

## Does Grit Affect Personal Growth Initiative Mediated by Self Concept and Moderated by Parental Control in Undergraduates?

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### Abstract

*Personal growth initiative has attracted considerable attention from researchers in recent years. It refers to an individual's willingness to improve himself and his active participation in the process of personal growth. The present study investigates the interrelationships of personal growth initiative, grit, self-concept, and parental control. It also explores the mediating role of self-concept and the moderating role of parental control in the relationship between grit and personal growth initiative. Gender differences in personal growth initiative have also been examined. The sample comprises 400 undergraduate students of Pakistan who are assessed by the Personal Growth Initiative Scale-II, Short Grit Scale, Parental Control Scale, and Self-concept Scale. Results reveal positive correlations between grit, personal growth initiative, and self-concept. Parental control is negatively correlated with personal growth initiative and positively correlated with grit and self-concept. Self-concept mediates the relationship between grit and personal growth initiative, whereas parental control does not moderate this relationship. Females have shown higher personal growth initiative.*

**Keywords:** perseverance; self-identity; parenting style; psychological development; undergraduate students

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## 1. INTRODUCTION

During the past few decades, a great deal of emphasis has been laid on personal growth initiative, a conscious and intentional involvement in self-improvement across various areas of life. It involves cognitive aspects such as mental preparedness and planning as well as seeking and using external resources to guide self-improvement (Robitschek et al., 2012). Women have higher personal growth initiative than men (De Jager-van Straaten et al., 2016), closely related to personality traits such as grit (Houston et al., 2020). Grit is a non-cognitive personality trait that involves perseverance and consistency of an individual pursuing long-term goals despite hurdles and adversities that come along the way. The literature reveals a positive relationship between grit and personal growth initiative, proactive personality, and competitiveness (Houston et al., 2020). In addition, vitality positively associates with grit and personal growth initiative (Bhardwaj & Ravavikar, 2018). Gritty people are motivated by expressing persistence and engagement

towards goals that hold some personal meaning for them (Von Culin et al., 2014). Therefore, such individuals are expected to possess a higher level of personal growth initiative. Gritty individuals also tend to have higher readiness for change; they are more motivated and willing to bring behavioural changes in themselves (De La Cruz et al., 2021). That is why readiness for change is an integral component of a personal growth initiative (Robitschek et al., 2012) and affects the quality of grit.

The literature suggests that grit quality affects how people think of themselves, or their self-concept, which refers to how an individual perceives themselves as a social, moral, physical, and spiritual being (Lundgren, 2004). People with higher grit are optimistic and hopeful, which enhances their self-worth, makes them feel good about themselves, and fosters a positive self-image (Athallah et al., 2021). Gritty people persevere with their goals over a long time and develop a sense of pride and a positive attitude towards themselves (Li et al., 2018).

The direct relationship between self-concept and personal growth initiative has not been explored; however, evidence for a potential connection between the two exists. Self-concept facilitates self-regulation, and the way a person thinks or feels about themselves has emerged as one of the strongest regulators of behaviour (Markus & Wurf, 1987). So, people with a good self-concept show greater involvement in changing their behaviour and thus have a higher personal growth initiative. Additionally, personal growth initiative has shown positive correlation with self-esteem (Luyckx & Robitschek, 2014; Malik et al., 2013; Sirles, 2016) and self-efficacy (Sharma & Rani, 2013; Ogunyemi & Mabekoje, 2007), which are conceptually related to self-concept. Hence, we believe self-concept should be positively linked with personal growth initiative.

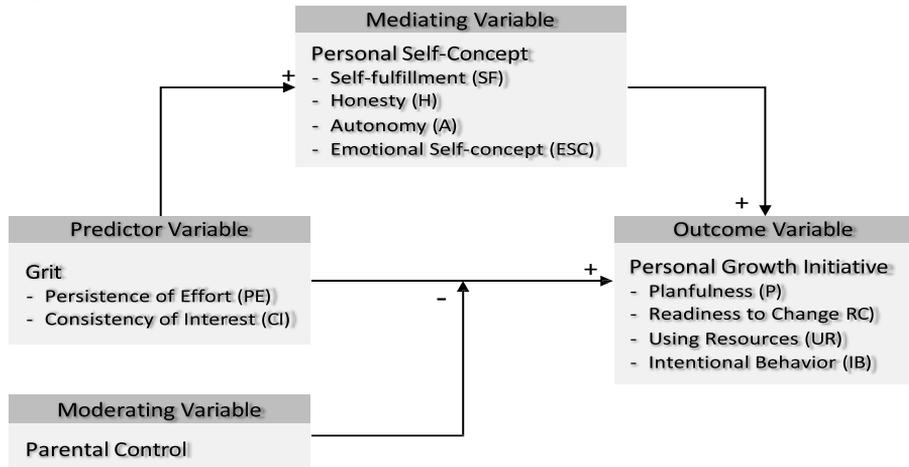
The literature also reveals that parenting influences all variables, i.e., grit, self-concept, and personal growth initiative. Parental control generally consists of supervision that includes setting rules for children's activities (Suchman et al., 2007). And since mothers and fathers use and exert different levels of parental control, personal growth initiative could be directly affected by it. For example, authoritative parenting can have a positive impact on children's personal growth initiative, whereas authoritarian parenting is associated with negative outcomes (Aslam & Sultan, 2014). In general, lower parental control has been associated with greater personal growth initiative (Kwon & Yang, 2020), suggesting a negative relationship. Parental control has a negative impact on children's grit (Van Roo, 2020), and an authoritarian parenting style decreases grit in adolescents (Fatima et al., 2021). However, other studies (Joy et al., 2020) show that parental control can be positively associated with grit.

Parental behaviour also shapes children's self-concept, and greater parental control is associated with negative self-evaluation and self-concept (Deković & Meeus, 1997). Authoritarian parenting style negatively affects self-concept in junior high schoolers (McClun & Merrell, 1998) and adolescents (Altaf et al., 2021), in contrast to preschool boys under maternal control (Flynn, 1993).

### 1.1. Objectives of the Study

The goal of the present study is to expand our understanding of the role of grit in personal growth initiative by examining the underlying mechanisms of self-concept and parental control, which the literature and the authors believe will mediate and moderate this relationship, among young Pakistani adults. See Figure 1 for the model.

Figure 1: General Model of the Study



### 1.2. Hypotheses

1. Based on the model (Figure 1), we predict that grit (and its subconstructs PE and CI, see methods section for details) would positively associate with personal growth initiative.
2. Grit would positively associate with personal self-concept (and its subconstructs SF, H, A, and ESC), which would, in turn, mediate and positively relate to personal growth initiative.
3. We expect parental control to negatively moderate the grit and personal growth initiative relationship.

## 2. METHODS

### 2.1. Sample

A convenient sample of 200 female and 200 male ( $N = 400$ ) undergraduate students from different schools, colleges, and universities of Pakistan was sought. The age of participants ranged from 18 to 25 years, divided into two groups (39.6% participants were in the age group 18-20 years, and 60.4% participants were in the age group 21-25 years). In addition, people with physical or psychological disabilities or those who were unschooled were excluded from this study. The present study includes 50% males and 50% females. 58% of participants came from nuclear families, 37.3% from joint families, and 4.8% from blended families. Participants from the upper class (10.8%) were fewer than those from the middle class (87.5%), who were more than those from the lower class (1.7%).

### *Instrument*

**Short Grit Scale (Grit-S).** The grit of participants was measured by using the Short Grit Scale. Developed by Duckworth and Quinn (2009), Grit-S contains a total of 8 items, each measured on a 5-point Likert scale that ranges from 1 (not like me at all) to 5 (very much like me). Items 1, 3, 5, and 6 are reversed-scored. The items assess two dimensions of grit or subscales, Persistence of Effort (PE, 4 items) and Consistency of Interest (CI, 4 items). All scores are added up and divided by 8. The maximum score on this scale is 5 (extremely gritty), and the lowest score on this scale is 1 (not at all gritty). The scale has good reliability (ranging from  $\alpha = .73$  to  $.83$ ) across four samples (Duckworth & Quinn, 2009), and the internal consistency of Grit-S was satisfactory ( $\alpha = .80$ , Table 1).

**Personal Growth Initiative Scale-II (PGIS-II).** PGIS-II was developed by Robitschek et al. (2012), revised from PGIS, a 9-item scale also developed by Robitschek (1998). The PGIS-II has 16 items, each answered on a 6-point Likert scale ranging from 0 (disagree strongly) to 5 (agree strongly). It comprises 4 subscales or factors that make up personal growth initiative: Planfulness (P, 5 items), Readiness to Change (RC, 4 items), Using Resources (UR, 3 items), and Intentional Behaviour (IB, 4 items). The test-retest reliability of PGIS-II is satisfactory, ranging from 0.73 to 0.81 (Robitschek et al., 2012), and the internal consistency of PGIS-II was also good in this study, see Table 1.

**Parental Control Scale (PCS).** PCS is a self-report scale, except the Infant version, developed by Rohner (1989) to assess the degree of control exercised by parents (in terms of strictness or permissiveness) over their children. It consists of 13 items (Infant version, 8 items). Although PCS has

four versions that include Child PCS (for children), Adult PCS (for adults), Parent PCS: Child version (for parents), Parent PCS: Infant version (for parents), we used the Adult PCS version. The authors Rohner & Khaleque (2003) report an overall satisfactory weighted mean coefficient for PCS,  $\alpha = .73$ , which is comparable to this study ( $\alpha = .77$ ; see Table 1).

**Personal Self-Concept (PSC) Questionnaire.** The PSC Questionnaire consists of 18 items which aim to measure personal perceptions regarding Self-fulfilment (SF, 6 items), Honesty (H, 3 items), Autonomy (A, 4 items), and Emotional Self-concept (ESC, 5 items). Each item in the questionnaire is rated on a scale from 1 to 5, where 1 represents *totally disagree* and 5 *totally agree*. The authors report good internal consistency,  $\alpha = .83$  (Goñi et al., 2011); however, the consistency in the present study was satisfactory ( $\alpha = .85$ , see Table 1).

## 2.2. Procedure

A cross-sectional research design was used in this study. After getting permission from the universities, the undergraduate students were approached, and the study was briefly explained to them. They provided informed consent by signing the consent form, then completed the research instruments in paper-and-pencil format, including a demographic sheet. Additionally, some participants completed their instruments online. The privacy of all participants' information was ensured.

## 3. RESULTS

Table 1 shows the internal consistency ( $\alpha$ ), mean (M), standard deviation (SD), and other descriptive statistics for several scales and subscales applied within the study. The initial column of the table presents the *Grit-S (Short Grit Scale)*, with 8 items ( $K=8$ ), which boasts a high reliability coefficient ( $\alpha = .80$ ). Its mean score is 24.89 ( $SD = 4.86$ ), with a range of 12 to 40. The values of skewness (.04) and kurtosis (.04) imply an approximately symmetric distribution, implying that the data are relatively balanced without severe outliers. The *PE (Persistence of Effort)* scale exhibits a satisfactory reliability coefficient ( $\alpha = .74$ ), with a mean score of 15.23 ( $SD = 2.97$ ), and a range of 6 to 20. The skewness (.04) indicates that the distribution is slightly positive with a mild inclination toward higher scores. The *CI (Consistency of Interest)* scale has an  $\alpha = .73$  reliability coefficient with a mean of 14.93 ( $SD = 3.01$ ) and a range of 7 to 20. The skewness (.18) and kurtosis (.11) scores indicate slight positive skew, suggesting a low probability that participants will endorse higher consistency in their interests. The second half of Table 1 addresses the *Personal Growth Initiative Scale II (PGIS-II)* and its subscales,

including *P* (*Personal Growth*), *RC* (*Readiness to Change*), and *UR* (*Using Resources*), as well as other scales like the *Parental Control Scale (PCS)* and the *Personal Self-Concept Questionnaire (PSC)*. These subscales also achieve adequate internal consistency with  $\alpha$  values of .76 to .85. Mean scores on these subscales differ, with the *SF* (*Self-fulfillment*) subscale reporting a mean score of 17.89 (SD = 3.23), whereas the *PCS* subscale indicates a larger mean of 67.46 (SD = 11.67). The *PGIS-II* subscales exhibit a wide range of values, and skew is positive for most, though some show negative skew, reflecting a certain diversity in participants' responses. Generally, the table shows the scales are consistent, and all of them indicate good internal consistency.

Table 1. Descriptive Statistics and Reliability Coefficient ( $\alpha$ ) of the Scales

Scale/ Subscale	K	$\alpha$	M (SD)	Range		Skewness	Kurtosis
				Min	Max		
Grit-S	8	.80	24.89 (4.86)	12	40	.01	.04
PE	4	.74	15.23 (2.97)	6	20	.04	.05
CI	4	.73	14.93 (3.01)	7	20	.13	.11
PGIS-II	16	.88	53.81 (13.55)	0	80	.62	.29
P	5	.81	12.23 (3.51)	0	25	.23	.21
RC	4	.79	9.75 (4.11)	0	20	.41	.35
UR	3	.76	5.89 (4.74)	0	15	.21	.04
IB	4	.80	8.23 (3.83)	0	20	.30	.02
PCS	13	.77	30.55 (6.83)	14	50	.15	.08
PSC	18	.85	67.46 (11.67)	40	90	.09	.02
SF	6	.79	17.89 (3.23)	13	30	.02	.01
H	3	.76	10.23 (4.21)	8	15	.01	.08
A	4	.80	12.76 (2.53)	9	20	.07	.12
ESC	5	.81	15.23 (3.47)	10	25	.06	.17

Note. Grit-S= Short Grit Scale, PE = Persistence of Effort, CI Consistency of Interest, PGIS-II = Personal Growth Initiative Scale-II, P = Planfulness, RC = Readiness to Change, UR = Using Resources, IB = Intentional Behavior, PCS= Parental Control Scale, PSC= Personal Self-Concept Questionnaire, SF = Self-fulfillment, H = Honesty, A = Autonomy, SC = Emotional Self-concept

Table 2 contrasts gender differences on the scales and subscales itemized in Table 1. The table displays the mean and standard deviation for male and female students and p-values and 95% confidence intervals (CI). For the *Grit-S (Short Grit Scale)*, men were slightly higher ( $M = 24.62$ ,  $SD = 4.89$ ) than women ( $M = 23.35$ ,  $SD = 5.14$ ), but not significantly different ( $p = .41$ ), so overall levels of grit between both genders are quite similar. For the *PE (Persistence of Effort)* scale, men scored a mean of 14.23 ( $SD = 3.07$ ), while women scored very slightly higher ( $M = 15.42$ ,  $SD = 2.71$ ), although the difference was not significant ( $p = .10$ ), suggesting that both samples show equivalent persistence. The *CI (Consistency of Interest)* subscale follows the same pattern, with men scoring slightly higher ( $M = 15.01$ ,  $SD = 4.23$ ) than women ( $M = 14.52$ ,  $SD = 3.47$ ), but the difference is not significant ( $p = .37$ ).

However, significant gender differences are evident in the *Personal Growth Initiative Scale II (PGIS-II)* and *Self-concept (PSC)* subscales. Females scored much higher on the *Personal Growth Initiative* scale ( $M = 54.40$ ,  $SD = 12.19$ ) than males ( $M = 53.23$ ,  $SD = 12.63$ ), and the difference was statistically significant ( $p = .01$ ). In addition, females scored more on the *Self-concept (PSC)* subscale, with a mean score of 88.18 ( $SD = 12.50$ ), than their male counterparts at 86.74 ( $SD = 10.76$ ), and this difference was also significant ( $p = .04$ ). These findings imply that females are likely to show stronger personal growth initiative and more highly developed self-concept than males

Table 2. Gender Differences on Scales and Subscales

Scale/ Subscale	Men		Women		<i>T</i>	<i>P</i>	95% CI	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			<i>LL</i>	<i>UL</i>
Grit-S	24.62	4.89	25.16	4.82	1.10	.96	-1.49	.41
PE	14.23	3.07	15.42	2.71	1.23	.73	-1.02	.57
CI	15.01	4.23	15.23	3.02	1.07	.42	-1.31	.43
PGIS-II	53.23	14.78	54.40	12.19	.86	.02	-3.82	-1.49
P	11.80	3.70	12.57	4.21	.93	.21	-1.02	.91
RC	9.23	4.03	9.83	3.17	1.23	.17	-1.21	.87
UR	5.13	2.07	6.03	4.21	1.09	.12	-1.02	.62
IB	8.09	4.41	9.12	4.10	1.11	.15	-1.40	.81
PCS	30.42	6.79	30.68	6.87	.38	.36	-1.60	1.08
PSC	88.18	12.50	86.74	10.76	1.23	.01	.85	3.74
SF	17.23	4.10	19.91	3.21	1.02	.52	-2.01	.90
H	10.09	5.09	12.23	4.01	.92	.05	-1.90	.05
A	12.43	3.41	11.71	5.11	1.01	.20	-1.73	.06
ESC	15.20	5.11	13.62	3.04	.79	.17	-1.25	.40

*Note.* Grit-S = Short Grit Scale, PE = Persistence of Effort, CI = Consistency of Interest, PGIS-II = Personal Growth Initiative Scale-II, P = Planfulness, RC = Readiness to Change, UR = Using Resources, IB = Intentional Behavior, PCS = Parental Control Scale, PSC = Personal Self-Concept Questionnaire, SF = Self-fulfillment, H = Honesty, A = Autonomy, ESC = Emotional self-concept  
 Sample size (Men,  $n = 200$ )  
 Sample size (Women,  $n = 200$ )

Table 3 presents the correlation matrix for Grit-S, PGIS-II, PE, CI, and their subscales. The matrix shows the strength and direction of the associations between variables. Grit-S (Short Grit Scale) is strongly positively correlated with Persistence of Effort (PE) ( $r = .29$ ), Consistency of Interest (CI) ( $r = .35$ ), and Personal Growth Initiative Scale-II (PGIS-II) subscales like Readiness to Change (RC) ( $r = .42$ ) and Using Resources (UR) ( $r = .27$ ). These findings indicate that grit is positively related to effort and interest consistency as well as to a range of dimensions of personal growth. Additionally, the PE subscale is also positively correlated with RC ( $r = .43$ ) and Readiness to Change (RC) ( $r = .61$ ), further supporting the notion that effort persistence and personal growth initiative are related. The CI subscale is highly correlated with PGIS-II subscales such as Readiness to Change ( $r = .47$ ) and Using Resources ( $r = .39$ ), suggesting that those with higher interest consistency are more effective at working on personal growth projects. The PGIS-II subscales also reflect positive correlations, specifically with Personal Control (PC) ( $r = .76$ ), Self-Concept (PSC) ( $r = .59$ ), and Self-Fulfilment (SF) ( $r = .81$ ) that are particularly strong, highlighting the salience of personal growth interventions in advancing self-concept and fulfilment.

Table 3. Correlation coefficient Matrix of Grit-S, PGIS-II, PC, and PSC and their Subscales

Scale/Su bscale	Grit -S	PE	CI	PGIS- II	P	RC	UR	IB	PCS	PSC	SF	H	A	ESC
Grit-S	-	.29	.35*	.38**	.42**	.04	.27	.54**	.03	.35*	.59**	.81***	.70**	.03
PE		-	.27	.31	.04	.43**	.19	.61**	.35**	.39	.47**	.59	.69**	.38*
CI			-	.40**	.41*	.47**	.09	.43**	.42**	.76**	.39	.85**	.43	.43
PGIS-II				-	.39**	.20	.31	.71**	-.03	.45**	.37	.43**	.26	.02
P					-	.19	.18	.82**	.41	.29	.60**	.29	.46	.41
RC						-	.43*	.63**	.72**	.32	.51	.47**	.53**	.49**
UR							-	.60	.69**	.27	.59**	.43**	.30	.90***
IB								-	.59**	.62**	.43	.38	.39	.31
PCS									-	.14**	.48**	.29	.51	.43
PSC										-	.43	.37	.50	.36
SF											-	.41*	.42	.57**
H												-	.37	.52**
A													-	.49**
ESC														-

*Note.* Grit-S = Short Grit Scale, PE = Persistence of Effort, CI Consistency of Interest, PGIS-II = Personal Growth Initiative Scale-II, P = Planfulness, RC = Readiness to Change, UR = Using Resources, IB = Intentional Behavior, PCS = Parental Control Scale, PSC = Personal Self-Concept Questionnaire, SF = Self-fulfillment, H = Honesty, A = Autonomy, ESC = Emotional Self-concept \*\* $p < .01$

Table 4 reports the outcome of a simple linear regression analysis that tests for the predictive relationship between grit and personal growth initiative. The regression indicates that grit was a significant predictor of 15% of the variance in personal growth initiative, based on an R value of .15 and a statistically significant  $p$ -value of .001. The coefficient on grit ( $B = 1.06$ ) indicates that for every one-unit increase in grit, personal growth initiative rises by about .38 units. The standardized beta coefficient ( $\beta = .38$ ) also highlights a moderate to strong positive correlation between grit and personal growth initiative. The corresponding  $t$ -value (8.24) and  $p$ -value (.001) confirm the statistical significance of this result. Overall model fit, as evidenced by the difference in  $F$ -statistic ( $\Delta F = 67.80$ ), demonstrates a strong relationship between these two variables. This analysis proposes that higher grit levels predict higher personal growth initiative.

Table 4. Simple Linear Regression Analysis shows Grit Predicts Personal Growth Initiative. Sample Size = 400

	B	SEB	$\beta$	$T$	$p$
Grit	1.06	.13	.38	8.24	.001
$R^2$	.15				
$\Delta F$	67.80				.001

Table 5 reports the findings of regression analysis on the effect of grit, parental control, and their interaction on personal growth initiative. The analysis shows that grit explains 15% of the variance in personal growth initiative ( $R^2 = .15$ ,  $p = .00$ ). This indicates that grit is a good predictor of personal growth initiative. However, parental control also explains 15% of variance in personal growth initiative ( $R^2 = .15$ ), but this correlation is not statistically significant ( $p = .34$ ). In addition, the interaction between grit and parental control (Grit  $\times$  Parental Control) was examined and resulted in explaining 15% of the variance, but it was not statistically significant ( $p = .69$ ). This shows that the combined effect of grit and parental control has no significant influence on personal growth initiative. In general, findings indicate that stronger grit is positively related to stronger personal growth initiative ( $\beta = .38$ ), and parental control does not significantly influence the relationship between grit and personal growth initiative, given that the relation is negligible ( $\beta = -.04$ ).

Table 5. Regression Analysis Estimating the Moderating Role of Grit between Parental Control and Personal Growth Initiative. Sample Size = 400

Predictor	Personal Growth Initiative				
	R <sup>2</sup>	B	<i>B</i>	<i>T</i>	<i>p</i>
Step 1					
Grit	.15	1.06	.38	8.24	.00
Step 2					
Grit	.23	1.07	.38	8.26	.00
Parental Control	.15	-.09	-.04	.95	.34
Step 3					
Grit	.27	1.07	.38	8.25	.00
Parental Control	.19	-.09	-.04	.93	.35
Grit X Parental Control	.15	.20	.02	.39	.69

Table 6 tests the mediating role of self-concept in the relationship between grit and personal growth initiative. In Step 1, the R<sup>2</sup> value of .12 means that 12% of the variance in self-concept is explained by grit. This implies a positive relationship between grit and self-concept. In Step 2, the R<sup>2</sup> value of .26 implies that grit and self-concept combined explain 26% of the variance in personal growth initiative, showing a positive relationship between the two variables. The results indicate that self-concept positively influences personal growth initiative ( $\beta = .41$ ), supporting the notion that self-concept is a significant predictor of personal growth initiative. The mediation model shows that self-concept partially mediates the relationship between grit and personal growth initiative. In Step 3, the findings indicate that self-concept strongly mediates this relationship, suggesting the importance of self-concept in fostering personal growth.

Table 6. Mediating Effect of Self-Concept on Grit and Personal Growth Initiative. Sample Size = 400

Predictor	Personal Growth Initiative				
	R <sup>2</sup>	<i>B</i>	<i>t</i>	<i>P</i>	<i>CI</i>
Step 1					
Grit	.12	.84	7.45	.001	[.61, 1.06]
Step 2					
Grit		.72	5.60	.001	[.47, .97]
Self-concept	.26	.41	7.83	.001	[.31, .53]

#### **4. DISCUSSION AND CONCLUSION**

The purpose of the current study was to investigate the relationship between grit, personal growth initiative, self-concept, and parental control. Results indicate a positive correlation between grit and personal growth initiative, which is in line with the existing literature, e.g., Houston et al. (2020) and Bhardwaj & Raravikar (2018). Von Culin et al. (2014) indicated that gritty individuals are motivated to reach their highest potential by showing persistence and engagement; therefore, they are more likely to actively seek and participate in activities aimed at improving themselves and will ultimately have higher personal growth initiative. Moreover, gritty individuals have greater readiness for change (De La Cruz et al., 2021); thus, they are willing and motivated to make the behavioural changes required for their personal growth. In addition, the current study found that grit accounts for 15% of the variance in personal growth initiative; thus, grit has emerged as a significant predictor of an individual's personal growth initiative.

Furthermore, as in previous studies, the current findings indicate a positive relationship between grit and self-concept. The individuals who show perseverance and passion in attaining long-term goals develop a sense of pride in themselves and see themselves as persistent. As a result, they have a positive view of themselves (Li et al., 2018), or, in other words, a positive self-concept.

Another important finding of this study is that self-concept is positively correlated with personal growth initiative. It suggests that individuals with a positive self-concept are more likely to engage in personal growth. People with positive self-concept view themselves as worthy, competent (Ybrandt, 2007), and capable (Hilebrand, 1985). Therefore, such people are more likely to initiate personal changes in their lives and strive for personal growth. On the other hand, people with negative self-concept tend to have self-doubts and view themselves as worthless (Badgular & Mundada, 2014); hence, they are less likely to put effort into working on themselves or taking the initiative for their personal growth.

Results also indicated a negative association between parental control and personal growth initiative. The finding is consistent with previous research, which indicates that higher parental control (such as in an authoritarian parenting style) decreases personal growth initiative (Aslam & Sultan, 2014). Controlling parents do not grant autonomy to their children for making their own decisions, such individuals become dependent on their parents' instructions and guidance (Nijhof & Engels, 2007). Hence, they are less likely to take the initiative for their personal growth.

The hypothesis regarding the negative correlation between parental control and grit has not been accepted, as results indicate a positive relationship between these two variables. This finding is supported by the study of Joy et al. (2020), which found that increased parental control contributes positively to the development of grit. Duckworth (2016) also indicated that to make young people grittier, parents must set high expectations and standards and strictly adhere to them. As a result, young people won't give up easily and will persist in attaining their goals. However, parents should also show support along with control towards their children. Furthermore, the inversion of this correlation can be explained by the cultural factors of Pakistani society. Pakistani society is collectivistic, where parental supervision and control are considered normal and, in fact, necessary, especially for fostering discipline in children's lives. This discipline is also manifested in their pursuit of long-term goals and helps them persevere in achieving them.

Contrary to the hypothesized relationship of parental control and self-concept, the findings indicate a positive correlation between the two variables. The results imply that the individuals whose parents exercise more control over their lives tend to have a more positive self-concept. However, evidence for this correlation is present in the existing literature. Flynn (1993) found that preschool boys whose mothers exerted greater control over them had developed more positive self-concepts. Therefore, a moderate level of parental control is important for the development of a child's positive self-concept. Moreover, another possible explanation for this finding could be the cultural or societal factors. In Pakistani society, parents are given a high status based on religious beliefs. Showing compliance and obedience to their demands is valued, and parental dominance and control are considered acceptable (Bibi et al., 2022). So that's why parental control is not interpreted negatively and might not have detrimental effects on individuals' self-concept; rather, it appears to be beneficial for the development of a positive self-concept.

The present study also revealed that self-concept acts as a mediator in the relationship between grit and personal growth initiative. This mediating mechanism could be explained in such a way that individuals who can persevere with their goals despite hurdles tend to have positive attitudes towards themselves (Li et al., 2018), hence they have a positive self-concept. This positive self-image, in turn, boosts their confidence in their abilities (Usher et al., 2019) and serves as a motivational drive (Judge et al., 1998), enabling them to play an active role in improving themselves and bringing positive changes across various domains of their lives.

The moderation analysis reveals that parental control does not moderate the relationship between grit and personal growth initiative. One possible explanation for this finding is that study participants were in their late adolescence or young adulthood. At this stage of life, parental control might not have as great an impact on their personal outcomes or characteristics (i.e., personal growth initiative and grit) as it did in earlier developmental stages. People at this stage are under greater influence from factors such as peer pressure and impression management, which may profoundly affect their characteristics or behaviors.

Another important finding of our study is that females are significantly higher on personal growth initiative as compared to males, which coincides with the findings of De Jager-van Straaten et al. (2016). Presently, there is no exact explanation as to why females possess higher levels of personal growth initiative. However, Kiecolt & Mabry (2000) conducted a study on motivation behind self-change in students, which suggested that enhancing one's self-esteem is a more significant motivation for women compared to men. So, there is a possibility that females show higher personal growth initiative, which could enhance their self-esteem. Moreover, in Pakistan's cultural context, females are expected to change themselves for the better or improve their conduct, which may increase their tendency to engage in self-improvement.

The reliability of the Grit scale in the present study is satisfactory ( $\alpha=.06$ ). The Short Grit Scale was originally developed and tested on Western samples, where it demonstrated good reliability. However, the present study is conducted in Pakistan. The contrasting differences in the cultural contexts of these settings may have affected the interpretation and responses of the participants, therefore leading to lower reliability.

#### **4.1 Limitations and Suggestions**

This study was aimed solely at exploring correlations among the variables; thus, causal inferences cannot be drawn about them. Experimental research on these variables is required to examine the causal relationships among them. The present study involves only undergraduate Pakistani students aged 17 to 25 years. The same study variables could be examined across different samples in the future to determine whether there are significant changes in their relationships. The use of a non-probability sampling technique would have caused selection bias. In the future, probability sampling techniques could be used to ensure the sample is representative. This was a cross-sectional study in which participants were examined at a single point in time. Future research can extend the scope of

this study by using a longitudinal design to examine similar hypotheses over a longer period. Finally, the use of self-report measures in the current study might have caused bias. In the future, objective measures or parent- or teacher-reported measures of the study variables could be used to reduce subjectivity.

## 4.2 Policy Implications

This study has several implications. First, it suggests that individuals can be motivated to actively improve themselves and experience personal growth by introducing programs to boost their grit. Furthermore, awareness workshops should be arranged for students and the public to help them realize the importance of personal growth and the significance of perseverance and persistence in pursuing it. Also, how people view themselves is highly significant in their lives; therefore, special attention should be given to a person's self-concept or self-image, which can be improved by enhancing his/her grit. Moreover, a moderate amount of parental control can play a significant role in bringing positive outcomes, such as enhancing an individual's grit and their self-concept. Therefore, programs aimed at teaching parents appropriate parenting practices and maintaining a balance between warmth and control in their interactions with their children should be introduced.

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