

## RELATIONSHIP BETWEEN POST TRAUMATIC GROWTH AND COPING SKILLS IN UNIVERSITY STUDENTS

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### Abstract

Post Traumatic Growth (PTG) as a new emerging trend contrary to Post Traumatic Stress Disorder as a result of trauma is main focus of study, which is lacking in Pakistan. Therefore, present study has a rationale to find out the post traumatic growth in university population and its relationship styles of coping skills. Through purposive sampling university students (n=200) comprising 100 Males and 100 Female, graduate and post graduate students with age range 18 and above were selected from different universities of Rawalpindi and Islamabad. After getting demographic information through self developed demographic questionnaire; two instruments were administered i.e, Post Traumatic Growth inventory (Tedeschi & Colhen, 1996) and COPE by Carver (1989) which is available in Urdu translation. Then Pearson product moment correlation was calculated between Post Traumatic Growth and style of coping in university population. Results showed that there is no significant correlation between Post traumatic growth and ability to cope. While females have better post traumatic growth as compared to males.

## INTRODUCTION & LITERATURE REVIEW

What does not destroy me, makes me stronger (Nietzsche, 1990, p. 33). Can trauma really be good? We are all familiar with post-traumatic stress disorder, but posttraumatic growth is a recent concept in the field of research.

Posttraumatic growth has been defined as .positive change that the individual experiences as a result of the struggle with a traumatic event (Calhoun & Tedeschi, 1999, p. 11). Tedeshi & Colhoun (2004) defined *Posttraumatic growth* as positive psychological change experienced as a result of the struggle with highly challenging life circumstances. These sets of circumstances represent significant challenges to the adaptive resources of the individual, and pose significant challenges to individuals' way of understanding the world and their place in it. Posttraumatic growth is not simply a return to baseline from a period of suffering; instead it is an experience of improvement that for some persons is deeply meaningful.

Researchers have identified three main areas in which people generally report PTG in their lives. These areas consist of their relationships with others, their sense of self, and their philosophy of life. Though scholarship in the area of PTG has increased markedly in the previous decade, many basic questions remain.

### History of Post Traumatic Growth

The general understanding that suffering and distress can potentially yield positive change is thousands of years old (Tedeshi & Colhun, 2004). For example, some of the early ideas and writing of the ancient Hebrews, Greeks, and early Christians, as well as some of the teachings of Hinduism, Buddhism, and Islam contain elements of the potentially transformative power of suffering. Attempts to understand and discover the meaning of human suffering represent a central theme of much philosophical inquiry and appear in the works of novelists, dramatists and poets (Tedeshi & Colhun, 1995). Scholarly interest in post-traumatic growth began to gain considerable strength in

the 1990s, based on the idea that greater interest should be placed on studying people who are actually healthy, and the better and brighter aspects of human behavior (Tedeshi & Colhun, 2004). Today, there is overwhelming evidence that individuals facing a wide variety of very difficult circumstances experience significant changes in their lives many of which they view as highly positive (Tedeshi & Colhun, 2004). Posttraumatic growth has been documented in relation to various natural and human made traumatic events, including life threatening disease, war, abuse, immigration and death of loved ones (Berger & Weiss, 2006 & Linley and Joseph, 2004). It has also been documented in many countries and in the context of different cultures with evidence that PTG is a universal phenomenon but also manifests some cultural variations (Berger & Weiss, 2006). Growth from trauma has been conceptualized not only for individuals but also for families as systems (Berger & Weiss, 2008).

### Causes of Post Traumatic Growth

Posttraumatic growth occurs with the attempts to adapt to highly negative sets of circumstances that can engender high levels of psychological distress such as major life crises, which typically engender unpleasant psychological reactions. Growth does not occur as a direct result of trauma, rather it is the individual's struggle with the new reality in the aftermath of trauma that is crucial in determining the extent to which posttraumatic growth occurs. Encouragingly, reports of growth experiences in the aftermath of traumatic events far outnumber reports of psychiatric disorders, since continuing personal distress and growth often coexist (Tedeshi & Colhun, 2004).

As far as predictors of Post-Traumatic Growth, a number of factors have been associated with adaptive growth following exposure to a trauma. Spirituality has been shown to highly correlate with post-traumatic growth and in fact, many of the most deeply spiritual beliefs are a result of trauma exposure (O'Rourke 2008). Social support has been well documented as a buffer to mental illness and stress response. In regards to Post-Traumatic Growth, not only is high levels of pre-exposure social support associated with growth, but there is some neurobiological evidence to support the

idea that support will modulate a pathological response to stress in the Hypothalamic-Pituitary-Adrenocortical (HPA) Pathway in the brain (Ozby 2007). It is also alleged, though currently under further investigation, that opportunity for emotional disclosure can lead to post-traumatic growth though did not significantly reduce post-traumatic stress symptomology (Slavin-Spenny 2010).

Gender roles did not reliably predict post-traumatic growth though are indicative of the type of trauma that an individual experiences. Women tend to experience victimization on a more individual and interpersonal level (e.g. sexual victimization) while men tend to experience more systemic and collective traumas (e.g. military and combat). Given that group dynamics appear to play a predictive role in post-traumatic growth, it can be argued that the type of exposure may indirectly predict growth in men (Lilly 2012).

### Characteristics of Posttraumatic Growth

Results seen in people that have experienced posttraumatic growth include some of the following: greater appreciation of life, changed sense of priorities, warmer, more intimate relationships, greater sense of personal strength, and recognition of new possibilities or paths for one's life and spiritual development (Tedeschi & Calhoun, 1996). Two personality characteristics that may affect the likelihood that people can make positive use of the after-math of traumatic events that befall them include extraversion and openness to experience (Costa & McCrae, 1992). Also, optimists may be better able to focus attention and resources on the most important matters, and disengage from uncontrollable or unsolvable problems.

The ability to grieve and gradually accept trauma could also increase the likelihood of growth (Tedeschi & Collhun, 2004). It also benefits a person to have supportive others that can aid in post-traumatic growth by providing a way to craft narratives about the changes that have occurred, and by offering perspectives that can be integrated into schema change (Neimeyer, 2001). These relationships help develop narratives; these narratives of trauma and survival are always important

in post-traumatic growth because the development of these narratives forces survivors to confront questions of meaning and how answers to those questions can be reconstructed (McAdams, 1993).

Individual differences in coping strategies set some people on a maladaptive spiral, whereas others proceed on an adaptive spiral. With this in mind, some early success in coping could be a precursor to posttraumatic growth (Aldwin, 1994). A person's level of confidence could also play a role in her or his ability to persist into growth or, out of lack of confidence, give up.

### Assessment of Post Traumatic Growth

Although a variety of instruments have been developed to assess positive changes resulting from adversity (Antoni et al., 2001; Joseph, Williams, & Yule, 1993; McMillen & Fisher, 1998; Park, Cohen, & Murch, 1996), the inventory that has been employed most often, in a wide variety of investigations, and with a wide variety of populations (Calhoun & Tedeschi, 2006), is the Posttraumatic Growth Inventory (PTGI; Tedeschi & Calhoun, 1996).

The PTGI was developed based on a review of the available literature on responses to trauma, interviews with persons dealing with a variety of major crises or stressors (e.g., becoming physically handicapped as adults, death of a child), and the final items of the 21-item scale were subjected to a variety of evaluations of its validity, reliability, and factor structure. The scale has excellent internal consistency ( $\alpha$  .90) and acceptable test-retest ( $r$  .71) reliability (Tedeschi & Calhoun, 1996).

Validity is supported by evidence that PTGI responses tend to be corroborated ( $r$  .69) by others close to the person reporting growth (Shakespeare-Finch & Enders, 2008; Weiss, 2002) and scores are not correlated with measures of social desirability (Tedeschi & Calhoun, 1996; Wild & Paivio, 2003). The content of the themes captured by the PTGI was originally based on positive changes reported in the literature by individuals experiencing traumatic events (Tedeschi & Calhoun, 1996), and the final five-factor structure of the inventory has been replicated in different populations (Morris, Shakespeare-Finch, Rieck, & Newbery, 2005; Tedeschi & Calhoun, 1996) and validated through confirmatory factor analyses (Linley, Andrews, & Joseph, 2007; Taku, Cann, Calhoun, &

Tedeschi, 2008). PTGI contains five factors i.e, Relating to Others, New Possibilities, Personal Strength, Spiritual Change, and Appreciation of Life.

Among the important questions regarding PTG is whether it represents mainly a positive cognitive perspective regarding the traumatic event or if it translates to substantial, observable behavioral changes in the person's life (Zoellner & Maercker, 2006). Theorists are divided on this issue. Also, it is unclear if PTG is related to adjustment. We would expect that positive changes would be reflected in more adaptive functioning among trauma survivors (Westphal & Bonanno, 2007). Currently, there are conflicting research findings on this important point (Zoellner & Maercker, 2006). Another issue that needs to be addressed is whether there is a dose-response effect with PTG. In other words, does the severity of the trauma positively correlate with larger amounts of PTG? In order to maximize the benefit of PTG for people, these key issues will need to be better understood.

### Coping Strategies

Coping methods comprise the various ways that people deal with stressful events (Futa, Nash, Hansen, & Garbin, 2003). It can be more thoroughly defined as the executing of a response to one's appraisal of the threat of a stressor/trauma and can be broken down into various types of coping mechanisms: problem-focused, emotion-focused, and avoidance coping (Carver, Scheier, & Weintraub, 1989). The first type of coping, problem-focused coping, involves active problem solving to reduce or alter the source of the stressor. Emotion-focused coping involves reducing the emotional distress that is cued by the stressor or reminders of the stressor. Avoidance coping is seen as the least effective form of coping and involves venting and disengagement (Carver et al., 1989).

### Previous Literature on Post Traumatic Growth

Many researchers have been done since mid of 90s' e.g relationship of Post traumatic growth with well being (Cann, Calhoun, Tedeschi, & Solomon, 2010), relationship with PTSD (Levin, Laufer, Hamama-Raz, Stein, Solomon, 2008) Core belief challenge, Rumination, Disclosure, and Socio-

cultural elements to PTG (Lindstrom, Cann, Calhoun & Tedeschi(in press), with paths of PTG (Calhoun, Tedeschi, Cann & Hanks, 2010),with gender differences ( Vishnevsky, Cann, Calhoun, Tedeschi & Demakis, 2010) and many more areas. However, there are still many aspects of PTG that are unclear (Zoellner & Maercker, 2006). First, there is a debate among researchers in the field as to whether PTG is a coping strategy or an outcome (Hobfoll, et al., 2007). So Coping skill needs to be correlated with post traumatic growth because there is still no previous study in Pakistan on this specific area. Therefore, it is the main objective of my study.

### Post Traumatic Growth and Coping Strategies

Relationship of Coping skill and PTG been previously studied by many researchers who have already worked a lot on Post traumatic stress (PTS). In one of the studyPark, Aldwin, Juliane, Synder and Fenster (2010) found that posttraumatic growth and posttraumatic stress symptoms are moderately positively related. While the pathways from coping and emotions to the outcomes differ with each other. As well as Positive coping and anger are more strongly related to posttraumatic growth than to posttraumatic stress, and pathways of negative coping and feeling depressed regarding the trauma are more strongly related to stress than to growth. It was concluded that emotions are both outcomes of and motivators for coping and that patterns of coping and emotions relate differentially to posttraumatic stress and posttraumatic growth.

Scrignaro, Barni, & Magrin (2011) studiedrole of social support and coping strategies in enhancing post-traumatic growth (PTG) in cancer patients. The study focused on both avoidance and approaching coping and on four distinct types of social support: (a) perceived availability, (b) actual received, (c) satisfaction with received support, and (d) the competence of caregiver to satisfy the patient's basic psychological needs of autonomy, competence, and relatedness. It was concluded that autonomy-supportive caregivers and a problem-focused strategy of coping significantly predicted greater PTG while there is an important role of problem-focused coping strategies in growing psychologically.

Coping strategies in relation to post traumatic growth is investigated by Sears, Stanton, Burg & Sharon (2003) in women with breast cancer and found that positive reappraisal coping plays a vital role. In a Chinese study, it was found that PTG is result of positive coping in cancer survivors (Samuel, Cecilia. Chan & Rainbow, 2004).

Pollard & Kennedy (2007) studied emotional impact, psychological growth and coping strategies in a sample of traumatic spinal cord injured people from 12 weeks post-injury to 10 years post-hospital discharge. They found that consistent level of coping remains in the phenomena of post psychological growth in the patients of spinal cord injury. While in another comparative with university students and college students, it was found that in both samples, stress-related growth was highest for individuals who reported highly stressful events, for which they had adequate coping and support resources and for which they used adaptive coping strategies (Armeli, Gunthert, & Cohen, 2001).

Morris, Finch and Scott (2007) studied the cognitive processes and its relationship with post traumatic growth in sample of cancer patients. They found that positive reframing is positively correlated with all PTGI factors and focusing on/venting emotions, social support engagement, and active coping are associated with two dimensions of PTG (New Possibilities and Relating to Others). Furthermore, a comparable pattern of correlations between PTG and coping was found in a sample of emergency service workers' perceptions of benefits following workplace trauma.

Another dimension which studied post-traumatic growth from life's most traumatic event and its influence on elders' current coping and adjustment by Crystal, Baxter & Fenster (2005). They found that post-traumatic growth from events that occurred even many years earlier may have favorable influences on subsequent coping, death attitudes, and adjustment to recent stressors. So it is concluded that there is literary evidence on the coping as a contributing factor of post traumatic growth, but the type or style of coping strategy is still needed to be more explored through research. And aim of my study is to find out the relationship between coping strategy and post traumatic growth in university sample.

### Objectives of the Study

The present study is aimed to find out following objectives:

- Is there any relationship between post traumatic growth and coping skill in university students?
- Is there any gender difference in post traumatic growth?
- Is there any gender difference in coping skill?

There are a variety of implications and applications for PTG (Calhoun & Tedeschi, 1999). First, it is beneficial for therapists to help their clients identify and maximize any positive impact that adverse life experiences may have had on them. This approach is at odds with traditional techniques that often focus exclusively on the pathological elements of trauma.

Second, PTG can be incorporated into existing trauma treatments. It is not necessary to deviate from already empirically-supported trauma treatments, such as prolonged exposure therapy. Rather, PTG therapy work can be a valuable adjunct to these treatments, which may lead to improved outcomes.

Third, increased research in PTG will add to our still-evolving understanding of the impact of trauma. For example, there are those in the trauma field who argue that a dimensional approach to PTSD would be preferable to our current dichotomous diagnostic criteria (McNally, 2004).

Fourth, finding out the relationship between post traumatic growth and coping skills will help in developing psychological intervention for clinical and non clinical population for the incorporating specific type of coping skill to improve the level of post traumatic growth after facing any kind of trauma in life.

### METHODOLOGY

The present study aims at finding out the correlation between post traumatic growth and coping style in the university students. In which post traumatic growth is a phenomena which measures the

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positive change that the individual experiences as a result of the struggle with a traumatic event (Calhoun & Tedeschi, 1999, p. 11), while coping is an expending conscious effort to solve personal and interpersonal problems, and seeking to master, minimize or tolerate stress or conflict (Synder, 1999)

### Research Design

Correlational research design was used. Correlational research design can be described as the systematic investigation of relationships among two or more variables, without necessarily determining cause and effect (Shaughnessy, Zeichmeister, & Zeichmeister, 2003). Present study was analyzed by the help of Pearson Product Moment Correlation which is a measure of the correlation (linear dependence) between two variables X and Y, giving a value between +1 and -1 inclusive. It is widely used in the sciences as a measure of the strength of linear dependence between two variables. It was developed by Karl Pearson from a related idea introduced by Francis Galton in the 1880s (Shaughnessy, Zeichmeister, & Zeichmeister, 2003).

In this study Post traumatic growth was correlated with coping styles in the university students. Even the sub-scales of Post traumatic growth (Relating to Others, New Possibilities, Personal Strength, Spiritual Change, and Appreciation of Life) and subscales of COPE (problem focused coping style and emotion focused coping style and useless coping styles) were also correlated on later stage.

At the end the gender difference between post traumatic growth and coping styles were found by the help of t-test analysis which compares the mean scores of two groups on a given variable (Shaughnessy, Zeichmeister, & Zeichmeister, 2003)

### Sample

For the purpose of this study, the non probability sampling procedure was adopted (Guilford, 1956). Sample of university students (n=140) studying in different faculties with graduate and post graduate level were purposively selected from three universities running under government. Post traumatic

growth Inventory (Tedeschi & Calhoun, 1996) and COPE questionnaire (Carver, 1997), translated in Urdu by Farooq & Rahman (2006) was administered on each participant of research after taking proper written consent through Consent Form developed by the researcher.

### Instrument

#### *Post Traumatic Growth Inventory*

The PTGI was developed by Tedeschi and Calhoun in 1996, based on a review of the available literature on responses to trauma, interviews with persons dealing with a variety of major crises or stressors (e.g., becoming physically handicapped as adults, death of a child), and the final items of the 21-item scale were subjected to a variety of evaluations of its validity, reliability, and factor structure. The scale has excellent internal consistency ( $\alpha=.90$ ) and acceptable test-retest ( $r=.71$ ) reliability (Tedeschi & Calhoun, 1996).

Validity is supported by evidence that PTGI responses tend to be corroborated ( $r=.69$ ) by others close to the person reporting growth (Shakespeare-Finch & Enders, 2008; Weiss, 2002) and scores are not correlated with measures of social desirability (Tedeschi & Calhoun, 1996; Wild & Paivio, 2003). The content of the themes captured by the PTGI was originally based on positive changes reported in the literature by individuals experiencing traumatic events (Tedeschi & Calhoun, 1996), and the final five-factor structure of the inventory has been replicated in different populations (Morris, Shakespeare-Finch, Rieck, & Newbery, 2005; Tedeschi & Calhoun, 1996) and validated through confirmatory factor analyses (Linley, Andrews, & Joseph, 2007; Taku, Cann, Calhoun, & Tedeschi, 2008).

PTGI contains five factors i.e., Relating to Others, New Possibilities, Personal Strength, Spiritual Change, and Appreciation of Life. Factor I (item # 6,8,9,15,16,30,21 with variance 17% and Test retest reliability  $\alpha=0.85$ ), Factor II (item # 3,7,11,14,17 with variance 16% and Test retest reliability  $\alpha=0.84$ ), Factor III (4, 10,12,19 with variance 11% and Test retest reliability  $\alpha=0.72$ ), Factor IV (5,18

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with variance 9% and Test retest reliability  $\alpha=0.85$ ), Factor VI (1,2,13 with variance 9% and Test retest reliability  $\alpha=0.67$ )

### *Coping Orientation to Problems Experienced (COPE)*

The full COPE (Carver, Scheier, & Weintraub, 1989) is a 60-item measuring instrument that yields 15 factors reflecting three coping styles: Problem Focused Coping, Emotion Focused, and Less useful Coping styles. Each item is rated on a 4-point Likert-Type Scale that ranges from 1 meaning I usually don't do this at all to 4 meaning I usually do this a lot.

The alpha levels for the 15 factors range from 0.45 to 0.92. After eight weeks, the test-retest reliability range from 0.46 to 0.86. The alpha reliability for the COPE ranges from 0.62 to 0.92 at  $p < 0.01$ . Test-retest reliability has been reported as ranging from  $r = 0.46$  to 0.86 (Allen, & Rosse 2004). The subscales of COPE with items scoring (Carver, 1989) with no reversals of coding:

Positive reinterpretation and growth: 1, 29, 38, 59

Mental disengagement: 2, 16, 31, 43

Focus on and venting of emotions: 3, 17, 28, 46

Use of instrumental social support: 4, 14, 30, 45

Active coping: 5, 25, 47, 58

Denial: 6, 27, 40, 57

Religious coping: 7, 18, 48, 60

Humor: 8, 20, 36, 50

Behavioral disengagement: 9, 24, 37, 51

Restraint: 10, 22, 41, 49

Use of emotional social support: 11, 23, 34, 52

Substance use: 12, 26, 35, 53

Acceptance: 13, 21, 44, 54

Suppression of competing activities: 15, 33, 42, 55

Planning: 19, 32, 39, 56

While major sub categories of COPE (Carver, 1989) are problem focused coping, emotion focused coping and less useful type of coping.

### Hypothesis

*Hypothesis 1:* There is a correlation between Post traumatic growth and Coping skill in the university students.

*Hypothesis 2:* There is a correlation between Emotion focused coping and Post traumatic growth in university students.

*Hypothesis 3:* There is a correlation between problem focused coping and Post traumatic growth in university students.

*Hypothesis 4:* There is a gender difference of post traumatic growth in university students.

*Hypothesis 5:* There is a gender difference of coping skills in university students.

### Procedure

After seeking proper consent from research participants through proper Consent Form and explaining the purpose of the research, research will be started with collecting information on Biodata Form about demographic information. This bio-data form was developed by researcher. Sample was collected purposively from universities of Rawalpindi and Islamabad. Total number of research participants was 140 comprising Graduate and Post-Graduate students of universities. Data was collected by researcher through administration of instruments i.e, Post Traumatic Growth Inventory (PTGI by Tedeschi & Colhen, 1996) and COPE by Carver (1997) which is available in Urdu translation. Cope was translated in Urdu by Farooq & Rahman (2006). In the next stage, data was entered in SPSS and analyzed through correlation and t-test. Findings were compiled for the acceptance or rejection of hypotheses.

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## RESULTS

The aim of the study was to find out the relationship between post traumatic growth and coping style in university students. For this purpose COPE (Carver, 1989) was used which comprises of two main subscales i.e, problem focused coping and emotion focused coping which were further correlated with Post traumatic growth inventory PTGI (Tedeschi & Calhoun, 1996). The demographics of the study found were as following:

Table 1:

*Type to Trauma faced by university students(N=140)*

Sr. No	Type of Trauma	Frequency	Percentage
1.	Loss of loved one	43	31%
2.	Chronic or acute Illness	13	9%
3.	Violent or abusive crime	3	2%
4.	Accident or injury	33	24%
5.	Disaster	12	9%
6.	Job Loss	8	5%
7.	Financial hardship	17	12%
8.	Career or location change/move	9	6%
69.	Change in family responsibility	8	5%
10.	Divorce	4	3%
11.	Combat	1	0.7%
12.	Others	1	0.7%

Table 1 shows that highest percentage of trauma faced by university students is loss of loved ones 31%, accident or injury 24%, financial hardships 12% and disaster 9%.

Table 2:

*Levels of Education in University Students(N=140)*

Sr.No	Level of Education	Frequency	Percentage
1.	BS/ B.ED	47	34%
2.	M.Sc/ M.Ed	34	24%
3.	MS /M.Phil	34	24%
4.	Ph.D	24	17%

Table 2 shows that highest percentage of respondents of university students are related to graduation level that i.e, 34%. While the percentages of Masters and M.Phil levels are same i.e, 24% each.

Table 3

*Pearson Product Moment Correlation (r) between Post Traumatic Growth Inventory (PTGI) and COPE (N=140)*

Levels of PTGI	COPE				
	Problem Focused Coping	Emotion Coping	Focused Coping	Less Useful Coping	Total COPE
Relating to Others	.11	0.02		-.06	-.03
New Possibilities	-.033	.029		-.16	-.15
Personal Strength	.11	.01		-.08	-.02
Spiritual Change	.15	.07		-.11	-.05
Appreciation to Life	.11	.14		.17	-.02
<b>Total PTGI</b>	.113	.08		-.13	-0.06

\*\* . Correlation is significant at the 0.01 level (2-tailed)

Table No 3 shows that there is no significant correlation between post traumatic growth and coping styles in university students ( $r = -.06$ ). It is also found that there is very no significant correlation between levels of post traumatic growth and types of coping i.e, Problem focused coping, Emotion focused coping and less useful coping. When the correlation between total post traumatic growth and types of coping is calculated, it was found that there is non significant correlation between total PTGI and problem focused coping ( $r = .113$ ), emotion focused coping ( $r = .08$ ) and less useful coping ( $r = -.13$ ).

Table 4

*Comparison between Gender and Post Traumatic Growth (N=140)*

Gender	PTGI						
	N	Mean (X)	S.D	S.D Error	t	df	Sig
Male	53	47.94	14.87	2.042	-2.174	113	0.032
Female	62	55.40	20.85	2.648			

\*\*p < 0.05

Table 5 shows that females show significantly high level of post traumatic growth as compare to males ( $t = -2.174$ ,  $df = 113$ ) at level of significant less than 0.05 with confidence interval 95%.

Table 5

*Comparison between Gender and COPE (N=140)*

Gender	COPE						
	N	Mean (X)	S.D	S.D Error	t	df	Sig
Male	57	155.14	20.83	2.76	1.76	105	0.082
Female	50	148.82	15.57	2.2			

\*\*p < 0.05

Table 5 shows that there is no significant difference in the coping ability ( $t=1.76$ ,  $df=105$ ) as the level of significance is more than 0.05 coming out of computational data at confidence interval of 95%. Results showed that our first three hypotheses are rejected that are ; there is a correlation between Post traumatic growth and Coping skill in the university students, there is a correlation between Emotion focused coping and Post traumatic growth in university students and there is a correlation between problem focused coping and Post traumatic growth in university students because we found no correlation in the above mentioned variables through data analysis.

On the other side, we have found that female have high post traumatic growth as compared to males, while there is no significant difference in the coping ability between males and female university students.

## DISCUSSION

The results of the present study could not provide empirical evidence for the relationship between post traumatic growth and the coping strategy which was first hypothesis of the study.

The findings of present research clearly depicted that there is no significant relationship between post traumatic growth and coping ability in university students which is contrary to expectations. While most of the previous literature is evident that there is an association as well as relationship between post traumatic growth and coping strategies. In a sample of college students, active coping and subjective well-being independently contributed to PTG, but social desirability and symptom distress were independent of growth (Wild & Piavio, 2004). Coping strategies in relation to post traumatic growth is investigated by Sears, Stanton, Burg & Sharon (2003) in women with breast cancer and found that positive reappraisal coping plays a vital role. In a Chinese study, it was found that PTG is result of positive coping in cancer survivors (Samuel, Cecilia. Chan & Rainbow, 2004). Second and third hypothesis was about correlation between Emotion focused coping, problem focused coping and Post traumatic growth in university students. It was found that there is also no relationship of these two major categories of coping with post traumatic growth, which is also

contrary to previous literature. Connor-Smith and Flachsbart (2007), in their meta-analysis reported that neuroticism predicted wishful thinking, withdrawal and emotion focused coping. All these strategies point to the fact that individuals high on neuroticism may use avoidance coping that may hinder the processing of the event which is essential for post traumatic growth. Regression analyses showed that autonomy-supportive caregivers and a problem-focused strategy of coping significantly predicted greater PTG (Park, Aldwin, Fenster & Singer, 2010). But there is a lack of empirical studies to find out the direct relationship of post traumatic growth with emotion focused coping and problem focused coping strategy.

Hypothesis regarding the gender differences in post traumatic growth provided very interesting results. It was found that females show significantly high level of post traumatic growth as compare to males. these results are in line to the previous studies because in a meta analysis on the gender differences in post traumatic growth it was found that women have high levels of post traumatic growth as compared to males (Vishnevsky, Cann, Colhaun, Tedeschi & Demakis; 2010 ; Linley & Joseph, 2004; Helgeson, et al, 2006).

Last hypothesis regarding the gender differences in coping skills was also rejected because results showed no significant difference in males and females in the perspective of coping skills; which is contrary to previous literature. As previous studies show that coping skill in males is comparatively better than in females (Wild & Piavio, 2004).

### Limitations of the Study

The present study has some shortcomings that should be acknowledged.

- Firstly, due to the correlational research design no causal inferences can be drawn from the results.
- Response rate was less than expectations which affected the results of the study.
- Due to time constraints and less sample size, the results got polluted.

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- As it was a new topic of study, even the sample was educated, the sample may have problem to grasp the concept of study.
- Missing values in the data affected the results of the study.

#### Suggestions for Improvement

To improve the study findings following recommendations are given for future study:

- Sample size should be increased to make the results more generalizable.
- Response rate should be carefully monitored to reduce the missing values.
- Data should be gathered on one to one basis with careful monitoring.

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