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Original Research Article

A study of stressful life events in an urban setting

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ABSTRACT

Background: Life events may be desirable, undesirable or ambiguous and will trigger highly individualistic reactions. These events, depending upon the nature of their occurrence, might propel an individual into working in a more productive way or they may negatively affect the person. Hence studying these life events, their interplay with human emotions is important.
Methods: This is a community based cross sectional study done in the urban field practice area of a tertiary care hospital. Participants were included in the study using systematic random sampling.
Results: Going on a pleasure trip or pilgrimage was the most commonly reported life event, followed by appearing for examination or interview. Financial problem was the most common undesirable life event as experienced by the participants.
Conclusions: Total number of life events and undesirable events are major contributors to psychological distress.

Keywords: Life events, Stress, Urban population

INTRODUCTION

"Stress is not what happens to us. It is our response to what happens."

The term stress was introduced by Canon to denote the stimuli like physical, emotional and chemical stimuli which when exceed certain amount of threshold, may lead to disturbance into the internal milieu of individuals. Some amount of stress is necessary for the functioning, motivation in life. However, if the stress increases, harmony of life may be disturbed.

Life events can be defined as any major change in person's circumstances that affects interpersonal relationships, work related, leisure and recreational activities.[1]

Stressful life events and defective coping mechanisms may lead to various diseases like cardiovascular events, hypertension, metabolic syndrome, mood disorders. Correlation has also been found with some of the psychiatric disorders. With the advent of rapidly changing life style, various life events, requires a lot of adjustments at individual, family and social levels. Those events lead to conscious and subconscious effects in the life of an individual.

Positive association has been found between the number of stressful life events and incident metabolic syndrome. A significant association between the number of stressful life events at baseline and waist circumference at follow-up was observed.[2]

Number of life events more than 3 had increased odds of moderate alcohol craving and severe craving.[3]

Higher number of stressful life events was also associated with prolonged QT interval.[4]

Stressful life events are found to be associated with psoriasis and chronic urticaria.[5]

This study was aimed at studying the occurrence of the life events among adult population of an urban community, who are not suffering from any apparent morbidity.

The urban population is more subjected to stress, owing to rapid globalisation, industrialisation, socioeconomic changes, & paradigm shift in cultural, social & familial dynamics of the society. However, studies regarding occurrence of life events in normal urban population are scarce. This study was aimed to understand the pattern of stressful life events in adults, most commonly occurring stressful life events in adults, which may help in predicting the vulnerable individuals and preventing further harmful impact.

Aim

- To study stressful life events in an urban community.

Objectives

- To identify and enlist the stressful life events experienced by the participants.
- To determine the association between various socio-demographic factors, occurrence of life events.

METHODS

Study design

A cross sectional observational study

Study area

Urban field practice area of a tertiary care hospital and a teaching medical institute.

Study period

September 2016 to December 2017.

Inclusion criteria

Residents aged 18-60 years who agreed to be the part of the study

Exclusion criteria

Exclusion criteria were any person with a history of known psychiatric illness; relatives, kith/kins who were living temporarily with the family.

Sample size estimation

Sample size is estimated using the formula $n=4pq/E^2$ which is 178.

Sampling method

Systematic random sampling

Study area consists of a 44 chawls each with 40 households. Lottery method was used for selecting houses from each chawl (44×40=1760, total number of houses. Sample size = 178 hence, 1760÷178 =9.8 i.e. 10). Hence, every 10^{th} household from that number was selected for the interview, till sample size was reached.

Study procedure

A written informed consent was taken from the participants after assuring them about anonymity. Data was collected by face to face interview.

Study tool

Presumptive stressful life events scale

This scale has been developed by Gurmeet Singh et al.[6] The scale is used for Indian population in order to study life events experienced by them.

Data was analysed using SPSS software version 22.

RESULTS

Mean age of participants was 33.7±10.8 years.

Apart from the events mentioned in the Table 2, trouble at workplace with colleagues, subordinates and seniors, illness of family members, change of residence, trouble with neighbours, change in social activities, and gain of new family members have been reported among the most commonly occurring events by the participants.

The events were further categorized into desirable, undesirable and ambiguous life events.

These ambiguous events cannot be clearly categorized into the desirable or the undesirable events and are subject to the individual reaction to them. As observed from the Table 4, change in working conditions or transfer was the most commonly reported ambiguous event (16.7%).

Average number of ambiguous events was 0.6±1.1.

Average number of undesirable life events was 1.4±1.5.

Age was significantly associated with number of life events. Apart from that, other factors like sex, marital

status, occupation, caste, religion, type of family and socioeconomic class had no significant association with number of events.

Table 1: Sociodemographic profile of participants.

Age	No of participants	Percentage (%)
18-30	89	50
31-40	44	24.7
41-50	30	16.9
51-60	15	8.4
Sex		
Male	79	44.4
Female	99	55.6
Marital status		
Married	97	54.5
Unmarried	78	43.8
Widowed	3	1.7
Family type		
Joint	25	14
Nuclear	118	66.3
3 generation	35	19.7
Education		
Illiterate	2	1.1
1st-5th std	10	5.6
6th -9th std	33	18.5
10th - 12std	43	24.2
Graduate	72	40.4
Post graduate	18	10.1
Family members		
≤5	139	78.1
6-10	37	20.8
11-15	2	1.1
Socioeconomic status		
Upper lower class	4	2.2
Lower middle class	73	41
Upper middle class	49	27.5
Upper class	52	29.2

Mean age of participants was 33.7±10.8 years.

Table 2: Five most commonly reported life events.

Life events	Frequency (%)
Going on a pleasure trip or pilgrimage	157 (90.2)
Appearing or an examination or interview	40 (23)
Financial problems	35 (20.1)
Change in working conditions / transfer	29 (16.7)
Self / family members unemployed	26 (14.9)

Table 3: List of desirable events.

Life events	Frequency (%)
Going on a pleasure trip or pilgrimage	157 (90.2)
Appearing or an examination or interview	40 (23)
Change of residence	19 (10.9)
Getting married or engaged	7 (4)
Change or expansion of business	4 (2.3)
Gain of new family member	15 (8.6)
Marriage of daughter or dependent sister	12 (6.9)
Outstanding personal achievement	10 (5.7)

Table 4: List of ambiguous events.

Life events	Frequency (%)
Change in working conditions or transfer	29 (16.7)
Change of social activities	16 (9.2)
Change of eating habits	15 (8.6)
Change in sleeping habits	15 (8.6)
Unfulfilled commitments	10 (5.7)
Spouse begins or discontinues job	5 (2.9)
Retirement	2 (1.1)
Beginning or end of schooling	2 (1.1)
Prophecy of an astrologer or palmist	2 (1.1)

Table 5: List of undesirable life events.

Life events	Frequency (%)
Financial loss or problems	35 (19.6)
Self or family member unemployed	26 (14.6)
Family conflict	24 (13.4)
Chronic Illness of a family member	21 (11.8)
Trouble at work	20 (11.2)

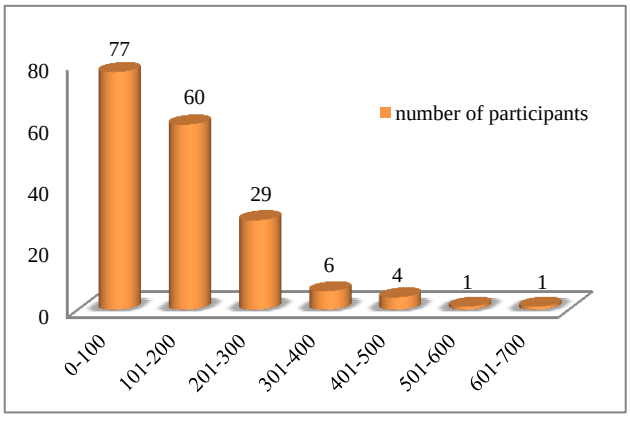

Figure 1: Weighted score of participants on PSLES.

Table 6: Factors influencing number of the events.

Sr. No	No of life events			P value
1	Sex	≤2	≥2	
	Male	35	44	0.69
	Female	41	58	
2	Age			
	≤40	50	83	0.01*
	≥40	26	19	
3	Occupation			
	employed	38	59	0.29
	unemployed	38	43	
4	Marital status			
	Married	46	51	0.37
	Unmarried	29	49	
	Widowed/widower	1	2	

DISCUSSION

In the above study 50% of the participants belonged to the age group of 18-30 while the participants belonging to age of 51-60 years were less, i.e. only 8.6%. The mean age of participants was 33.7±10.8 years. This finding was different from the study done by Singh et al where 33.5% participants were of age 45 years and above.[6] In another study done by Mattoo et al average age of participants was 37.6±9.5 years.[7]

In the study, the number of female participants (55.6%) was more than the number of male participants (44.4%). This was different from study done by Singh et al number of male participants was 60% of the sample size and number of female participants was 40%.[6]

It can be noted that 54.5% of the participants were married, 43.8% unmarried and only 1.7% were widowed or widowers. This finding might be attributed to the age wise distribution of study participants where most of the subjects belonged to younger age. In a study done by Singh et al, it was observed that 70.5% of the participants were married, 21% unmarried, 4.5% were divorced and 4% were widowed.[6] In a case control study done by Jena, 87.7% of participants were married 4.7% were single and 7.4% were widowed / separated.[8]

It was observed that 40.4% of participants were graduates while only 1.1% were illiterates. In a study done by Singh et al, it was observed that 30.5% of the participants had studied up to college, 21% each studied up to primary school and matriculation while 27.5% were illiterates.[6] In a study done by Jena et al, 83.5% of the participants in the cases group had studied only up to standard 5th only, 15.5% up to standard 6th- 9th, 1.18% up to standard 12th. Among the controls, 59.3% had studied up to 5th standard, 20% up to 6th–9th standard, and 21.7% up to 10th–12th standard.[8]

It was noted that 66.3% of participants belonged to nuclear families, 19.7% belonged to three generation family and 14% were living in a joint family. This finding reflects the changing family types, especially in urban areas where increasing number of people live in nuclear families and the number of joint families is on the decline. In the case control study done by Kumar et al on association of life events and somatoform disorder, 68% participants in cases group and 74% among controls belonged to nuclear family, 30% among cases and 24% of controls were from three generation family, and merely 2% participants, both in cases and control groups were from joint family.[9]

90.2% participants reported going on a pleasure trip or pilgrimage followed by 23% reported appearing for examination or interview. These findings can be attributed to the fact that study participants mostly belonged to 18-30 age group and are more likely to go for the trip and also appear for the examination or interviews. On the other hand, in a study done in mainland China, "normal" subjects who were sampled from 24 sites and "Problems with Interpersonal Relationship" was the most commonly encountered psychosocial stressor in Chinese daily life. About 34% of normal Chinese subjects were stressed by being misunderstood or berated; 17% of married persons experienced difficulties with child rearing; 15% of married women had troubles with mothers-in-law.[10] In a study done by Singh et al, it was observed that average number of events occurring in lifetime was 10.34±5.4 and for one year, it was 1.9±2.6.[6]

Average number of desirable life events was 1.5±0.9. In a study done by Singh et al categorization of events was done and consisted of 10 desirable events.[6] Average number of undesirable life events was 1.4±1.5 with financial problem being the most commonly undesirable reported event. In a study done by Mattoo et al among the alcohol and opioid dependent men, range of undesirable life events was observed between 0-4.[7] In a study done by Sharma et al financial problems was the most commonly associated undesirable life event in the patients of depression.[11] Average number of ambiguous events reported was 0.6±1.1. Here change in working condition or transfer was the most commonly reported event, followed by change in social habits 43.3%.

43.2% participants scored between 0-100 and the number of participants with high scores decreased with increasing scores. This finding might be attributed to the fact that general population is less likely to experience severe life events with higher weighted scores.

Gender of the participants had no significant effect on the number of occurrence of the events. Events were equally distributed in both males and females. This finding was consistent with the findings of study done by Singh et al where no significant difference was observed in the number of the stressful events experienced by the participants based on their gender.[6]

It was observed that, participants below the age of 40 years reported more number of stressful life events. This might be because of the fact that participants below the age of 40 are more likely to experience stressful events related to work, finance and family conflict while those above that age, study participants are more likely to have stability in life and have lesser chances of experiencing workplace troubles. It might also be attributed to recall bias in participants with age above 40 years, while younger participants are more likely to remember and report events experienced by them. This finding differs from the findings by Singh et al where the number of events experienced by the participants was not associated with their age.[6]

CONCLUSION

Average number of desirable and undesirable life events was almost similar. Financial difficulty was the most commonly reported undesirable life event. Life events are not however solely responsible for psychological distress. Those events, if persistent for a long time will be root cause of further distress and illness. Hence identification of distressful events in normal population is necessary. Identifying vulnerable individuals who are facing more number of stressful life events, and psychological help should be given if an individual experiences difficulty to face a situation. Increase in awareness in the community about the stressful life events and their effect should be made a priority.

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