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# Scale development to measure coping mechanism among pre-university college students

### Shweta Biradar and Vinuta Muktamath

#### Abstract

The present study is an attempt to develop a scale to measure Coping Mechanism among Pre-University college students. The students of II pre-university courses (PUC) were the real and objective source to identify different behaviours of coping. So, 140 students of PUC were contacted. The information given by 140 students were pooled and the behaviours were identified. 85 different behaviours were adopted by the students. These behaviours were considered as coping mechanisms. Each of the behaviour was expressed in a statement form. Initially, there were 85 statements, these items with "Always, Sometimes, Rarely and Never" alternatives were administered on 200 II PUC students (108 male and 92 female). The data of these students were subjected to percentage, correlation and t-test analysis. Finally, 60 items were included in the coping mechanism scale.

Coping mechanism scale consisting of 60 items with 5 alternative answers such as always, most of the times, sometime, rarely and never was administered on a random sample of 150 II PUC students to judge the reliability. The coefficient of split-half reliability was 0.82, which was significant at 0.01 level of significance.

Test-retest reliability of coping mechanism scale was undertaken. The scale was administered on a sample of 35 students of I year B.H.Sc. twice with an interval of 10 days. The coefficient of test and retest scores was 0.700, which was significant at 0.00 level of significance.

Keywords: Scale development, measure coping mechanism, pre-university college students

### Introduction

Education is the process of developing the capacities and potentials of the students to prepare them to be successful in a specific society or culture. Among all these challenges, the biggest challenge which the students have to face is the pre-university examination. Adequate coping skills, adaptable cognitive and behavioural styles are vital for effective transition and adjustment to adulthood (Frydenberg and Lewis, 1993) <sup>[5]</sup>. Correspondingly, this period is considered as the most stressful time, where the students are confronted by a multitude of stressors arising from physical and cognitive development, social and emotional changes along with academic pressures and expectations. Academic achievement has become the sole yardstick of self-worth and success. (Ranga Swami, 1995) <sup>[7]</sup>.

An inability to cope with these students' challenges may lead to poor academic achievement, poor social relations and feelings of hopelessness that lead to emotional and behavioural problems and suicidal thoughts (Dixon *et al.*, 1994) <sup>[4]</sup>. Factors which may strongly influence the student's ability to cope include family life, relationship with peers and significant others, as well as his or her personality.

Students of PUC use three main strategies or modes of coping in dealing with developmental tasks in fields such as peer group, academic and future. First one include information seeking and taking advice from significant others; the second, emphasizes the student's appraisal of the situation and the search for a compromise; and the third which may be considered as dysfunctional include fatalistic attitude leading to withdrawal (Shiffge-Krenke and Shulman, 1990) [8].

Students can cope with an event in many ways, such as direct conflict, cognitive reappraisal, withdrawal and emotional defusing or focusing on positive events. Coping responses that work for one student may not work best for another. The effective coping strategies like identifying and appraising the stressful situations, effectively responding and managing one's emotions lead to the development of a balanced personality (Cobb, 1992)<sup>[3]</sup>.

The students who can meet the challenges well will emerge from the transitional period with increased abilities and resources with improved self-image.

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Scientist, Department of Home Science, ICAR – Krishi Vigyan Kendra, University of Agricultural Sciences, Dharwad, Karnataka, India On the other hand, students who do not cope with challenges effectively are at a disadvantaged and show accelerating problems with personal, social, academic and vocational adjustment.

Coping skills have also been referred to as learned resourcefulness. Learned resourcefulness is defined as, "a basic behavioural repertoire for the self-regulation of internal events" (Carey *et al.*, 1990) <sup>[2]</sup>. Those who have failed to develop strong learned resourcefulness tend to be more vulnerable and more likely to develop unhealthy addictions as means to cope. Those individuals who have higher level of learned resourcefulness/use positive coping strategies will resist negative influences. Coping consists of the things that people do to avoid being harmed by life's strains. Students especially pre-university are hit with a barrage of different life strains which will inevitably cause them to develop coping skills designed to manage their new circumstances (Aldaf, Allison and Mates, 1997) <sup>[1]</sup>.

In coping styles, the students tendency to avoid difficult situations is associated with various problems behaviours, such as depression, low psychosocial adjustment and substance use (Windle and Windle, 1996) [9]. Students of PUC face emotional and behavioural problems such as depression, anxiety, suicidal thoughts, serious attention problems, drug and alcohol abuse and delinquency. These have a direct impact on individual's scholastic achievement, families and communities at large (Patra, 2006) [6]. Very few Indian tools are available to measure the coping mechanism among cultural students that are culturally fair and region specific.

In view of this the present study was conducted with an objective to develop a scale to measure Coping Mechanism among Pre-University college students.

### Methodology

Scale development procedure involves preparing the items followed by administration of the draft scale and finally scoring the items.

# Coping mechanisms

Coping mechanisms is operationally defined as the 'constantly changing cognitive and behavioral efforts to manage specific external or internal demands that are appraised as taxing or exceeding the resources of the person'.

### Development of coping mechanism scale

The students of II pre-university courses (PUC) were the real and objective source to identify different behaviours of coping. So, 140 students of PUC were contacted. Each student was asked a question "What are the ways/the methods/the behaviours you use to reduce your tension / stress or to solve your problems?" Each student was requested to write down different ways of behaviour adopted to adjust to problematic demanding situations. The information given by 140 students were pooled and the behaviours were identified. 85 different behaviours were adopted by the students. These behaviours were considered as coping mechanisms. Each of the behaviour was expressed in a statement form. Initially, there were 85 statements, these items with "Always, ST, Rarely and Never" alternatives were administered on 200 II PUC students (108 male and 92 female). The data of these students were subjected to percentage, correlation and t-test analysis. If 5 percentage or above of the students had answered each item by selecting 'Always' alternative answer, than only it was

statistically indicative that the item had potentially to measure coping mechanism.

# Steps in development & analysis of coping mechanism scale

- Selection of item by percentage
- Selection of item by coefficient of correlation
- Selection of item by criterion groups t-value

### Selection of item by percentage

The results of Table - 1evinced frequency and percentage of the students for the alternative answers of each item. There were 4 alternative answers such as always, sometimes, rarely and never. Each student had answered each item by selecting one of the alterative answers. A total of 200 students (108 male and 92 female) had answered each item. The frequency and percentage of responses for the alternatives of each item were calculated (Table - 12). The value of the item numbers 7, 21, 22, 23, 62, 67, 68 and 69 was 4.00, 0, 0, 0 4.50, 3.50, 3.00 and 1.00 respectively was less than 5.00 per cent. These 8 items were deleted among 85 items 77 items had 5 percentage or above for 'always' alternative answer. Therefore 77 items were selected for coefficient of correlation analysis.

# Selection of item by coefficient of correlation

The results of Table - 2 represented coefficient of correlation of each item with the scale. The results of the Table - 2 established that the coefficient of correlation of each item was between 0.22 and 0.496 and was significant at least at 0.05 level. Among 77 items, the coefficient of correlation of 66 items was significant. The coefficient of correlation of the item number 14, 15, 16, 17, 24, 53, 54, 58, 75, 63 and 85 was 0.10, 0.10, 0.13, 0.10, 0.06, 0.08, 0.05, 0.06, 0.02, 0.10 and 0.11, respectively. These values were not significant even at 0.05 level of significance. Therefore, out of 77 items, 66 items were retained for criterion groups t-test analysis.

# Selection of item by criterion groups t-test analysis

The results of Table - 3 notified criterion groups t-values. The results of the Table - 3 denoted that the t-value of each statement was between 2.05 and 10.51 and was significant at least at 0.05 level. The t-value of the item number 3, 9, 47, 49, 56, 84 was 1.13, 1.71, 0.97, 1.24, 0.84 and 1.71 respectively. These statements were deleted as their criterion groups t-values was not significant even at 0.05 level of significance. Finally, 60 items were included in the coping mechanism scale.

# Validity of the scale Content validity

140 students of II PUC were the judges to identify most common behaviours of coping mechanism and another group of 200 II pre-university students was the basis for selection of items for coping mechanism scale by percentage, correlation and t-test analysis. Among 85 statements, 8 statements were deleted because they were not having potentiality to measure the specific coping mechanism. The data of remaining 77 statements was to establish internal validity (Table - 12). So, coping mechanism scale has content validity.

### Internal validity/convergent validity

The data of 77 statements of 200 II pre-university students

were subjected to analysis of coefficient of correlation. The results of Table - 3 proved that the 66 statements were having significant relation with component and total of the scale which mean that each item was having convergent validity. It indicated that the coping mechanism scale has internal validity.

## Discriminative validity

The data of 200 students on 66 items was subjected to the criterion groups t-value analysis (Table - 14). The results confirmed that 60 item out of 66 had discriminative potentiality which means that each item discriminate between the group of the individuals who had developed coping mechanism to the maximum level and also who had developed coping mechanism to the minimum level.

### Reliability

- 1. Split-half reliability: Coping mechanism scale consisting of 60 items with 5 alternative answers such as always, most of the times, sometime, rarely and never was administered on a random sample of 150 II PUC students. The data of 150 university students was subjected to split-half reliability test with Spearman Brown formula to test reliability of the scale. The coefficient of split-half reliability was 0.82, which was significant at 0.01 level of significance.
- **2. Test-retest reliability**: Test-retest reliability of coping mechanism scale was undertaken. The scale was administered on a sample of 35 students of I year B.H.Sc. twice with an interval of 10 days. The coefficient of test and retest scores was 0.700, which was significant at 0.00 level of significance.

**Table 1:** Frequency and percentage of each item of coping mechanism scale n=200

2	S. No	Statements	Always	Some times	Rarely	Never
2	1	I neglect the importance of the problem				42
1   1   1   1   1   1   1   1   1   1		Thegreet the importance of the proofein				(21.00)
1 avoid the problem	2	I neglect the importance of solution				77
1   1   1   1   1   1   1   1   1   1						(38.50)
A	3	I avoid the problem			_	(17.00)
1   1   1   1   1   1   1   1   1   1						71
S	4	I postpone to find solution				(35.50)
1	5	Look othors for hole				34
Total with problem by finding alternative solution	3	1 ask others for help				(17.00)
Tablame others for the problem#   Review   Rev	6	I deal with problem by finding alternative solution			_	19
Total problem   (4.00)   (11.00)   (25.00)		T dear with proofers of interning attenuative solution				(9.50)
1   1   1   1   2   2   4   4   4   4   4   4   4   4	7	I blame others for the problem#	-			120
Solution   Color   C						(60.00) 87
9	8	I blame existing system for the problem				(43.50)
1   1   1   1   1   1   1   1   1   1	_					84
10	9	I act the opposite of the way I feel				(42.00)
11	10	Leat priorities to solve problem			28	10
Take deep breath	10	1 set priorities to solve problem	(54.00)	(27.00)	(14.00)	(5.00)
12	11	I take deep breath	-			83
12	- 11	Take deep steam				(41.50)
Take rest	12	I drink water		_		0
13						1
14     I eat less     82 (41.00) (35.00) (10.50) (1	13	I take rest				(0.50)
14       1 eat less       (41.00)       (35.00)       (10.50)       (         15       I consume food many times in small quantities       49       63       36         (24.50)       (31.50)       (18.00)       (         16       I consume more food       38       47       36         (19.00)       (23.50)       (18.00)       (         17       I swim       47       18       13         (23.50)       (9.00)       (6.50)       (         18       I walk very fast       104       60       17         (52.00)       (30.00)       (8.50)         19       I play indoor game       68       71       25         20       I do yoga       21       31       28         (10.50)       (15.50)       (12.50)       (         21       I take sleeping pills#       0       7       0       (         22       I smoke#       0       2       2       (						27
15	14	I eat less				(13.50)
16	15	Lagranma food many times in small quantities	49	63		52
16	13	1 consume food many times in sman quantities			(18.00)	(26.00)
17	16	I consume more food				79
17	10	T consume more rood				(39.50)
18     I walk very fast     104 (52.00) (30.00) (30.00) (8.50)       19     I play indoor game     68 71 (25 (34.00)) (35.50) (12.50) (12.50) (12.50) (12.50)       20     I do yoga     21 31 (28 (10.50)) (15.50) (15.50) (14.00) (15.50) (14.00) (15.50)       21     I take sleeping pills#     0 7 (0) (3.50) 0 (15.50) (15.50	17	I swim				122
18						(61.00) 19
19     I play indoor game     68 (34.00) (35.50) (12.50) (1	18	I walk very fast				(9.50)
19     I piay indoor game     (34.00)     (35.50)     (12.50)     (       20     I do yoga     21     31     28       21     I take sleeping pills#     0     7     0     (       22     I smoke#     0     2     2       23     I sonsume sleehel#     0     5     4	10					36
20	19	I play indoor game		(35.50)	(12.50)	(18.00)
21   I take sleeping pills#   0   7   0   (10.50)   (14.00)   (15.50)   (14.00)   (15.50)   (14.00)   (15.50)   (1	20	I do voço	21	31	28	120
21	20	i do yoga	(10.50)	(15.50)	(14.00)	(60.00)
22 I smoke# 0 2 2 (0) (1.00) (1.00) (1.00) (2 3.30) (1.00)	21	I take sleeping pills#			0	193
22   I smoke#		z mine steeping pinon				(96.50)
L consume alcohol# 0 5 4	22	I smoke#	Ü	_		196 (98.00)
						191
1 (0) 1 (2.50) 1 (2.00) 1 (	23	I consume alcohol#	(0)	(2.50)	(2.00)	(95.50)
11 69 53	2.4		41			38
	24	I sleep many hours				(19.00)

		101		10	
25	I listen to music	131 (65.50)	42 (21.00)	18 (9.00)	9 (4.50)
26	I watch TV	70 (35.00)	89 (44.50)	27 (13.50)	14 (7.00)
27	I do drawing	48	73	32	47
28	I dance	(24.00)	(36.50)	(16.00)	(23.50) 85
		(15.00) 95	(21.00) 88	(21.50)	(42.50)
29	I discuss with friends	(47.50)	(44.00)	(5.50)	(3.00)
30	I discuss with mother	98 (49.00)	61 (30.50)	27 (13.50)	14 (7.00)
31	I discuss with father	58 (29.00)	82 (42.00)	34 (17.00)	26 (13.00)
32	I discuss with sister	72 (36.00)	63 (31.50)	17 (8.50)	48 (24.00)
33	I discuss with brother	73 (36.50)	75 (37.50)	10 (5.00)	42 (21.00)
34	I discuss with teachers	57 (28.50)	76 (38.00)	50 (25.00)	17 (8.50)
35	I discuss with relatives	33 (16.50)	67 (33.50)	54 (27.00)	46 (23.00)
36	I postpone the work	51 (25.50)	57 (28.50)	36 (18.00)	56 (28.00)
37	I cry	40	55	36	69
		(20.00)	(27.50)	(18.00)	(34.50)
38	I try to calm down	(75.00) 24	(17.50) 43	(6.50)	(1.00)
39	I shout	(12.00)	(21.50)	(18.00)	(48.50)
40	I do prayer	116 (58.00)	54 (27.00)	18 (9.00)	12 (6.00)
41	I try to forget the difficulty	117 (58.50)	57 (28.50)	16 (8.00)	10 (5.00)
42	I think about other activity	46 (23.00)	96 (48.00)	35 (17.50)	23 (11.50)
43	I become sad	35 (17.50)	75 (37.50)	45 (22.50)	45 (22.50)
44	I wait until feelings get better	88 (44.00)	64 (32.00)	22 (11.00)	26 (13.00)
45	I try again and again to solve the problem	125 (62.50)	47 (23.50)	19 (9.50)	9 (4.50)
46	I analyze the situation and solve the problem	106 (53)	69 (34.5)	12 (6)	13 (6.5)
47	I withdraw from the problem	23 (11.50)	49 (24.50)	59 (29.50)	69 (34.50)
48	I day dream	37	44	26	93
49	I keep the problem to oneself	(18.50) 70	(22.00) 52	(13.00)	(46.50)
50		(35.00)	(26.00)	(19.50) 29	(13.50)
	I blame myself	(29.50) 40	(28.00) 86	(14.50)	(28.00)
51	I take long bath	(20.00)	(43.00) 64	(12.00)	(25.00)
52	I behave as if not having any problem	(40.00)	(32.00)	(11.50)	(16.50)
53	I try to get sympathy from others	(20.50)	98 (49.00)	21 (10.50)	40 (20.00)
54	I read a book	153 (76.50)	38 (19.00)	(2.00)	5 (2.50)
55	I listen to natural sounds (waves, wind, waterfall, stream etc.)	109 (54.50)	59 (29.50)	22 (11.00)	10 (5.00)
56	I injure myself (cutting hand, cutting finger, scratching etc.)	11 (5.50)	40 (20.00)	22 (11.00)	127 (63.50)
57	I play computer games	47 (23.50)	57 (28.50)	33 (16.50)	63 (31.50)
58	I do not talk	17 (8.50)	54 (27.00)	39 (19.50)	90 (45.00)
59	I talk about cause of the problem	51	101	34	14

		(25.50)	(50.50)	(17.00)	(7.00)
		80	96	18	6
60	I talk about ways to solve the problem	(40.00)	(48.00)	(9.00)	(3.00)
		74	35	26	65
61	I play outdoor games	(37.00)	(17.50)	(13.00)	(32.50)
(2)	I miss classes#	9	52	25	114
62	1 miss classes#	(4.50)	(26.00)	(12.50)	(57.00)
63	I spend time with friends	63	76	39	22
03	i spend time with mends	(31.50)	(38.00)	(19.50)	(11.00)
64	I create problems in home	19	41	49	91
04	refeate problems in nome	(9.50)	(20.50)	(24.50)	(45.50)
65	I try to forget the problem by doing other activity	100	67	15	18
	They to resign the process of doing outer neutro,	(50.00)	(33.50)	(7.50)	(9.00)
66	I drink more tea/coffee	65	40	33	62
		(32.50)	(20.00)	(16.50)	(31.00)
67	I think of suicide#	7	15	21	157
		(3.50)	(7.50)	(10.50)	(78.50)
68	I take interest in sex#	6	16	(10.50)	157 (78.50)
		(3.00)	(8.00)	(10.50)	160
69	I read sex related books#	(1.00)	(9.00)	(10.00)	(80.00)
		53	85	41	21
70	I attend parties/functions	(26.50)	(42.50)	(20.50)	(10.50)
		73	65	35	27
71	I involve in performing religious activities	(36.50)	(32.50)	(17.50)	(13.50)
		71	104	20	5
72	I watch movie	(35.50)	(52.00)	(10.00)	(2.50)
72	T.C. 1.	33	81	53	33
73	I fight	(16.50)	(40.50)	(26.50)	(16.50)
74	I will not do anything	16	58	38	86
74	1 will not do anything	(8.00)	(29.00)	(19.00)	(43.00)
75	I skip meals	37	78	42	43
7.5	1 Skip medis	(18.50)	(39.00)	(21.00)	(21.50)
76	I think help would come from God	82	62	26	30
		(41.00)	(31.00)	(13.00)	(15.00)
77	I think about positive aspects of the situation	91	74	18	17
		(45.50)	(37.00)	(9.00)	(8.5.00)
78	I think that putting faith in God can only change the circumstances	93	51	(20.50)	15
		(46.50) 82	(25.50) 82	(20.50)	(7.50) 16
79	I learn new skills to tackle the problem	(41.00)	(41.00)	(10.00)	(8.00)
		97	79	15	9
80	I plan to deal with problem	(48.50)	(39.50)	(7.50)	(4.50)
		86	87	22	5
81	I visit holy places	(43.00)	(43.50)	(11.00)	(2.50)
02	T 12 (d (1 01 9 2	62	74	42	22
82	I readjust the style of daily routine	(31.00)	(37.00)	(21.00)	(11.00)
92	I engage in humour talk	73	73	32	22
83		(36.50)	(36.50)	(16.00)	(11.00)
84	I engage in self-talking	30	62	33	75
07	i chgage in sen-taining	(15.00)	(31.00)	(16.50)	(37.50)
85	I stay alone	33	58	41	68
#: Dalated str	-	(16.50)	(29.00)	(20.50)	(34.00)

<sup>#:</sup> Deleted statement

Table 2: Coefficient of correlation between each item of coping mechanism and overall scale n=200

S. No.	Statements	r
1	I neglect the importance of the problem	0.28**
2	I neglect the importance of solution	0.25**
3	I avoid the problem	0.21**
4	I postpone to find solution	0.26**
5	I ask others for help	0.21**
6	I deal with problem by finding alternative solution	0.33**
8	I blame existing system for the problem	0.31**
9	I act the opposite of the way I feel	0.19**
10	I set priorities to solve problem	0.20**
11	I take deep breath	0.34**
12	I drink water	0.14**

13 14 15 16 17 18 19 20	I take rest I eat less# I consume food many times in small quantities# I consume more food# I swim#	0.37** -0.16 <sup>NS</sup> 0.10 <sup>NS</sup> 0.13 <sup>NS</sup>
15 16 17 18 19 20	I consume food many times in small quantities# I consume more food#	0.10 <sup>NS</sup>
16 17 18 19 20	I consume more food#	
17 18 19 20		[] [ 4 140
18 19 20	l swim#	
19 20		0.10 NS
20	I walk very fast	0.26**
	I play indoor game	0.31**
2.4	I do yoga	0.22**
24	I sleep many hours#	0.06 <sup>NS</sup>
25	I listen to music	0.38**
26	I watch TV	0.37**
27	I do drawing	0.35**
28	I dance	0.31**
29	I discuss with friends	0.33**
	2 5555 555 555 555 555 555 555 555 555	0.48**
30	I discuss with mother	
31	I discuss with father	0.37**
32	I discuss with sister	0.33**
33	I discuss with brother	0.25**
34	I discuss with teachers	0.14**
35	I discuss with relatives	0.41**
36	I postpone the work	0.24**
37	I cry	0.32**
38	I try to calm down	0.22**
39	I shout	0.25**
40	I do prayer	0.23**
41	I try to forget the difficulty	0.31**
42	I think about other activity	0.43**
43	I become sad	0.35**
44	I wait until feelings get better	0.25**
45	I try again and again to solve the problem	0.27**
46	I analyze the situation and solve the problem	0.28**
47	I withdraw from the problem	0.15**
48	I day dream	0.34**
49	I keep the problem to oneself	0.19**
50	I blame myself	0.27**
51	I take long bath	0.22**
52		
	I behave as if not having any problem	0.22**
53	I try to get sympathy from others#	0.08 <sup>NS</sup>
54	I read a book#	$0.05^{NS}$
55	I listen to natural sounds (waves, wind, waterfall, stream etc.)	0.29**
56	I injure myself (cutting hand, cutting finger, scratching etc.)	0.14**
57	I play computer games	0.34**
58	I do not talk	$0.06^{\rm NS}$
59	I talk about cause of the problem	0.36**
60	I talk about ways to solve the problem	0.27**
61	I play outdoor games	0.32**
63	I spend time with friends	0.32**
	I create problems in home	0.32**
64		
65	I try to forget the problem by doing other activity	0.25**
66	I drink more tea/coffee	0.26**
70	I attend parties/functions	0.49**
71	I involve in performing religious activities	0.48**
72	I watch movie	0.37**
73	I fight	0.36**
74	I will not do anything	0.17**
75	I skip meals#	0.02NS
76	I think help would come from God	0.27**
77	I think about positive aspects of the situation	0.18*
		0.18*
78	I think that putting faith in God can only change the circumstances	
79	I learn new skills to tackle the problem	0.38**
80	I plan to deal with problem	0.28**
81	I visit holy places	0.40**
82	I readjust the style of daily routine	0.42**
83	I engage in humour talk#	0.10NS
84	I engage in self-talking	0.20**
85	I stay alone#	0.11NS

NS-Not significant

<sup>#:</sup> Deleted statement
\*\* Significant at 0.01 level

Table 3: Criterion-groups t-value of each item of coping mechanism scale n=200

S. No	Statements	Gp(1) n=54		Criterion groups (t-value)
1	I neglect the importance of the problem	2.55 (1.11)	1.98 (0.85)	3.00*
2	I neglect the importance of solution	2.16 (1.27)	1.62 (0.73)	2.69*
3	I avoid the problem#	2.92 (1.47)	2.62 (1.21)	1.13NS
4	I postpone to find solution	2.56 (1.28)	1.92 (1.06)	2.94*
5	I ask others for help	2.98 (1.29)	2.37 (1.03)	2.71*
6	I deal with problem by finding alternative solution	3.70 (1.17)	2.66 (1.13)	4.66*
8	I blame existing system for the problem	2.46 (1.29)	1.74 (0.82)	3.44*
9	I act the opposite of the way I feel#	2.35 (1.23)	1.98 (0.99)	1.71NS
10	I set priorities to solve problem	3.74 (0.87)	3.29 (1.25)	2.05*
11	I take deep breath	2.38 (1.36)	1.85 (1.01)	2.31*
12	I drink water	4.48 (0.77)	4.12 (0.80)	2.32*
13	I take rest	3.94 (1.01)	3.14 (0.97)	4.14*
18	I walk very fast	3.96 (1.13)	3.09 (1.23)	3.82*
19	I play indoor game	3.64 (1.27)	2.46 (1.07)	5.21**
20	I do yoga	2.33 (1.50)	1.40 (0.68)	4.11*
25	I listen to music	4.38 (.94)	3.22 (1.16)	5.74**
26	I watch TV	3.81 (1.08)	2.72 (1.12)	5.14**
27	I do drawing	3.16 (1.46)	2.16 (1.02)	4.11*
28	I dance	2.74 (1.34)	1.40 (0.78)	6.27**
29	I discuss with friends	4.18 (0.97)	3.01 (0.94)	0.63
30	I discuss with mother	4.29 (1.00)	2.72 (1.21)	7.32**
31	I discuss with father	3.66 (1.22)	2.46 (0.88)	5.61**
32	I discuss with sister	3.68 (1.27)	2.50 (1.14)	5.09**
33	I discuss with brother	3.74 (1.27)	2.55 (1.23)	4.89*
34	I discuss with teachers	3.55 (1.26)	2.88 (1.11)	2.90*
35	I discuss with relatives	3.14 (1.27)	1.88 (0.83)	6.04**
36	I postpone the work	2.77 (1.51)	2.24 (0.90)	2.23*
37	I cry	3.01 (1.17)	1.72 (1.03)	6.08**
38	I try to calm down	4.27 (0.95)	3.81 (0.87)	2.62*
39	I shout	2.33 (1.21)	1.75 (1.04)	2.63*
40	I do prayer	4.22 (1.09)	3.24 (1.28)	4.27*
41	I try to forget the difficulty	3.88 (1.20)	3.24 (1.08)	2.83*
42	I think about other activity	3.33 (1.06)	2.27 (0.84)	5.46**

1   1   1   1   1   1   1   1   1   1					
1	43	I become sad			4.06*
1.14   3.44   3.45   3.65   3.65   3.65   4.66   1 analyze the situation and solve the problem   0.093   0.105   0.105   0.097   0.0	44	I wait until feelings get better	3.81	2.75	4.52*
According to the situation and solve the problem   0,959   0,111   0,770   0,970   0	45	I try again and again to solve the problem	1.14	3.44	3.65*
1   1   1   1   1   1   1   1   1   1	46	I analyze the situation and solve the problem	3.81 (0.95)	3.22	2.97*
1   1   1   1   2   2   8   1   1   2   2	47	I withdraw from the problem #			0.97NS
1   1   1   1   1   1   1   1   1   1	48	I day dream			4.18*
1   1   1   1   1   1   1   1   1   1	49	I keep the problem to oneself #	(1.40)	(1.22)	1.24NS
1	50	I blame myself	(1.40)	(1.08)	2.29*
1	51	I take long bath	(1.25)	(1.03)	1.92*
1	52	I behave as if not having any problem	(1.28)	(1.23)	2.59*
1   1   1   1   1   1   1   1   1   1	53	I try to get sympathy from others	(0.90)	(1.02)	6.34**
Time	56	I injure myself (cutting hand, cutting finger, scratching etc.) #	(1.12)	(0.89)	0.84NS
1   1   1   1   1   1   1   1   1   1	57	I play computer games	(1.41)	(1.10)	5.59**
60         Italiak about ways to solve the problem         (1.15)         (1.10)         2.56*           61         I play outdoor games         3.25         2.29         3.52*           63         I spend time with friends         3.51         2.55         4.72*           64         I create problems in home         2.24         1.51         3.60*           65         I try to forget the problem by doing other activity         (1.25)         (1.07)         4.78*           66         I drink more tea/coffee         3.38         2.29         3.92*           70         I attend parties/functions         3.74         2.33         5.28**           71         I involve in performing religious activities         4.09         2.16         10.51**           71         I watch movie         1.05         (0.89)         3.92*           72         I watch movie         1.05         (0.89)         3.92*           73         I fight         2.38         1.21         3.66*           74         I will not do anything         2.38         1.83         2.60*           74         I think help would come from God         (1.05)         (0.93)         3.66*           7         I think belp would come from God<	59	I talk about cause of the problem	(0.88)	(0.83)	5.29**
1   1   1   1   1   1   1   1   1   1	60	I talk about ways to solve the problem	(1.15)	(1.10)	2.56*
1   1   1   1   1   1   1   1   1   1	61	I play outdoor games	(1.50)	(1.32)	3.52*
64         1 create problems in home         (1.19)         (0.72)         3.60°           65         I try to forget the problem by doing other activity         3.92         2.85         4.78°           66         I drink more tea/coffee         3.38         2.29         3.92°           70         I attend parties/functions         3.74         2.33         5.28**           71         I involve in performing religious activities         4.09         2.16         10.51**           72         I watch movie         (1.01)         (0.88)         10.51**           72         I watch movie         (1.05)         (0.89)         3.92*           73         I fight         2.83         2.12         3.66*           74         I will not do anything         2.38         1.83         2.60°           74         I think help would come from God         3.62         2.59         4.26*           75         I think about positive aspects of the situation         (1.25)         (1.11)         2.92*           78         I think that putting faith in God can only change the circumstances         3.94         2.62         6.33**           79         I learn new skills to tackle the problem         3.90         2.81         5.27**	63	I spend time with friends	(1.22)	(0.86)	4.72*
1 try to forget the problem by doing other activity	64	I create problems in home	(1.19)	(0.72)	3.60*
Tathick more tea/coffee   (1.54)   (1.34)   (3.92*)   (1.23)   (0.82)   (0.82)   (1.23)   (0.82)   (1.23)   (0.82)   (1.23)   (0.82)   (1.23)   (0.82)   (1.23)   (0.82)   (1.23)   (0.82)   (1.23)   (0.82)   (1.23)   (0.82)   (1.23)   (0.88)   (1.23)   (0.88)   (1.24)   (1.25)   (0.89)   (1.25)   (0.89)   (1.25)   (0.89)   (1.28)   (1.25)   (	65	I try to forget the problem by doing other activity	(1.25)	(1.07)	4.78*
Tattend parties/functions   (1.23)   (0.82)   (0.82)   (0.82)   (0.82)   (0.82)   (0.82)   (0.82)   (0.82)   (0.82)   (0.82)   (0.88)   (1.01)   (0.88)   (0.88)   (0.88)   (0.88)   (0.88)   (0.89)   (0.89)   (0.89)   (0.89)   (0.89)   (0.89)   (0.89)   (0.89)   (0.89)   (0.89)   (0.93)	66	I drink more tea/coffee	(1.54)	(1.34)	3.92*
Tinvolve in performing religious activities   (1.01)   (0.88)   10.51**	70	I attend parties/functions	(1.23)	(0.82)	5.28**
Twatch movie	71	I involve in performing religious activities	(1.01)	(0.88)	10.51**
73       I tight       (1.05)       (0.93)       3.66*         74       I will not do anything       2.38       1.83       2.60*         76       I think help would come from God       3.62       2.59       4.26*         77       I think about positive aspects of the situation       3.83       3.16       2.92*         78       I think that putting faith in God can only change the circumstances       3.94       2.62       6.33**         79       I learn new skills to tackle the problem       3.90       2.81       5.27**         80       I plan to deal with problem       4.05       3.35       3.98*         81       I visit holy places       4.08       2.87       6.39**         81       I readjust the style of daily routine       3.87       2.20       8.62**         82       I readjust the style of daily routine       2.38       2.00       1.74NS	72	I watch movie	(1.05)	(0.89)	3.92*
1	73	I fight	(1.05)	(0.93)	3.66*
76       I think help would come from God       (1.44)       (1.05)       4.26*         77       I think about positive aspects of the situation       3.83       3.16       2.92*         78       I think that putting faith in God can only change the circumstances       3.94       2.62       6.33**         79       I learn new skills to tackle the problem       3.90       2.81       5.27**         80       I plan to deal with problem       4.05       3.35       3.98*         81       I visit holy places       4.08       2.87       6.39**         82       I readjust the style of daily routine       3.87       2.20       8.62**         84       Lengage in self-talking #       2.38       2.00       1.74NS	74	I will not do anything	(1.18)	(1.02)	2.60*
77       I think about positive aspects of the situation       (1.25)       (1.11)       2.92*         78       I think that putting faith in God can only change the circumstances       3.94       2.62       (0.80)       6.33**         79       I learn new skills to tackle the problem       3.90       2.81       5.27**         80       I plan to deal with problem       4.05       3.35       3.98*         81       I visit holy places       4.08       2.87       6.39**         82       I readjust the style of daily routine       3.87       2.20       8.62**         84       Lengage in self-talking #       2.38       2.00       1.74NS	76	I think help would come from God	(1.44)	(1.05)	4.26*
1 think that putting faith in God can only change the circumstances   (1.29)   (0.80)   (0.85)	77	I think about positive aspects of the situation	(1.25)	(1.11)	2.92*
Tearn new skills to tackle the problem	78	I think that putting faith in God can only change the circumstances	(1.29)	(0.80)	6.33**
1 plan to deal with problem	79	I learn new skills to tackle the problem	(1.06)	(1.08)	5.27**
81 I visit holy places (1.03) (0.85) 6.39**  82 I readjust the style of daily routine 3.87 (2.20 (0.83) 8.62**  84 Lengage in self-talking # 2.38 2.00 1.74NS	80	I plan to deal with problem	(0.87)	(0.95)	3.98*
82 I readjust the style of daily routine (1.15) (0.83) 8.02***  84 Lengage in self-talking # 2.38 2.00 1.74NS	81	I visit holy places	(1.03)	(0.85)	6.39**
X/I Lengage in self-falking #	82	I readjust the style of daily routine	(1.15)	(0.83)	8.62**
	84	I engage in self-talking #	2.38 (1.20)	2.00 (1.11)	1.74NS

#: Deleted statement

 $NS-Not\ significant$ 

### Conclusion

The development of the coping mechanism scale laid the foundation to extract dominant coping strategies used by the II PUC students. Coping mechanisms unique to II PUC students are interesting to look at not only to provide a better understanding of how these students respond to stress but also to be able to capture a general picture of their strengths in overcoming stress. Scale can be relevant to both counseling and research fields. In counseling or psychotherapy, this scale can be used to identify the dominant coping strategies of a student.

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