



GENDER DIFFERENCES IN REACTION TO STRESSORS IN UNDERGRADUATE MEDICAL STUDENTS

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Abstract

Stress is prevalent among medical professionals and the medical students are under significant training stress which can cause distress and influence health outcomes. The purpose of the study was to determine the gender differences in reaction to stressors in medical Education. In all, 388 male medical students and 347 from female medical students during the academic year 2014-2015 selected as a sample size for the study. The reaction to stressors measure through standardised Inventory. The result reveals that only significant differences were found in Physiological Reactions to stressors. However no significant difference of reaction to stressors was found between male and female medical students .

INTRODUCTION

Reactions to stressors refer to the state of physical or psychological arousal that usually results from the perception of stress (Thoits, 1995). Gender refers to the social roles of men and women, which usually have a profound effect on the use and management of natural resources. Gender is not based on sex, or the biological differences between men and women. Gender is shaped by culture, social relations, and natural environments. Students experience physical and psychological reactions to stressors when they perceive excessive or negative stress. Excessive stress induces physical impairments, and it is not uncommon to find students afflicted with persistent lack of energy, loss of appetite, headaches, or gastrointestinal problems (Winkelman, 1994). The mechanism included changes in physiological functioning, increased high risk behaviour and inadequate coping, etc.. Generally we view stress as having either psychological and/or physiological reactions that negatively affect health. Stress affects people in different ways and is recognised as a cause of ill health (Ortqvist and Wincent, 2008). Female students experience greater stress from quality of friendships, love relationships and relationships with parents (Darling et.al.2007). The continuous evaluation process, exhausting work hours, striving for earning high grades, goals etc are source for stress of the students in higher education (Bond 2005 et al). Excessive stress among students may reduce effectiveness of their study which contributes to bad habits, and results in negative long term consequences, including absenteeism, poor academic performance, decline cognitive ability and institutional dropout. Social situation is another important factor in

causing stress. A more recent study showed that that social situation of the students could activate stress (Singh & Shekhar 2013).

Methods

Target Population

In all, 388 male medical students and 347 from female medical students during the academic year 2014-2015 selected as a sample size for the study. The data was collected from the medical students of Govt. Medical College Aurangabad, Govt Medical College, MGM Medical College, Aurangabad, Medical College Latur, Shankarao Chavan Medical College Nanded, Government Medical College Akola and Punjab Rao Deshmukh Medical College Amravati. Instructions were given to the students before filling these questionnaires by the Researcher or Research Assistant

Demographic information

The demographic information was collected through respondents in the form of different descriptive tests. The demographic information about, age, sex, daily smoking etc. was obtained before seeking responses.

Consent form

This form was formatted in English language & give to all participants of this study. The written consent will be taken from each subject before screening procedure.

Reaction to stressors

For assessment of reaction to stressors, the Student-life Stress Inventory (SSI) (Gadzella, 1991) was used. The inventory reflected students' life stress experiences. It consisted of 51 items describing five categories of stressors (Frustrations, Conflicts, Pressures, Changes and Self-imposed) and four categories of reactions to stressors (Physiological, Emotional, Behavioral, and Cognitive appraisal). Responses to the 51 items were made on a 5-point Likert scale from 1=never, 2=seldom, 3=occasionally, 4=often, and 5=most of the times.

Data processing:

The collected data was analyzed as a whole. The data was checked for accuracy and completeness and was coded and put up into the SPSS Descriptive statistics for all studied variables, t-test, was considered statistically technique throughout the study and the level of significant was set-up at 0.05 level.

Results of the study

The results concerning this are presented in the form of tables. For the sake of convenience and methodical presentation of the results, following order has been adopted.

Table –1.

Demographic information of medical students

Sr.No.	Demographic information	Medical Students(735)
		Percentage (%)
1	Daily Physical Exercise	18.77 % (138)
2	Use of Internet	100.00%
3	Daily smoking	09.11%(67)
4.	Any Chronic Disease	6.12% (45)

Table-1 indicates the percentage of Demographic information of medical students.

The result revealed that, 38.23% medical students engaged in daily physical exercise/sporting activity, whereas 100.00% medical students used internet. 18.77% medical students reported that they have smoked, while 6.12% medical students suffered from chronic disease.

Table – 2.

Rate of overall level of stress of Medical students

Sr. No.	Rate of stress	Medical students (No.735)
1.	Mild	48.57 % (357)
2.	Moderate	34.55%(254)
3.	Severe	16.87 %(124)

Result reveals that 48.57% Indian medical students reported mild stress, 34.55% medical students reported moderate stress and 16.87% medical students reported severe level of stress. The stress and health was mediated by coping, the procedure first time suggested by Baron and Kenny (1986).

TABLE-3

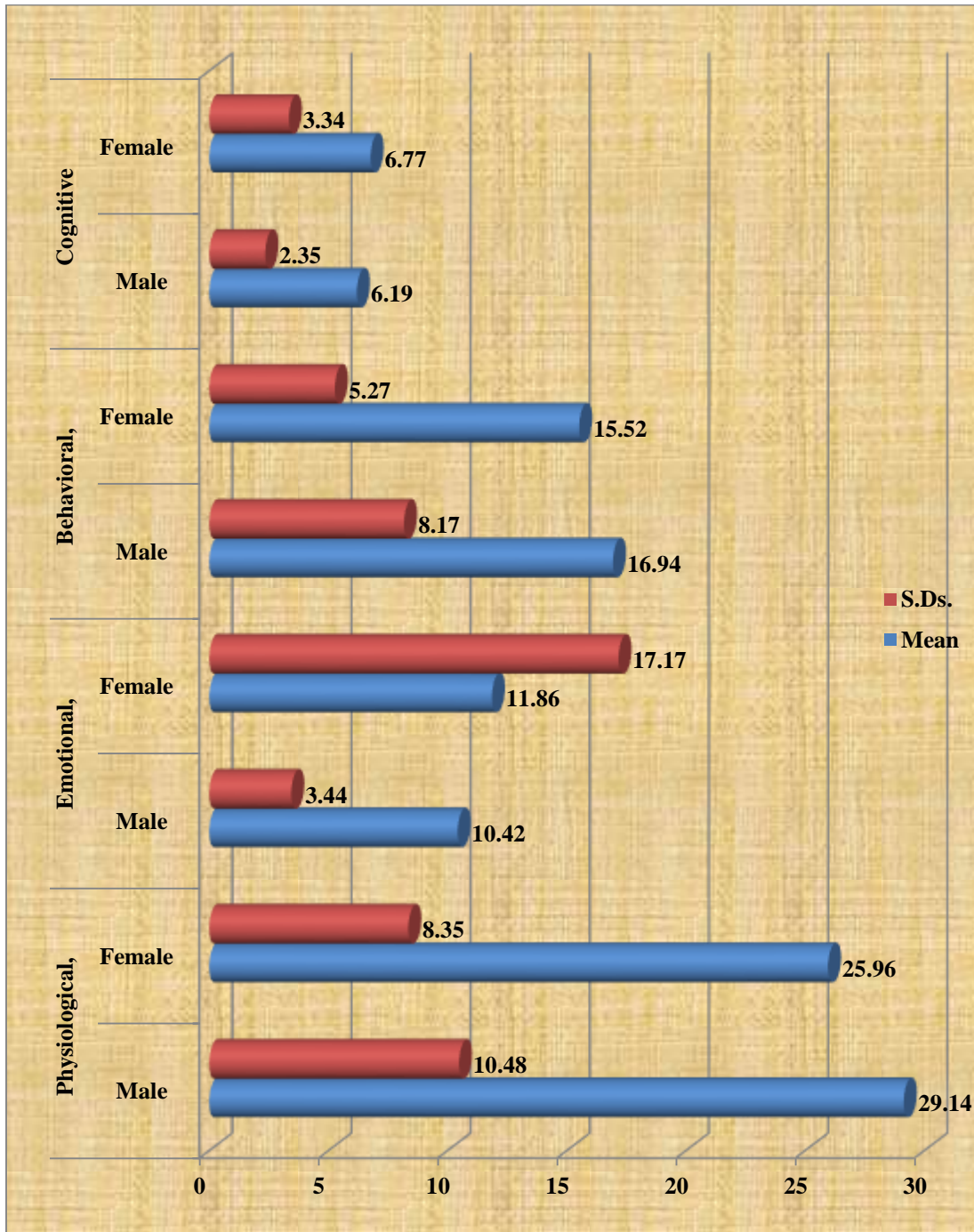
Mean scores, Standard deviation and t-ratios of Reactions to Stressors of Male and Female medical students

Reactions to Stressors	Students	Number	Mean	S.Ds.	t-ratios
Physiological,	Male	388	29.14	10.48	3.62*
	Female	347	25.96	8.35	
Emotional,	Male	388	10.42	3.44	.05
	Female	347	11.86	17.17	
Behavioral,	Male	388	16.94	8.17	.02
	Female	347	15.52	5.27	
Cognitive	Male	388	6.19	2.35	.03
	Female	347	6.77	3.34	
Reactions to Stressors	Male	388	62.71	17.78	.04
	Female	347	60.13	23.34	

* Significant at .05 level.

Table 1 depicted Mean Scores, Standard Deviation and t-ratio of the Reactions to stressors along with its four subscales of reaction to stressors between male and female Medical students. The result given in Table 7.8 reveals that insignificant difference of Reactions to stressors was found between male and female medical students ($t=.04$). In order to find out the differences of four subscales of Reactions to stressors between Male and female medical students; t-ratio was computed for each category separately. The result reveals that only significant differences was found in of Physiological Reactions to stressors ($t=3.62$, $P.<.05$), However, No significant differences were found in emotional Reactions to stressors ($t=.05$) Behavioral Reactions to stressors ($t=.02$) and cognitive Reactions to stressors ($t=.03$) between male and female medical students.

FIGURE –1
MEAN SCORES AND STANDARD DEVIATIONS OF THE REACTION TO STRESSORS BETWEEN MALE AND FEMALE MEDICAL STUDENTS



Discussion

The research findings indicates that no significant difference of reaction to stressors was found between male and female medical students. The result reveals that only significant differences were found in Physiological Reactions to stressors. Male medical students having greater Physiological Reactions to stressors as compared than female medical students, this study supported the findings of Singh (2015),but did not supported to Misra & McKean (2000) and Milkie, & Thoits, (1993) investigated that Women displayed greater Behavioral and physiological Reactions to stressors. However, No significant differences were found in emotional Reactions to stressors, Behavioral Reactions to stressors, and Cognitive Reactions to stressors between male and female medical students. Stress can cause unusual and dysfunctional behaviour at work and contribute to poor physical and mental health and it may lead to a variety of disorders and illnesses from chronic fatigue to depression (Kivimäki et al, 2002). In extreme cases, long-term stress may lead to psychological problems and be conducive to psychiatric disorders resulting in absence from work (McFarlane, 2010). Some people who experience stress may engage in unhealthy life style such as; sedentary life style drinking smoking, excessive, poor diet and little exercise (Ortqvist and Wincent, 2008). They may become distressed, irritable, enjoy their work less and feel less committed to work, have difficulty thinking logically or making decisions (Kivimäki et al, 2002; Marine and Serra, 2006). Stress produces emotional reactions ranging from exhilaration, when an event is stressful but manageable, to anxiety, anger, discouragement and depression when an event appears to be unmanageable (McVicar, 2003). The above investigations conducted on male and female student not in medical students particularly. The investigator of the study suggested that the more study need to conduct further on male and female medical students.

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