

Coping Strategies and Perception toward Drugs, Electronic Gadgets, and Media in Relation to Stress: A Cross-sectional Study among Residents of a Suburban Area

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Abstract

Background and Objectives: Stress is an indispensable part of modern-day living. The study deals with coping strategies by the participants and their perception toward drugs, electronic gadgets, and media as stress creators, busters, or relievers. **Materials and Methods:** A cross-sectional study was conducted among 400 community dwellers in a suburban area of Delhi. A structured questionnaire with Likert scale was used to assess coping strategies to stress and perception of use of electronic gadgets, media, and substance abuse as stress creators, busters, and relievers. **Results:** For coping strategies, 52.8% (95% confidence interval: 47.73–57.73) of the participants wanted to discuss problems with their families, but others considered mobile phones (51.5%, 46.48, 56.50), television (70.5%, 65.77, 74.93), and social networking sites (33.5%, 28.89, 38.36) to be their stress busters than creators. An age-associated statistically significant difference in perception about stress creator and buster scores between younger versus older was observed ($P = 0.000$), whereas gender-wise males perceived substance abuse to be a stress reliever in contrast to females ($P = 0.000$). **Conclusion:** Family plays an important role in the mitigation of stress. However, excess reliance on social media by younger people and substance abuse by males in stressful situations need to be addressed adequately.

Keywords: Buster, coping, creator, electronic gadgets, reliever, social media, stress

INTRODUCTION

Stress is an inevitable occurrence of the modern era. With the rapidly changing lifestyles and social structures, the ability to deal with stress and reduce its effects is important to live a balanced and healthy life. In dealing with stress, Individual's family support and his coping skills plays vital role. One of the definitions of coping is "the constantly changing cognitive and behavioral efforts to manage specific external and internal demands that are appraised as taxing or exceeding the resources of a person."^[1] Coping strategies have been identified and critiqued extensively by various researchers.^[2,3]

A major evolution from the past is the presence of technology-driven social media and mobile phone usage in modern-day life. They are fast becoming a necessity for home or work, but their role as a stress creator or buster is a matter of debate. Younger generation constitutes a major cohort of social media usage. However, its excessive usage

may have a negative impact on the mental health of youth. A systematic review on social media and psychological distress among the youth indicated that the use of social networking sites was directly related to psychological distress in the youth.^[4]

The present study was planned in a suburban area of Delhi to assess the coping strategies adopted by the participants for stress and their perception towards drugs and social media as stress creators, busters, or relievers.

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MATERIALS AND METHODS

After obtaining ethical clearance from the Institutional Ethics Committee, this cross-sectional survey was carried out in the year 2017 among community dwellers in a semi-urban population in New Delhi, the urban field practice area of Army College of Medical Science (ACMS), Delhi. As prevalence estimates of stressors in this community were not available, a hypothetical prevalence of 50% was assumed for this study. A sample size of 384 was calculated with alpha error set to 05% and absolute error 05%, and to cater to any refusal, a total of 400 participants were approached. The details regarding inclusion criteria, exclusion criteria, study design, sample size, and data collection have been published earlier and may be referred to for detailed methodology.^[5] In summary, adults and children aged 14 years and above permanently residing (1 year or more) in the geographic area of Nangal were included and migrant population were excluded from the study. A trained medico-social worker from the Department of Community Medicine, ACMS, conducted the survey by door-to-door visit in the field, after appropriate training and observation. The pretested structured questionnaire was administered using the interview method.

The questionnaire included coping strategies to stress and perception of use of electronic gadget (mobile phones), electronic media (television and social networking sites), and substance use (smoking, alcohol, and illicit drugs) as stress creators, busters, and relievers. A 3-point Likert scale was used. The responses to each point of the scale were summed up to obtain a stress creator/buster score. Similarly, a stress reliever score for substance use was estimated.

Data analysis

SPSS (version 22 IBM Corp) (IBM Statistics version, 22.0 Armonk, New York US IBM Corp.) was used for data analysis. Data were presented as frequencies (percentage). Nonparametric tests – Kruskal–Wallis one-way analysis of variance of ranks and Mann–Whitney *U*-test – were used in the analysis of stress creator, reliever, and buster scores for age and gender, respectively. *P* < 0.05 was taken as significant.

RESULTS

The age of the participants ranged from 14 to 79 years with a median of 32, with 205 (51.2%) males and 195 (48.8%) females. About 67.5% were married and predominantly belonged to Hindus (94.2%) community with 3.3% Muslims. More than half of the participants belonged to a nuclear family (57.3%) and 48.8% of them belonged to a lower socioeconomic status (modified Kuppaswamy scale).^[6] Among the participants, 11% consumed alcohol and 10.8% were smokers.

On inquiring about ways of coping with stress, 52.8% of the participants preferred to discuss problems with their families and with friends (35.8%), while 42.8% preferred to remain alone. Furthermore, 7.5% of the participants harbored feelings

of wanting to harm the person responsible for it or wanting to deliberately self-harm (4.5%) [Table 1].

More number of participants agreed on mobile phones (51.5%), television (70.5%), and social networking sites (33.5%) to be stress busters than creators. For use of illicit drugs in relieving stress, 81.8% gave a neutral response to the question, while 14.5% disagreed and 3.8% agreed to it [Figure 1].

The above responses were analyzed according to age and gender. The Kruskal–Wallis *H*-test showed that there was a statistically significant difference in stress creator score (*P* = 0.000) and buster score (*P* = 0.000) between different age groups. The results indicate that younger participants perceived mobile phones, television, and social networking sites to be stress busters than creators, and contrary results were observed for older participants. There was no difference observed for stress reliever scores for different age groups [Table 2].

More males than females perceived smoking, alcohol, and use of drugs to be stress relievers, the difference was statistically significant (*P* = 0.000). There was no difference observed for stress creator score and buster score with respect to gender [Table 3].

Table 1: Coping strategies for stress (n=400)

Coping strategies	n (%)
Discuss problems with colleagues/friends	143 (35.8)
Discuss problem with your families	211 (52.8)
Regular meditation/yoga/prayer	142 (35.5)
Physical exercise/sports	37 (9.3)
Music/television	109 (27.3)
Balanced diet	12 (3)
Managing calmness in stressful situations	58 (14.5)
Have a positive attitude toward life	19 (4.8)
To remain alone	171 (42.8)
Harmony towards self	30 (7.5)
Negative self-talk	52 (13)
Use alcohol, smoking, or drugs	36 (9)
Want to deliberately self-harm	18 (4.5)
Want to harm the person responsible for it	29 (7.2)

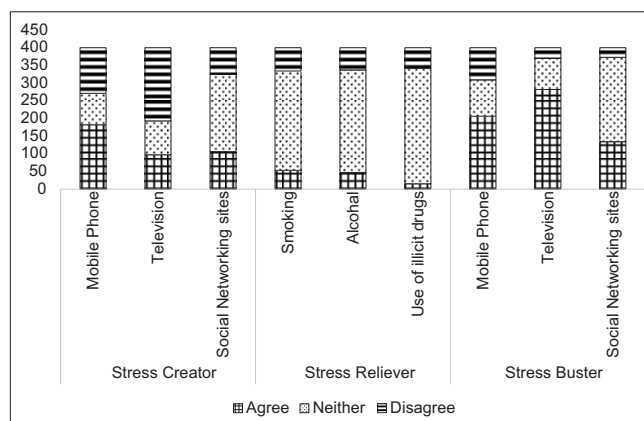


Figure 1: Stress creator/reliever/buster

Table 2: Stress creator/reliever/buster with age independently (using Kruskal-Wallis H-test)

Score	Age (years)	Mean rank	χ^2, P
Creator score	<18	250.32	15.71, 0.000
	18-48	190.98	
	≥49	188.56	
Reliever score	<18	205.20	4.026, 0.134
	18-48	206.10	
	≥49	182.93	
Buster score	<18	102.34	82.995, 0.000
	18-48	202.71	
	≥49	265.92	

Table 3: Stress creator/reliever/buster with gender (using Mann-Whitney U-test)

Score	Gender	Mean rank	Mann-Whitney U-test, P
Creator score	Male	194.55	18768, 0.284
	Female	206.75	
Reliever score	Male	169.14	13559.5, 0.000
	Female	233.46	
Buster score	Male	206.56	18746, 0.272
	Female	194.13	

DISCUSSION

More than half of the participants preferred to discuss problems with their families during stress. A study conducted regarding prevalence of stress among nurses in rural India,^[7] prominent stress relieving factors observed, were support from friends, family and colleagues. In another study among married women in Chennai,^[8] it was found that most of the married women relieve their stress by spending time on family and entertainment, yet some were relieved of their stress through yoga. A community-based study from Malaysia showed that the highest percentage of coping skills among the community were to keep calm (14.4%), followed by relaxing and worshipping with the percentage of 12.8% and 11.8%, respectively.^[9]

A study among university students, Malaysia, found that the students used active coping strategies (active coping, religious coping, positive reframing, planning, and acceptance) more than avoidant strategies (denial, self-blame, and alcohol or substance use).^[10]

In our study, it was alarming to find that some of the participants (7.5%) harbored feelings to harm others when in stress or deliberately self-harm (4.5%). A similar finding was found in a systemic review of life events and suicidal ideation and behavior in the US in the year 2013 on 95 articles. It was found that relation with stressors (negative life events) was stronger for severe forms of ideation and behavior.^[11] Similarly, lifetime suicidal ideation was reported by 18.8% of adult respondents in a longitudinal study among Australian men in the year 2016.^[12] Similarly, a systematic review and meta-analysis in the year 2019 found that stressful life events were associated with a 45% increased risk for

suicidal ideation (odds ratio: 1.45, 95% confidence interval: 1.20–1.75).^[13] These are likely symptoms of severe stress that warrant urgent medical attention, signifying the individual's inability to effectively cope up with stress.

Younger age groups were more likely to consider gadgets (mobile phones and TV) and social media to be stress busters, while the opposite was true for the older age group in the study. One reason for this could be that social media and gadgets enjoy more popularity in the younger generation as compared to the older generation who may find difficulty in orienting to new technologies which are evolving by the day.

In the present study, more males than females perceived smoking, alcohol, and use of drugs to be stress relievers ($P = 0.000$). Similarly, in a study on adult polish,^[14] men more often than women chose psychoactive substances. In contrast, a study among Korean adults found a statistically significant association between stress and smoking, and the association was stronger in girls than in boys.^[15]

Males and females did not differ in their perception of gadgets (mobile phones and TV) and social media as either stress creators or busters in our study. In a survey on psychological stress and social media use among American adults, the frequency of Internet and social media use had no direct relationship to stress in men, while for women, the use of some technologies was tied to lower stress.^[16]

CONCLUSION

Discussing problems with family during stress emerged as a major coping strategy in the study. With differing perceptions regarding stress creators and busters among different age groups, we need to engage with various groups for specific, targeted interventions based on grounded data. Substance abuse is another field that needs urgent attention and interventions for specific groups.

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Conflicts of interest

There are no conflicts of interest.

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