

**Imposter Phenomenon and Burnout in University Students: Moderating Role of Coping Strategies**Momina Yahya<sup>1\*</sup>, Shazia Qayyum<sup>2</sup>, Salma Rasheed<sup>3</sup>**Abstract**

Imposter phenomenon (IP) is the fear of being exposed as a fraud or an imposter. Recent studies have examined the rise of IP in students. Hence, this study was focused on the detrimental effects of IP on students' mental health. It examined the relationship between IP, and burnout (along with its 2 subscales; i.e., exhaustion and disengagement) of university students, along with the moderating effect of coping strategies. It was hypothesized that there is correlation among IP, coping strategies and burnout. Further, IP is likely to predict burnout. Moderating effect of coping strategies on the relationship of IP and burnout was also hypothesized. Lastly, gender differences were hypothesized among IP, coping strategies and burnout. Non-probability snowball sampling was used to recruit samples of  $N = 160$  university students. Clance Imposter Phenomenon scale (Clance & Imes, 1978), Oldenburg Burnout Inventory (Baker & Demerouti, 2008) and Coping Scale (Hamby et al., 2015) were used. Pearson-product moment correlational analysis, multiple hierarchical regression and independent sample t-test were used to evaluate results, which showed positive correlation among IP, exhaustion, and disengagement. IP was also a significant predictor of exhaustion and disengagement (i.e., burnout). No moderating effect of coping strategies was found. Only IP, exhaustion and coping strategies had gender differences. Hence, all hypotheses were justified except one. The findings will give a better understanding of students' mental health and will be helpful in designing coaching programs that will help them alleviate frequent imposter feelings, managing burnout associated with it and enhancing coping strategies.

**Keywords:** Burnout, Coping Strategies, Imposter Phenomenon, Mental Health, Students

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**Introduction**

According to research review, the prevalence of imposter phenomenon (IP) in general population is 9% to 82%, so it is very common in general public (Bravata et

al., 2019). But it is more common in challenging environments, where there is too much competition. Aforetime, only organizational environments were considered as a hub of predisposing IP. But the recent surge in competition in study environments, increased pressures to deliver the best in only a time of four or five years and, regressed scrutiny of curriculum and procedures of education by the government has left students staggering. This chaos has left an inevitable question on a student's own ability to achieve, leading to a persistent behavior of regarding one's achievements to some external factors and considering oneself less worthy of praise, despite having clear evidence for the contrary. Thus, the storm has rested in a lot of stress in students, causing them to be burnt out (Wang et al., 2019). In a recent systemic review which comprised of 25%

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Asian students, total 55.4% of students suffered emotional exhaustion, 31.6% and 30.9% reported cynicism and academic efficacy, respectively (each of which is a dimension of burnout) (Alayya et al. 2020; Rosales-Ricardo et al., 2021). However, there is a significant role of how stress was coped in determining the level of burnout one is going to face (Gam et al., 2016). So currently, we are faced with two issues; first there is no acknowledgement of imposter phenomenon in general public. Secondly, there is no scrutiny over the type of coping strategies used to regulate stress. That's why it was considered necessary to conduct research to evaluate, how much student population suffers from IP, how IP and burnout are related and whether coping strategies moderate the relationship of IP and burnout.

Imposter phenomenon is known as an internalized feeling that one's success or accomplishments are due to external reasons (e.g., luck or help from others), while having clear evidence of it as a result of one's own capabilities. People suffering from this always fail to internalize any success. It is characterized by an inevitable persistent belief that one is not as capable as others think, which leads to a persistent fear of being exposed to intellectual fraud or less capable of others. That is manifested by a continuous struggle to prove the otherwise, i.e. by setting a very high standard for them, but they never internalize their achievement, and this viscous cycle of perfectionism and stress continues (Clance & Imes, 1978; Kolligian & Sternberg, 1991).

Coping strategies are defined as psychological patterns that individuals use to manage thoughts, feelings, and actions encountered during various stages (Franklin, 2014). Coping skills or coping strategies are a set of adaptive tools that we proactively administer to avoid burnout (Chowdhury, 2020)

Freudenberger first provided the idea of 'burnout' in 1974 (Institute for Quality and Efficiency in Health Care (IQWiG), 2020).

He explained burnout as a severe response to prolonged stress, affecting the psychological, physical and emotional state. The 'work' often done by students (i.e. submitting assignments, taking classes, completing projects or taking exams), is prolonged, physically and mentally demanding, and in some cases, it is even undue (Capri et al., 2012). So, it can often make students susceptible to burnout. Unlike tiredness, burnout is often stable over time and does not remit with fewer and shorter breaks (Rossi et al., 2013).

Demerouti and Evengalia (2008) explained burnout as "a phenomenon that is characterized by feelings of (emotional, physical, and cognitive) exhaustion due to the demands of an acquired job or study and an attitude of withdrawal and detachment from one's work". Further he divided burnout into 2 dimensions, based on the nature of symptoms. Exhaustion is often the first symptom of burnout, as characterized by the overextended feeling of being drained out emotionally and physically. While disengagement is characterized by withdrawing oneself from work and also creating negative attitudes towards work. Disengagement develops after an extended period of exhaustion (Rogala et al., 2016). The purpose of this research was to determine the association among Imposter phenomenon, coping strategies, burnout and its components, exhaustion and disengagement.

Specifically, the main objectives of this paper are:

- a) To discover the prevalence of Imposter phenomenon in Pakistani university students.
- b) To find out the relationship between Imposter phenomenon, coping strategies and burnout in university students in comparison to gender.
- c) To find out the moderating effect of coping strategies on Imposter phenomenon and burnout.

The present paper begins with an examination of literature pertaining to imposter phenomenon, coping strategies

and burnout. Second, it highlights the conceptual framework which includes the explanation of the conceptual model, and hypotheses. Third, it discusses the methodology adopted, and the tests conducted to obtain reliable and valid measures of the constructs. Fourth, it highlights the inferential statistical analyses which include Pearson's product moment correlation, multiple regression analyses. Finally, conclusions and managerial implications of the study are provided, and a set of future research directions is examined.

### Literature Review

Cohen and McConnell (2019) reported that imposter phenomenon is not just limited to one's inherent inability to internalize success, instead it's often related to experiences in close social environment, such as university programs. Certain perceived characteristics of university programs (i.e. perceived increase in competition and isolation, and perceived lower quality of teaching) make students more susceptible towards imposter phenomenon. Similar research by Canning et al. (2019) also concluded that interpersonal competition between students is linked to higher 'in-class's imposter feelings. That leads to a number of consequences, such as lack of engagement, more drop-outs, lower academic grades.

In many studies, IP is also a strong predictor of mental health of students. More accurately, it was found to be positively correlated with depression, anxiety and psychological distress (Canning et al., 2019; Rohrmann et al., 2016; Schubert & Bowker, 2019; Wang et al., 2019).

Barr-Walker et al. (2020) conducted research to examine the coping strategies used to cope with imposter phenomenon. The result indicated that external coping strategies, which included any external aid or support (e.g., education and mentorship), were related to lower likelihood of imposter syndrome. While internal coping strategies, including intra-personal techniques (e.g., mindfulness, reflection etc.), were related

to higher likelihood of imposter feelings. It was also concluded that external coping strategies were more effective than internal ones and using any strategy (external or internal) yielded lower scores on imposter scale than using no strategy at all (Barr-Walker et al., 2020).

Hutchins & Rainbolt (2016) further examined the triggers of imposter phenomenon and coping strategies used to manage with the stress of imposter feelings. It concluded that any coping strategy used reduced the experience of imposter feelings, but it only gave momentary relief. There was some gender differences identified in the result. Women relied more on social support and active coping, which included instrumental (suggestion etc.) and emotional (expressing empathy etc.) support from others. While, male relied more on avoidant coping strategies, detaching themselves from the world, using alcohol or other drugs to lessen imposter feeling or consciously suppressing them, by not addressing them directly (Hutchins & Rainbolt, 2016).

Another research (Leach et al., 2019) concluded that there was a significant positive relationship between burnout and imposter phenomenon, which means that participants having more imposter phenomenon also reported more and frequent burnout. In 2002-2012, Villwock et al. identified the prevalence and demographic differences in the experience of imposter phenomenon and burnout by a pilot study. The results indicated that female gender had higher imposter symptoms than male counterparts. Imposter phenomenon was also found to be highly associated with burnout symptoms and its multiple components, namely, exhaustion, cynicism, emotional exhaustion and depersonalization (Villwock et al., 2016). Gam et al. (2016) conducted research to evaluate the influence of stress coping strategies of art therapists on the level of burnout. The results indicated that overall, the level of burnout was low. But there was a significant association between stress

coping strategy and burnout. Seeking social support was the most common coping strategy. Whereas the overall burnout score was influenced by emotion relieving coping strategies (Gam et al., 2016).

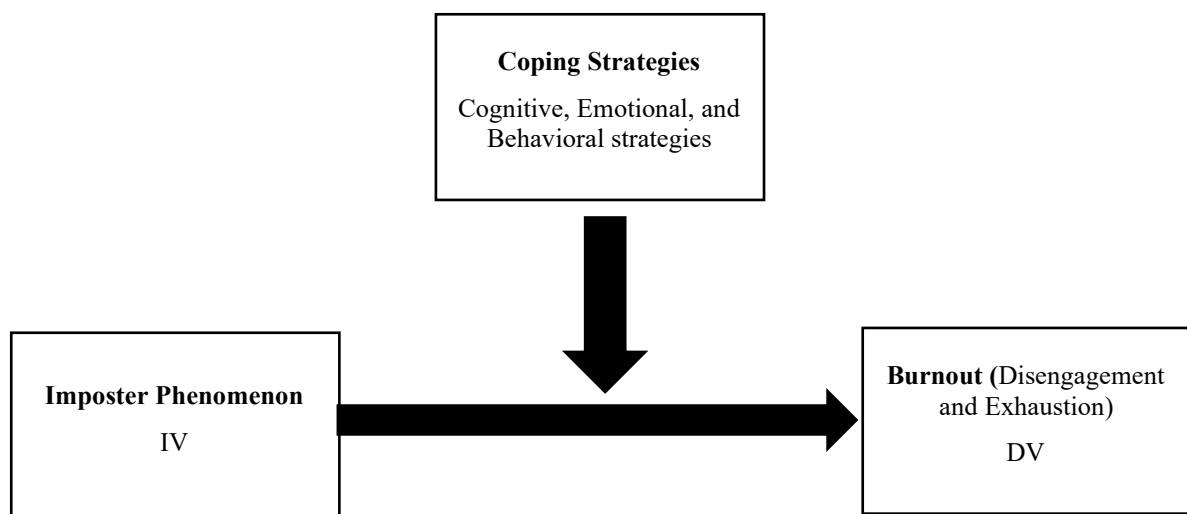
### Rationale

In Third World countries, there is very little acknowledgment about the Imposter phenomenon and the burnout it can lead to. So, this study aimed to find out a general ratio of university students who are suffering due to this phenomenon. Furthermore, it is reported that almost 70% of people in Pakistan suffer from stress 28 but no research determines how much burnout is due to the Imposter phenomenon. So, finding out their relationship was also the aim of the study. Moreover, it is very necessary to know

which type of coping strategy causes more burnout and the general diversity of coping strategies in university students, so that it can help in further developing a program for awareness. Many primitive types of research have shown females higher at Imposter phenomenon, but recent research have shown no difference in gender. So, this study was aimed to examine gender differences as an indigenous study. The results of this study have implications in launching campaigns for awareness about the Imposter phenomenon and different coping strategies. Secondly, it can help with developing helplines, which can help students with the Imposter phenomenon break their boundaries of fear and can make them aware of more productive coping strategies

**Figure 1**

*Conceptual Model*



### Objectives

- To discover the prevalence of Imposter phenomenon in Pakistani university students.
- To find out the relationship between Imposter phenomenon and burnout in university students in comparison to gender.
- To find out the moderating effect of coping strategies on Imposter phenomenon and burnout

### Hypotheses

The hypotheses of the present study were:

- There is likely to be a significant relationship among the imposter phenomenon, burnout, and coping strategies.
- The Imposter phenomenon is likely to predict burnout.
- Coping strategies are likely to moderate the relationship between the Imposter phenomenon and burnout.

- There is likely to be significant gender differences among burnout, Imposter phenomenon, and coping strategies.

## Method

### Research Design

To find out associations among imposter phenomenon, burnout, and coping strategies, correlational research design was employed. For the comparative study of male and female university students, cross-sectional research design was applied.

### Sample and Sampling Strategy

A snowball non-probability sampling strategy was employed to collect data from currently enrolled university students. A total of 160 students were recruited, based on the following inclusion and exclusion criteria. People studying any level of degree in a university were included. Only males and females were included because this was a comparative study. Those students with any self-reported mental or physical illness were excluded. The socio-demographic characteristics of the sample recruited in this research are given in the Table 1.

**Table 1**

*Sociodemographic Characteristics of Participants (N=160)*

Demographics	<i>f (%)</i>	<i>M</i>	<i>SD</i>
Age		21.61	1.83
No. of siblings		3.79	1.88
Gender			
Male	56(35)		
Female	104(65)		
Level of education			
14/16 years education	130(81.3)		
18 years education	28(17.5)		
Area of residency			
Rural	51(31.9)		
Urban	106(66.3)		
Fathers' education			
Metric or below	30(18.8)		
Intermediate	35(21.9)		
14/16 years education	54(33.8)		
18 years education	26(16.3)		
Above 18 years education	7(4.4%)		
Any other diploma	6(3.8%)		
Mothers' education			
Metric or below	65(40.6)		
Intermediate	25(15.6)		
14/16 years education	43(26.9)		
18 years education	19(11.9)		
Above 18 years education	3(1.9)		
Any other diploma	3(1.9)		

## Measures

### Clance Imposter Phenomenon Scale-20

Dr. Pauline Rose Clance and Imes developed the Clance Imposter Phenomenon Scale in 1978. It is a 20-item, self-report instrument that measures the imposter feelings experienced by an

individual and the interference it causes in normal functioning. The answers are rated on a 5-point Likert scale (1= not true at all, and 5=very true). Higher score represents repeated, severe or intense interference of imposter phenomenon in one's life. The total score ranges of 40 or less, 41-60, 61-

80, and 81 or higher, indicated fewer, moderate, frequent, and severe imposter feelings or incidences experienced by the participant, respectively. The internal reliability of the Clance imposter phenomenon scale is  $\alpha = .92$  (Clance & Imes, 1978).

#### **Oldenberg Burnout Inventory-16**

Demerouti and Nachreiner in 1998 developed Oldenburg burnout inventory. It is a 16-item inventory which assesses two core dimensions of Burnout (i.e., exhaustion, and disengagement from work). The exhaustion subscale has 8-items and covers the affective, physical and cognitive aspects of exhaustion. The disengagement subscale also has 8 items and assesses the extent of one's disengagement from the work, along with the negative attitudes. The items are scored on a 5-point Likert scale (1=strongly disagree and 5=strongly agree). 8 items needed to recode for the total score and higher total score indicated higher burnout symptoms. The internal consistency of the OLBI ranged from .74-.87 (Baker & Demerouti, 2008).

#### **Coping Scale-13**

Shery Hamby developed a coping scale in 2015 to assess cognitive, emotional, and behavioral methods of dealing with problems. It is a 13-item scale. Items are recorded on a 4-point Likert scale (1=not true about me and 4=mostly true about me). The internal consistency of the main study was 0.91 (Hamby et al., 2015).

#### **Procedure**

Permission was taken from the Institute of Applied Psychology for conducting this research. Permissions from the authors of relevant scales were sought. A personalized demographic sheet was made under the

supervision of the supervisor. The questionnaire was shared with the participants. While participants were ensured about the privacy and confidentiality of their data and were briefed about the research purpose. Online consent was taken. After their consent, questionnaires were administered by providing essential instructions regarding tools administration. Then after the collection of data, proposed statistical analysis was used to formulate the results. After formulation, results were reported in accordance with APA guidelines.

#### **Statistical Analysis**

Pearson product-moment correlational analysis was used to determine the relationship between imposter phenomenon, burnout, and coping strategies. Hierarchical regression analysis was used to find out the predictors of burnout and to determine the moderating effect of coping strategies on the relationship of imposter phenomenon and burnout.

#### **Ethical Considerations**

Ethical deliberations were kept in mind and maintained before, during, and after completion of this research. Permission was sought from each author of the questionnaire to administer in this study. An authority letter was requested from the Institute of Applied Psychology. The verbal and written consent of participants was acquired after debriefing about the purpose of the study. Participants were made sure of their right to withdraw from the research at any time they want, and they have the right not to provide their data against their will. Privacy and confidentiality of data obtained from participants was maintained during and after data collection

## Results

**Table 2**

*Descriptive and Reliability Analysis of Scales and subscales (N=160)*

Scale	<i>k</i>	<i>M</i>	<i>SD</i>	<i>Range</i>		<i>α</i>
				<i>Min</i>	<i>Max</i>	
Imposter phenomenon	20	61.46	11.16	29	89	.77
Coping strategies	13	35.73	6.26	21	49	.73
Disengagement subscale	8	19.47	3.05	11	27	.56
Exhaustion subscale	8	20.1	3.37	13	27	.60

*Note.* *k* = no. of items of each *scale*; *M* = Mean; *SD* = Standard deviation

The Table 2 shows that Cronbach's alpha reliability (internal consistency) of all scales was above .60, except for disengagement subscale; Cronbach's alpha reliability was .56. It suggests that other than disengagement subscale, all the other scales had acceptable reliability. Further, the raw mean score of imposter phenomenon was 61.46. Out of which 42.67% (64 participants) had scores ranging 41 - 60, which means they had fewer imposter symptoms. While 55.33% (83 participants) had scores between 61 - 80, which means they experience imposter

symptoms frequently. Only 2% (3 participants) had severe imposter phenomenon, securing above 80. It suggests that the majority of the student population experienced frequent IP symptoms. The raw mean score of disengagement and exhaustion was 19.47 and 20.1, respectively, representing that exhaustion as a symptom of burnout was reported more than disengagement. The raw mean score of coping strategies was 35.73, which means that the population overall had average coping strategies.

**Table 3**

*Pearson Product Moment Correlation for Study Variables and Demographics (N=160)*

Variables	<i>M</i>	<i>SD</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>	<i>11</i>
1. Imposter phenomenon	61.46	11.16	-	-.13	.32*	.46*	-.13	.18*	.05	-.06	.23*	-.07	-.05
2. Coping strategies	35.73	6.26		-	-.06	-.19*	.05	-.31**	.00	.09	-.05	-.03	-.00
3. Disengagement	19.47	3.05			-	.40*	-.04	.13	-.01	.03	.07	-.06	.00
4. Exhaustion	20.1	3.37				-	-.15	.28**	.04	.03	.05	-.03	-.06
5. Age	21.61	1.83					-	-.32**	.34*	-.04	-.19*	-.23**	-.09
6. Gender	1.65	0.48						-	.20*	.03	.08	-.03	.15
7. Level of education	1.19	0.44							-	.11	-.06	-.05	-.15
8. No. of siblings	3.79	1.88								-	-.13	-.02	-.31**
9. Area of residency	1.68	0.47									-	-.02	.16*
10. Father education	2.65	1.25										-	.21**
11. Mother education	2.20	1.24											-

*Note.* \*  $p < .05$ . \*\*  $p < .01$

The Table 3 shows that Imposter phenomenon is significantly positively correlated with both subscale of Burnout, i.e. 'exhaustion' and 'disengagement'.

Coping strategies were not related with either imposter phenomenon or burnout's subscale 'disengagement', but it was negatively associated with 'exhaustion

subscale' of burnout, and gender. Imposter phenomenon was also positively associated with area of residency. While exhaustion was significantly positively correlated with gender. The results of Pearson-product moment correlation can be summarized as, increase in imposter feelings is associated with increased burnout in university students, specifically, increase in emotional and physical exhaustion and disengagement

from work. People who were better at all three aspects of coping strategies (i.e., behavioral, cognitive and affective) had less experience of physical and emotional exhaustion. Imposter feelings, burnout and emotional and physical exhaustion was higher in females, while males were better at behavioral, cognitive and affective coping. Imposter feelings were also higher in people, who belonged to urban areas.

**Table 4**

*Independent Sample t Test Shows Gender Difference for Study Variables (N=160)*

Variables	Male		Female		<i>t</i>	<i>p</i>	95 % CI		<i>Cohen's d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			<i>LL</i>	<i>UL</i>	
Imposter Phenomenon	58.8	11.89	62.9	10.58	-2.17	.028	-7.86	-.35	.36
Coping Strategies	38.32	4.9	34.3	6.48	4.02	.000	2.05	6.01	.67
Disengagement	18.93	2.7	19.77	3.20	-1.75	.083	-1.79	.11	.28
Exhaustion	18.36	2.82	19.97	2.64	-3.51	.001	-2.52	-.70	.59

*Note.* *t* = student's t-statistics, *CI* = confidence interval, *LL* = lower limit, *UL* = upper limit.

Table 4 shows that imposter phenomenon, coping strategies and exhaustion subscale had significant gender difference. Imposter phenomenon and exhaustion had negative *t* value, which means they were higher in group 2, i.e., 'males. Whereas, coping strategies scored higher in 'females', with a positive *t* value. Cohen's *d* value shows that

Imposter phenomenon, Coping Strategies and Exhaustion subscale have medium effect sizes (i.e., 0.5 - 0.8). Whereas, among them coping strategies have the highest effect size among them. This means that difference in gender has medium effect on the above variables.

**Table 5**

*Multiple Hierarchical Regression Analysis of Imposter Phenomenon and Coping Strategies as Predictors of Disengagement (N=160)*

Variables	<i>B</i>	95% CI		<i>SE</i>	$\beta$	<i>R</i> <sup>2</sup>	$\Delta R^2$
		<i>LL</i>	<i>UL</i>				
Step 1						.02	.02
(Constant)	2.26***	2.05	2.48	.11			
Gender	.13	-.02	.23	.06	.13		
Step 2						.11***	.09***
(Constant)	1.71***	1.35	2.06	.18			
Gender	.63	-.06	.19	.06	.08		
Imposter phenomenon	.31***	.10	.31	.05	.30***		
Step 3						.23	.00
(Constant)	1.68***	1.14	2.23	.28			



Gender	.07	-.06	.19	.06	.08
Imposter phenomenon	-.008***	.10	.31	.05	.30***
Coping strategies	.01	-.12	.13	.06	.01
Step 4					
(Constant)	1.42	-.41	3.24	.92	.39
Gender	.07	-.06	.19	.06	.08
Imposter phenomenon	.29**	-.27	.85	.28	.42**
Coping strategies	.10	-.52	.72	.32	.13
IP x CS	-.02	-.23	.17	.10	-.17

Note: *B* = Unstandardized Coefficient; *CI*=Confidence Interval; *UL* = *L* Limit, *LL* = Lower Limit, *SE* = Standard Error;  $\beta$  = Standardized Coefficient;  $R^2$  = *R* square;  $\Delta R^2$  = *R* square change; \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table 5 shows the results of multiple hierarchical regression analysis of imposter phenomenon and coping strategies as predictors of disengagement. It suggested that the total variance of the overall model was 39%. In Step 1, the model was not significant, showing that gender is not a significant predictor of disengagement. In Step 2 the model was significant at  $F(3,148) = 6.04, p < .001$  and explained 11%

of the total variance of disengagement. Standardized value of beta depicted that imposter phenomenon was a significant positive predictor of disengagement in university students. In steps 3 and 4, the model was not significant, showing that coping strategies neither predict disengagement, nor moderate the relationship of imposter phenomenon and disengagement.

**Table 6**

*Multiple Hierarchical Regression Analysis of Imposter Phenomenon and Coping Strategies as Predictors of Exhaustion (N=160)*

Variables	B	95% CI		SE	$\beta$	$R^2$	$\Delta R^2$
		LL	UL				
Step 1						.09	.09***
(Constant)	2.07***	1.85	2.30	.12			
Gender	.31***	.14	.40	.07	.31***		
Step 2						.20	.20***
(Constant)	1.21***	.86	1.57	.18			
Gender	.20**	.08	.32	.06	.23**		
Imposter phenomenon	.44***	.21	.42	.05	.41***		
Step 3						.43	.01
(Constant)	1.42***	.88	1.97	.28			
Gender	.19**	.06	.31	.06	.21**		
Imposter phenomenon	.31***	.21	.42	.05	.41***		
Coping strategies	-.09	-.19	.06	.06	-.07		
Step 4						.68	.01
(Constant)	.44	-1.39	2.27	.93			
Gender	.19**	.07	.32	.06	.22**		
Imposter phenomenon	.62*	.06	1.18	.28	.82*		
Coping strategies	.28	-.34	.91	.32	.32		
IP x CS	-.07	-.30	.09	.10	-.54		

*Note: B = Unstandardized Coefficient; CI-Confidence Interval; UL = L Limit, LL = Lower Limit, SE = Standard Error;  $\beta$  = Standardized Coefficient;  $R^2$  = R square;  $\Delta R^2$  = R square change; \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$*

Table 6 shows the results of multiple hierarchical regression analysis of imposter phenomenon and coping strategies as predictors of exhaustion. It suggested that the total variance of the overall model was 68%. In step 1, the model was significant at  $F(1,151) = 15.54, p < .001$  and explained a total variance of 9%. It showed that gender was a significant predictor of exhaustion in university students. In step 2, the model was significant at  $F(3,149) = 20.30, p <$

.001 and explained a total variance of 20%. Standardized value of beta depicted that imposter phenomenon was a significant positive predictor of exhaustion in university students. In steps 3 and 4, the model was not significant, showing that coping strategies neither predict exhaustion, nor moderate the relationship of imposter phenomenon and exhaustion in university students.

## Discussion

The purpose of this research was to determine the association among Imposter phenomenon, coping strategies, burnout and its components, exhaustion and disengagement. Firstly, it was hypothesized that there is a possible significant association between imposter phenomenon, burnout and coping strategies. To check this hypothesis Pearson product-moment correlation was used. The results showed that imposter phenomenon was significantly positively correlated with both components of burnout, i.e., disengagement and exhaustion. Coping strategies were only negatively related to exhaustion, while imposter phenomenon and coping strategies had no significant relationship. This means that those who suffer from more imposter feelings and doubt themselves more than others often experience more burnout, specifically, more disengagement from work and more physical or emotional exhaustion. It is justified by research done by Leach et al. (2019), which suggested there was a positive relationship between burnout and imposter phenomenon. Also, burnout was the only factor significantly associated with the symptoms of clinical imposter phenomenon. (Leach et al., 2019). The imposters are very good at hiding their fears and emotions, because if they talk about it, they fear that they will break their bubble of

perfection. That's why it is possible that the imposters also hide their feeling of burnout or exhaustion and their disengagement from work, by never sharing it with anyone, in the result, overall burnout increases further. So, as a result burnout intensifies as the imposter feeling becomes more intense and frequent.

The other result showed a negative correlation of coping strategies and only one component of burnout, i.e., exhaustion. Which means that those who are good at coping with stress through proper use of physical, behavioral and emotional coping strategies, experience less physical or emotional exhaustion, but it has no effect on disengagement they face. A study conducted by Gam et al. (2016) to evaluate the influence of stress coping strategies of art therapists on the level of burnout. It was an international study with 140 art therapists. Correlational analysis and multiple linear regression analysis were used to evaluate the results. The results indicated that overall, the level of burnout was low. But there was a significant association between stress coping strategy and burnout. (Gam et al., 2016). This depicted that those who are better at analyzing situations and select any coping strategy accordingly are better at handling the situation and the emotions related to it in a better way. This is the reason why

burnout and coping strategies are negatively associated with each other.

Workplace exhaustion can be significantly reduced by the social support from friends and family (Garmendia et al., 2023; García et al., 2021), but this is not the case with coping out experience of disengagement. Because Pakistan is a third world country and majority here belongs from middle or lower class (Kiani, 2011; TheGlobalEconomy.com, 2023). These classes do not work for passion, but rather making ends meet. Secondly, there is a cultural imposition of parent's will on child's career, so majority end up selecting those careers, which they are clearly not interested in (Saleem et al., 2013; Yusuf, 2023). That's why disengagement from work, in Pakistan, has very deep and persistent roots. This can be a reason why coping strategies have no association with disengagement. Because there are so many other factors apparently causing this disengagement (financial stressors, lack of passion, unwanted career) that a person is unable to devise a strategy which can cope with all.

The last result of correlation analysis showed that there is no significant relationship between coping strategies and imposter phenomenon. Which means that no matter which coping strategy is used or no matter how good someone is at coping is, it either affects the intensity or frequency of imposter feelings. This result is not justified by enough researches, but the literature has shown that the effect of using coping strategies is temporary, i.e., after certain time imposter feelings return back to their original intensity and frequency, even if you cope with it momentarily (Hutchins & Rainbolt, 2016)

In Pakistan, there are so many other environmental pressures that can only contribute to further reinforcement of imposter phenomenon, rather than serving as an environment to mitigate it. For example, whenever a person achieves something, it is either related to their malpractice or luck (Zahid et al., 2024).

Every other person (including the significant ones) will be heard saying he was in a good relationship with the teacher, so it was obvious that he was going to get the highest position' or 'he just happened to be at right time and right place, that's why he achieved this, otherwise there is no probable reason that can justify his achievements'. So, people already suffering from imposter feelings, externalize their achievements even more, causing an increase in further experience of imposter phenomenon (Gorsi et al., 2023). As a result, there is no significant relationship observed between imposter phenomenon and coping strategies.

Another reason is religious affiliation of people, people in Pakistan are majorly religious, and who are very emotionally attached to their religion. Muslims (which makes the major population of Pakistan) hold a firm belief that everything, every success, every failure is from the God, there is nothing in their control, i.e., no matter how hard or less they try, the results will be only those, which are in accordance with God's will (The Qur'an, 2008, 54:49). So, there is a probability that their firm religious beliefs can be a reason for their failure at internalizing their achievements, rather they tend to externalize their achievement to a blessing from God more often (Goncalo & Kandathil, 2007; Schuster et al., 1989). Consequently, no matter which coping strategy is used, experience of imposter feelings cannot be reduced, either because of continuous reinforcing the environment or firm belief that one cannot control one's fate.

In second hypothesis, it was hypothesized that Imposter phenomenon is likely to predict burnout. The regression analysis was run to find out the predictors of burnout and its components exhaustion and disengagement. The results of the analysis showed that only imposter phenomenon and gender were the predictors of exhaustion and disengagement. While, coping strategies were neither a predictor of exhaustion nor disengagement. The

literature emphasized that the effectiveness of coping strategies is contextual based, collectivistic cultures apply emotion-focused coping strategies (i.e. accepting the situation gracefully, self-control and accepting one's fate) (Kuo, 2012). Further, Asians prefer secondary coping (i.e., adjusting to the stressful situation instead of changing the stressor) as ideal coping strategy more than Europeans (Han et al., 2022). These emotion-focused and secondary coping strategies does not reduce the impostor feelings and burnout, as effectively as problem-focused and primary coping (Shin et al., 2014). Hence, coping strategies are not a strong predictor of exhaustion and disengagement in the context of Pakistan.

Thirdly, it was hypothesized that coping strategies are likely to moderate the relationship between imposter phenomenon and burnout. Multiple hierarchical regression analysis was used for testing this hypothesis. The result showed no moderating effect of coping strategies over the relationship of imposter phenomenon and burnout. Hence, the hypothesis was not justified by the results. As discussed above, collectivistic cultures like Asia, employ emotion-focused and secondary coping strategies (Han et al., 2022; Kuo, 2012), which are not effective in reducing impostor feelings and burnout (Shin et al., 2014). Hence in the context of Pakistan (an Asian country with collectivistic cultures, moderating relationship of coping strategies in not significant, as justified by another indigenous research also (Noureen et al., 2019)

Concludingly, impostor feelings lead to the burnout in students, expressed in the form of exhaustion disengagement from work. While, certain coping strategies independently reduce burnout, they do not reduce the burnout arising from impostor phenomenon.

Fourth hypothesis claimed that there is likely to be significant gender differences in imposter phenomenon, burnout and coping strategies. To test this hypothesis, an

independent sample *t*-test was run. The results indicated that there were significant gender differences in coping strategies, imposter phenomenon and exhaustion. Hence, the hypothesis was justified with the results. The results also indicated that males were more prone to imposter symptoms than females. While majority of studies have highlighted that female experience impostor feelings more than males (Cokley et al., 2018; Levant et al., 2020), there are few recent studies which claim the opposite, i.e. males experience more impostor feelings under pressure (Jarret, 2018). These results show a complex interplay between evolving societal norms and gender role expectations.

One reason for it can be the surge in movements for female rights and mental health. The literature emphasized that the negative aspect of femininity (i.e., indecisiveness, submissiveness etc.) is related to higher IP levels, but positive aspect of femininity (i.e. empathy, warmth, support etc.) is not related to IP (Fassl et al., 2020). Since the rise of feminism, females have been focusing more on developing positive aspect of femininity (Leicht et al., 2017). For example, in past there was a long-held belief that females can never succeed or achieve anything big, as reported in Clance's own report (Clance & Imes, 1978), but with increased trust on feminism and related movements, there is a significant decrease in the severity and applicability of that belief (Leicht et al., 2017). More and more people are coming forward, increasing confidence in them and supporting them. As a result, more women have started to believe in their capabilities and internalizing their achievements as a result of their own hard work, hence, decreasing imposter symptoms (Leicht et al., 2017).

However, the traditional gender norms place a great pressure on men to be competent and successful. This may increase the fear of failure in men, leading to heightened experience of imposter feelings (Jarret, 2018). These societal

expectations and university pressure continuously reinforces impostor feelings, making men more susceptible to higher levels of IP than females.

The results have also shown the females to be good at coping than males. In Pakistani society, males are still shamed if they share their emotions; hence end up avoiding the situation through reaction formation, denial or other behavioral activities, such as, smoking etc. Whereas females are comparatively good at sharing their emotions with others and they are also good at expressing their emotions. Secondly, females are also good at asking help from others, while males are considered something low, if they do ask for help, so they end up asking none. These differences in our behavior regarding both genders have actually provided females an opportunity to be better at coping than males. As it also supported by research done by Hutchins & Rainbolt, in 2016, which evaluated that woman relied more on social support and active coping, which included instrumental (suggestion etc.) and emotional (expressing empathy etc.) support from others. While, male relied more on avoidant coping strategies, detaching themselves from the world, using alcohol or other drugs to lessen impostor feeling or consciously suppressing them, by not addressing them directly (Hutchins & Rainbolt, 2016). So, concluding this female were better at positive coping than males.

### **Limitations and Suggestions**

To have a comprehensive understanding of impostor phenomenon in the context of Pakistan, it is suggested that future research should examine various types of coping strategies employed by students and their relationship with IP levels and burnout. Further, the study of various external factors (e.g., social comparison orientation, self-compassion, and gender typing etc.) can also help in understanding and designing targeted interventions.

### **Implications and Future Directions**

This study is among the first to explore the relationship of imposter phenomenon,

burnout and coping strategies in a sample of Pakistani students. It has shifted the focus of IP from medical and organizational environments to educational environments by highlighting the alarming prevalence of IP in university students. Hence, providing valuable insight into future research and mental health initiatives. This study further challenges the traditional views on students' stressors and sheds light on previously overlooked factors that hindered academic achievement. Additionally, it has emphasized the struggles of different genders, while coping with IP and burnout, laying a basis for mental health awareness programs to emphasize mental well-being across genders.

### **Conclusion**

This research was conducted to find out the relationship among imposter phenomenon, coping strategies and burnout in university students. 160 participants were recruited, and multiple analyses were run to evaluate the results (i.e. Clance Imposter Phenomenon Scale, Coping Scale, and Oldenburg Burnout Inventory). The results indicated that the majority of the students experienced frequent impostor feeling. Imposter phenomenon and burnout, along with its subscales (i.e. disengagement and exhaustion) were positively associated. Coping strategies were negatively associated with exhaustion. Coping strategies did not moderate the relationship between imposter phenomenon and burnout. Imposter phenomenon and exhaustion were higher in males, while females had better coping strategies. The results can be used to build awareness among student population about imposter phenomenon and they can benefit from mental health program generated based on this research.

### **Ethics Statement**

All the ethical standards of APA were met. Informed consent was taken in written form from all the respondents to participate in this study.

### Contribution of Authors

Momina Yahya: Conceptualization, Investigation, Methodology, Data Curation, Formal Analysis, Writing – Original Draft

Shazia Qayyum: Methodology, Writing - Reviewing & Editing, Supervision

Salma Rasheed: Conceptualization, Methodology, Writing - Reviewing & Editing

### Conflict of Interest

There is no conflict of interest declared by the authors.

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### Data Availability Statement

The datasets of the current study are not available publicly due to ethical reasons but are available from the corresponding author [M.Y.] upon the reasonable request.

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