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RESILIENCE AND PSYCHOLOGICAL DISTRESS IN THE RESIDENTS OF POLLUTED AREAS OF LAHORE

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Abstract

The aim of the current research was to investigate the relationship between resilience and psychological distress in the residents of polluted areas of Lahore. It was hypothesized that there is likely to be a relationship between resilience and psychological distress in the residents of polluted areas of Lahore. Correlational research design and purposive sampling technique were used to collect the data from adults (N=200; male=110 and female=90) with age range between 18 to 65 years (M=28.43, SD=9.38). The data were collected from different areas of Lahore where construction for development of Lahore was going on. A demographic information sheet, State- Trait Resilience Scale (STRS) (Hiew, 2000) and Psychological Distress (K10) (Kessler, 2002) were used as assessment measures. Data were analyzed by using Pearson Product Moment Correlation, hierarchal regression, independent sample t-test, and one way ANOVA. The results revealed that resilience and its three subscales i.e. inter-state resilience, intra-state resilience and inter-trait resilience were negatively correlated with psychological distress. Furthermore, it was found that age and status of father currently alive were significantly positively correlated with psychological distress but birth order and mother's occupation were negatively correlated with psychological distress. The present research raises implication for environmental psychology and social psychology and suggests an approach that aims to focus on the management to overcome polluted situation.

Keywords

Resilience, Psychological Distress, Pollution, Construction Work



1. Introduction

In Pakistan construction work has yet to respond up to date technological development and advancement, especially in the field of civil engineering and innovative construction work (Azhar, 2008; Ullah, & Sepazgozar, 2019) and play a major role in production of environmental pollution include in destruction and construction waste, dust, scrap and noise and destroy the daily life functioning, within and outside of their residence as well as, affect the biological and psychological health of people (Dong *et al.*, 2019). Resilience plays an important role with major life stressors. It is a process of individuation in the course of a structured system with continuing exposure of inaccessible and personal abilities with successful adaptation for dealing with demanding and threatening conditions (Dantzer *et al.*, 2018; Phanthuwongpakdee, 2016). Caron and Liu (2010) described that psychological distress is a negative state of mental health, connected with other physical and mental health conditions of the individual.

1.1 Resilience

The word 'Resilience' is derived from a Latin word 'salire' (to spring up, to bring up). Resilience can be regarded as the capacity to recover from any problematic situation (Pizzo, 2015). It is an individual's ability to limit or preclude the detrimental effects of a stressor and positive adaptation during or after the unpleasant and risky situation (Anisman, 2015; Woods, 2017). Sattler, (2017) defined that resilience means healthy recovery from maximum stress and trauma and

adjustments to the changing demands of stressful experiences that impact on people's life (Rushton, 2016). It is a life-sustaining encompassing positive adaptation with the passage of time and one's interaction with the environment (Lundholm, & Plummer, 2010; Southwick *et al.* 2014). It an ability to sustain relatively stable, and healthy levels of psychological and physical functioning (Nolden, & Kostić, 2017). It is the steadiness or rapid healing under massive dangerous environments and helps the individual to recuperate from hard situations and to deal with stress in an optimal level (Neenan, 2017; Walsh, 2015). According to the Wong (2012), it's an individual's state to cope up with tragedy, disturbance, destitution, difficulty and ongoing significant life stressors and it is a two-dimensional concept that implies exposure to difficulty and the demonstration of positive adjustment outcomes or jump back to mental and physical fitness after an uncomfortable situation (Walsh, 2015). Resilience is the capacity of one's person to cope efficiently with the internal and external stresses (Zimmer, 2016) and healthy adjustment in the depressed and traumatic condition (Rees, 2015). It can be learned by anyone through thought or action and reaction because it is not only a personality trait as well as it is a kind of action in which involves behavior (Southwick, 2018). It is not a personal trait but also a product of the environment and the interaction between the child and his surroundings (Hao *et al.*, 2015). Chawla *et al.*, (2014) take it as the resource that could decrease the number of

stressors and guards against the effects of stressors on psychological consequences (Kalisch *et al.*, 2017). Two types of resilience are Trait resilience and State resilience:

1.1.1 Trait Resilience

A quality pertaining to personality or characteristic that promotes adaptation by lessening the negative effect of stress. Trait resilience was considered to build up since childhood and make an individual to stand up against adverse circumstances (and to deal with the emotional, cognitive and social hurdles in their lives (Hiew *et al.*, 2000; Masten, & Cicchetti, 2016).

1.1.2 State Resilience

It can be the current resiliency behavior of the individual indicates. It refers to a person's experience in a given situation (Hiew, 2000 *et al.*, 2013; Neenan, 2017; Ye *et al.*, 2020).

Meta theory of resilience and resiliency state that resilience was thought to be a force within everyone that leads them to look for self-actualization, altruism, insight and be consistent with a spiritual source of strength. The premise of this theory is the concept of a biopsychosocial equilibrium, which permits us to regulate current life conditions (Richardson, 2002). Constructivist self-development theory (Saakvitne, Tennen, & Affleck, 1998) defined the adaptive techniques are described the abilities that come into sight and handle threats to the security and authenticity of the person for coping with traumatic stress. Resilience model of response to psychological trauma was given by Agaibi and Wilson (2005) emphasized the communication among five

variables that are included in factors of personality, concern variation, deal with situations, ego walls, and burning up of defending aspects.

1.2 Psychological Distress

According to Winter *et al.*, (2015), psychological distress is separate concept of stress, strain and distress related to each other. Individual start discouraging himself, become solitary, starts self-blaming and suffer from sleep disturbance and sometimes had a thought of suicide too (Pessin, Rosenfeld & Breitbart, 2002; Pranckeviciene *et al.*, 2017). Psychological distress can be contemplated by opposing ends with as a continuum of mental illness and mental health. As we spend our life to experience different things and events, we travel back and forth on the continuum at different times throughout our lives (Kessler *et al.*, 2002). A little stress may be preferred, beneficial, and even healthy outcomes for us. An excessive quantity of stress leads to physical destruction of the individual. The experience of unpleasant situation, irritability, unhappiness, nervousness, and challenging interpersonal associations are due to psychological distress (Shaheen & Alam, 2010).

Pastorino and Doyle-Portillo (2012) stated that there are different types of stressors: Crises/catastrophes, major life events and daily hassles/microstressors. The interpersonal theory characterized with psychological obscurity to dysfunctional ways of communication (Carson, Butcher, & Mineka, 1996). Psychodynamic theory looks at pathological issues (Psychological distress) from an intra-psychic outlook. Barlow

and Durand (2011) defined that unconstructively unfair cognition is an interior process in psychological distress.

1.3 Environmental Pollution

Environmental pollution is the contamination of the environment and surroundings, in which we live, breathe and work (Meza-Figueroa, 2007). Environment is explained as the condition in which we can live and work in a better way (Cambridge dictionaries online, 2015). Pollution is a negative and undesirable change in the environment; usually it has called the addition of something dangerous or unfavorable, affecting our physical and psychological health (Ashraf, Maah, & Yusoff, 2014). According to Zhang (2015), main categories of environmental pollution due to construction work are Noise pollution, water pollution, air pollution, dust pollution and light pollution.

2. Literature Review

Anasori (2020) explored workplace bullying predicted emotional exhaustion, and resilience and psychological distress partially mediated this relationship. Bacchi. (2017) investigated that Higher levels of resilience were associated with lower levels of distress Students learn resilience-based interventions to reduce the effects of stress. Dhar *et al.*, (2019) investigate mindfulness are significant predictors of psychological distress among university students. There is a need for resilience and mindfulness-based training program for the university first year students. Mahmood and Abdul-Ghaffar (2014) explored that psychological distress was negatively associated

with subjective well-being and resilience. MasoodMasud and Mazahir (2016) exposed that cancer patients with higher resilience, had experience of lower psychological distress and physically they are more active. A study by Neff and McGhee (2010) finding suggested that self-compassion was connected with resilience and well-being among adolescents as well as adults. Perron, Cleverley, and Kidd (2014) discovered that homeless youth experience high level of psychological distress than resilience. Satici (2016) explored that hope completely mediated the impact of resilience on subjective well-being and that hope somewhat mediated the impact of psychological vulnerability on subjective well-being. Su, D'Arcy, and Meng, (2020) suggested that social support and positive coping skills predicted higher rates of positive mental health but lower rates of psychological distress and no gender differences were observed among these associations. Suzuki *et al.*, (2018) investigated that family resilience reduced maternal psychological distress and alleviated the relationship between maternal psychological distress and severity of developing disorders in children.

A study was conducted by Tian and Gao (2015) investigated that resilience was significantly related with low psychological distress in Renal Transplant (RT) recipients. Yasien *et al.* (2016) tried to discover that negative relationship between psychological distress and resilience in rescue workers. Wehbe, Al-Hattab, and Hamzeh (2016) discovered the relations between resilience and construction safety performance and result

suggested that networks with healthier communication and structure have higher resilience to extensive risks and enhanced safety performance.

2.1 Rationale

The present study aims to discuss the resilience and psychological distresses in the resident of polluted areas of Lahore. In Lahore, due to the construction work for the development of city, people face many problems due to pollution. The People living in polluted areas face all of these critical situations and the outcome of all this is that they suffer from psychological distress. Psychological distress affects our level of functioning, especially if we are living in polluted areas. This study aims to explore that do the people living in polluted areas suffer from psychological distress or the are resilient enough to fight with this distress?

2.2 Hypotheses of the Study

- There is likely to be a relationship between resilience and psychological distress in the residents of polluted areas.
- Resilience in residents of Polluted areas is likely to be a predictor of Psychological distress.
- There is likely to be a gender difference in Resilience and psychological distress in the residents of polluted areas of Lahore.
- There is likely to be difference in demographic variables and psychological distress in the residents of polluted areas of Lahore.
- There is likely to be a difference in father currently alive and psychological distress in the

residents of the polluted areas of Lahore.

- There is likely to be a difference in mother currently alive and psychological distress in the residents of the polluted areas of Lahore.
- There is likely to be a difference in birth order and psychological distress in the residents of polluted areas of Lahore.

3. Methodologies of Research

3.1 Research Design

The correlation research design was used to find out the relationship between Resilience and Psychological Distress in the residents of polluted areas of Lahore.

3.2 Sampling

The present research used purposive sampling strategy. Sample was collected from different pollution affected areas of Lahore. The sample consisted of (N=200) participants (age range 18 to 65 years, young adult, middle adult & late adult) both male and female (n=110 male and n=90 female).

Table 1 Descriptive statistic of Demographic variables (N=200)

Variable	M	SD	F	%
Age	28.43	9.38		
Gender				
Male			110	55.0
Female			90	45.0
Birth order				
First born			51	25.5
Second born			91	45.5
Last born			58	29.0
Father				

currently alive		
Yes	152	76.0
No	48	24.0
Mother Alive		
Yes	165	82.5
No	35	17.5
Mother occupation		
House wife	148	74.0
Govt. employ	11	5.5
Self-employ	6	3.0

Those people who were physically disable, suffering from any medical or psychological illness and not living in polluted areas were not included in the study. The questions related to medical and psychological problems were asked before asking participants to fill the questionnaire.

3.3 Assessment Measures

Assessment was carried out by using demographic information sheet, State- Trait Resilience Scale (STRS) and Psychological Distress (K10).

3.3.1 State- Trait Resilience Scale (STRS)

This scale was developed by Hiew in 2000. This scale has two forms; first of these two scales is state-resilience scale and second is trait resilience scale. State Resilience Scale has 15 items with a 5-point rating scale and the respondent rate themselves on each statement describing them. It has two subscales. Inter-state resilience consisted of 6 items and Intra-state resilience scale consisted

of 8 items. The Trait Resilience Scale consisted of 18 items of resilience traits in which respondents rate themselves on each item from ‘strongly disagree’=1 to ‘strongly agree’=5 on five point rating scale. Trait resilience scale also have two subscales each i.e. inter-trait and intra-rating scale. The inter-trait resilience contains 8 items and the intra-trait resilience subscale is consist of 10 items Urdu translated version of this scale was used (Jabeen, & Kausar, 2009). Cronbach’s alpha reliability of the scale for the present study was .81.

3.3.2 Psychological Distress (K10)

The Kessler Psychological Distress Scale developed by Kessler (2001). The K10 scale involves 10 questions about emotional states each with a five-level response scale. Urdu translated version of this scale was used (Ghafoor & Sitwat, 2016). Cronbach’s alpha reliability of the scale for the present study was .75.

3.4 Procedure

First of all topic were selected. When the topic was selected the variables scale were search from internet. Author’s email ids were search on internet then email was send to author for permission to using this scale. Permission was taken from the author to use this scale in English and Urdu version as required in the present study. Translated Urdu version scale was used in the present research. After taking the permission by the concerned authorities the data were collected from (N=200) participants including 110 male and 90 female, taken from different resident of pollution affected areas of Lahore through

purposive sampling technique. The researcher assured the participants about full confidentiality and privacy of the information obtained from them. The subject were given demographic information, State Trait Resilience Scale (STRS) and Psychological Distress Scale (KS10). Approximately 20-25 minutes were consumed to administer both questionnaire. 220 questionnaires given to the resident of polluted areas in Lahore, 200 filled the questionnaire while 20 residents of polluted areas of Lahore refused to fill the questionnaire. After data collection, the SPSS (statistical package for social sciences) version 20 was used to analyze data. Data was collected, quantitative analysis and interpretation was done.

4. Result & Findings

The statistical Package for Social Sciences (SPSS) was used to analyze data. A sample of adults

(N=200), male (n=110) and female (n=90) resident of polluted areas were taken from different areas of Lahore. The data were analyzed in three key steps. Initially in the first step, reliability analysis was conducted for each scale and Cronbach's alpha for the scales were reported. In the second step, Pearson Product Moment Correlation was employed to assess the relationships among the study variables that included Resilience, Psychological Distress and demographic variables. The third step, in order to clarify the relationship among predictor and criterion variables further linear regression was conducted. Independent sample t-test analysis was conducted to examine the gender difference in the resident of polluted areas of Lahore. Moreover, ANOVA analysis was conducted to examine the birth order difference in the resident of polluted areas of Lahore.

Table 2 Reliability coefficient of the study variable Resilience and Psychological Distress used in the present study (N=200)

	<i>k</i>	<i>M</i>	<i>SD</i>	<i>α</i>	Range	
					Actual	Potential
Resilience	33	3.91	.33	.81	33-165	92-155
Interstate resilience	6	3.85	.47	.65	6-30	16-29
Intrastate resilience	9	3.95	.40	.74	9-45	21-44
Inter trait resilience	8	3.94	.45	.65	8-40	20-40
Intra trait resilience	10	3.88	.41	.70	10-50	25-49
Psychological distress	10	2.05	.48	.75	10-50	12-37

Note. *k* =number of items, *M*=mean, *SD*= standard deviation, *α*= Cronbach's alpha

Table 3 Correlations coefficient of the study variable Resilience, Demographic Characteristics and Psychological Distress used in the Present Study (N=200)

Variables	2	3	4	5	6	7	8	9	10	11
1.Age	.-	.42***	.35***	-	-	.12	-.01	-.05	.00	.17*
	21**			30***	.05					
2.Birth Order		-.04	-	.28***	.04	-.05	-.02	-.03	-.02	-.21**
			.29***							
3.Father Currently Alive			.41***	-	-	-.04	-.08	-.10	-.09	.23**
				.26***	.05					
4.Mother Alive				-	-	.01	-.04	-.04	-.04	.20**
				.73***	.05					
5. Mother Occupation					.01	-.05	.06	-.03	-.00	-.15*
6. Inter-Trait Resilience						.53***	.52***	.52***	.83***	-.18**
7. Intra-Trait Resilience							.40***	-	.79***	-.20**
								.45***		
8. Inter-State Resilience								.41***	.71***	-
										.27***
9. Intra-State Resilience									.77***	-.11
10. Resilience										-
										.24***
11. Psychological Distress										

Note. *.05, **p<.01, ***p<.001

It found that demographic variables age was significantly positively correlated with psychological distress. Birth order was negatively correlated with psychological distress. Father currently alive, and mother currently alive was significant positively correlated with psychological distress. Nevertheless, mother occupation was negatively correlated with psychological distress, whereas no relationship was found between father’s occupation and

psychological distress. The three subscales of resilience scale, interstate resilience, intrastate resilience and inter trait resilience were negatively correlated with psychological distress whereas, intra trait resilience had no relationship with psychological distress. Further, the result showed that overall resilience was negatively correlated with psychological distress. Our hypothesis related to resilience and psychological distresses were approved as it was

hypothesized that there is a negative relationship between resilience and psychological distress. Moreover, these findings suggest that those people who are more resilient face less psychological distress.

Table 4 Linear Regression Analysis for study variables Resilience and Demographic predicting Psychological Distress (N=200)

Predictors	B	SE	β
Constant	3.44***	.39	
Resilience	-.35***	.10	-.24
R	.24		
R²	.06		
F	12.69		

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

The result showed that resilience was highly significant negative predictor of psychological distress. Our hypothesis related to resilience and psychological distresses were approved and found direction as it was hypothesized that resilience in residents at Polluted areas is likely to be a predictor of Psychological distress. Table 5 presented the result of regression analysis for Psychological distress as criterion variable. The overall model was significant. Demographic in model 1 explained 9% percent variance in Psychological distress, $F(6,193) = 3.54$, $p < .001$. Birth order was found negative predictor of psychological distress. Father currently alive was found a positive predictor of psychological

distress. When study variables (Resilience and its subscale) were added into model 2 in block 2, regression explained 18% variance in Psychological distress, $F(10, 189) = 4.34$, $p < .000$. Birth order was found a negative predictor of psychological distress.

Table 5 Hierarchical Regression Analysis for study variables Resilience and Demographic predicting Psychological Distress (N=200)

Predictors	Model 1		Model 2		
	B	SE	B	SE	β
Constant	1.91***	.28		3.28***	.49
Age	.00	.00	.03	.00	.00
Gender	-.01	.07	-.01	-.05	.06
Birth Order	-.11*	.04	-.17	-.12**	.04
Father Currently Alive	.20*	.09	.18	.17*	.09
Mother Alive	.08	.14	.06	.09	.13
Mother Occupation	.00	.08	.00	.02	.08
Inter-State Res.				-.24**	.08
Intra-State Res.				.07	.10
Inter-Trait Res.				.01	.09
Intra-Trait Res.				-.18*	.09
ΔR ²	.09		.18		

Note. Gender (1= male, 2= female), * $p < .05$, ** $p < .01$, *** $p < .001$

Father currently alive was found a positive predictor of psychological distress. Inter-state resilience and Intra-trait resilience were found negative predictor of psychological distress. In this model, birth order was found as the negative

predictor and father currently alive was positively predicted psychological distress. Inter-state and intra-trait was negatively predictor of psychological distress. Moreover, intra-state resilience and inter-trait resilience did not predict psychological distress.

Overall finding of the result showed that birth order and resilience subscale were direct significant negatively predictors of psychological distress.

4.1 Additional Analysis

Mean differences were explored across different groups of the sample based on the data generated through the demographics of the resident of the polluted areas of Lahore. Thus, the groups were formulated based on differences in gender such as male and female. For these groups assessed analysis were done through independent sample t-test.

Table 6: Independent sample t-test Resilience and Psychological Distress (N=200)

Variables	Male (n=110)		Female (n=90)		t(198)	p	95%CI		Cohen's d
	M	SD	M	SD			LL	UL	
Resilience	3.93	.33	3.88	.33	.93	.35	-.04	.13	0.15
Psychological distress	2.08	.51	2.01	.45	.90	.36	-.07	.20	0.14

Note. M=mean, SD= standard deviation, CI= Confidence Interval

Table 6 showed that there was no significant difference between men and women in perceiving polluted situation. Our hypothesis was not approved that was hypothesized that there was gender

difference in perceived polluted situation. It revealed that men and women had same psychological distress perceiving this polluted situation.

Table 7: Independent sample t-test for father currently alive and Psychological Distress (N=200)

Variables	Yes (n=152)		No (n=48)		t(198)	p	95%CI		Cohen's d
	M	SD	M	SD			LL	UL	
Father currently alive	1.99	.46	2.25	.50	-3.33	.00	-.41	-.10	0.54

Note. M=mean, SD= standard deviation, CI= Confidence Interval

Table 7 showed that there was a significant difference between father currently alive and not alive. There

was a significant difference in the scores for yes (M=1.99, SD=.46) and no (M=2.25, SD=.50). This

result revealed that those people their father were not father currently alive. alive perceived more psychological distress then their

Table 8: Independent sample t-test mother currently alive and Psychological Distress (N=200)

Variables	Yes (n=152)		No (n=48)		t(198)	p	95% CI		Cohen's d
	M	SD	M	SD			LL	UL	
Mother alive	2.00	.45	2.27	.59	-2.46	.01	-.48	-.04	0.51

Note. M=mean, SD= standard deviation, CI= Confidence Interval

Table 8 showed that there was a significant difference between mother alive and not alive. There was a significant difference in the scores for yes (M=2.00, SD=.45) and no (M=2.27, SD=.59).

This result revealed that those people their mother were not alive perceived more psychological distress then their mother alive.

Table 9: One way ANOVA for First born, middle born and last born (N=200) on psychological distress

Variables	SS	Df	MS	f	P
Between group	2.16	2	1.08	4.67	.01
Within group	45.55	197	.231		
Total	47.71	199			

Note: SS= sum of squares: df=degree of freedom: MS=mean square

Between groups, analysis of variances was conducted to explore the difference among three birth order groups of adults. As $p < .001$ so there is significant

difference among the three birth order groups. So, the hypothesis was accepted as significant differences were found in groups.

Table 10: Post hoc analysis for comparing for First born, middle born and last born (N=200) on psychological distress.

(I)birth order group	(J)birth order	MD(I-J)	SE	95%IC	
				LB	UB
First born	Middle born	.12	.08	-.07	.32
	Last born	.27*	.09	.06	.49
Middle born	Last born	.15	.08	-.03	.34

**The mean difference is significant at the 0.008 level.*

Table 10 shows post hoc analysis among three groups of birth order of adults. Result show that the first-born

faced more psychological distress than middle born and last born.

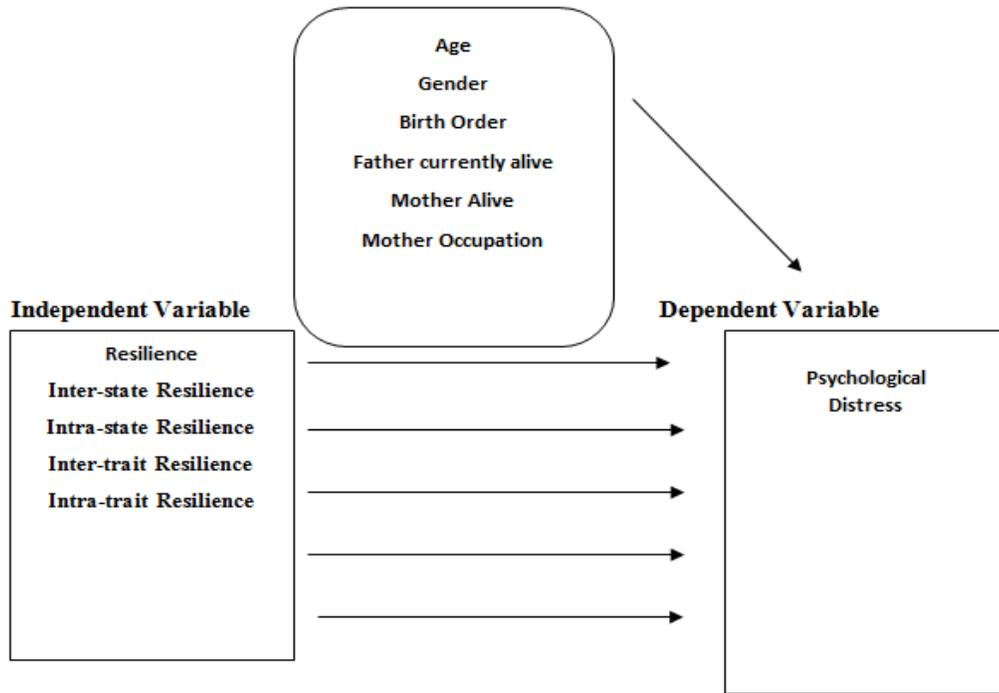


Figure 1: Hypothetical Model showing relationship between resilience and psychological distress with demographic variables as covariates.

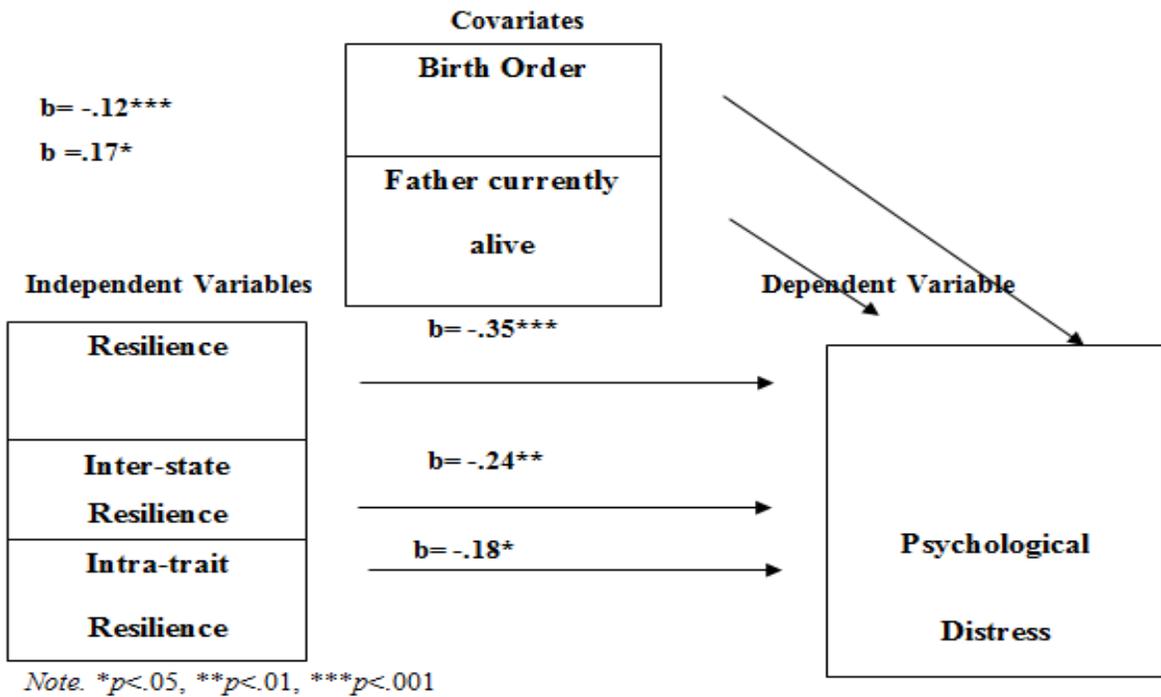


Figure 2: Emerged Model showing relationship between resilience and psychological distress with demographic variables as covariates.

The finding revealed that age, father currently alive and mother alive was positively correlated with psychological distress. Furthermore, birth order was negatively correlated with psychological distress in the resident of polluted areas of Lahore. There was a negative relationship between Resilience and psychological distress in the resident of polluted areas of Lahore. The findings revealed that resident of Lahore are more resilient and faced less psychological distress. Inter-state resilience and intra-trait resilience was significant and negatively predicted of psychological distress in the resident of polluted areas of Lahore. The finding revealed that there was a no significant gender difference to perceive polluted condition and psychological distress in both male and female. The finding revealed that with the status of living father and mother are faced less psychological distress than their status of father and mother are not living. Moreover, the finding revealed that there was a significant difference in birth order, first born perceived more psychological distress than middle and last-born.

5. Discussion

The purpose of the present study was to investigate the relationship between Resilience and Psychological distress in the residents of the polluted areas of Lahore. It was hypothesized that there is likely to be a relationship between resilience and psychological distresses in the resident of polluted areas of Lahore. The result was approved the hypothesis as it showed that resilience and its four subscales i.e. inter-state resilience, intra-state resilience, inter-trait resilience and intra-trait resilience was highly

significant and negatively correlated with Psychological distress. The current research findings are consistent with the previous researches (Bacchi, & Licinon, 2016; Masood, Masud, & Mazahir, 2016; Matzka *et al.*, 2016; Perron, Cleverley, & Kidd, 2014; Yasien, Nasir, & Shaheen, 2016). The additional finding clearly showed that no correlation was found between resilience and age, birth order, father currently alive, father occupation, mother alive and mother occupation although it is correlated with psychological distress. Age, Father currently alive and mother currently alive had positive relationship with psychological distress but birth order, mother occupation, resilience and its subscale had negative relationship with psychological distress. These findings highly supported the hypothesis that resilient people had low psychological distress as compared to non-resilient one. The result approved the hypothesis as it showed that resilience and resilience subscale i.e. Inter-state Resilience and Intra-trait Resilience were negative predictor of psychological distress. This finding further showed that birth order, resilience and resilience subscale i.e. Inter-state Resilience and Intra-trait Resilience were negative predictor of psychological distress. The current research finding is consistent with Dhar *et al.*, (2019) psychological distress among university students while Tian, and Gao (2015) found out negative predictor of psychological distress in renal transplantation (RT) patients. In another additional analysis, it was hypothesized that there was likely to be a gender difference in resilience and psychological distress in perceived polluted

situation but the result of the current study disapproved by cultural context .the result showed that there was no gender difference found in male and female because they are both faced same situation. Finding consist with Waris (2012) explored that both male and female of dengue survivor had equal level of psychological distress and Su, D'Arcy & Meng, (2020) declared that social support and positive coping skills predicted higher rates of positive mental health but lower rates of psychological distress and no gender differences were observed among these associations. It was hypothesized that there was likely to be a difference in perceived psychological distress in those people their father is alive or not alive and mother is alive or not. The result of current study was approved the hypothesis those adults their father and mother were alive they faced less psychological distress then those one their father and mother were not alive. Furthermore, it was hypothesized that there is likely to be a birth order difference in psychological distress. The result of the current study showed that this hypothesized was approved as finding showed that first born faced more difficulties and psychological distress as compare to middle one and last born because parental expectations are unachievable may lead to compromised self-esteem and sometimes appear in the form of psychological distress (Logsdon *et al.*, 2005).

6. Conclusion

The finding of the result showed that resilience and psychological distress had negative relationship with each other's. They are negative

predictor of each other. Resident of polluted areas of Lahore were faced many difficulties due to construction work. Gender differences were not found in these research men and women were both faced psychological distress. Those people who were living in polluted areas are more resilient because they used alternative to live in this situation and had less psychological distress as compare to resilience.

7. Limitations and Suggestions

There are some limitations in the present study e.g., the data was collected from only residents of polluted areas of Lahore which is not enough to have variety of responses. Therefore, further research should be conducted with a sample size taken from different areas of Punjab where construction work is in progress. Moreover, sample size in the present study was limited, which can reduce the generalization of results. Further studies with these variables should be conducted on a large sample to have greater validity of the results. For further exploration, research should be conducted with more than one independent variables in order to find out more aspects of these variables. Qualitative research should be conducted for in depth study.

7.1 Implications of the Study

The current study has its implications for future researches to explore those variables and factors, which make residents of polluted areas more resilient. The study is beneficial for improving the well-being of people who are resilient of polluted areas by making them more cautious to follow preventive and take protective measures to keep themselves healthy and functional. By creating

this awareness, the residents will face less psychological distress. The findings of this study will be beneficial for the field of environmental Psychology, as it provides an empirical results showing that pollution effects make people psychologically distressed. So if the government plans to do construction in any area, it should consult environmental psychologist in order to minimize the pollution and prioritize the health of the individuals as compared to creating pollution causing psychological distress among residents of that area.

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