# **Analyzing Factors Influencing Post-Traumatic Growth in Young Adults of Kashmir Valley with PTSD: Through ANOVA and Regression Models**

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#### **ABSTRACT**

**Background:** The relationship of psychological factors with Post-Traumatic Growth (PTG) in conflict zones is much elaborated, but focused inquiries are needed in the Kashmir region. The present study is an attempt to see relationships between Resilience (R), Self-Efficacy (SE), and PTG among young adults exposed to the Kashmir conflict.

**Objective:** Besides assessing gender differences, this study looks for the predictors of PTG among young adults in the Kashmir Valley, focusing on resilience and self-efficacy, and the interconnection of these factors in trauma recovery.

**Methods:** Data were collected from 150 participants through self-report using the PCL-5 Post-Traumatic Stress Disorder (PTSD) Checklist for DSM-5, the Post-Traumatic Growth Inventory, and scales for both resilience and self-efficacy. Data were obtained through the Resilience Scale developed by Wagnild and Young in 1987. The data were analyzed using ANOVA and multiple regressions. The data were gathered from the Kashmir Advanced scientific Research Centre.

**Results:** The regression analysis resulted in the following: many domains revealed resilience as a significant predictor of PTG. The significant predictors for "Relating to Others" (RTO) were  $\beta = 0.07$ , p = 0.003; for "Personal Strength" (PS),  $\beta = 0.04$ , p = 0.047; and for "Spiritual Change" (SC),  $\beta = 0.06$ , p = 0.006, respectively. Self-efficacy did not emerge as a significant predictor in any domain.

**Conclusion:** The findings of this study would, therefore describe the positive and vital role that resilience plays in the development of PTG among young adults in Kashmir. Therefore, strategic interventions that build and strengthen resilience must be encouraged and implemented to maximize PTG among the youths within the conflict regions. The amelioration of PTSD symptoms and the development of resilience remain paramount in the psychopathology of a successful trauma.

**Keywords:** Post-Traumatic Growth, Conflict Zones, Kashmir Valley, Resilience, Self-Efficacy, ANOVA, Regression Models.

# 1. INTRODUCTION

The Kashmir Valley has always been a famous abode of scenic beauties, but for long it has dragged along certain conflicts and political instabilities that have severely affected the psychological well-being of its inhabitants. There is a significant incidence of trauma in young adults from this region due to

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continuous violence and instability in this part of the world. This provides us with a unique environment to study PTG among young adults. PTG, as per Tedeschi & Calhoun, (2004) is the positive psychological changes from struggling with difficult life circumstances, for example, increased personal fortitude, new opportunities, enhanced relationships, spiritual transformation, and a better understanding of life. Research has demonstrated posttraumatic stress disorders and associated mental health morbidity in children and adolescents residing in conflict regions. These researches are by Margoob & Ahmad, (2006); and Zoellner & Maercker, (2006). However, the scope of PTG in such populations, especially in the conflict of Kashmir, remains an area yet to be worked on. The concept of understanding PTG is important since it would emphasize the positive changes in response to trauma. Resilience is a significant contributor to PTG; it guards against the pernicious effects of trauma and is instrumental in fostering growth. Self-efficacy, described as a belief in one's capability to influence events, is a powerful way to manage stress (Bandura, 1997).

The conflict in Kashmir has resulted in a lot of psychological disturbance wherein many young adults have experienced trauma, including losses, violence, and displacement (Gupta, Arora, & Khan, 2020; Hussain, Rehman, & Hussain, 2017). However, some individuals show exceptional positive adjustments following adversities. This paper examines the predictors of PTG among the young adult population in the Kashmir Valley concerning resilience, self-efficacy, gender differences, and their interrelatedness. The research aims to offer insight into targeted interventions to enhance PTG in conflict-affected areas, emphasizing resilience and self-efficacy in trauma recovery.

#### 2. LITERATURE STUDIES

PTG is a positive psychological transformation that occurs in the aftermath of trauma, as per Tedeschi and Calhoun (2004). The five factors of PTG that have been identified are an increased appreciation for life, personal strength, spiritual transformation, new possibilities, and enhanced relationships. These factors show that there is potential for persons to recover from trauma and to do well in life. Whereas studies have documented high levels of PTSD among young people in conflict zones, little is known about PTG in these populations. Zoellner and Maercker, 2006 and Margoob and Ahmad, 2006 have reported the existence of PTSD among the youth in Kashmir. However, PTG has not yet been explored. Ongoing violence in Kashmir gives an excellent opportunity to investigate the phenomenon of PTG and its predictor variables. One critical factor necessary for PTG is resilience, which refers to the ability to recover from adversity or bounce back (Bonanno, 2004). The study by Hobfoll et al., 2018 substantiated that Resilience enables the buffer to blunt the adverse effects of trauma and enhances growth. The belief in the ability to influence events and self-efficacy can be seen as how individuals handle stress and challenges effectively. Social support also plays a big role in the recovery of trauma and PTG. According to Helgeson (2019), social support buffers stress and increases psychological changes favorably. Johnson and Jones (2020) found that social support was important in facilitating PTG and pointed out the need for a supporting environment.

While much research has been done on PTSD and resilience, the predictors of PTG among the young adult populations in conflict zones have not been worked out on an elaborate basis, especially in Kashmir. Most studies have focused on the negative impacts of trauma, but they have almost ignored the potential positive growth domain. Furthermore, the interaction between resilience and self-efficacy in facilitating PTG has not been studied. The current study aims to bridge these gaps by exploring PTG predictors among young adults in Kashmir. This study thus focuses on such psychological factors and seeks to provide insights for targeted interventions to enhance PTG in conflict-affected populations.

#### **Hypothesis:**

From the literature, the following hypotheses are drawn:

H1: Resilience significantly predicts PTG and its Domains

H2:Self-efficacy significantly predicts PTG and its Domains.

# 3. METHODOLOGY

# 3.1 Study Participants and Data Collection Tools:

The study sample consists of 150 young adults, including 120 males and 30 females, between the ages of 18 and 25 years. The sample was selected purposively from the Kashmir Valley to meet the criteria

set that these young individuals have been exposed to an immense amount of trauma due to conflict situations. Data collection tools used for this study included the PCL-5 PTSD Checklist for DSM-5, the Post-Traumatic Growth Inventory, and scales for resilience and self-efficacy (Zehra et al., 2023). The Resilience Scale measures resilience (Wagnild & Young, 1987) and General Self efficacy scale. Data have been sourced from the Kashmir Advanced scientific Research Centre.

# 3.2 Statistical Analysis:

i) Descriptive Statistics of Post-Traumatic Growth (PTG) Survey:

Descriptive Statistics of the Post-Traumatic Growth Survey: All the variables were subjected to descriptive statistics like means, standard deviations, and frequency distributions. A separate analysis of male and female subjects was done to cross-examine the gender difference.

**Table 1: Descriptive Statistics of PTG Experiences** 

Statemen	To			ale	Fem	nale
t	Fr	%	Fr	%	Fr	%
	eq.	70	eq.	70	eq.	70
1.						
Develope	10	6		7		5
d a greater	2	8	85	1	17	8
appreciati	2	%		%		%
on for life						
2.						
Experienc		2		2		1
ed	30	0	24	0	6	9
spiritual		%		%		%
change						
3.						
Establish						
ed a	10	6		6		6
stronger	10	7	80	7	21	9
sense of	1	%		%		%
personal						
strength						
4. Found		_				_
new	0.2	5		5	1.5	5
possibiliti	83	5	66	5	17	8
es in life		%		%		%
5.						
Improved		4		4		4
relationsh	67	5	54	5	13	2
ips with		%		%		%
others						
6.						
Became						
more		6		6		6
open to	93	2	73	1	20	7
new		%		%		%
experienc						
es						
7.						
Develope		5		5		5
d a deeper	86	8	69	8	17	6
understan		%		%	- '	%
ding of		, 0		7.0		, ,
uni						

oneself						
8.						
Became		6		6		7
more	97	5	75	3	22	1
empatheti		%		%		%
c towards						
others						
9.		6		6		7
Enhanced	10	8	79	6	23	7
sense of	2	%	19	%	23	%
resilience		70		70		70
10.						
Improved		5		5		5
ability to	82	4	66	5	16	0
express		%		%		%
emotions		70		, ,		70
11.						
Achieved						
		_		_		
a better		5		5	20	6
understan	89	9	69	8	20	3
ding of		%		%		%
life's						
purpose						
12.						
Develope				6		6
d a more	0.4	6	7.5	6	10	6
positive	94	3	75	3	19	2
outlook		%		%		%
on life						
13.						
Increased						
appreciati		6		6		6
on for	96	4	75	3	21	7
		%		%		%
small joys						
in life						
14.						_
Improved		6		6		5
ability to	90	0	73	1	17	8
cope with		%		%		%
stress						
15. Found						
a new		5		5		5
sense of	81	4	63	3	18	6
direction		%		%		%
in life						
16.						
Became						
more	10	6		6		6
willing to	0	7	80	7	20	7
	0	%		%		%
help						
others	72	1	57		1.5	4
17.	72	4	57	4	15	4

	8		8		8
	%		%		%
	6		6		6
91		73	1	18	2
	%		%		%
	5		5		6
85		66		19	2
	%		%		%
	5		5		6
88	9	69	8	19	2
	%		%		%
		91 6 1 % 85 5 7 % 88 9	91 6 1 73 % 66 88 9 69	91 6 73 6 1 %  85 7 66 5 5 %  88 9 69 8	91 6 73 6 18 85 7 66 5 19 88 9 69 8 19

Table 1 presents the various PTG experiences as expressed by the respondents, which reveal the diversity of positive changes one has gone through due to living in conflict in Kashmir. Descriptive statistics of the main variables in the research are presented in Table 2. It includes mean  $(\mu)$ , standard deviation  $(\sigma)$ , minimum (Min), and maximum (Max) values of R, SE, and the domains of PTG.

**Table 2: Analysed Descriptive Statistics** 

Var iabl e	C o u n t	M e a n ( μ	S t d D e v ( σ σ )	M i n	2 5 %	5 0 %	7 5 %	M a x
Res ilie nce (R)	1 5 0	6 1 1 6	8 9 1	3 6 1 0	5 5 2 1	6 0 7 8	6 7 8 8	8 4 6 1

Self								
-		1			1	1	2	2
Effi	1	8	3	9	6	7	$\begin{bmatrix} 2 \\ 0 \end{bmatrix}$	6
cac	5							
	0	0	0	7	2	9	2	3
у	U		3	8			4	
(SE		4			4	9	4	5
)		2			2	2	2	-
	,	3	5	1	3	3	3	5
PT	1	6		5	2	6	9	3
G	5		6				·	
	0	2	9	1	5	2	7	7
		0		1	7	9	9	9
Ne								
w				-				1
Pos	1	7	3	1	5	7	9	4
sibi	5					•		•
litie	0	1	0	7	1	2	1	6
s		7	4	8	3	0	9	0
(NP								
)								
Rel								
atin		7	3	-	4	7	9	1
g to	1			3				6
Oth	5	2	2		9			
ers	0			8		5	2	3
(RT		1	0	9	3	1	2	4
O)								
Per								
son								
al		7	3	-	5	7	9	1
Stre	1	•	•	1		•	•	7
ngt	5	3	2		5	6	5	
h	0	0	2	3	1	1	6	8
(PS			_	1	_	_		8
)								
Spir								
itua				-				1
1	1	7	3	0	4	7	9	7
Cha	5					•		
nge	0	1	1	5	7	0	4	3
(SC		4	4	2	6	8	8	2
)								
Ap								
pre		7	2	-	5	6	0	1
ciat	1	7	3	4	5	6	9	5
ion	5							
for	0	0	1	0	1	8	1	0
Life		4	3	9	0	4	9	8
(AF								
L)								

ii) ANOVA

The differences in PTG between varying levels of resilience and self-efficacy were tested using ANOVA. A summary of the ANOVA results on the key factors associated with PTG is presented in Table 3. The results describe if the differences in PTG are statistically significant across different levels of resilience and self-efficacy.

**Table 3: ANOVA Results** 

Factor	Sum of Squares	df	F	p- value
Resilience (R)	87.60	1	8.21	0.005
Residual	1575.40	148	-	-
Self-Efficacy (SE)	14.85	1	1.40	0.239
Residual	1575.40	148	-	-

# iii) Regression Analysis

A multiple regression analysis was performed to find out how much the variance of PTG can be explained by the predictors of resilience and self-efficacy. The results of the multiple regression are presented in Table 4.

**Table 4: Multiple Regression Analysis** 

Variable	Coefficient	Std.	t-	p-
	(β)	Error	value	value
Intercept (I)	25.04	11.54	2.17	0.032
Resilience (R)	0.18	0.05	3.60	0.0004
Self-Efficacy	-0.08	0.06	-1.33	0.184
(SE)				
R-squared:	0.021			

As can be noted from the table, the findings show the variance of PTG that could be predicted based on the measures of resilience and self-efficacy. The results indicate that Resilience remains a statistically significant predictor, while SE does not significantly predict PTG.

#### iv) Correlation Matrix

Table 5 depicts the correlation matrix between study variables. The present matrix elaborates on the associations between resilience, self-efficacy, and PTG domains. For 150 participants, a detailed analysis with gender-segregated data was presented for a better understanding of various factors associated with PTG among young adults of the conflict-ridden Kashmir Valley.

**Table 5: Correlation Matrix** 

V	R	S	P	N	R	P	S	A
ar		E	T	P	T	S	C	F
ia			G		0			L
bl								
e								
R	1	-	0	0	0	0	0	0
		0						
	0		0	0	1	0	0	0
	0	0	8	8	9	0	7	3
		3						
S	-	1	-	0	-	0	-	-
E	0		0		0		0	0
		0		0		0		
	0	0	0	2	0	7	0	0
	3		4		4		3	4
P	0	-	1	0	0	0	0	0
T		0						
G	0		0	3	3	4	3	3

		_	_	_	_	_	_	_
	8	0	0	0	3	2	2	0
		4						
N	0	0	0	1	0	0	0	0
P								
	0	0	3	0	0	0	1	1
	8	2	0	0	7	8	0	5
R	0	-	0	0	1	0	0	0
T		0						
O	1		3	0	0	1	0	1
	9	0	3	7	0	0	8	6
		4						
PS	0	0	0	0	0	1	0	0
	0	0	4	0	1	0	2	1
	0	7	2	8	0	0	2	6
S	0	-	0	0	0	0	1	0
C		0						
	0		3	1	0	2	0	0
	7	0	2	0	8	2	0	5
		3						
A	0	-	0	0	0	0	0	1
F		0						
L	0		3	1	1	1	0	0
	3	0	0	5	6	6	5	0
		4						

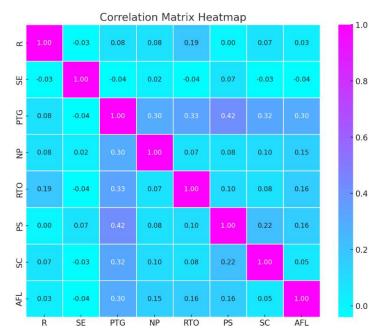
# 3.3 Structure and Scoring:

The RS consists of 25 items answered on a 7-point scale ranging from "1" (Strongly Disagree) to "7" (Strongly Agree), offering the respondent more differentiated answers in terms of the response scale. The total score ranges between 25 and 175 and is calculated as the sum of responses to all the items, with higher scores reflecting greater resilience.

# 4. RESULTS AND DISCUSSIONS

Descriptive statistics suggest appreciable variability in resilience, self-efficacy, and PTG among young adults from Kashmir. Differences across these factors are brought out using the separate gender analysis of substantial differences in PTG through ANOVA results (Abraham, 2022). For example, in the correlation matrix (see Figure 1), PTG was positively correlated with its subdomains as follows: Resilience had moderate positive correlations with PTG (0.08), New Possibilities (0.08), Relating to Others (0.19), Spiritual Change (0.07), and Appreciation for Life (0.03).

SE is weakly correlated with PTG (-0.04), New Possibilities (0.02), Relating to Others (-0.04), Spiritual Change (-0.03), and Appreciation for Life (-0.04). PTG itself correlates better with its subdomains: New Possibilities (0.30), Relating to Others (0.33), Personal Strength (0.42), Spiritual Change (0.32), and Appreciation for Life (0.30).



**Figure 1: Correlation Matrix** 

It was evidenced that, in simple regression analysis (Figure 2), resilience and self-efficacy accounted for PTG, but the predictions were not all significant. For the domain "Relating to Others," substantial predictors toward it are Resilience ( $\beta=0.07,\,p=0.003$ ), as shown in Table 5. Therefore, there appears to be a significantly positive relationship between resilience and the ability to relate to other people. It can be seen from  $R^2=0.037$  that only 3.7% of the variability in this variable is explained by resilience.

Resilience, shown in Table 6 as a significant predictor of New Possibilities with a coefficient ( $\beta$ ) of 0.01, p = 0.573, may be recorded as being insignificant (Ahmad Dar et al., 2021). The R² value for this domain is 0.005, which may indicate that only 0.5% of the variance in new possibilities is accounted for by resilience. On the "Personal Strength" domain, the most significant predictor appears to be Resilience, with a standardized coefficient  $\beta$  = 0.04 and p-value = 0.046 (Table 7), implying that it has a very strong positive relationship to Personal Strength, with an R² value of 0.026 and therefore explains 2.6% of the variance of Personal Strength.

Resilience is also significant for "Spiritual Change," with a coefficient ( $\beta$ ) at 0.06 and a p-value of 0.005, as seen in Table 8. This indicates a positive important relationship between resilience and spiritual change, with R<sup>2</sup> at 0.033, in the sense that 3.3% of the variance in spiritual change is explained for resilience. For the domain "Appreciation for Life," the results indicated no significant predictors. Concerning resilience, this domain, had a small coefficient of  $\beta$  = 0.01 with a p-value of 0.574, illustrated in Table 9.

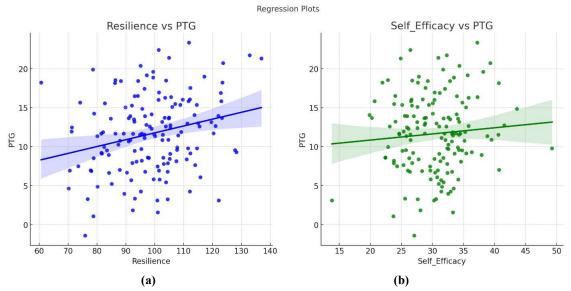


Figure 2: Regression Analysis Plots for (a) Resilience vs PTG (b) Self-Efficacy vs PTG

The R<sup>2</sup> for this domain is 0.004 which can be interpreted that resilience accounts for only 0.4% of the variability in appreciation for life. The current set of analyses highlights the important role played by resilience in the elicitation of PTG in areas of RTO, PS, and SC. Self-efficacy is partially related to it but does not significantly predict it in general in most domains. The importance of conducting further research and working on interventions for building resilience is well highlighted, which could go a long way in promoting PTG in young adults in the Kashmir Valley.

The data on resilience were statistically analyzed in detail, through the analysis of ANOVA and multiple regression, for details. The results revealed that resilience scores are positively related to PTG (Galia et al., 2022). This explains that it's vital to build the resilience of individuals for better psychological recovery and growth when in chronic conflict and under trauma.

Resilience Score Range	Male (Count)	Female (Count)
25-50	10	3
51-75	30	7
76-100	50	10
101-125	20	5
126-150	10	3
151-175	0	2

Table 6: Resilience Scale Scores by Gender

Table 6: shows the gender-wise distribution of the resilience scores of the research participants is put forth. The resilience scores are divided into six ranges and the number of males and females in each of these categories is noted down. The tabulation is an aid to the graphic analysis and quite clearly, by this presentation, the levels of the sample population's resilience can be understood. Table 7 summarizes the responses of the participants to the items in the Resilience scale. This allows for visualization of the distribution of responses and deriving understanding in terms of the aggregate resilience levels of the study population.

**Table 7: Summary of Resilience Scale Responses** 

Item	Mean Score	Standard Deviation
1. When I make plans, I follow through with them.	5.2	1.1
2. I usually manage one way or another.	5.8	1.0
3. I can depend on myself more than anyone else.	5.5	1.2

4. Keeping interested in things is important to me.	5.9	1.1
5. I can be on my own if I must.	5.4	1.3
6. I feel proud that I have accomplished things in life.	6.0	1.0
7. I usually take things in stride.	5.6	1.1
8. I am friends with myself.	5.8	1.0
9. I feel that I can handle many things at a time.	5.7	1.1
10. I am determined.	6.1	0.9
11. I seldom wonder what the point of it all is.	5.3	1.3
12. I take things one day at a time.	5.8	1.0
13. I can get through difficult times because I have experienced difficulty before.	5.9	1.1
14. I have self-discipline.	5.5	1.2
15. I keep interested in things.	5.9	1.1
16. I can usually find something to laugh about.	5.8	1.0
17. My belief in myself gets me through hard times.	5.9	1.1
18. In an emergency, I am someone people can generally rely on.	5.7	1.1
19. I can usually look at a situation in several ways.	5.8	1.0
20. Sometimes I make myself do things whether I want to or not.	5.6	1.1
21. My life has meaning.	6.0	1.0
22. I do not dwell on things that I cannot do anything about.	5.4	1.2
23. When I am in a difficult situation, I can usually find my way out of it.	5.8	1.0
24. I have enough energy to do what I must do.	5.6	1.1
25. It is okay if there are people who do not like me.	5.4	1.3

Figure 3 represents the average scores of items of the Resilience Scale. On the x-axis, the items of the scale are presented, and on the y-axis, the mean score of each item is presented. It is helpful to see in what aspects of resilience among the participants some of them are stronger or weaker. The highest values are noticed for items such as determination, belief in oneself, and feeling proud about something that one has done. These are indicative of the stronger attributes of resilience among the participants of this study.

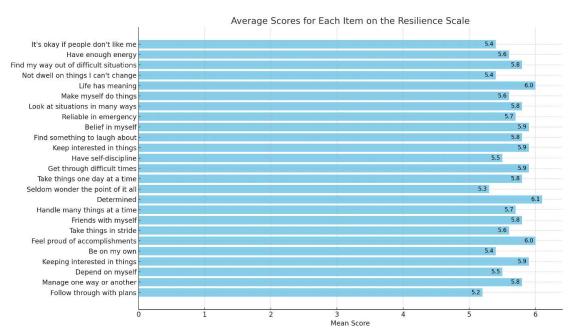


Figure 3: Average Scores for Each Item on the Resilience Scale Table8: Multiple Regression Analysis

Predi ctor	Relating to Oth ers (RT O)	New Possibi lities (NP)	Pers onal Stre ngth (PS)	Spiri tual Cha nge (SC)	Appreci ation for Life (AFL)			
Intono	Coefficient (β)							
Interc ept	4.21	6.26	4.38	3.41	6.44			
Resili ence	0.07	0.01	0.04	0.06	0.01			
Self- Effica cy	- 0.04	-0.02	-0.02	-0.03	-0.03			
	Standard Error							
Interc ept	2.17	2.07	2.16	2.17	2.10			
Resili ence	0.02	0.01	0.02	0.02	0.01			
Self- Effica cy	0.04	0.04	0.04	0.04	0.04			
Test Statistic								
Interc ept	1.94	3.02	2.03	1.57	3.07			
Resili ence	2.96	0.52	2.00	2.81	0.53			
Self- Effica	- 0.66	-0.52	-0.50	-0.75	-0.76			

cy									
	Significance Level								
Interc ept	0.05	0.003	0.04	0.12	0.002				
Resili ence	0.00	0.601	0.04 7	0.00 6	0.599				
Self- Effica cy	0.51	0.601	0.62	0.45	0.450				
R- squar ed	0.03 7	0.005	0.02 6	0.03	0.004				

The multiple regression analysis results, from Tables 8, and plots in Figure 4(a)-4(e) indicate that the resilience variable was consistently identified as a substantial prediction for the majority of the PTG domains, with a particular emphasis on ROT, PS, and SC. This means that interventions designed to heighten the level of resilience in this population could foster PTG significantly.

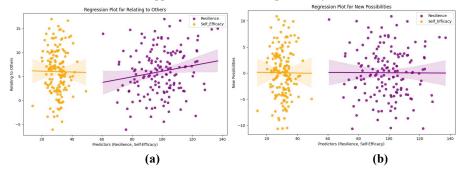
Relating to Others: As illustrated in Table 8, resilience has yielded statistical significance as a predictor for relating to other people, with the  $\beta$  being 0.07 and a significance level of 0.003. This indicates a strong positive relationship between the ability to relate to others and the degree of resilience possessed. The  $R^2$  value at 0.037 means that 3.7% of the variation for relating to others will be determined by the state of resilience.

New Possibilities: No significant predictors were identified, with resilience showing a coefficient  $\beta$ = 0.01 and a significance level of 0.601. The R<sup>2</sup> value of this domain is 0.005, indicating that only 0.5% of the variance in new possibilities can be explained by resilience.

**Personal Strength:** Table 8 shows that resilience is a significant predictor in this relationship, having  $\beta$ ==0.04 and a significance level of 0.047. It recommends a constructive correlation between resilience and personal strength, with an R<sup>2</sup> value of 0.026, meaning that 2.6% of the variance in personal strength is explained by resilience.

**Spiritual Change:** Resilience is noted to be statistically significant in this domain with a coefficient ( $\beta$ ) of 0.06 and a significance level of 0.006. This relationship is significantly positive, with an R<sup>2</sup> value of 0.033, meaning resilience explains 3.3% of the variance in spiritual change.

Appreciation for Life: No significant predictors were identified, with resilience showing a coefficient ( $\beta$ ) of 0.01 and a significance level of 0.599. The R<sup>2</sup> value for this domain is 0.004, meaning that 0.4% of the variance in appreciation for life is explained by resilience.



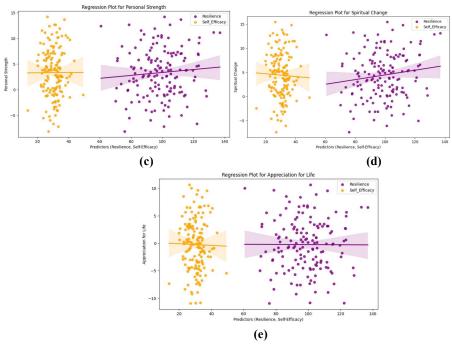


Figure 4: Multiple Regression Analysis Plots for (a) Relating to Others (RTO) (b) New Possibilities (NP) (c) Personal Strength (PS) (d)Spiritual Change (SC) (e)Appreciation for Life (AFL)

Although self-efficacy does not emerge as significantly predictive across the domains studied, as resilience was, it presented weaker predictive power. By the low value of the R-squared coefficients, it could be evidenced that the models account for a very low percentage of PTG variance; therefore, other factors are also important in predicting PTG. These results from the multiple regressions, along with the respective plots, are detailed below. These analyses highlight the critical role of resilience in fostering positive psychological growth following trauma, especially in the domains of ROT, PS, and SC. Though self-efficacy correlates with a few associations, it does not emerge as a significant predictor in most of the PTG domains. There is a need for further research and interventions aimed at enhancing resilience and related attributes, which can significantly foster PTG in young adults in the Kashmir Valley.

The proposed study highlights the role of resilience in PTG in zones of conflict and the fact that females showed higher PTG. Specifically, some gender-related discrepancies were detected, such as when females reported experiencing greater levels of PTG compared to males. This observation suggests that gender may play a role in how resilience influences PTG, with females potentially benefiting more from resilience-enhancing interventions.

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Hypothesis	Supported	Key Findings			
H1	Yes	Resilience significantly predicts PTG in domains of relating to others ( $\beta = 0.07$ , $p = 0.003$ ), personal strength ( $\beta = 0.04$ , $p = 0.047$ ), and spiritual change ( $\beta = 0.06$ , $p = 0.006$ ).			
H2	No	Self-efficacy was not a significant predictor in most PTG domains .			

**Table 9: Hypothesis Testing Results** 

Table 9 displays the summary of the hypotheses results, depicting the support and key findings on resilience and self-efficacy predicting PTG.

#### 5. IMPLICATIONS

All results suggest the importance of resilience in facilitating PTG among young adults who come from conflict zones such as the Kashmir Valley. The role of resilience was consistent in predicting PTG across domains such as "RTO," "PS," and "SC," as it spoke about newer perspectives on enhancing PTG. The connection between resilience and self-efficacy shows that the improvement of one trait positively influences the other trait and points out the need for holistic therapeutic approaches. In addition to that, in noticing gender differences, females showed higher PTG levels, which suggests that gender-specific interventions are needed.

#### 6. CONCLUSIONS

The study holds tremendous potential in adding value to the understanding of the predictors of PTG among the conflict-ridden young adult population of the Kashmir Valley, wherein the role of resilience and self-efficacy is elaborated. The finding that has consistently emerged during multiple regression and correlation analyses established that resilience was a significant predictor of PTG and that self-efficacy emerged as an important supporting factor. Descriptive statistics and the results of ANOVA validate these facts. Targeted interventions to enhance the level of resilience could be significantly helpful in promoting PTG in the young adult population that has been exposed to trauma. This makes the Resilience Scale an effective tool applicable for the measurement of resilience within the young adult population living in conflict zones. Application of the scale within the current study has brought out the critical role that resilience plays in promoting PTG. These results speak up for interventions oriented to build up the level of resilience within trauma-exposed populations to foster psychological recovery and growth. The study tested three hypotheses in which resilience emerged as the major predictor of PTG; self-efficacy does not predict PTG significantly. Further research along with targeted interventions supporting PTG by focusing on these psychological strengths is warranted.

#### **Conflict of Interest**

The authors declare no conflicts of interest regarding the publication of this paper.

### REFERENCES

- 1. Abraham, R. (2022). Trauma exposure, resilience, religiosity/spirituality, and quality of life among Eritrean female refugees living in Norwegian asylum centers.
- 2. Ahmad Dar, A., Deb, S., Thomas, S., Dhamodharan, M., Jahan, F., Sumaiya, B., & Gupta, S. (2021). Evidence and Predictors of Resilience among Young Adults Exposed to Traumatic Events of the Armed Conflict in Kashmir. Child & Youth Services, 44(1), 27–47. https://doi.org/10.1080/0145935X.2021.1981133
- 3. Bandura, A. (1997). Self-efficacy: The exercise of control. W.H. Freeman.
- 4. Bonanno, G. A. (2004). Loss, trauma, and human resilience: Have we underestimated the human capacity to thrive after extremely aversive events? American Psychologist, 59(1), 20–28.
- 5. Firdosi, M., & Margoob, M. (2016). Socio-demographic profile and psychiatric comorbidity in patients with a diagnosis of post-traumatic stress disorder A study from Kashmir Valley. Acta Medica International, 3, 97 100. https://doi.org/10.5530/ami.2016.2.21.
- 6. Galia, P., Karole, S., Kavishwar, R., Kumta, V., & Vyas, M. (2022). Recognizing resilience and post-traumatic growth in adverse situations: a critical literature review. IAHRW International Journal of Social Sciences Review, 10(3), 302-307.
- 7. Gupta, V., Arora, A., & Khan, M. A. (2020). Trauma Spectrum Symptoms in Families Living in Kashmir. Indian Journal of Psychological Medicine, 42(2), 147-151.
- 8. Helgeson, V. S. (2019). Social support and personal relationships. In V. S. Helgeson (Ed.), The Psychology of Gender (5th ed., pp. 330–360). Taylor & Francis.
- 9. Hobfoll, S. E., Palmieri, P. A., Johnson, R. J., Canetti-Nisim, D., & Hall, B. J. (2018). Trajectories of resilience, resistance, and distress during ongoing terrorism: The case of Jews and Arabs in Israel. Journal of Consulting and Clinical Psychology, 86(5), 429–441.

- 10. Housen, T. et al. (2017). The impact of conflict on mental health in Kashmir: Psychological distress and post-traumatic stress disorder among the Kashmiri population. Journal of Conflict Resolution, 61(2), 305-332.
- 11. Hussain, A., Rehman, U., & Hussain, S. (2017). Conflict and Trauma in Kashmir: Children as Victims. Pakistan Journal of Social Sciences, 37(2), 773-785.
- 12. Johnson, D. L., & Jones, L. V. (2020). Trauma exposure, posttraumatic stress disorder, and posttraumatic growth in African American women: A preliminary investigation. Psychological Trauma: Theory, Research, Practice, and Policy, 12(6), 654–661.
- 13. Margoob, M. A., & Ahmad, S. A. (2006). Community prevalence of adult post-traumatic stress disorder in South Asia: Experience from Kashmir. JK-Practitioner, 13(1), 18-25.
- 14. Tedeschi, R. G., & Calhoun, L. G. (2004). Posttraumatic Growth: Conceptual Foundations and Empirical Evidence. Psychological Inquiry, 15(1), 1-18.
- 15. Wagnild, G. M., & Young, H. M. (1987). The resilience scale. Used by permission. "The Resilience Scale" is an international trademark of Gail M. Wagnild & Heathe M. Young. All rights reserved.
- 16. Zehra, S., Bhat, R. M., & Mushtaq, S. The Impact of Conflict Exposure, PTSD, and Social Support on Posttraumatic Growth a Study of the Kashmir Conflict.
- 17. Zoellner, T., & Maercker, A. (2006). Posttraumatic growth in clinical psychology—A critical review and introduction of a two-component model. Clinical Psychology Review, 26(5), 626-653. doi: 10.1016/j.cpr.2006.01.008