishment is not proportionate to severity of the wrongdoings; there is a question on the fairness of the mechanism.
- Infinite regress problem: We can't answer questions like- how did the karmic process begin? What was the first wrong and who was the original sufferer? There is no solution given for this because of the infinite existence of the past. Wendy O' Flaherty- "Karma solves the problem of the origin of evil by saying that there is no origin... but this ignores rather than solves the problem."
- Problem of explaining death: The question-"why are there not some people who are virtuous enough to live indefinitely?" is raised here. It is through rebirth that we are rewarded or punished but there can be no rebirth unless there is death, so even if one is moving up in the scale of karma to a very high birth for one's great virtue, one must still face death, which further undermines the moral justification for greatest of evils- death itself.
- Free will problem: Keyes has suggested that the karma theory "manages to affirm and deny human responsibility at the same time". Despite the promise of control over one's destiny, in practice the doctrine of karma can often result instead in an attitude of fatalistic pessimism in the believer. The basic problem is that there is a deep tension between causal determinism and the ideal of free moral responsibility. Either the theory is a complete and closed account of evil and suffering or it is not. If it is then there can be no progress or change, if there is then karma theory is not completely causal in nature.
- Problem of falsification: The theory cannot be falsified or verified against all human biases.

Francis Clooney (1989) suggested that karma is brilliant in its simplicity and straightforwardness, "people suffer because of their past deeds in this and previous lives and likewise enjoy benefits based on past good deeds." The main attraction of the theory for people is that it suggests that each person makes his/her own fate, all suffering happens for a reason; even if there is misery one can look forward to happiness in future lives, if one does his/her own duty. M. Hiriyama equally defends karma as a systematic explanation of all events in the world-"as every event in the physical world is determined by its antecedents, everything that happens in the moral realm is preordained".

"Expiation" of karma

Our lives as humans is actually all about life and death which also includes suffering and illness. However we often don't quite understand what life and death actually mean; in reality there cannot be a definition of life and death because these are subjective and also culturally loaded terms. We can only understand them through analogies, and in that sense which analogy we adopt becomes the most important concept for an individual because it governs one's life and how we live it. A philosopher has said that an *awareness* of our own death and mortality is what separates us from the animals. The analogy that I would like to use to understand life and death which forms the basis of understanding of the karma theory is that of waves. If the universe can be considered as a vast ocean, then an individual is like a wave in it; when the wave rises from the ocean's surface, that is life; when it merges back into the ocean, it is death. Thus life and

death are continuous, which is what makes life eternal. When we refer to life, we not only talk about the physical functioning of an individual in terms of the "life force" left in the person; it also pertains to the spiritual or psychological functioning of an individual, for example- a person who has given up on life is alive but spiritually and psychologically dead. We often refer to death as the end of human life in terms of perishing of the human "body", but then where do all the deeds, the beliefs, the dispositions of an individual that we talked about earlier go? This is what the karma theory postulates, that just because we ignore our past deeds and try to forget them, doesn't mean that those deeds didn't occur, the dispositions and beliefs didn't get established and weren't used at other people. And thus a person will always be haunted by one's deeds of the past through guilt, a mechanism that will ultimately move the person to reduce guilt by working in the present because that is the only time we have in hand. This is where karma connects each life of an individual.

According to me, there is a meaning to everything that happens while we are alive, even birth and death have a meaning, the spheres that cant be explained fully are also "given" a meaning by human beings because of their tendency to not have any kind discomfort of not knowing things. Thus, in relation to this, each human life has a purpose, there is a meaning in why we are only born as someone with a particular name and identity, into a particular family, environment, with certain genetic traits and also certain baggage of problems and sufferings. The purpose of life is to keep on finding out meaning and keep questioning ourselves as to why we were born in the first place. As long as we have the meaning we can withstand any suffering, but without meaning, we can have everything we want and still be completely empty. The concept of karma gives this meaning to our lives by constantly providing us with a battle ground where we have to face the expected consequences of actions that we know we indulged in and also the unexpected consequences produced by past life karma. While it is comforting to blame our current suffering like an unexpected, illogical illness to our past life karma that we have no control over, it is equally scary and discomforting to know that we do have to take responsibility for actions committed which we have no memory of; and largely all humans are afraid of such a responsibility because of which they look for agents outside themselves to blame it on.

This is where I introduce the concept of "expiation of karma". I believe that since beliefs and values are what makes an individual different, we deliberately choose to shape our own lives and the consequences in order to demonstrate the power of our beliefs. Expiation of karma brings a little more determinism in our lives by not only "holding" an individual responsible for one's own actions but also giving a chance to the individuals to redeem themselves, to face retribution in a lesser degree and to build a better, hopeful and a sure future for themselves. To expiate means to pay the penalty for an action, however in this context it largely refers to process of lessening the degree of our karmic retribution through altruistic actions towards others. Since we create bad karma through deeds, words and thoughts directed at others, in only makes sense to also to create good karma by engaging in actions towards others benefit, since we receive benefit through the same; the same principle of "what goes around, comes around" operating here. In such a scenario, the effects of the karma of the past will be faced in a lesser degree than what was actually going to occur. It helps us view karma, not in terms of a determinism from which there is no escape further leading to pessimism, rather an opportunity or a challenge that was unexpected; but since it has arrived and one has mental preparedness towards, to face it head on and "expiate" its negative effects. The purpose of life, thus is not dealing with, ignoring or



Art Therapy's Unique Contribution to the Treatment of Combat-Related Post Traumatic Stress Disorder: A Research Review and Future Suggestions

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Post traumatic Stress Disorder:

Posttraumatic Stress Disorder (PTSD) is an anxiety disorder that can develop after exposure to a terrifying event or series of events, such as combat, in which grave physical harm occurred or was threatened, causing feelings of intense fear, helplessness, or horror. It is accompanied by a variety of dysphoric, cognitive and autonomic symptoms that may cause long-term disturbances of emotions, behaviors and personality (American Psychiatric Association, 1994). PTSD is characterized by three groups of symptoms: intrusive re-experiencing, avoidance of reminders and triggers, and hyper-arousal including hyper-vigilance and exaggerated startle response. It is typical for people with PTSD to repeatedly re-experience the terrifying event(s) in the form of flashback episodes, memories, nightmares, or frightening thoughts, especially when they are exposed to reminders of the trauma. Intrusive thoughts are natural reactions immediately following a traumatic event and can help people to learn from the experience and eventually come to accept it (van der Kolk & McFarlane, 2007). Anniversaries of the event can also trigger these intrusive symptoms. Avoidance symptoms involve changes in the way individuals respond to their environment, and changes in their levels of engagement with life (Cash, 2006). People with PTSD often experience emotional numbness, sleep disturbances, outbursts of anger, amnesia for parts of the event, lack of interest in pleasurable activities feelings of detachment from the self or others, and a foreshortened sense of the future resulting from the avoidance of traumatic reminders. It is common for depression, substance abuse, or other anxiety disorders to co-occur with PTSD, as well as headaches, gastrointestinal complaints, immune system problems, dizziness, or chest pain (National Institute of Mental Health, 2002).

Psychological Mechanisms of PTSD

PTSD is thought to be caused in part by the nature of traumatic memories, which are encoded in implicit as well as declarative memory systems and are likely to exist primarily as dissociated emotional, perceptual, or sensory fragments and physiological sensations with no coherent verbal, symbolic, or temporal basis (O'Kearney & Perrott, 2006; Reisberg & Hertel, 2004; Van der Kolk, 1994; Van der Kolk & Fisler, 1995). These qualities of traumatic memory make it hard to describe traumatic experiences in words or to "integrate" them as part of one's life story (Christianson, 1992; van der Kolk, Hostetler, Herron, & Fisler, 1994). The failure to process information symbolically (verbally or otherwise) after a trauma is thought to be the core of PTSD (van der Kolk & Fisler, 1995). Indeed, brain imaging research has demonstrated hypoactivity in Broca's area, which is an area of the brain involved in producing language (van der Kolk, 2002) and hyperactivity in the amygdala (fear, anger), hippocampus (memory), and occipital cortex (visual processing), among veterans with PTSD (Rauch & Shin, 1997).

Combat-Related PTSD

Before the diagnosis of PTSD was developed, similar symptoms in soldiers were labelled as soldier's heart, shell shock, war neurosis, and combat fatigue (Herman, 1997). War zones expose individuals to horrendous violence. Experiences that can lead to the development of PTSD include: being in a war zone, engaging in peacekeeping missions under distressing conditions, attacks on self, witnessing the death or wounding of civilians or fellow soldiers, and the act of inflicting death or injury onto an enemy soldier or civilian (Cash, 2006). A study by Hoge et al. (2004) investigating the mental health problems associated with combat in Iraq and Afghanistan, demonstrates that the prevalence of PTSD increases consistently with the number of fire fights a soldier has been involved in. Unfortunately, a fear of stigmatization stops many soldiers from seeking treatment for their symptoms (Hoge et al.) Approximately 30% of people who have been in war zones develop PTSD.

Treatments for PTSD

The complexity of PTSD makes it difficult to treat and no single treatment has emerged as uniquely effective (Marmar & Spiegel, in press). Chronic PTSD is particularly resistant to treatment, possibly because trauma severe enough to cause PTSD leaves an indelible physiological imprint on the brain (Shalev, Bonne, & Eth, 1996). Treatments for PTSD need to reduce immediate symptoms and to address the underlying problems that perpetuate symptoms. A three-stage approach for treating complex PTSD has been outlined by Ford et al. (2005). The goals of the first stage are to reduce arousal symptoms, to develop emotional self-efficacy, to reactivate positive emotions (reduce emotional numbness), and to create emotional safety and social bonds among veterans as a foundation for further therapeutic work. During the second stage, the focus is on processing traumatic memories and emotions. Through nonverbal expression and progressive symbolic exposure, traumatic memories are recalled, expressed, and consolidated into a coherent trauma narrative (verbal or visual) that is owned and acknowledged by the person and seen as part of the person's past. The goal of the third stage is to help group members incorporate new insights and understandings into their lives. Any treatment plan includes choosing a treatment modality based on individual needs, discussing an individual's expectations, setting realistic goals, and addressing co-morbid conditions. Various types of therapies are utilized for the treatment of PTSD.

Cognitive Behavioral Therapy (CBT) including prolonged exposure therapy (which uses careful, repeated, detailed imagining of the trauma in a safe, controlled context to help the person face and gain control of the fear and distress that were overwhelming during the trauma), stress inoculation therapy (SIT), systemic desensitization and anxiety management training, has been designated as the behavioral treatment of choice in PTSD practice guidelines and is used to address conditioned fear and cognitive distortions (Friedman, 2006). It aims to achieve cognitive restructuring to identify and alter an individual's negative interpretations about the trauma and about themselves, such as self-blame, over-generalizing, over-focusing on negatives, and incorrect beliefs about cause and effect, and to confront these maladaptive views. It then attempts to challenge them and replace them with more realistic thought patterns.

Group behavioral treatments are recommended for PTSD so people can share traumatic material within the safety, cohesion, and empathy provided by other survivors and so that they can regain the ability to form trusting relationships (National Center for PTSD, 2006). Group treatment is particularly useful for combat-related PTSD because military training and combat operations are

group experiences and traumatic experiences in the military typically are managed in the context of the group.

Psychodynamic therapy addresses several issues that often play a role in the lives of individuals with PTSD including: developmental issues, defense mechanisms, and interpersonal functions (Schottenbauer et al., 2008). Insight into early traumas can lead to an awareness of defensive excessive feelings of guilt.

Psychopharmacological therapy aims to reduce symptoms, increase quality of life while decreasing degree of disability, improve resilience, and treat co-morbid mental health disorders (Cash; Friedman et al.). PTSD is associated with psychobiological abnormalities involving neurotransmitter, neurohormonal, and neuroendocrine systems (Friedman, Davidson, & Stein, 2009). Certain drugs are considered to be effective in treating PTSD including antidepressants such as selective serotonin reuptake inhibitors (SSRIs), serotonin norepinephrine reuptake inhibitors (SNRIs), and atypical antipsychotics (Friedman et al.).

More attention needs to be given to treatments for combat-related PTSD that are appropriate for complex PTSD, can reduce immediate symptoms, and can facilitate the organization and integration of traumatic memories in order to address the underlying situation that gives rise to the symptoms. These treatments should be relatively brief, not burdensome to patients, and effective in the long-term. Art therapy may meet all these criteria.

Art Therapy and PTSD

The American Art Therapy Association describes art therapy as follows-"Art therapy is the therapeutic use of art making, within a professional relationship, by people who experience illness, trauma or challenges in living, and by people who seek personal development. Through creating art and reflecting on the art products and processes, people can increase awareness of self and others cope with symptoms, stress and traumatic experiences; enhance cognitive abilities; and enjoy the life-affirming pleasures of making art.

It is a mental health profession that uses the creative process of art making to improve and enhance the physical, mental and emotional well-being of individuals of all ages. It is based on the belief that the creative process involved in artistic self-expression helps people to resolve conflicts and problems, develop interpersonal skills, manage behavior, reduce stress, increase self-esteem and self-awareness, and achieve insight. Art therapy integrates the fields of human development, visual art (drawing, painting, sculpture, and other art forms), and the creative process with models of counseling and psychotherapy."

While PTSD was not recognized as a diagnosis until 1980, the use of art expression in trauma intervention appeared in the late 1970s. Stember (1980), Naitove (1982), Golub (1985), and Terr (1981), among others, observed that art expression could be useful in the treatment of trauma, particularly for individuals who were unable to communicate their experiences with words alone. Clinicians initiated protocols using drawing as a method to help survivors of traumatic events express their experiences, as a means to convey details of the trauma event, and as a way to gain mastery over feelings (Pynoos & Eth, 1986a; Pynoos & Eth, 1986b). Concurrently, others proposed

that art expression helped individuals recall, re-enact, and integrate traumatic experiences and recover from emotional disorders associated with psychological trauma (Brett & Ostroff, 1985; Greenberg & van der Kolk, 1987; Johnson, 1987; Morgan & Johnson, 1995).

Based on these developments, art therapy has been applied to a wide range of types of trauma, including sexual abuse (Backos & Pagon, 1999; Pifalo, 2002; Powell & Faherty, 1990), domestic violence (Malchiodi, 1997), school violence and homicide (Chapman, Morabito, Ladakakos, Schreier, & Knudson, 2001), war and terrorism (Avrahami, 2005; Baker, 2006; Howie, Burch, Conrad, & Shambaugh, 2002), and medical trauma (Appleton, 2001), among others. As a result, contemporary practice of art therapy in the treatment of PTSD emphasizes the usefulness of art expression in the reconstruction of the trauma narrative and also in the management of stress, physical symptoms, and psychological disorders resulting from acute or chronic trauma.

In order to more fully understand art therapists' clinical approaches to PTSD, the American Art Therapy Association (AATA) Research Committee conducted a survey in 2005 of registered art therapists who treat people with PTSD. Additionally, Collie et al., (2006) conducted a review of art therapists' published and unpublished descriptions of their approaches to treating PTSD. A content analysis was conducted of the survey responses and the written descriptions to identify topics and concepts that were addressed. A detailed thematic analysis was conducted of material pertaining to two primary topic areas: therapeutic mechanisms and therapy methods.

Therapeutic Mechanisms

There was considerable agreement among the art therapists whose clinical perspectives were included in the analysis about core therapeutic mechanisms and about conceptual models that explain how art therapy can help reduce positive symptoms of PTSD, such as intrusive thoughts and hyper-arousal, and less obvious negative symptoms such as avoidance and emotional numbing. The thematic analysis revealed seven primary therapeutic mechanisms: Reconsolidation of memories, externalization, progressive exposure, reduction of arousal, reactivation of positive emotion, enhancement of emotional self-efficacy, and improved self-esteem

Therapy Methods

There was overall agreement that emotional safety, self-efficacy, and self-worth must be developed as a foundation for further therapeutic work. There were mixed views about whether sessions should be structured or unstructured and whether or not there is a role for free art making without instructions from the art therapist. A range of media and types of art activities were recommended, including collage, drawing, painting and quilting. Despite the benefits of art therapy as a treatment for PTSD and the prevalence of PTSD with war veterans, only a few small studies have explored the use of art therapy with this specific population. However, they have yielded promising results.

Art Therapy and Combat-Related PTSD: Major Research

Golub (1985) studied art work produced by ten war veterans of the Vietnam War in art therapy 15 years after their experiences of combat. Golub noticed symbolic trends representing dualities or opposites in the veterans' self-representations. The types of opposites represented symbolically were: representations of the self before and after Vietnam, as living and dead, as victim and agent, and as soldier and civilian. Golub believed that his symbolism in the artwork of

her clients helped them to successfully view their problems in a different manner and discover alternative solutions. The veterans also demonstrated a need to express emotions paired with anxiety about being overwhelmed (Golub). Golub believes these opposites may be the result of a splitting in the veterans' views of the self. She suggests that this would be particularly likely with this population because the veterans, who were late adolescents at the time of the war, would have been at a vulnerable stage in self-development. Golub suggests that through art therapy, the veterans were able to work towards self-integration and mastery of the trauma.

In another study, Morgan and Johnson (1995) studied the effect of art therapy on a specific intrusive symptom of combat-related PTSD: nightmares. Their study, which involved two Vietnam veterans, compared the effect of drawing immediately after awakening from a nightmare with a similar writing condition. Their results showed that the drawing condition resulted in a reduction in the number and intensity of nightmares in both subjects. In addition they note improvement in the ability to return to sleep and a reduction in startle response upon awakening. The veterans reported feeling more detached from their dreams after the drawing task. They were more aware that they were dreaming and began viewing scenes in their dreams from an aerial perspective. The authors attribute the success of the art condition to the distancing, reality testing, and concretizing characteristics of art making, as well as the sense of mastery achieved by the creation of the art work. The authors report that the subjects experienced frustration during the writing condition, and highlight the difficulty of expressing intense emotions through words.

In a small study designed to identify which components of a specialized inpatient PTSD program (SIPU) were most effective, Johnson and colleagues (1997) found that art therapy was the only component among 15 standard SIPU components such as group therapy, drama therapy, community service, anger management, and journaling, that produced the greatest benefits for veterans with the most severe PTSD symptoms. Single session effects of all treatment methods on 25 veterans over 16 weeks were assessed using a self-report instrument that was given to the veterans before and after each treatment. Veterans also rated the effectiveness of each treatment component at discharge. The results of this study showed that art therapy was the treatment that was the most successful with the veterans with the most severe symptoms of PTSD.

All other modalities were more successful with veterans with less severe symptoms. Johnson et al. believe that the creative arts therapies have the dual advantage of being action oriented, while also incorporating psychological content. They also found art therapy to be exceptional in that the veterans could tolerate war-zone content during art therapy and could not do so during other activities. The authors surmise that art therapy was more effective than other therapies because it provided pleasurable distraction in conjunction with exposure to difficult content and thus allowed traumatic material to be processed without the negative short-term side effects of verbal introspective interventions. Johnson et al. suggest that re-experiencing and avoidance symptoms of PTSD are addressed by the exposure-based mechanisms of the creative arts therapies, whereas hyper arousal symptoms are dealt with by relaxation and distraction-based mechanisms. Commenting on this study, Allan Schore, associate clinical professor of psychiatry and bio-behavioral sciences at UCLA's School of Medicine, says that traumatic and stressful memories are stored in the right hemisphere of the brain, which processes emotions, visual and non-conscious information. The left brain controls logical thinking and verbal skills. "Making art

activates the right brain, talking about it and constructing a coherent story about the traumatic experience activates the left hemisphere as well. Integrating the two leads to healing", says Schore.

In a more recent pilot study on group art therapy with 15 veterans, Dobbs (2002) found that feelings of anxiety and depression decreased over 8 weeks of treatment (although not at statistically significant levels). The artwork and individual comments also indicate that the group intervention is a positive experience for most of the veterans.

A research study by Rankin and Taucher (2003) which employed the case study method to document the progress of ten war veterans as they received art therapy paired with relaxation training reflects many of the current art therapy treatments for trauma. They emphasize the usefulness of trauma-focused art therapy for promoting expression of emotional, physical, and mental states, for constructing a narrative of trauma that ties together feelings, thoughts, and behaviors, and for exploring meaning regarding these aspects of the trauma experience. They also emphasize that art therapy helps in the management of stress, physical symptoms, intrusive or avoidant symptoms, behaviors and affect, as well as ultimately promoting an integration of the trauma event into the patient's life history.

Avrahami (2006) presents her description of the treatment of two traumatized war veterans by employing visual art therapy over a period of 6 months, with weekly one hour sessions with each client. The two case studies in this paper demonstrate visual art therapy to be an integrative approach, which is most appropriate for the multidimensional treatment of post-traumatic stress disorder (PTSD). The unique contribution of visual art therapy in the treatment of PTSD is expressed in three major areas: (1) working on traumatic memories, (2) the process of symbolization-integration, and (3) containment, transference and counter-transference. Like Golub (1985), Avrahami postulates that the symbolic images spontaneously emerging in the client's artwork is the core of the healing process and has the ability to contain and ameliorate the dissociative character of the trauma. The symbolic image presents things in a manner that is tangible, concrete and with boundaries, giving clients a sense of order, a kind of completeness, and a sense that sees the parts stored away and contained as a whole, protected unit within the medium of art.

Coulter (2008) described the long-term art therapy treatment of an Australian Vietnam War veteran with PTSD. Coulter uses this case study in order to demonstrate how art therapy can facilitate the safe exploration of feelings of anger and resentment and can provide an expressive outlet for self-harming behavior. Coulter suggests that engaging in art therapy "provided a channel for internalized and repressed anger, disillusionment and alienation to be externalized and explored in therapeutic safety"

Miller (2010) used the exploratory case study method to follow the art therapy process of a group of seven war veterans with PTSD suffering from various problems including chronic pain, isolation, depression, thoughts of suicide, insomnia, anxiety, etc. Six of the participants were men and one was a woman, and their ages ranged from 28 years to 56 years. Their years of service and amount of combat experience varied. Group art therapy took place in an inpatient unit for veterans experiencing mental health issues related to their service (in Canada). Art therapy was offered twice a week and a variety of art supplies including paints, clay, markers, charcoal, and images for

collages were provided. Data collected over a period of ten weeks included images of the art works created in therapy, therapist observations, and observations by other staff members. The process of art therapy was described and data was looked at in terms of how the veterans engaged with the process, and the issues and emotions expressed in their art making. Miller said that "Through art, participants were able to express positive feelings, externalize difficult emotions and gain insight into their PTSD symptoms. Art-making fostered discussion and allowed veterans to show empathy for one another." She also stated that group dynamics played a key role in the study: "Through the process of creating and discussing art with peers, participants were able to open up and express important thoughts and emotions in an atmosphere of mutual support

All the studies discussed above used small samples, (some as small as two or three) and most of them were necessarily time-limited, which implies not only that the results of these study may be atypical and may not generalize to other similar populations, but also that long-term effects of the treatment were not assessed by them. Indeed, while short-term treatments did prove to alleviate the avoidant symptoms of PTSD, various other symptoms, such as arousal symptoms, were unaffected in the short term. This indicates, firstly, the need for longer-duration studies to explore fully the potential benefits of art therapy, and secondly, the use of larger samples for better generalizability and applicability of the results.

When seen in terms of the characteristics and exact nature of the samples chosen for these studies, most studies had North American, white male participants. Thus the results obtained in these studies are not necessarily fully applicable to combat veterans from other countries having rather different cultures, since the culture which an individual lives in affects his perception and experience of life events. This means that the experience of combat trauma may be approached and handled quite differently by war veterans belonging to different cultures. In addition, the attitude towards engaging in various forms of art, and consequently the potential therapeutic benefits derived from engaging in art therapy, may also vary greatly from culture to culture. Indeed, a study by Kulka et al. (1990) shows that African-American and Hispanic veterans experience trauma very differently from their white counterparts. Moreover, various personal and ethnic factors, such as childhood and family background; premilitary factors, such as the presence of a predisposition in the individual's personality to develop certain mental disorders; military factors, such as the actual amount and type of war-zone exposure faced by an individual; and post-military factors, such as the coping resources available to the veteran, will form a complex combination and influence his/her response to any mode of treatment. Therefore these variables must be subjected to a degree of control, while the effect (on the results) of those variables which cannot be controlled must be acknowledged and analyzed in a suitable context. The effect of cultural and ethnic differences is an important factor for consideration in not only studies employing art therapy, but those utilizing any mode of treatment.

Fourthly, sensitivity to the gender ratio of the samples used in the aforementioned studies is extremely important. As mentioned earlier, most studies used all-male samples, while those which did have female participants, had a vast majority of male participants. Just as there are cultural and ethnic differences in the development and experience of combat-related trauma, and in the efficacy of treatment using art therapy, so are there gender differences. There has been far less research on the unique nature of trauma faced by female war veterans, which is often complicated by sexual assault and harassment in addition to war zone stressors. Thus, future studies must also

reflect attempts to achieve more equitable gender representation in the samples chosen. These will not only be a move towards greater generalisability, but also towards reduction of the prevalent gender bias in psychological research.

Fifthly, the age-range of the participants chosen for a majority of the aforementioned studies was thirty to forty years of age. Research on Combat-Related PTSD shows that the age of joining the military and the age at which the trauma is experienced can majorly change the degree of vulnerability to development of mental disorders, and the time taken for the efficacy of the treatment modality to be established. The lesser the age at which the trauma is experienced, the more intense is its impact, and more the vulnerability towards developing severe PTSD. Thus the age range of the sample chosen is another factor which influenced the outcome of the above studies, and must be taken into consideration while interpreting the results.

Furthermore, a majority of these studies employed the case study method. This in-depth, longitudinal examination of a single instance or event provides valuable information about the specific case studied and about similar groups or individuals, but the completely open and uncontrolled environment in which it takes place eliminates its usefulness as an indicator of cause and effect since the variables in the study are uncontrolled. Thus case studies lend themselves only to generating hypotheses, which can be supported or refuted by the use another research method. Also, while a case study may employ both qualitative and quantitative methods to gather data, most of the aforementioned studies relied solely on qualitative data. This indicates that there is a need for outcome studies, investigations that use quantitative methods as well and give empirical evidence of art therapy's beneficial effects. In order for such studies to embody a sound research methodology there must be control groups, that is, comparable groups of patients who did not receive art therapy and whose condition, therefore, did not improve, thus demonstrating that art therapy was the curative force. Obviously, since many factors play a part in a patient's change, isolating the art therapy variable in this way is very difficult (Wadson, 1980). The above studies can thus serve as preliminaries for a larger scale outcome study on the efficacy of art therapy with war veterans experiencing combat-related PTSD.

Given the increasing incidence of PTSD among combat veterans and the various shortcomings of standard treatments for PTSD, there is a constant need to explore promising alternative treatments. Art therapy shows promise as a treatment for combat-related PTSD that can reduce immediate symptoms, can help overcome avoidance and emotional numbing, and can facilitate the organization and integration of traumatic memories in ways that may not be possible with words alone. Moreover there is a larger body of literature supporting the use of art therapy for treating a variety of traumas and their associated symptoms. The compelling evidence gathered so far suggests that art therapy should be thoroughly integrated within the mental health and trauma response systems of any nation. Such institutional change will not happen in the absence of empirical evidence from large-scale, peer reviewed, multi-year studies that use control groups to compare the effect of art therapy to other treatments. A significant research effort is thus warranted to test the efficacy of art therapy for PTSD treatment and to improve services for veterans as well as the many other individuals who suffer from this debilitating disorder.

