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Impact of Introversion and Extroversion on Psychological Wellbeing of University

Student during Covid-19

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Abstract

The present study investigated the impact of personality disposition, introversion and extroversion on psychological well-being of university students during Covid-19. The study also aimed at finding the gender differences in psychological wellbeing during pandemic. The study included 200 participants (100 males, 100 females) recruited from different universities of Islamabad and Rawalpindi, Pakistan. The age range of participants in this study was 18-28. Statistical findings of the study revealed that introversion have significantly positive impact on psychological well-being during Covid-19. Furthermore, there was no significant gender difference in psychological well-being during Covid-19. The present study is beneficial for academicians, policy makers and social welfare programmers to design students-friendly policies keeping in view personality differences so that students' psychological wellbeing can be maximized as it is an important endeavour for any nation's progress.

Keywords: Introversion, Extroversion, Psychological Wellbeing, University Students

Introduction

Covid-19 was declared as pandemic in 2020 (WHO, 2020). Response of individuals to it depended on many factors including their personality type and coping skills. Everyone has a different personality and it affects how we respond to certain events (Afshar et al., 2015). Personality therefore, played an important role in impacting psychological functioning of people during pandemic.

Personality dimension played an important role in predicting psychological functioning during pandemic (Kocjan et al., 2020). Introversion and extroversion have an important effect on psychological well-being (Gerson et al., 2018). Due to different strengths, coping strategies and ways to get happy, both introverts and extroverts have different ways of responding to a traumatic situation (Wei, 2020). Individual respond differently to situations and they cope up with adversities differently. A sudden change in environmental condition can be more affecting to one than to another due to the type of their personality (Williams et al., 2020). Thus we can say that personality is an important determinant of psychological wellbeing, generally as well as during an adverse condition.

The sudden outburst of Covid-19 pandemic has left everyone in awe. In order to protect further outspread of this deadly virus government have made many changes to implement health measures e.g., quarantining, lock downs and wearing marks etc. Pandemic has made life upside down and these uncertain and sudden changes have affected almost everyone (WHO, 2020). For students this has been challenging because of facing a shift from one medium of learning to another. For those with good coping strategy and optimistic approach towards life, it can be less challenging but for those who are easily panicked in stressful situation it is highly challenging. For students in order to perform well in academia, a good level of resilience is required (Munro & Pooley, 2009).

On the other hand, social support, peers and a stable environment is necessary for better performance. But shifting to online medium of study and lockdown has created many issues for students regarding their mental health and psychological well-being. Life of students is busy and they are often occupied with work that a sudden shift from one medium of study to another can affect their mental health. In general, individuals respond to a stressful event differently because of available support capital and coping skills. Social networks can greatly impact how well an individual adapts to

its environment (Felton & Reverson, 1984). It influences adjustment related to stress in threatening situations (Cohen et al., 2000).

Research shows that extroverts are happier than introverts when alone, when working in social and non-social spaces, and when they living alone or cohabiting (Diener, Sandvik, Pavot, & Fujita, 1992). Research also shows that extroversion correlates more strongly with positive affect than it does with negative affect (Costa & McCrae, 1980). Further, Bradburn (1969) analyzed positive and negative affect as predictors of well-being and found that social interaction correlates more strongly with positive affect than it does with negative affect.

Another important question that arises while considering the psychological well-being of students during Covid-19 is that, is there any gender difference in psychological wellbeing of males and females during this situation or both males and females were equally affected psychologically?

There is significant difference among females and males in their response to situations and how they deal with it. They are also different with regard to their response to stressful situation. Gene-environment interaction also controls how resiliency is expressed among genders (Shanahan & Hofer, 2005). Due to difference in environment, despite same tendencies men and women might develop different level of resilience. Environment can range from nutritional uptake to birth cohorts (Kendler et al, 2000). Different level of resilience among gender affect their PWB consequently.

Rationale of the Study

There is a considerable gap in literature regarding studies on the role of introversion and extroversion in psychological well-being in Pakistan. Although, there have been conducted researches on personality and psychological wellbeing in west but this study is novel in Pakistani context. As we live in an underdeveloped country, our response towards any adversity can be different from a privileged or developed country. Due to cross cultural differences, a significant difference in findings is expected from Pakistani population. Pandemic has affected everyone to a great level, including students. Past studies mainly focused on patients but this study will be conducted on university students. Researchers has emphasized on importance of understanding resilience with perspective of development (Yates & Masten, 2004). When people grow, their expectations and indicators of positive outcomes change. As this study is on university students, it would help to understand resilience with reference to developmental perspective of university students particularly. This is different from past researches because of condition of pandemic while past researches were conducted in normal conditions.

Researchers immediately need to find ways to enhance PWB to inculcate them in policies, academics and counselling strategies in Pakistan thus this study will measure impact of personality disposition introversion/extroversion and resilience in PWB of undergraduate students during Covid-19.

Objectives:

- To investigate the role of personality traits (introversion & extroversion) in psychological wellbeing.
- To explore gender differences in introversion and extroversion.

Hypotheses

- Introverts will score high in psychological wellbeing as compare to extroverts
- There will be gender differences in psychological well-being.

Method

Research Design and Sampling

The study was conducted using cross-sectional study design. Convenient sampling technique was used. Sample was recruited by visiting different universities in Islamabad and Rawalpindi. The sample consisted of 200 members including 100 males and 100 females. The age range was 18-28 years. Personality disposition was measured using Introversion scale (McCroskey, 1998) while psychological wellbeing was measured using Ryff's Psychological Well-being Scale (Ryff, 1996). Formally written consent was taken and participants, participation was on volunteer basis. They were free to withdraw at any time.

Inclusion and Exclusion Criteria

Only university students were added in the study. The age of participant was 18-28 years. Population with psychological disorders was excluded from the study due to sensitive nature of the questions of the study.

Demographic sheet including age, gender, socioeconomic status, education, family system and residence was obtained.

Table 1. Selected demographic characteristics of participants (N=200)

Variables	n (%)
Gender	
Male	100(50%)
Female	100(50%)
Age	
18-21 Age	110(55%)
22-25 Age	87(43.5%)
26-28 Age	3(1.5%)
Marital Status	
Single	196(98%)
Married	4(2%)
Widowed/Divorced	0(0%)
Socioeconomic Status	
Lower class	5(2.5%)
Middle class	166(83%)
Upper class	29(14.5%)
Residence	
Urban	131 (65.5%)
Rural	69 (34.5%)
Family System	
Nuclear Family	127(63.5%)
Joint Family	73(36.5%)

Participants comprised of an equal number of males (100) and females (100). The sample mainly consisted of unmarried individuals i.e. 98%. Majority of the sample belonged to middle class 83%. Residence of the majority of the sample was urban 65.5%. Most of them belonged to nuclear family i.e. 63.5%.

Measures

Introversion scale (McCroskey, 1998)

It is 18 items scale 5 point Likert scoring varying from strongly disagrees to strongly agree. Item 1 to 4 are added together in step 1. In step 2 2, 5,7,8,10,11,13,14,16 and 18 are added. In step 3 score from step 1 and 2 are summed up. Remaining questions were not included in scoring because they were cross questions to avoid biasness (McCroskey, 1998). Score range is 12-60. Scores lower than 24 Indicate extraversion while higher scores indicate increased introversion. Alpha reliability of the scale is .83.

Ryff's Psychological Well-being Scale (Carol Ryff, 1996)

Ryff's psychological well-being scale 18-items version is used in this study. The scale comprises of dimensions. Responses to this scale are based on 6 points Likers scale. It is a multidimensional scale assessing one's happiness in 6 different dimensions of life including autonomy, environmental mastery, personal growth, positive relationship with others, self-acceptances and purpose in life. Its alpha reliability is good and is above .70. The internal constancy between 6 model scale has values of NFI=.777, CFI=.836, RMSE.063, PCIose=.000 and CMIN/Df=3.089 (Abbott et al, 2006).

Table 2: Reliability of Scales

Scales	No. of Items	A
PWB	18	0.70
Introversion Scale	18	0.76

Reliability of PWB scale was .68. Introversion scales reliability was .76. BRS had a reliability of .65.

Procedure

Permission was taken from Research and Ethics Committee of Riphah International University. Data was collected approaching students in different universities in Islamabad and Rawalpindi. Convenient sampling was used to access participants. Written consent was taken and participants were allowed to leave at any moment without explanation. It was made sure that there is no physical or psychological harm associated with this study. Anonymity of the participants was maintained. After the collection of

the data, it was entered and interpreted through SPSS using T-test for comparing means and correlation was also found between personality disposition and psychological wellbeing.

Results

Table 3: Means difference of psychological well-being among extroverts and introverts

Variables	Extroverts		Introverts		T	p	Cohen's d
	M	SD	M	SD			
PWB	81.94	10.491	87.74	12.065	3.604	0.00	0.513028

**p<0.01

The result indicated a significant difference in PWB among extroverts (M=81.94, SD=10.491) and introverts (M=87.74, SD=12.065), t (3.604), p=.01 with introverts having higher level of PWB than extroverts.

Table 4: Means difference psychological well-being among males and females students

Variables	Males		Females		T	P	Cohen's d
	M	SD	M	SD			
PWB	84.67	12.707	85.3	10.617	-0.38	0.704	0.004062

**p<0.01

Results indicated no significant difference in PWB among males (M=84.67, SD=12.707) and females (M=85.3, SD=10.617), t (-0.38), p=.704.

Table 5: Relationship of psychological well-being and personality disposition

Variables	1	2
TPWB	-	.249**
Intro/Extro	.249**	-

**=p<0.01

PWB and personality disposition were positively strongly correlated, r= .249**, which means that introversion was revealed to be a strong predictor of PWB in students during Covid-19.

Discussion

Personality is one of the concepts in psychological science that is very important and is the key to the success or failure of students in undergoing academic activities both at the university level. Present study was conducted to investigate the role of extraversion and introversion in psychological wellbeing. The findings of this study supported first hypothesis that personality disposition (introversion, extroversion) will have a significant impact on PWB. Introverts scored higher in PWB which is contrary to past findings in which extroverts were found to be happier.

Extraversion has always been related to higher level of PWB and resilience but in this study extroverts scored lower on PWB that due to pandemic Covid-19. As extroverts are happier because of their assertiveness, social skills and communication (Campbell, Converse, & Rodgers, 1976), due to sudden shift from physical mediums to online, extroverts would have faced more difficulties in adjusting than the introverts who were already seeking happiness from inside sources than outside environment. Extroverts were more affected by lockdown due to their inability to socialize that was primary source of their energy (Obuli et al, 2020).

Extraversion is although related to lower levels of perceived threat (Afshar et al., 2015) but given the condition of pandemic, the generalizability (Brooks & Moser, 2020) was limited. As social connectivity is more important to extroverts than introverts (Lee et al., 2008). For introverts, pandemic was a golden age (Brooks and Moser, 2020). This can also be a reason of lower psychological well-being of extroverts during pandemic.

On the other hand, the second hypothesis that there be difference in PWB due to gender difference was disproved. In past researches, the findings were mixed. In few male were found to have higher psychological wellbeing while in few females were happier as compared to males. According to past studies females are more open to share their feelings, communicate and gain empathy during an adversity while males despite being resilient could end up being inexpressive about their inner state (Sun & Stewart, 2007).

According to past studies, females tend to rely on outer factor of protection more than inner factors while males depend more on their own competencies (Friborget al., 2003). As the study was conducted during the situation of pandemic where everyone was equally exposed to a threat to health and mental peace, there was no difference among males and females. It can also be due to gender boundaries, roles and expectations becoming blurred in past few decades (Zosuls, 2011).

Conclusion

In general it was found that personality disposition, introversion/extroversion have a significant impact on psychological well-being. No difference in PWB was found among males and females. The study generated implications for educational, institutional and clinical setup. The findings can be incarnated in intervention techniques to protect and flourish psychological well-being of students in educational as well as other areas of life while keeping in view individual differences and coming forth with a flexible policy that benefit all the students to maximum.

Implications

The findings of the study presents many implications. First of all, it highlights the increasing need of understanding personalities when they face a traumatic event. Response of an individual to an event can be different based on their personality and it can be different from past precedent. As in past studies, extroversion was related to higher psychological well-being but due to pandemic, extroverts' psychological well-being diminished more than the introverts as found through this study. Thus, understanding role of personality in one's response to an event and understanding the nature of presenting adversity is important. These findings have implications in education, clinical as well as other policy making institutions for students. Researches have shown that government policies can be a great tool to reduce post-disaster negative impacts (Wan, 2013) thus study's findings will be helpful in policy making as well.

Limitations and Suggestions

The study have some limitations. First of all, the study was conducted using convenient sampling technique that reduces the extent of generalizability. Future researchers should use such a method that increase extent to generalize the findings. Secondly, the response rate of participants was very low. Participants were reluctant to participate either due to lack of time or their unwillingness to fill a form related to personality with sensitive nature of questions. Social desirability was another issue. As the study was conducted in the locality of Islamabad and Rawalpindi, the homogenous kind of sample hinders the extent to generalize the findings to ethnic difference and sexual minorities. Future researchers are recommended to conduct research on more versatile and a bigger sample size. Correlational study design was used that does not tell about causation. Researches should be conducted in future to find causation as well.

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