

Illness Perception, Social Isolation, Psychological Distress, and Posttraumatic Growth in the Aftermath of COVID-19

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The present study was aimed to investigate the relationship of social isolation and illness perception with posttraumatic growth and psychological distress among coronavirus affected individuals along with the moderating role of social support. Cross-sectional research design was employed for the present study. The sample consisted of 300 individuals affected by COVID-19 and later recovered. For data collection, the major areas of Chakwal were selected. Kessler Psychological Distress Scale (K10; [Kessler, 2002](#)) Illness Perception Scale ([Moss-Morris, 2002](#)), Interpersonal Support Evaluation List ([Cohen & Hoberman, 1983](#)), Social Connectedness Scale-Revised ([Lee & Robbins, 1995](#)), and Posttraumatic Growth Inventory ([Tedeschi & Calhoun, 1996](#)) were used to measure the study variables. The findings of the present study indicated that social isolation has a significant positive correlation with posttraumatic growth; however, it has nonsignificant correlation with psychological distress. Moreover, illness perception has a significant positive correlation with psychological distress whereas a nonsignificant correlation with posttraumatic growth. Similarly, illness perception positively predicted psychological distress while negatively predicted posttraumatic growth. Where social isolation positively predicted posttraumatic growth, social support did not significantly moderate between the study variables. The finding of the study shed light on the positive aspect of COVID-19 as observing social isolation

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during the disease positively predicts posttraumatic growth among the patients.

Keywords: Illness perception, social isolation, psychological distress, posttraumatic growth, social support

The corona virus disease 2019 (COVID-19) outbreak in Wuhan, China, is characterized by the severe acute respiratory syndrome (SARS) infection. It has generated a quick socioeconomic crisis and widespread psychological distress. Currently, all countries are battling the COVID-19 pandemic outbreak. During the outbreak of pandemic, we have also gotten very familiar with social isolation which emerged as a new normal. It is a condition of having fewer social contacts or less social interaction with other persons (Kuiper et al., 2015).

Since the emergence of COVID-19, how people view the condition and what they think about corona virus became a topic of discussion. During early phase of pandemic, we observed that researchers were extremely interested to examine the cognitive appraisal of the people towards this novel disease. In this regard, the most relevant variable observed was illness perception which is the patient's belief and their understanding of illness. Patient's perceptions of illness (cognitive component of understanding and dealing with the disease) is widely acknowledged as having a significant impact on patient behaviour and future prognosis (Hagger & Orbell, 2003). It has also been widely observed that any illness may bring a substantial psychological burden on the sufferer. In this regard, psychological distress is the most common reaction by the individuals. *Psychological distress* is defined as the absence of eagerness, issues with rest, feeling down, sad feeling about the future, exhausted feeling or losing enthusiasm for things, and suicide considerations (Weaver & Clum, 1995). According to the cognitive model, distressed patients view themselves as worthless, unsatisfactory, unlovable, and defective. The essence of the model is that emotional difficulties begin when we see events get amplified beyond the available resources which tend to have a negative impact on mood and behavior in a ferocious cycle (Beck & Haigh, 2014).

In addition to this, we have also observed that after passing through a stressful life event there are chances of personal growth which is the experience of developing positive improvements because of overcoming extremely difficult life experiences. This phenomenon is known as posttraumatic growth (PTG). The *posttraumatic growth* process begins when a massive life crisis occurs that profoundly changes and even shatters a person's image of the universe and his or her place in it (Tedeschi & Calhoun, 2004). The proponents of this

model (Tedeschi & Calhoun, 1995) suggest that PTG includes the full range of human experience from trauma to growth. According to this model, for many people, life's terrible occurrences usually result in positive outcomes (Tedeschi & Calhoun, 2004). The model's starting point is a person who experiences any event that is considered as difficult to experience (traumatic) for him/her. If it is difficult to pass; a person's essential schema is destroyed, resulting in greater emotional tension. To relieve tension, a person would unconsciously or intentionally think about the trauma repeatedly. Tedeschi and Calhoun (1996) identified three changes associated with PTG that is, recognized self-change, a change in feeling of relationship with others, and a shift in life philosophy.

On the other hand, there are few protective factors that may help people in dealing with difficult life circumstances. An important factor evidenced heavily in the literature is social support. According to Schwarzer and Leppin (1991), internal and external resources, could help people cope with stressful lives. *Social support* is the perceived support by a network of family, friends, or significant people around that enables people to believe they are cared for, respected, and supported. The importance of social support in decreasing the negative physical and mental impacts of stress has been demonstrated.

Literature Review

The modern world in which all individuals are able to travel and communicate quickly has seldom been forced into the present social isolation and constraints that are linked to feelings of frustration and distress which is probably one of the most prevalent psychological reactions to this pandemic. Social isolation caused by limitations and lockouts is linked to thoughts of possible uncertainty as well as a dread of new and unknown infectious agents, resulting in an abnormally high level of anxiety (Khan et al., 2020). The psychological effects of the COVID-19 pandemic can vary from fear to mass hysteria, as well as widespread sentiments of hopelessness and despair, which have been related to negative outcomes such as suicidal behaviour. Importantly, extremely high anxiety levels will have an impact on other health measures (Rubin & Wessely, 2020).

In the context of the corona virus pandemic, Kim and Jung (2021) conducted research on social isolation and psychological distress. This study investigated the link between social isolation and mental well-being, as well as the consequences it has on different countries. In this regard, a global online poll was conducted with 13,660 participants from 62 countries. The findings revealed that social isolation was a strong predictor of poor mental health.

According to previous research, a person's perspective of their condition has an impact on how they manage and adjust to their illness. Patients' emotional representations or faith in illness and medical conditions are referred to as illness perception (Checton et al., 2015). They are strong predictors of patient's behaviour at the time of illness according to Petrie et al. (2007) and are directly linked to numerous health outcomes.

In addition to this, Crandall (1979) and Larson et al. (1986) for example, stated that companionship and friendship are key components of social support, and that engaging enjoyable activities with companions or friends might increase psychological well-being. When the basic kind of social support matches the stressor's demands, it promotes coping levels.

Similarly, perception of disease and PTG was investigated by Rogan et al. (2013) among patients with brain injury. The study investigated how perceptions of illness, disability, coping mechanisms, and PTG are affected by health in those who have had a brain injury. According to the findings, higher level of PTG was associated with more adaptive coping methods, lower levels of distress, and greater views about the treatment-induced controllability of the effects of brain injury. Moreover, according to Siegel and Schrimshaw (2000), growth is both a technique and a consequence by which a person achieves and maintains a positive change in self that is directly related to surviving a traumatic event. Even a stressful incident can have a positive meaning when a person has better adaptability to the situation. It's been proven that finding the bright side of a bad situation leads to improved adaptation to the circumstances (Crossley, 2000; Park & Folkman, 1997).

Rationale of the Study

Following the spread of COVID-19 (2019-nCoV) since December 2019, the entire world is in chaos. In this context, people observed new normal of quarantine and isolation which is a good model for controlling the disease spread in which people stayed at home and reduced their usual activities outside. We also became familiar with the relatively new term that is, *social distancing* as one of technique widely used to limit spread of COVID-19. The COVID-19 pandemic's social distancing affect has had a significant impact on people's daily lives all around the world. For example, for some people it may lead them to feel even more isolated and alone, increasing tension and anxiety and other mental health issues. These

actions, if on one hand, are critical in limiting COVID-19 dissemination, on the other hand, can contribute to mental health issues such as anxiety and depression, etc.

This present research helped exploring the relationship of illness perception and social isolation with PTG and psychological distress in people who have been infected with COVID-19.

Objectives

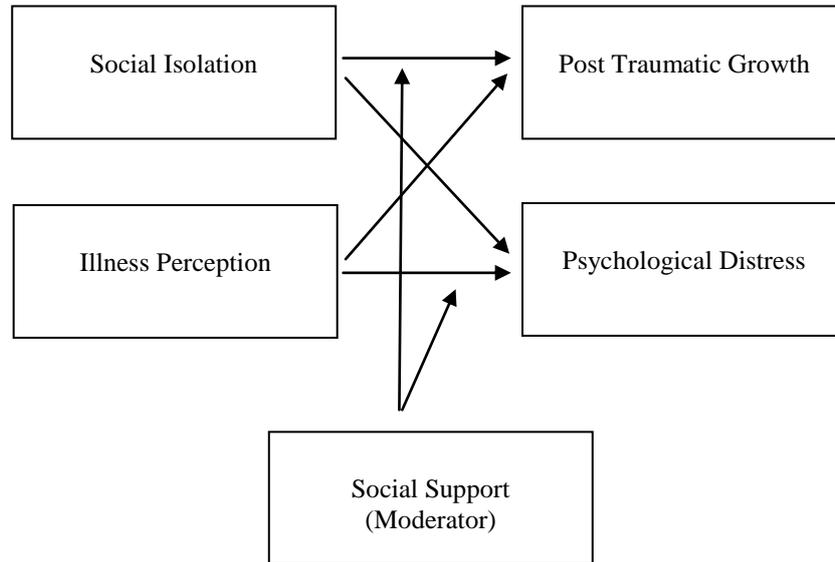
The objectives of the present study are as follows.

1. To investigate the impact of social isolation and illness perception on PTG and psychological distress among corona affected individuals.
2. To examine the moderating role of social support in a relationship between illness perception and PTG and social isolation and PTG.

Hypotheses

The hypotheses of the present study are as follows:

1. There is a negative relationship between social isolation and PTG.
2. There is a positive relationship between social isolation and psychological distress.
3. There is a negative relationship between illness perception and PTG.
4. There is a positive relationship between illness perception and psychological distress.
5. Illness perception will positively predict psychological distress and negatively predict PTG among the sample.
6. Social isolation will positively predict psychological distress and negatively predict PTG among COVID-19 affected individuals.
7. Social support plays a moderating role between social isolation and PTG.
8. Social support plays a moderating role between illness perception and PTG.

Figure 1*Conceptual Framework***Method****Research Design**

The relationship of social isolation, illness perception, PTG, and psychological distress among corona affected individuals was studied using a cross-sectional research design.

Sample

The snowball sampling technique was used to collect data from the targeted sample. The present study sample comprised of 300 people (150 male and 150 female) who were affected from COVID-19 and experienced full-blown symptoms, however, subsequently recovered. For data collection, the major areas of Chakwal were selected. The age range of participants was from 18 to 65 years.

Inclusion Criteria

Sample included individuals who were infected with COVID-19 and had full symptoms before recovering from the corona virus and

had been socially isolated during that time. Moreover, the sample included only those individuals who were educated with minimum of bachelor level education and capable of filling the research scales.

Exclusion Criteria

Individuals with mental disabilities were excluded from the study. Individuals who were not educated enough and unable to complete the questionnaires were also excluded from the sample. Moreover, patients who were tested positive, however, did not experience any symptoms were also excluded from the study.

Table 1

Frequencies and Percentages of Demographic Variables of the Study (N=300)

Variables	<i>f</i>	%
Gender		
Male	150	50
Female	150	50
Marital Status		
Single	124	41.3
Married	115	38.3
Other	61	20.3
Age		
18-24 years	104	34.7
25-31 years	117	39.0
More than 31 years	79	26.3
Parental Status		
Alive	113	37.7
Died	187	62.3
Family System		
Nuclear	91	30.3
Joint	209	69.7
No of Siblings		
1-3	83	27.7
4-6	129	43.0
Other	88	29.3
Education		
Bachelors	87	29.0
Masters	155	51.7
MPhil	58	19.3
Birth Order		
First	87	29.0
Middle	126	42.0
Last	87	29.0

Measures

Personal Demographic Sheet

This sheet recorded information of respondents regarding gender, age, parental life status (alive or dead), family type (nuclear, joint), educational level, number of siblings, birth order, and marital status are all included on the demographic sheet.

Kessler Psychological Distress Scale (K10)

The Kessler Psychological Distress Scale (K10) developed by [Kessler \(2002\)](#) is a set of 10 questions concerning emotional states with a five-level answer scale for each. Score on 10 items is then added yielding a minimum of 10 and a maximum of 50 score. Example items of the scale include, “In the past 4 weeks, about how often did you feel hopeless?” and “In the past 4 weeks, about how often did you feel depressed?” Low scores suggest minimal psychological distress, whereas high scores indicate higher levels of psychological distress. The alpha reliability of the Scale is .88 ([Kessler, 2002](#)).

Illness Perception Scale

The Illness Perception Scale ([Moss-Morris, 2002](#)) is a 38-item scale used to assess a person's attitudes and sentiments toward their illness. Example items of the scale include “My illness will last a short time” and “My illness is a serious condition”. The response options range from 1 measuring *strongly disagree* to 5 measuring *strongly agree*. These items showed high test-retest reliability, with correlations ranging from .46 to .88 ([Moss-Morris, 2002](#)). The Illness Perception Scale showed high concurrent validity with relevant measures.

Interpersonal Support Evaluation List

This scale is used to measure social support among the sample. It is a condensed version of the Interpersonal Support Evaluation Scale ([Cohen & Hoberman, 1983](#)). It is a 12-item poll about how people feel about social assistance on 4-point Likert options ranging from *definitely false* to *definitely true*. An example item is “If I were sick, I could easily find someone to help me with my daily chores”. Internal consistency (Cronbach's alpha .75-.83) and test-retest reliability are satisfactory ([Delistamati et al, 2015](#)).

Social Connectedness Scale-Revised

The Social Connectedness Scale developed by [Lee and Robbins in 1995](#) determines how connected an individual feels to others in their social environment. There are 20 items on the scale. An example item of this scale is “I feel close to people” and “I feel disconnected from the world around me”. The response options range from 1 (*strongly disagree*) to 6 (*strongly agree*). The Scale is a valid and trustworthy instrument with a high level of internal consistency (internal consistency > .92) ([Lee & Robbins, 1995](#)).

Posttraumatic Growth Inventory

The Posttraumatic Growth Inventory developed by [Tedeschi and Calhoun \(1996\)](#) is a 21-item scale. The response options range from “*I did not experience this change as a result of my crisis*” scoring 0 to “*a very great degree as a result of my crisis*” scoring 5. Example items include “I established a new path for my life” and “I’m able to do better things with my life”. The Posttraumatic Growth Inventory is a reliable tool with good construct and convergent validity. The overall scale ($r = .91$) and its subscales are both reliable instruments with strong internal consistency (ranging from .85 to .70).

Procedure

Data were collected by using snowball sampling technique from COVID-19 infected people who recovered. Different patients were contacted with the researcher's referral, and further responses were obtained. We also visited several hospitals and after seeking permission from hospital administration, we were able to collect data from inpatients respondents through observance of all protective measures directed by hospital authorities. It is pertinent to mention here that the data collection was carried out when vaccines were not introduced yet and the infection rate was severe. Consequently, there were many people who had recovered from COVID-19, but they developed several comorbid problems in between for which they remained hospitalized for longer periods. Following an explanation of the research's nature and purpose, participants were identified using inclusion and exclusion criteria, and informed consent was obtained. They were told that their information would be kept confidential. All the questions were answered. After a brief explanation of the study's purpose, the participants were given informed consent to fill out the questionnaire. The data were then collected, and any doubts they had were clarified. Participants were requested to be truthful in their responses, and they were thanked for their cooperation at the end.

Results

The results of the current research were computed using SPSS 21. Initially, the frequencies and percentages of demographic variables were explored through descriptive statistics. Pearson Product Moment correlation was applied to assess relationship among all the study variables. Multiple regression analysis was applied to examine the role of social isolation and illness perception on psychological distress and PTG. Finally, Independent sample *t*-test and ANOVA were used to investigate mean differences on demographic variables.

Table 2

Alpha Coefficients and Descriptive Statistics of Study Variables (N = 300)

Scales	<i>k</i>	<i>M</i>	<i>SD</i>	<i>α</i>	Range		Skewness
					Potential	Actual	
SCS-R	08	25.25	7.51	.83	08-40	08-40	0.20
IPS	38	133.28	22.2	.90	38-190	82-186	0.31
PTGI	21	45.57	11.70	.72	21-105	21-72	0.71
KPDS-K10	10	29.64	7.28	.72	10-50	10-44	-1.29
IPSEL	12	28.76	6.34	.73	12-48	12-41	-1.29

Note. *k* = no. of items; SCS-R = Social Connectedness Scale-Revised; IPS = Illness Perception Scale; PTGI = Posttraumatic Growth Inventory; KPDS-K10 = Kessler Psychological Distress Scale (K10); IPSEL= Interpersonal support Evaluation List.

Table 2 presents descriptive statistics and reliability coefficient which are satisfactory for Social Connectedness Scale-Revised, Illness Perception Scale, Posttraumatic Growth Inventory, Kessler Psychological Distress Scale (K10) and Social Support.

Table 3

Inter-Correlation Among Variables of the Study (N = 300)

Variables	1	2	3	4	5
1. Social Isolation	-	.24**	.25**	-.23**	-.006
2. Illness perception		-	-.08	.11*	-.33**
3. PTG			-	-.05	.06
4. Psychological distress				-	-.02
5. Social Support					.09

p* < .05; *p* < .01.

Table 3 shows that social isolation is significantly positively correlated with illness perception and PTG. Moreover, illness perception is significantly positively correlated with psychological distress whereas, it has a significant negative correlation with social support.

Table 4
Linear Regression Analysis Having Social Isolation and Illness Perception as Predictors of Psychological Distress (N = 300)

Variables	B	β	t	p	95% CI	
					LL	UL
Constant	25.42		9.51	.000	20.16	30.68
Social Isolation	-0.05	-0.05	-0.90	.364	-0.16	0.061
Illness Perception	0.04	0.12*	2.14	.033	0.00	0.08

Note. CI = Confidence Interval; LL = Lower Limit; UL = Upper Limit.

Table 4 shows the linear regression analysis of illness perception and social isolation as predictors of psychological distress. The R^2 value of .16 indicate that 16% variance can be accounted for illness perception positively predicting psychological distress with $F(2, 297) = 2.37, p < 0.05$. Whereas social isolation does not significantly predict psychological distress

Table 5
Linear Regression Analysis Having Social Isolation and Illness Perception as Predictors of PTG (N = 300)

	B	β	t	p	95% CI	
					LL	UL
Constant	45.02		10.86	.000	36.86	53.17
Social Isolation	0.44	0.28*	5.01	.000	0.272	0.62
Illness Perception	-0.08	-0.15*	-2.68	.008	0.14	0.02

Note. CI = Confidence Interval; LL = Lower Limit; UL = Upper Limit.

Table 5 shows the linear regression analysis of illness perception and social isolation as predictors of PTG. The R^2 value of .85 indicate that 85% variance can be accounted for illness perception negatively predicting PTG and social isolation positively predicting PTG with $F(2, 297) = 13.71, p < .05$.

Table 6

Moderating Role of Social Support in Relationship Between Social Isolation and PTG (N = 300)

Variables	Posttraumatic Growth					
	Model 1			Model 2		
	B	β	SE	B	β	SE
Constant	32.44 ^{***}	-	3.77	33.19 ^{***}	-	3.81
Social isolation	0.39 ^{***}	0.25 ^{***}	0.08	0.39 ^{***}	0.25 ^{***}	0.08
Social support	0.11	0.62	0.10	0.08	0.04	0.10
SI x SS				-0.82	-0.72	0.65
R^2	.66			.71		
ΔR^2				.5		

^{***} $p < .001$.

Table 6 shows the moderation of social support between social isolation and PTG. In Model 1, the R^2 value of .66 revealed that the predictors explain 66% variance in the outcome with $F(2, 297) = 10.52$, $p < .001$. The findings reveal that social isolation positively predicts PTG. Whereas, social support does not predict PTG. In Model 2, The ΔR^2 value .5 revealed 5% change in the variance with $F(3, 296) = 7.45$, $p < .001$ from Model 1 to Model 2 have $\Delta F(1, 296) = 1.29$, $p > .05$ after adding interaction term between social isolation and social support. Findings show that social support does not moderate the relationship between social isolation and social support for nonsignificant interaction effect.

Table 7

Moderating Role of Social Support in Relationship Between Illness Perception and PTG (N = 300)

Variables	Posttraumatic Growth					
	Model 1			Model 2		
	B	β	SE	B	β	SE
Constant	48.62	-	6.23	48.63	-	6.23
Social Support	0.06	0.03	0.11	0.06	0.03	0.11
Illness Perception	0.03	0.07	0.03	-0.03	-0.07	0.03
IP x SS				0.47	0.03	0.73
R^2	.00			.01		
ΔR^2				.01		

Table 7 shows the moderation of social support between illness perception and PTG. In Model 1, the R^2 value of .00 reveals that the predictors explain 0% variance in the outcome with $F(2, 297) = 1.21$. The finding reveals that illness perception and social support do not

predict psychological distress. In Model 2, The ΔR^2 value .01 reveals 1% change in the variance from Model 1 to Model 2 with $\Delta F(1, 296) = .42$. and $F(1, 296) = .42$. The finding reveals that interaction between illness perception and social support does not predict PTG. Hence, social support does not moderate in the relationship between illness perception and PTG.

Discussion

The current study was aimed at exploring the relationship of social isolation and illness perception with PTG and psychological distress among corona affected individuals. It was hypothesized that “a negative relationship exists between social isolation and PTG.” which was not supported by the results of the present study. Surprisingly, the result revealed a significant positive relationship between social isolation and PTG which means with increase in social isolation, PTG levels also increase. The results are consistent with previous research findings that higher levels of PTG were consistently related to higher rates of loneliness, revealing the association between PTG and loneliness. This experiencing of loneliness may entail both negative and positive repercussions of enduring such experiences that is, PTG (Stein et al., 2018). We can assume from the present findings that when people are socially isolated due to illness, they may develop meaning in life and for those having religious orientation may feel increasing levels of closeness to God. It was also observed that as people were afraid of the disease, they spent majority of their time in worshipping.

The next hypothesis, “assuming a positive relationship between social isolation and psychological distress” was also not supported by the findings of present study. A few previous research suggests that there is nonsignificant relationship of social isolation with psychological distress. For example, Taylor et al. (2016) while examining social isolation, depression, and psychological distress among older adults found that social isolation is not related to psychological distress. Furthermore, regarding perceptions of closeness to family and friends, social isolation had no independent effect on depressive symptoms and was not a significant predictor of psychological distress, with or without social isolation. The study further revealed that illness perception was not significantly related to PTG. Previous studies also indicate that there is nonsignificant relationship of illness perception with PTG. Rogan et al. (2013) reported that in people with acquired brain injury, illness perception is not related to PTG. However, greater use of adaptive coping strategies accounted for the greater variance in PTG.

In the study we assumed “a positive relationship between illness perception and psychological distress” which was supported by the findings of present study. Illness perception is negatively perceived causing distress and depressive symptoms. As COVID-19 is a novel disease and due to the wide variation of negative health outcomes among people infected, the fear of death among patients were observed to be very high, consequently causing considerable levels of psychological distress among the patients. Previous studies also indicate that there is a significant relationship of illness perception and psychological distress. Psychological distress and treatment-seeking delay in people with genital warts are linked to illness perceptions. Increased psychological distress was linked to negative perceptions of illness outcomes and control, as well as a projected cyclical timetable. Psychological distress in genital warts patients may be influenced by how patients perceive their illness (Ireland et al., 2005).

We further hypothesized that “illness perception and social isolation predict psychological distress among corona affected individuals” which was partially supported. Our findings show that social isolation did not predict psychological distress, while illness perception positively predicted psychological distress. Literature review suggests that illness perception is mostly associated with the negative outcomes consequently affecting the mental health of a people. For example, illness perception positively predicts psychological distress in patients diagnosed with chronic kidney disease (Muscat et al., 2021). The study findings further revealed that distress is linked to various other adverse outcomes in patients with chronic kidney disease, including an increased risk of hospitalization, early dialysis initiation, and even death, suggesting that distress is a major concern during regular care in chronic kidney disease.

Findings of the current study further suggest that illness perception did not predict PTG, whereas social isolation significantly predict PTG. In this regard we may argue that social isolation during hard times may sometime bring positive changes in person, as those who are alone during their tough times becomes emotionally stronger (Calhoun et al., 2000). In line with the basic assumption of PTG by its authors, we have observed at large that during COVID-19 rise in its first, second, and subsequent waves, while people were forced to observe social isolation, they might have been involved in developing meaning and purpose of self and their life which might have made them strong because then the belief may get stronger that their own will power and none other than God is there to support them. Consequently, this belief may have brought substantial changes in positive way in their life after facing illness that is a traumatic event

for them. [Zeligman et al. \(2017\)](#) studied loneliness as a moderator between trauma and PTG among college students. The findings revealed that levels of PTG were predicted by both loneliness and trauma symptoms, with loneliness acting as a moderator of the trauma and PTG link.

Following heavily evidenced literature support indicating the role of social support in various illnesses including COVID-19 ([Liu et al., 2021](#); [Ruiz-Rodríguez et al., 2022](#); [Tindle et al., 2022](#)), we hypothesized in the present study “social support plays a moderating role between social isolation and PTG and between illness perception and PTG”. These assumptions were not supported by the findings of the present study. Social support did not play a moderating role between social isolation and PTG. [Tedeschi and Calhoun \(1996\)](#) stressed that PTG may develop as individual struggles with a traumatic event. Literature strongly suggests that during this process soul searching and meaning making of life also occurs, therefore, greater chances persist that the person only develop positive attitude toward life during isolation by themselves and with probably little support from family and friends which does not play much part. While understanding PTG, the same was observed from in the research by authors of PTG that this phenomenon is a process of meaning making of life after passing from a trauma ([Calhoun & Tedeschi, 2004](#)).

Similarly, nonsignificant moderation of social support between illness perception and PTG in the present study may be attributed to social isolation experienced by most of the patients during infectivity period. Again, we may assume that due to observance of isolation, social support was not perceived by the patients. During infectivity period, most people faced the severity of the disease alone. Therefore, those who were affected with severe symptoms suffered from considerable levels of psychological distress. People usually faced the severity of the disease alone. As they were mostly not in contact with others, they did not perceive social support as a significant factor during disease. Moreover, due to observance of isolation during infectivity period in COVID-19, perceived social support levels were found to be low among the sample.

Limitations and Suggestions

There are a few limitations of the current study. Firstly, data were comprised of corona affected individuals from Chakwal city only, while we were unable to collect data from other cities of Pakistan which limits the generalizability of study findings. It is suggested that

in future research data should also be collected from other cities of Pakistan to increase the generalizability of the research findings.

Secondly, data was collected from individuals above 18 years old from educated participants. Individuals under 18 years and illiterate individuals were not part of the sample. Therefore, in future research individuals below 18 years and illiterate individuals should also be included as part of the sample to maximize the external validity of the entire study.

Thirdly, quantitative method of research used in which cross-sectional design was used to collect the information from corona affected individuals from Chakwal city. Five questionnaires were used to collect data. Closed ended questions were included in the questionnaire which limits the depth of information. Therefore, in future mixed method research design may be used to gather the breath of information.

Conclusion

The present study revealed significant relationships among illness perception, social isolation, PTG, and psychological distress among corona affected individuals. The findings revealed that there is a positive relationship between social isolation and PTG and a positive relationship between illness perception and psychological distress. It is in line with the previous literature highlighting the phenomenon of PTG as a possibility after passing through a trauma. Again, as per the previous studies which suggest that trauma is a double edge sword, our study findings also conclude that along with the negative aspects of COVID-19, there are also chances of some positive aspects for individuals in terms of PTG.

Implications

The study findings may be helpful in contributing toward better understanding of the psychological aspects of the emerging pandemic corona virus disease and its potential consequences (positive and negative). Similarly, much previous research reports the role of social support as a buffer against negative health outcomes; therefore, the present study also investigated the role of social support as a moderator between study variables. This research will aid researchers in investigating the positive and negative aspects of COVID-19 in the context of related psychological variables.

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