

COMPARISON OF COPING STRATEGY WITHIN UNDERGRADUATE STUDENTS OF MEDICAL EDUCATION

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Abstract: *The purpose of this study was to assess the coping strategy within undergraduate medical students. Coping is a correctly handle stressful events expending conscious effort to solve personal and interpersonal problems. Total 735 medical students from different medical college in were selected for data analysis of the study. For measure coping the Ways of Coping-Revised (WOC-R) Scale was used. The result reveals that insignificant differences were found in Coping with respect to Problem focus coping, Seeking social support, Wishful Thinking, Focusing on the positive, Self-blame and Keep of self-Coping in year wise medical students. However, significant differences were found in Detachment and Tension reduction coping in year wise medical students. Later stage medical students were found to have got more tension reduction coping as compare to their counterparts.*

Key Words: *Problem focus, Seeking social support, Wishful Thinking, Focusing on the positive, Self-blame and Keep of self*

1. INTRODUCTION :

Medical school is recognized as a stressful environment that often exerts a negative effect on the Academic performance, physical Health, and psychological well-being of the student. Numerous studies have revealed psychological morbidity in medical students including various psychological problems such as stress and depression. In a general Health survey, over 50% of medical students surveyed reported high stress (Guthrie, et al. 1998). Coping styles correctly handle stressful events (Wood,2007). Three general strategies or styles of coping with stressful situations have been identified by Kohn et al. (1994): (a) problem-focused coping, directed at remedying a threatening or harmful external situation; (b) emotion-focused coping including ventilating, managing, or relieving one's emotional response to such a situation; and (c) avoidance-focused coping involving attempts to remove oneself mentally or even physically from threatening or damaging situations. Research by Kohn et al. (1994) found that both problem-focused and emotion-focused coping were significantly related to positive adaptation to stress, while avoidance-focused coping was related to both positive and negative adaptation to stress. Other researchers (Bowman & Stern, 1995; Dunkley et al., 2000; Oakland & Ostell, 1996) have found a strong positive correlation between number of hassles and avoidant coping. However, all types of coping strategies have been found to moderate stressful experiences.

2. METHODS

2.1 Target population:

The target population was students who have been studying in Bachelor of medicine and Bachelor of surgery or equivalent Degree for academic year 2014-15. The primary data was collected through inventory and demographic information from the 1000 thousand medical students of selected medical colleges of India. After screening of questionnaires 735 medical students from different medical college were selected for data analysis of the study. The data was collected from the students of Govt. Medical College Aurangabad, Govt Medical College, MGM Medical College, Aurangabad, Shankarao Chavan Medical College Nanded, Government Medical College Akola and Punjab Rao Deshmukh Medical College Amravati.

2.2 Tools of the study:

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.

Coping.

The Ways of Coping-Revised (WOC-R) Scale was used and it was developed from a study of the ways of coping college students used to deal with an examination (Folkman & Lazarus, 1988). It included 66-items in the questionnaire asking about the cognitive and behavioural strategies that students used to deal with the internal and/ or external demands of a stressful situation encountered, which were referred to as academic stress in the current study. Items were rated by a 4-point Likert scale. There are eight subscales including Problem-focused coping, PF (11 items); Wishful thinking, WT (5-items); Detachment D (6-items); Seeking social support, SS (7-items); Focusing on the positive, POS (4-items); Self-blame, B (3-items); Tension reduction, TR (3-items) and Keep to self, KS (3-items).

2.3 Data processing:

The data was checked for accuracy and completeness and was coded and put up into the SPSS ANOVA and Scheffe post hoc test was considered statistically technique throughout the study and the level of significant was set-up at 0.05 level.

2.4 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
MEAN SCORES, STANDARD DEVIATIONS OF THE COPING AMONG YEAR WISE MEDICAL STUDENTS

Sr. No	Coping	Years wise medical students	Number	Mean Scores	Standard Deviations
1	Problem focus coping	First	368	17.83	4.97
		Second	185	17.76	4.95
		Third	142	17.69	5.12
		Fourth	40	19.42	3.73
2	Wishful Thinking	First	368	8.48	3.44
		Second	185	8.90	3.33
		Third	142	8.80	3.27
		Fourth	40	8.77	3.08
3	Detachment	First	368	9.06	3.58
		Second	185	8.95	3.21
		Third	142	9.66	3.30
		Fourth	40	10.55	2.34
4	Seeking social support	First	368	11.27	3.97
		Second	185	11.35	3.55
		Third	142	10.94	3.74
		Fourth	40	12.57	3.11
5	Focusing on the positive	First	368	7.32	2.90
		Second	185	7.02	2.66
		Third	142	6.98	2.85
		Fourth	40	7.30	1.95
6	Self-blame	First	368	5.19	1.86
		Second	185	5.09	2.03
		Third	142	5.05	1.84
		Fourth	40	5.52	1.92
7	Tension reduction	First	368	3.89	2.13
		Second	185	4.08	2.02
		Third	142	4.40	2.01
		Fourth	40	5.00	1.45
8	Keep of self	First	368	4.62	4.44
		Second	185	4.66	1.93
		Third	142	4.81	2.06
		Fourth	40	4.62	1.59

Sr. No	Coping	Years wise medical students	Number	Mean Scores	Standard Deviations
Coping		First	368	67.70	15.44
		Second	185	67.85	15.05
		Third	142	68.38	14.10
		Fourth	40	73.77	10.02

Table -1 Shows the Mean Scores, Standard Deviation of the Coping and its eight subscales of year wise medical students. The mean scores (SDs) of Coping with respect to Problem focus coping of first year medical students were obtained 17.83 (4.97), second year medical students were recoded 17.76 (4.95), third year medical students was got 17.69 (5.12) and fourth year medical students were observed 19.42 (3.73) respectively. Whereas, the mean scores (SDs) of Coping with respect to Wishful Thinking of first year medical students were obtained 8.48 (3.44), second year medical students were recoded 8.90(3.33), third year medical students was got 8.80 (3.27) and fourth year medical students were observed 8.77 (3.08) respectively.

However, the mean scores (SDs) of Coping with respect to Seeking social support Detachment of first year medical students were obtained 9.06 (3.58), second year medical students were recoded 8.95 (3.21), third year medical students was got 9.66(3.30) and fourth year medical students were observed 10.55 (2.34) respectively. Meanwhile, the mean scores (SDs) of Coping with respect to Seeking social support of first year medical students were obtained 11.27(3.97), second year medical students were recoded 11.35(3.55), third year medical students was got 10.94 (3.74) and fourth year medical students were observed 12.57(3.11) respectively. While considering, the mean scores (SDs) of Coping with respect to Focusing on the positive of first year medical students were obtained 7.32 (2.90), second year medical students were recoded 7.02 (2.66), third year medical students was got 6.98 (2.85) and fourth year medical students were observed 7.30(1.95) respectively. Meanwhile, the mean scores (SDs) of Coping with respect to Self-blame of first year medical students were obtained 5.19(1.86), second year medical students were recoded 5.09 (2.03), third year medical students was got 5.05(1.84) and fourth year medical students were observed 5.52(1.92) respectively. Meanwhile, the mean scores (SDs) of Coping with respect to tension reduction of first year medical students were obtained 3.89(2.13), second year medical students were recoded 4.08(2.02), third year medical students was got 4.40 (2.01) and fourth year medical students were observed 5.00(1.45) respectively. Meanwhile, the mean scores (SDs) of Coping with respect to keep of self of first year medical students were obtained 4.62(4.44), second year medical students were recoded 4.66(1.93), third year medical students was got 4.81(2.06) and fourth year medical students were observed 4.62(1.59) respectively. Finally, the mean scores (SDs) of Coping of first year medical students were obtained 67.70(15.44), second year medical students were recoded 67.85(15.05), third year medical students was got 68.38(14.10) and fourth year medical students were observed 73.77 (10.02) respectively.

TABLE – 2
DIFFERENCES OF COPING OF YEAR WISE MEDICAL STUDENTS

Sr. No.	Coping	Source of Variance	DF	SS	MSS	F-ratios
1.	Problem focus coping	Between groups	3	103.76	34.58	1.41
		Within groups	731	17849.21	24.41	
2.	Wishful Thinking	Between groups	3	26.85	8.95	.78
		Within groups	731	8288.14	11.33	
3.	Detachment	Between groups	3	120.50	40.17	3.50*
		Within groups	731	8368.29	11.44	
4.	Seeking social support	Between groups	3	83.78	27.92	1.94
		Within groups	731	10496.76	14.35	
5.	Focusing on the positive	Between groups	3	18.38	6.12	.78
		Within groups	731	5708.45	7.80	
6.	Self-blame	Between groups	3	7.91	2.63	.72
		Within groups	731	2666.45	3.64	
7.	Tension reduction	Between groups	3	61.13	20.38	4.82*
		Within groups	731	3085.02	4.22	
8.	Keep of self	Between groups	3	3.98	1.32	.11
		Within groups	731	8650.33	11.83	

Sr. No.	Coping	Source of Variance	DF	SS	MSS	F-ratios
		Between groups	3	1361.58	453.86	2.05
	Coping	Within groups	731	161278.6	220.62	

Significant = *

Table -2, depicted the differences of Coping along with its eight subscales of Coping among year wise Medical students. The result given in Table – 5.15 reveals that insignificant difference of Coping was found in year wise medical students ($F=2.05$). In order to find out the differences of eight subscales of Coping among year wise medical students; F-ratio was computed for each category separately. The result reveals that insignificant differences were found in Coping with respect to Problem focus coping ($F=1.41$), Seeking social support ($F=1.94$), Wishful Thinking ($F=0.78$), Focusing on the positive ($F=0.78$), Self-blame ($F=0.72$) and Keep of self Coping ($F=0.11$) in year wise medical students. However, significant differences were found in Detachment ($F=3.50, P<.05$) and Tension reduction Coping ($F=4.82, P<.05$) in year wise medical students.

TABLE-3

SCHEFFE POST HOC TEST FOR THE DIFFERENCES BETWEEN THE ADJUSTED POSTS PAIRED MEANS ON DETACHMENT OF YEAR WISE MEDICAL STUDENTS

Mean scores				Mean difference	C.D.at 0.5% level
I year	II year	III year	IV year		
9.06	8.95			0.11	1.03
9.06		9.66		0.60	0.71
9.06			10.55	1.49	1.06*
	8.95	9.66		0.71	0.74*
	8.95		10.55	1.60	1.07*
		9.66	10.55	0.89	3.53

The results of the study showed that 1) There was insignificant difference of Coping with respect to Detachment was found between first and second year medical students. 2) There was insignificant difference of Coping with respect to Detachment was found between second and third year medical students. 3) There was significant difference of Coping with respect to Detachment was found between first and fourth year medical students. 4) There was significant difference of Coping with respect to Detachment was found between second and third year medical students. 5) There was significant difference of Coping with respect to Detachment was found between second and fourth year medical students. 6) There was insignificant difference of Detachment was found between third and fourth year medical students.

TABLE-4

SCHEFFE POST HOC TEST FOR THE DIFFERENCES BETWEEN THE ADJUSTED POSTS PAIRED MEANS ON TENSION REDUCTION OF YEAR WISE MEDICAL STUDENTS

Mean scores				Mean difference	C.D.at 0.5% level
I year	II year	III year	IV year		
3.89	4.08			0.19	0.70
3.89		4.40		0.51	1.08
3.89			5.00	1.11	1.06*
	4.08	4.40		0.32	0.96
	4.08		5.00	0.92	0.91*
		4.40	5.00	0.60	1.62

The results of the study showed that 1) There was insignificant difference of Coping with respect to Tension reduction was found between first and second year medical students. 2) There was insignificant difference of Coping with respect to Tension reduction was found between first and third year medical students. 3) There was significant difference of Coping with respect to Tension reduction was found between first and fourth year medical students.. 4) There was insignificant difference of Coping with respect to Tension reduction was found between second and third year medical students. 5) There was significant difference of Coping with respect to Tension reduction was found

between second and fourth year medical students. 6) There was insignificant difference of Coping with respect to Tension reduction was found between third and fourth year medical students.

3. Discussion :

The result reveals that insignificant difference of Coping was found in year wise medical students. The findings of the study indicates that that insignificant differences were found in Coping with respect to Problem focus coping, Seeking social support, Wishful Thinking, Focusing on the positive, Self-blame and Keep of self-Coping in year wise medical students. However, significant differences were found in Detachment ($F=P<.05$) and Tension reduction Coping ($F=P<.05$) in year wise medical students. The findings of the study shows that fourth year medical students were found to have got more Detachment rather than first year medical students. The findings of the study shows that third year medical students were found to have got more Detachment rather than third year medical students. The findings of the study shows that fourth year medical students were found to have got more Detachment rather than second year medical students. **Emotional detachment** is the inability to connect to others on an emotional level as well as a means of coping with anxiety by avoiding certain situations that trigger it. It refers to the evasion of emotional connections. It may be a temporary reaction to highly emotional circumstances or a chronic condition (Williams, et.al.2011). The findings of the study shows that fourth year medical students were found to have got more Tension reduction rather than first and second year medical students. The fourth year medical students have more competitive temperament, ability to solve problem efficiently and experience may contributed to their more tension reduction Coping. The another reason for better tension reduction coping ability to fourth year medical students due to more experience and ability to face problems from long time. Stewart et. al. used the COPE, a multidimensional coping inventory which includes evaluation of both problem-focused and emotion-focused coping strategies, in studies of Hong Kong Chinese medical students (Stewart et al, 1997, Stewart et al, 1999). Studies from developing countries like Pakistan, India, Thailand and Malaysia have reported stress among medical students and have underscored the role of academics as a source of stress (Shaikh et. al, 2004; Supe, 1998; Saipanish, 2003 and Sherina, 2004). But these studies have either not assessed the coping strategies or did not use biological factor as parameter to assess stress. A study from the United Kingdom has reported a higher rate of psychological morbidity and stressors related to medical training among the first year students in a new problem-based medical curriculum (Moffat et. al, 2004). The findings of the study may aid in designing appropriate intervention strategies and planning modifications in the medical curricula to reduce stress and improve students' learning abilities.

4. Limitation :

A limitation of this study is that it reflects the findings of some medical college; the data was collected in selected medical colleges hence, the results may not be generalized to other institutions. Future research is warranted on estimating the level of coping strategy of medical students by psychometric instruments.

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