Urbanisation Led Psychosomatic Diseases

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Abstract— Psychosomatic diseases due to effect of the urbanization and environmental stress on the people in Delhi-NCR have been studied with an objective to assess and to explore the coping strategies adopted by the people to combat the outcomes of Urban Environmental Stress. It can be indicated that though people described the city as pleasant, a high level of stress is still perceived and its major reasons are: noise, waste accumulation, polluted air with smoke, unhealthy environment along with accumulated stress due to negations thoughts and emotions. It is crucial for the wellbeing of the inhabitants to lower down the effect of stresses, so that the life in the city can be livable and of good quality and to heal Psychosomatic diseases like mood, anxiety disorders, loss of memory, diabetes, obesity, hypertension, cardiovascular disease, thyroid, chronic pain & arthritis, migraine, respiratory disorder including asthma, liver cirrhosis, hepatitis, sleep disorders, kidney problems, allergies, muscular atrophy etc. are more prevalent in city dwellers and the incidence of schizophrenia is strongly increased in people born and raised in cities. In the present study, it will be shown using Psycho Neurobics, an innovative techniques designed by my Guru and guide Dr. Chandrashekhar Tiwari, founder president of SIGFA Institute of Research and Development, Faridabad, Haryana, India that urban upbringing and city living have dissociable impacts on social evaluative stress processing in humans. The results of this study will identify distinct neural mechanisms for an established environmental risk factor, link the urban environment for the first time to social stress processing, suggest that brain regions differ in vulnerability to this risk factor across the lifespan, and will indicate that experimental interrogation of epidemiological associations is a promising strategy in social neuroscience.

Keywords: Psychosomatic Disorders, Psycho-Neurobics

I. INTRODUCTION

Urbanization, defined as the increase in the number of cities and urban population, is not only a demographic movement but also includes, social, economic and psychological changes that constitute the demographic movement. It is a process that leads to the growth of cities due to industrialization and economic development. The rapid increase in urban population worldwide is one among the important global health issues of the 21stcentury. According to the projections of the United Nations Population Division more people in the developing world will live in urban than rural areas by 2030; two-thirds of its population is likely to be urban by 2050. The scenario in India is also affected by this trend. In India approximately 28% of the India's population lives in cities and this is expected to increase to 41% by the year 2020 (UN World Urbanization Prospects 2008).

Urbanization brings with it a unique set of advantages and disadvantages. This demographic transition is accompanied by economic growth and industrialization and by profound changes in social organization and in the pattern of family life. Urbanization affects mental health through the influence of increased stresses and factors such as overcrowded and polluted environment, high levels of violence and reduced social support.

Movement of population to urban areas has led to large number of older men and women left to look after themselves in the rural areas, while the young generation lives in the cities for livelihood. This also leads to less availability of caregivers for old people. It is worth mentioning here that majority (58%) of the world's population aged 60 years and over was already found to be living in developing countries by 2050. This proportion would have risen to 67% by 2020. Over this period of 30 years, this oldest sector of the population would have increased in number by 200% in developing countries as compared to 68% in the developed world (Anon 1994, Murray CJ, Lopez AD 1997).

Impact of urbanization is associated with an increase in psychosomatic diseases and mental disorders. The reason is that movement of people to urban area needs more facilities to be made available and infrastructure to grow. This does not happen in alignment with the increase of population. Hence, lack of adequate infrastructure increases the risk of poverty and exposure to environmental adversities. Further this also decreases social support (Desjarlais et al., 1995) as the nuclear families increase in number. Poor people experience environmental and psychological adversity that increases their vulnerability to mental disorders (Patel, 2001).

A report by World Health Organization (WHO) has enumerated that mental disorders account for nearly 12% of the global burden of disease. By 2020, these will account for nearly 15% of disability-adjusted life-years (DALYs) lost to illness. Incidentally, the burden of mental disorders is maximal in young adults, which is considered to be the most productive age of the population. Developing countries are likely to see a disproportionately large increase in the burden attributable to mental disorders in the coming decades (WHO Mental Health Context 2003).

The range of disorders and deviancies associated with urbanization is enormous. Some of the disorders are severe mental disorders, depression, substance abuse, alcoholism, crime, family disintegration and alienation. Dementia and major depression are two leading contributors, accounting, respectively, for one-quarter and one-sixth of all disability adjusted life years (DALYs) in this group. Most people with dementia live in developing countries: 60% in 2001 is projected to rise up to 71% by 2040. Rates of increase are not uniform: numbers are forecast to increase by 100% in developed countries between 2001 and 2040, but by more than 300% in India, China, South Asia and Western Pacific neighbors (Trivedi 2008).

On referring to psychiatric disorders anxiety and depression are more prevalent among urban women than men and are believed to be more prevalent in poor than in non-

poor urban neighborhoods (Naomar Almeida-Filho et al 2004). The Meta analysis by Reddy and Chandrashekhar (1998) revealed higher prevalence of mental disorders in urban area i.e., 80.6%, whereas it was 48.9% in rural area. Mental disorders primarily composed of depression and neurotic disorders.

Socioeconomic stress is considered to be affecting mental health of women. Results of randomized control trials involving individual or group counseling sessions led by community health workers or nurses, either as the principal intervention or in combination with inexpensive drug therapies have indicated the role of counseling intervention among women (Ricardo Araya et al., 2007,Vikram Patel et al., 2003). Increase of nuclear families in urban society has led to increase in cases of violence against women in general. Among them, intimate-partner violence links to alcohol abuse and women's mental health. Analysis of community-based data from eight urban areas in the developing world indicates that mental and physical abuse of women by their partners is distressingly common with negative consequences for women's physical and psychological well-being (Lori L. Heise et al 1994). Poverty and mental health have a complex and multi-dimensional relationship. The urbanization leads to forming set of group as "fringe population" who earn on daily basis (Mursaleena Islam et al 2006). An Indian study in a slum community indicates high incidence of alcoholism among men and verbal abuse of women by their husbands (Shubhangi R. Parkar, Johnson Fernandes, and Mitchell G. Weiss 2003). The WHO analysis also documented a close association between the experience of violence and women's mental health (2005). Women are particularly vulnerable and they often disproportionately bear the burden of changes associated with urbanization. Domestic violence is also highly prevalent in urban areas. In both developed and developing countries, women living in urban settings are at greatest risk to be assaulted by their intimates (Kessler RC, Sonnega A, Bromet E, Hughes M, Nelson CB (1995).

The model of cultural transformation especially from rural to urban society is considered to be one of the reasons of psychological disorder leading to psychosomatic diseases. However stress caused by transition from rural culture to urban culture cannot be denied as one of the factors leading to stress-related problems. Cultural factors interplay with urban dynamics in a unique manner. Understanding how cultural dynamics articulate with adaptation to urban life may facilitate proper management of mental disorders in cities. In the assessment and treatment of patients living in urban areas, contextual cultural factors also play an important role (Caracci G, Mezzich JE 2001).

There is a need to create awareness about mental illness across all sections of the society. Urbanization is thus seen as a natural corollary of growth. Awareness about its impact on health and more so on mental health will act as a facilitator of change in growing Indian economy. Doctors tell us time and again not to get stressed over small issues as stress can wreak havoc on our mind and body.

The term 'psychosomatic disorder' is used for a physical disease that is caused by mental factors such as negative thoughts and emotions. 'Psyche' refers to the mind and 'somatic' refers to the physical signs and symptoms that are observed for the disease. Usually, most diseases are psychosomatic as they have mental and physical components.

These disorders may not be present in the same way in every individual depending upon our mentality and temperament.

II. Causes of Psychosomatic Disorders

To an extent, most diseases are psychosomatic - involving both mind and body:

- There is a mental aspect to every physical disease. Our reaction to disease and coping with disease vary greatly from person to person e.g. the rash of psoriasis may not bother some people very much, but, the rash covering the same parts of the body in someone else may make them feel depressed and more ill.
- There can be physical effects from mental illness.

However, the term psychosomatic disorder is mainly used to mean "a physical disease that is thought to be caused, or made worse, by mental factors".

Some physical diseases are thought to be particularly prone to be made worse by mental factors such as stress and anxiety, which includes psoriasis, eczema, stomach ulcers, high blood pressure, diabetes and heart disease etc. It is thought that the actual physical part of the illness (the extent of a rash, the level of the blood pressure, etc) can be affected by mental factors. This is difficult to prove. Some people also use the term psychosomatic disorder when mental factors cause physical symptoms but where there is no physical disease, e.g. a chest pain may be caused by stress and no physical disease can be found.

Let us now look at the physical signs and symptoms of psychosomatic disorder.

III. Symptoms of Psychosomatic Disorder

We know that psychosomatic disorders usually begin in the mind and it has many symptoms, such as:

- Quickened heart rate
- Palpitation (thumping in the heart)
- Nausea
- Tremors
- Pain
- Dry mouth
- Perspiration
- Chest pain
- Rapid breathing
- Faintness
- Excess fatigue
- A knot in the stomach
- Fast breathing
- Neurologic problems
- Gastrointestinal complaints etc.

Mental conditions like depression, anxiety and stress trigger physical symptoms are not very clear. Research is still going on for specific diseases to understand the link between the psyche and symptoms.

Some reports conclude that increased nerve impulse activity when a person is anxious, depressed or stressed, may be one of the contributing factors for the physical symptoms. Sometimes, adrenaline and epinephrine releases may also

trigger physical symptoms. There have been many studies and a recent one on how stress causes illness among nurses concluded that burnout is one of the main causes of psychosomatic disorder symptoms like acidity, back pain, neck pain, forgetfulness and anger etc.

Based on the root cause of the stress and its characteristics, psychosomatic disorders are divided into different types. These are given below:

IV. TYPES OF PSYCHOSOMATIC DISORDERS

Mostly, psychosomatic disorders are caused by emotional stress. They are divided into these seven types:

A. Undifferentiated Somatoform Disorder

In this type, people experience one or more symptoms (pain, fatigue, appetite loss, and gastrointestinal symptoms) for a minimum of six months.

B. Somatization Disorder

Symptoms include pain, sexual symptoms, gastrointestinal symptoms, neurological symptoms, menstrual symptoms, and fatigue. Mostly observed in people between 18 and 30 years of age, who experience these symptoms for years without any explanation.

C. Unspecified Somatoform Disorder

Patients falsely believe that they are pregnant because of signs like termination of menstruation, fetal movement, labor pains, nausea, etc.

D. Conversion Disorder

Symptoms of this include inability to make a sound, sudden illness attacks, unconsciousness, drooping of the upper eyelids, sensation loss in one or more body parts and vision problems.

E. Illness Anxiety Disorder (Hypochondriasis)

Patients fear that they have a dangerous illness that is going to cause major harm to their body. They often visit multiple doctors to prove this.

F. Pain Disorder

Symptoms include experiencing pain in one or more parts of the body over long periods, without any explanation.
Note: Conditions like CFS and fibromyalgia, though they cannot be detected with tests, aren't simply psychosomatic.

G. Body Dysmorphic Disorder

People affected with this feel that their body is defective and often resort to cosmetic treatments to improve their appearance.

Emotional stress is often a major cause of these disorders. So, we know how the state of mind can affect our body. What we don't know yet is how to treat this condition. As the disease is not physical, unlike the symptoms, there should be a balance of emotional and physical treatment for the afflicted people. Here are the treatment options that are recommended for psychosomatic disorders.

V. METHODS TO TREAT PSYCHOSOMATIC DISORDER

1) Yoga
2) Medication
3) Fasting Therapy
4) Hypnosis
5) Cognitive Behavior Therapy, and
6) Psycho-Neurobics

A. Psycho Neurobics

Psycho-Neurobics is an innovative meditation techniques designed by my Guru and guide Dr. Chandrashekhar Tiwari, founder president of SIGFA Institute of Research and Development, Faridabad, Haryana, India for effective self-healing through complete involvement of mind, body and soul. As Aerobics is the physical exercise of pumping air into lungs, neurobics is the exercise for creating bio-electrical impulses in neuro cells/neuro transmitters by mental activities; similarly Psycho Neurobics is the exercise of mind for transferring Spiritual Energy into neuro cells by connecting Psyche (Mind) to the Supreme Source of Spiritual Energy (God).

Though meditation has been practiced for centuries involving 2D colour images, it is only recently that the effects of meditation with 3D stereographic images with hand mudras and sounds (Ras, Rang and Naad) have been studied scientifically by Dr. Chandrashekhar Tiwari. As modern science has also acknowledged the role of psyche, thought and emotions in healthy and unhealthy response in the body, the present study is designed to assess the effect of Psychoneurobics with Neurobic spa on patients of psychosomatic diseases.

VI. METHODOLOGY

The participants' rights and privacy will be protected throughout the study. The purpose of the study, the research methods and other precautions will be disclosed to the participants and their family members only.

The present study will be a Randomised Control Trial (RCT), so study will be randomly assigned to one of two groups: one (the experimental group) receiving the intervention and the other (comparison group or control) not receiving the intervention. Matching will be done on the basis of age, sex, socio-economic status, educational qualification, occupation etc. Caste and creed of the participants will not be considered at all.

From both the group, demographic and clinical data will be collected which will be included as age, gender, marital status (spouse alive/dead), education, occupation, religion, cast, type of family (living with children or not), having any insurance policy etc.

After collecting all the required information, the patients in both the groups will be informed and counseled for psychosomatic diseases. Queries asked by the patient will also be solved to decrease their anxiety level. The Experimental group will receive the intervention (Psychoneurobics and neurobic Spa). Both groups will be analyzed for the effectiveness of the Psychoneurobics.

VII. STATISTICAL DATA ANALYSIS

The data will be analyzed statically using Microsoft Excel and the descriptive statistical analysis will be represented as frequency, percentage, mean and standard deviation etc. The

inferential statistical analysis will include other tests deemed fit for the analysis of this study. The differences between anxiety level of patients with or without Psychoneurobics and neurobic spa will also be analyzed by univariate and regression analyses.

VIII. Results and Discussions

During the period of about six months, 15 upper level decision taking officers/expert and 15 lower level officers, who joined recently, have been involved for study. The upper level officers with an experience of more than 25 years have common psychosomatic diseases such as high BP, diabetes, thyroid, mood swings etc. and lower level officers does not have any psychosomatic diseases except tension for career progressions, which may lead to psychosomatic diseases in future.

The upper level officers with an experience of more than 25 years took tension for daily life, career progression, city pollution etc. and have psychosomatic diseases as high BP, diabetes, thyroid, mood swings etc. for which they are on allopathic medicines. Though these common ailments are under control with some fluctuations of medicine dosage over the years but they felt some side effects with change in attitude, behaviour and mental abilities etc. The results of self-healing by Psychoneurobics after six months are as under:

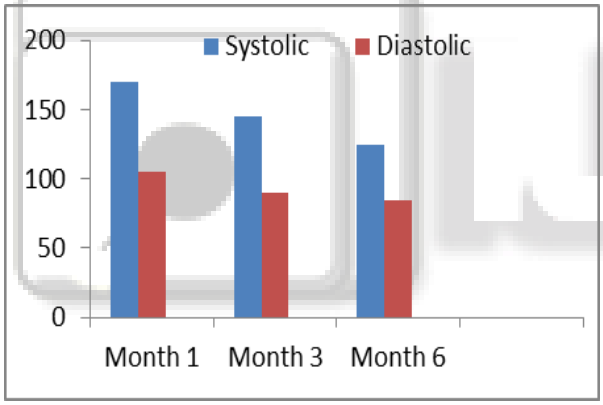

Fig. 1: Control of BP by Psychoneurobics

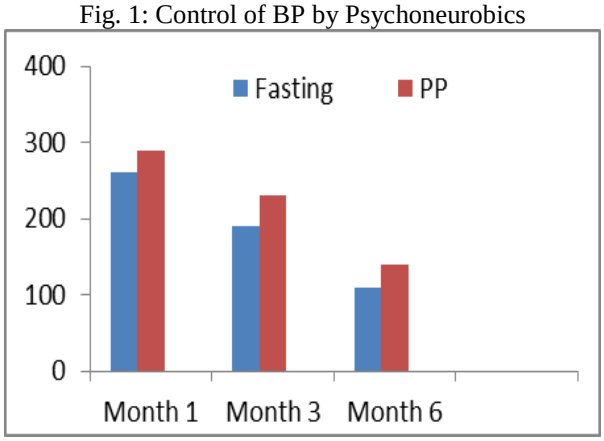

Fig. 2: Control of sugar level (fasting & PP) by Psychoneurobics

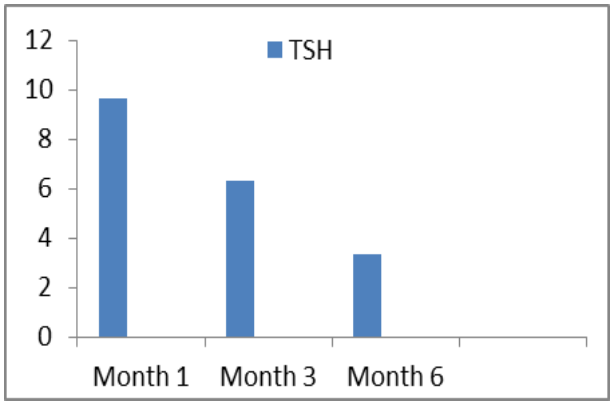

Fig. 3: Control of Thyroid by Psychoneurobics

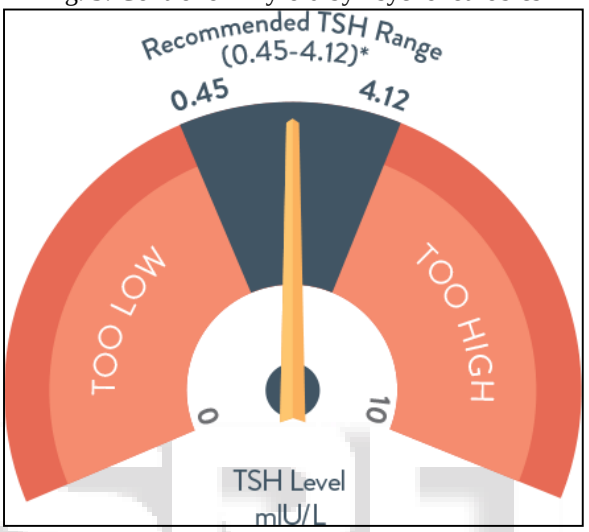

Fig. 4: TSH Range

The lower level officers do not have belief in Psychoneurobics and have not practiced properly, so their results are not adequate to depict here.

Self-healing practice of Psychoneurobics is under progress with other people covering different age, educational levels, professional levels etc. to see the efficacy of Psychoneurobics.

IX. Conclusions

The study explored various environmental stresses perceived by working city dwellers in Delhi and high levels of perceived stress causing psychosomatic diseases, as well as varying coping indices in city areas and genders, making environmental perception more stressful, but still found a sense of subjective well-being. Environmental quality and pollution levels also vary, as the entire city has not been uniformly urbanized.

One can completely get rid of psychosomatic diseases by constant practice of Psychoneurobics.

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