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COVID-19 Related Information and Psychological Wellbeing: Mediating Role of Employment Uncertainty Among Pakistani People

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Abstract

In December 2019, the confirmed Coronavirus (COVID-19) patient was initially reported in Wuhan which later spread quickly in other cities of China resulting in severe acute respiratory disorder. This virus is not confined only to China but has affected billions of people living globally. Media has served as an important platform in educating the masses about precautionary measures to be taken by the general public to protect themselves from becoming the patients of this fatal virus. Currently, the majority population of the world is getting information through different media platforms. This paper observes the impact of COVID-19 related media coverage role in developing mental problems among the Pakistani people as well as the mediating role of employment uncertainty due to COVID-19 related information. An online questionnaire was circulated to collect data. This study includes 405 respondents using random sampling techniques resided in Lahore. The results explained that most of the people got COVID-19 related information from different media platforms that have developed depression and fear among people. Moreover, this study suggests that government as well as media practitioners, should take initiatives to prevent mental health problems, particularly employment certainty developed due to watching COVID-19 related information.
**Keywords:** Media; Mental health; Job; COVID-19; Unemployment.

1. Introduction

The term 'coronavirus' was first introduced in the year 1968 Weiss and Navas-Martin (2005). Coronavirus results in acute breathing problems, chronic respiratory, central nervous system (CNS) infections in many groups of animals, as well as in human beings (McIntosh, 1974). In recent months, Coronavirus (2019-nCoV) has become a global health concern which is widely spread in different regions of the world. On 31st December, the first patient of COVID-19 came into light in Wuhan, China. The victims of this virus were first observed in the central city of Wuhan and later in other cities of China. Apart from China, the first patient was diagnosed in Thailand on 13th January 2020. Initially, COVID-19 was termed as 2019-nCoV by World Health Organization. It is revealed that COVID-19 belongs to the seventh members of the coronavirus family, along with MERSnCoV and SARS-nCoV, that can spread to humans (Hui *et al.*, 2020).

Later, this virus has spread into 50 different countries comprising of 76,000 confirmed cases globally until 20 February 2020 (World Health Organization, 2020). Furthermore, the WHO announced World Health Organization WHO (2020). According to the National Health Commission of the People's Republic of China, the total number of confirmed cases was 20, 438; whereas 425 people died from this health diseases. On average, the death rate was 2.08% (425/20,438). People resided in other provinces of China including Hong Kong, Macao, and Taiwan provinces were also affected widely from Coronavirus (2019-nCoV) disease. All inbound and outbound traveling services were closed to restrict the increase of this disease. A huge number of populations are being screened and suspects are kept in isolation in hospitals for treatment. To date, around 221,015 of the total population in China are 2019-nCoV patients, 171,329 individuals are kept under medical observations (National Health Commission of the People's Republic of China, 2020). This disease has impacted the lives of people globally, initially, 724 cases had 2019-nCoV but later expanded to different countries including, Thailand, Australia, the U.S., Japan, and France comprising of 34,941 confirmed cases (World Health Organization WHO, 2020).

Few symptoms of this virus being detected in the patients include fever, dry cough, breathing problem, and diarrhea, but in extreme cases, it can result in pneumonia and even death. This virus usually grows within two or more weeks inside the infected patient. During the period of latent infection, the disease may still be infectious. The

virus is usually transferrable either through personal contact or respiratory droplets (Hamzah *et al.*, 2020). In the case of Pakistan, the first confirmed case infected with coronavirus (COVID-19) came out in February 2020. Later, in May 2020, the overall figure of approved cases is 34,336 and 737 died (COVID-19 Health Advisory Platform by Ministry of National Health Services Regulations and Coordination, 2020).

Figure-1. shows the situation of Pakistan comprising of a total figure of people died and recovered cases in Pakistan (National Disaster Management Authority, 2020).
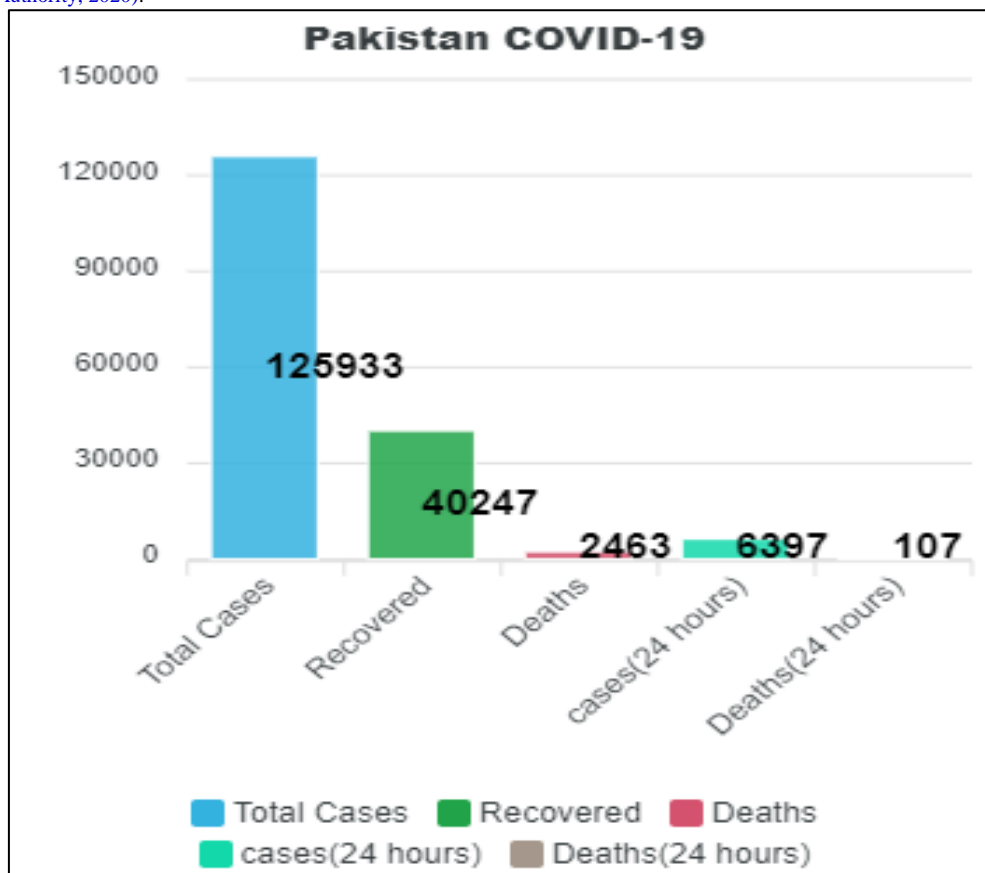
This study focuses on observing the relationships between COVID-19 related information leading to mental health problems such as depression and fear due to employment uncertainty.

Initially, during the outbreak of influenza disease, almost 10% to 30% of the people were very or extremely distressed and concerned regarding the possibility of getting the virus (Rubin *et al.*, 2010). News coverage on certain events is an important part of our daily lives which helps people in informing about certain situations and events taking place globally. At the time of crisis, the general public at a large depends on media to seek information to remain updated with the current circumstances. Since the outbreak of COVID-19, people are more attentive to seeking information from different media platforms as this is the current mutual interest of the people all around the world (Zheng *et al.*, 2020). Previously, different pandemics and epidemics happenings have stricken, the unknown events and uncertainty surrounding the community's protection. Moreover, fake news about COVID-19 (mostly on different social media platforms) can disturb persons' psychological well-being such as anxiety, depression, and traumatic pressure (Cheung *et al.*, 2008; Zandifar and Badrfam, 2020).

As people all around the world are going through COVID-19 pandemic issue, its psychological effects are yet to be studied, it is assumed that there may exist a direct link between COVID-19 and mental problems (Li *et al.*, 2020; Xiang *et al.*, 2020). During the initial days of any pandemic situation, the distress among the general public is aroused due to fear and uncertainty which results in creating negative feelings such as certain mental problems such as fear, anxiety, depression, annoyance, and panic (Shigemura *et al.*, 2020). Öhman and Mineka (2001) observed that overthinking and long-term fear, as well as disaster events, create physical and mental stress which results in the increases of psychological and physiological problems.

Previous studies have shown a positive relationship between chronic viruses such as HIV Aids and tuberculosis with mental problems such as depression (Hamza *et al.*, 2020). Likewise, researches conducted between SARS of 2003, and Ebola in 2014 stated that a large number of people went through severe anxiety which resulted in creating hyperactive attitudes among people (Person *et al.*, 2004; Shultz *et al.*, 2016). According to Loiwal (2020), the Indian Psychiatric Society conducted a survey that shows that around 20% of mental illness cases have increased since the COVID-19 outbreak in India (Loiwal, 2020).

Literature shows that a deep and extensive variety of psychosocial effects on the public at a single person, society, and worldwide levels during the spread of contagion. People on an individual level possess more chances to practice terror of dying themselves or getting sick, feelings of vulnerability, and humiliation (Hall *et al.*, 2008).

Several studies have been conducted earlier which shows that Post-traumatic stress disorder (PTSD) can be incurred due to constant direct or indirect exposure to media content about mass trauma (Neria and Sullivan, 2011).

During the outbreak of SARS infection, several studies observed the mental effect on the individuals who were not infected due to the virus, stated that there existed a direct relationship between psychiatric morbidities which are closely related to youth and increased self-blame (Sim *et al.*, 2010). Moreover, educated people, especially females tend to possess higher risk perceptions of SARS, a tolerable and average anxiety level, a positive contact history, and those with SARS-like symptoms were more likely to take cautionary steps against the infection (Leung *et al.*, 2003).

Due to the closing of educational institutions and working businesses, people underwent negative feelings and attitudes within themselves (Van Bortel *et al.*, 2016). Choi *et al.* (2017), conducted a study in South Korea that concluded that there exists a positive relationship between social media exposure and associated with developing risk perceptions during the MERS epidemic.

A research conducted by Lei and colleagues in Southern China observed the Self-Rating Depression Scale (SDS) and Self-Rating Anxiety Scale (SAS) to observe the mental health condition among 1,593 respondents aged a minimum 18 years. The occurrence of anxiety and depression was 8.3% and 14.6% respectively. Furthermore, the occurrence was much higher (12.9%, 22.4%) among people who had someone in their social network who had been quarantined compared to the remaining participants (6.7%, 11.9%) (Lei *et al.*, 2020). In the case of Pakistan where the situation of COVID-19 is unpredictable, people are concerned for food and job security due to lockdown which leads them to developing aggression and anger (Folkman and Greer, 2000). Currently, Pakistan is going through different problems such as shortage of food, poverty, natural as well as man-made disasters, etc. Around 38.8% of people lack necessities of life as per the Multidimensional Poverty Index and 24% of the total population living in Pakistan falls under the national poverty line (Humanitarian Response, 2020).

Employment uncertainty is defined as the risk to the possibility of future employment for people seeking jobs in an organization, manufacturing industry, or country that is going through economic crises as well as unemployment (Greenhalgh and Rosenblatt, 1984). Due to the wide-spread of the virus, the economic condition of almost all of the countries have disturbed resulting in huge loss. According to the International Monetary Fund (IMF), due to the coronavirus pandemic, the global economy will experience a decline of -3% in 2020 (Gopinath, 2020). Mantler *et al.* (2005) concluded that employment uncertainty directly impacts the physical and mental health of the people. People who are unsure about their jobs are more likely to face stress, fear, anxiety, depression, emotionally weaken, and are in the subconscious state for a longer period time.

1.1. Objectives of the Study
1. To observe which medium is consumed by the Pakistani people related to COVID-19 information.
2. To explore the extent COVID-19 related information creates fear, anxiety, and depression among Pakistani people.
3. To study the mediating role of job uncertainty among fear, anxiety, and depression relationship among Pakistani people due to COVID-19 information.

1.2. Hypotheses of the Study
1. COVID-19 related information created fear and depression among Pakistani people.
2. Employment uncertainty mediates the relationship between COVID-19 related information and fear.
3. Employment uncertainty mediates the relationship between COVID-19 related information and depression.
4. Employment uncertainty is a significant mediator between the relationship of COVID-19 related information and fear

1.3. Significance of the Study
The disease coronavirus (COVID-19) is not a typical health problem. The spread of this pandemic disease has resulted in several social, economic, and psychological problems in a very short time period (Usman *et al.*, 2020). Xiang *et al.* (2020), suggested that it is a need of the current era to conduct epidemiological research to study a few important psychological variables such as worry, anxiety, and distress due to COVID-19. After this, certain strategy for mental well-being could be developed for the people especially living in villages to cope up with these circumstances. Moreover, research on the better mental well-being of COVID-19 patients possessing infection, people who are isolated within their home and healthcare personal (Xiang *et al.*, 2020).

The findings of this research will be helpful in the formulation of specific instructions and measures to improve the mental health of the people during the COVID-19 lockdown situation which may ease in helping the people on keeping themselves confident and stress-free about their job situation. It will also provide an important message to the media practitioners to show positive content to its viewers rather than creating a fuss.

2. Methodology
This research has been conducted using a cross-sectional survey research design. To meet the objectives of the study questionnaire related to the independent and dependent variables was devised. The quantitative survey method was used in this study to explore the relation between COVID-19 media coverage and psychological wellbeing as well as its impact created towards job uncertainty. The collection of data took 3 weeks from May 2019 to June 2019.

2.1. Measures

COVID-19 related information is the independent variable in this study. The dependents variables are fear and depression and the mediating variable is Employment Uncertainty in this research paper.

2.2. Scale for Fear

Fear was measured in this research paper using the Breast Cancer Fear Scale by Champion *et al.* (2004). This scale consisted of 8 statements and respondents were asked to responsd against these statements through 5-point Likert Scale ranging from Strongly Disagree (=1) to Strongly Agree (=5). The statements of this scale were like 'When I think about COVID-19, I feel nervous' and 'When I think about COVID-19, I get panic'. The internal reliability of this scale was 0.87. However, minimum value of the scale was 12 And maximum value was 38.

2.3. Scale for Depression

The CES-D Scale by Radloff (1977) has been used to collect responses from the respondents. It consisted of 20 statements. A 5-point Likert Scale ranging from Strongly Disagree (=1) to Strongly Agree (=5) was used in this research paper. The statements of this scale were 'I was bothered by things that usually don't bother me after watching COVID-19 information', 'I felt depressed after watching COVID-19 information' and 'I thought my life will be a failure after watching COVID-19 information'. The internal reliability of this scale was 0.803. However, minimum value of the scale was 22 and maximum value was 65.

2.4. Scale for Employment Uncertainty

The Employment Uncertainty Scale was developed from Price and Mueller (1981) which were modified according to the research objectives in this paper. It consisted of two statements i.e. 'How difficult would it be for you to find a job with another employer once COVID-19 is over?' and 'How difficult would it be for you to find a job as good as the one you have now had with your previous employer once COVID-19 is over?'. Responses were collected using the Likert Scale Strongly Disagree (=1) and Strongly Agree (=5). The internal reliability of this scale was 0.577. However, the minimum value of the scale was 2 and the maximum value was 8.

2.5. Sample

The sample in this research includes a total of 405 respondents (Male= 178, Female=227). A random sampling technique is used in this study. An online questionnaire was circulated to collect data from respondents due to lockdown. The sample was drawn from the people residing in Lahore, Pakistan. Students and working people were included possessing BS degree = 156, Master's degree =142 and M.Phil degree = 107. Data was analyzed using SPSS software.

2.6. Demographic Sheet

Demographic Sheet includes the details of the respondents regarding their gender, age, qualification, study program and the platform of mass media which they use to get COIVD-19 related information.

Table-1. Demographic Information

Item	Frequency	Percent
Gender		
Male	178	44%
Female	227	56%
Age		
18-24	198	48.8%
25-30	126	31.1%
31-36	81	20%
Education		
Bachelors	156	38.5
Masters	142	35.06
M.Phil.	107	26.4
Social Status		
Employed	265	65.4
Unemployed	102	25.1
Student	38	9.38

N=405

Table 1 shows the demographic information of the respondents. Findings show that majority of respondents were female 227(56%) and majority is aged between 18-24 years of age 198 (48.8%). All the respondents were educated and the majority of them 265 (65.4) % were employed.
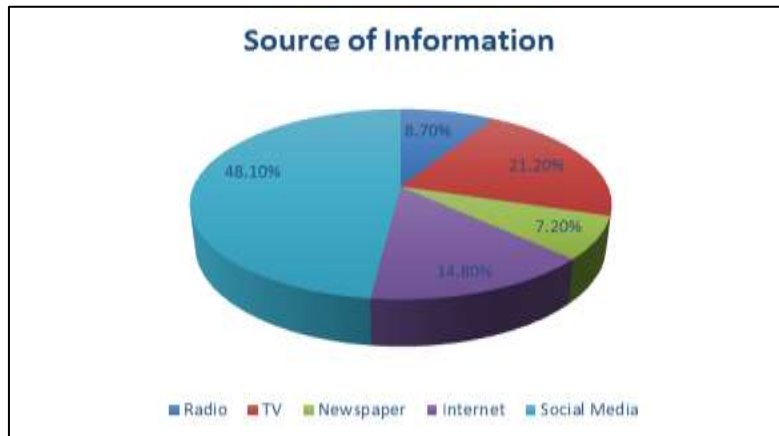
Findings regarding the source of information reveal that the majority of respondents 195 (48.1%) get the information about Covid-19 through social media. Further analysis shows that TV (21.2%) comes at the second number and internet (14.8%) at third. While newspaper (7.2%) is the least used source for COVID-19 related information.

Table-2. Assessment of Convergent Validity

Constructs	Cronbach's Alpha	Composite Reliability	AVE
COVID-19 Information	0.897	0.707	0.513
Depression	0.763	0.825	0.512
Fear	0.882	0.809	0.541
Job Uncertainty	0.739	0.831	0.714

Table 2 represents the convergent validity of the constructs. The reliability value .70 is acceptable for internal consistency reliability and composite reliability (Hair *et al.*, 2019). The findings show that all the data is reliable and valid as Cronbach Alpha values are greater than .70. Besides, the discriminant validity criteria are also satisfied as shown in Table 3.

**Table-3.** Fornell-Larcker Criterion Analysis for Discriminant Validity

	1	2	3	4
1. COVID-19 Information	**0.743**			
2. Depression	0.504	**0.701**		
3. Fear	0.587	0.415	**0.735**	
4. Job Uncertainty	0.550	0.415	0.617	**0.845**

Note: Diagonals represent the square root of the AVE while the other entries represent the correlations.

2.7. Assessment of Variance Explained in Endogenous Variables

The R^2 value helps evaluate PLS-SEM structural models. There are different assumptions in terms of the acceptancy level of R^2 value. According to Falk and Miller (1992), it should be at least 0.10. R^2 values of 0.75, 0.50, and 0.25 are considered substantial, moderate and weak (Hair *et al.*, 2019). In the opinion of Chin (1998), the R^2 value of 0.67, 0.33, and 0.19 are considered as powerful, moderate and weak. In the below measurement model, R^2 value of depression is 0.656, fear 0.416, and employment uncertainty 0.563. Keeping in view Chin (1998) and Falk and Miller (1992) criteria, it can be said that the R^2 values of depression, fear, and employment uncertainty are moderate.

2.8. Measurement Model
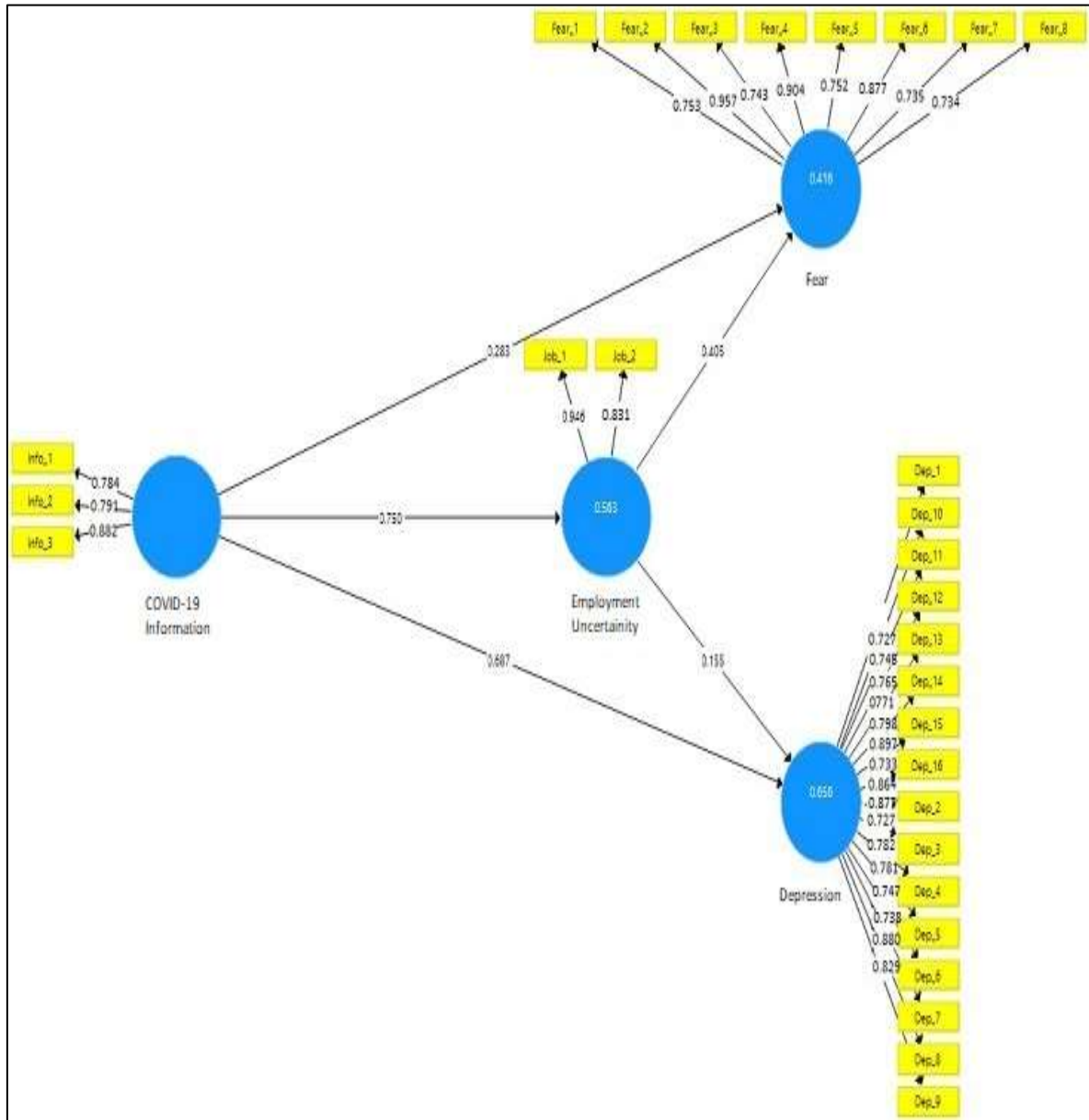
The above measurement model was created through the PLS Algorithm that shows the values of path coefficients (β) in the inner model, loading of items of different constructs in the outer model, and R square values in constructs.

Table-4. Results of Hypotheses Testing

	Original Sample (O)	Sample Mean (M)	Standard Deviation	T Statistics	P Values
COVID-19 Information -> Depression	0.687	0.685	0.051	13.43	0.000
COVID-19 Information -> Fear	0.283	0.279	0.091	3.112	0.002
COVID-19 Information -> Employment Uncertainty	0.75	0.752	0.028	27.126	0.000
Job Uncertainty -> Depression	0.155	0.158	0.053	2.916	0.004
Job Uncertainty -> Fear	0.405	0.409	0.109	3.725	0.000
COVID-19 Information -> Employment Uncertainty -> Depression	0.117	0.118	0.04	2.924	0.003
COVID-19 Information -> Employment Uncertainty -> Fear	0.304	0.308	0.084	3.618	0.000

N=405

The relationship between COVID-19 information and depression is significant (β = .687, t = 13.43, *p* = .000). This result clearly shows that information related to COVID-19 create depression among people so these findings have validated the H1 "**COVID-19 related information creates depression among Pakistani people".**

The finding regarding the relationship between COVID-19 related information and fear among Pakistani people is significant (β = .283, t = 3.11, p = .002). This result clearly validated the H2 **"COVID-19 related information creates fear among Pakistani people"**.

The analysis of the findings regarding COVID-19 related information and Employment uncertainty show a significant relationship between both variables (β = .75, t = 27.12, p = .000). This result clearly shows that information related to COVID-19 lead towards employment uncertainty. Thus, another hypothesis of the study **"COVID-19 related information creates employment uncertainty among Pakistani people"** is validated by the findings.

The findings of the table 4 shows that employment uncertainty and depression have a significant relationship (β = .15, t = 2.916, p = .004). This result clearly shows that job uncertainty also leads public towards depression. This situation has validated H4 **"employment uncertainty among people leads towards more depression"**.

The results further reveal the relationship between employment uncertainty and fear. And this relationship is significant (β = .40, t = 3.725, p = .000). This result clearly shows that employment uncertainty also creates fear among people. So, it is validated that **employment uncertainty among people creates more fear.**

Job uncertainty is a significant mediator between the relationship COVID-19 related information and depression (β = .117, t = 2.924, p = .003). These results highlight that job uncertainty mediates the relationship between COVID-19 information and depression. Thus the hypothesis **"employment uncertainty is a significant mediator between the relationship of COVID-19 related information and depression"** is validated by the findings of the study.

Job uncertainty is a significant mediator between the relationship COVID-19 information and fear (β = .304, t = 3.61, p = .000). These results revealed that job uncertainty mediates the relationship between COVID-19 information and fear. In this way another hypothesis of the study **"employment uncertainty is a significant mediator between the relationship of COVID-19 related information and fear"** is validated by the findings of the study.

2.9. Structural Model
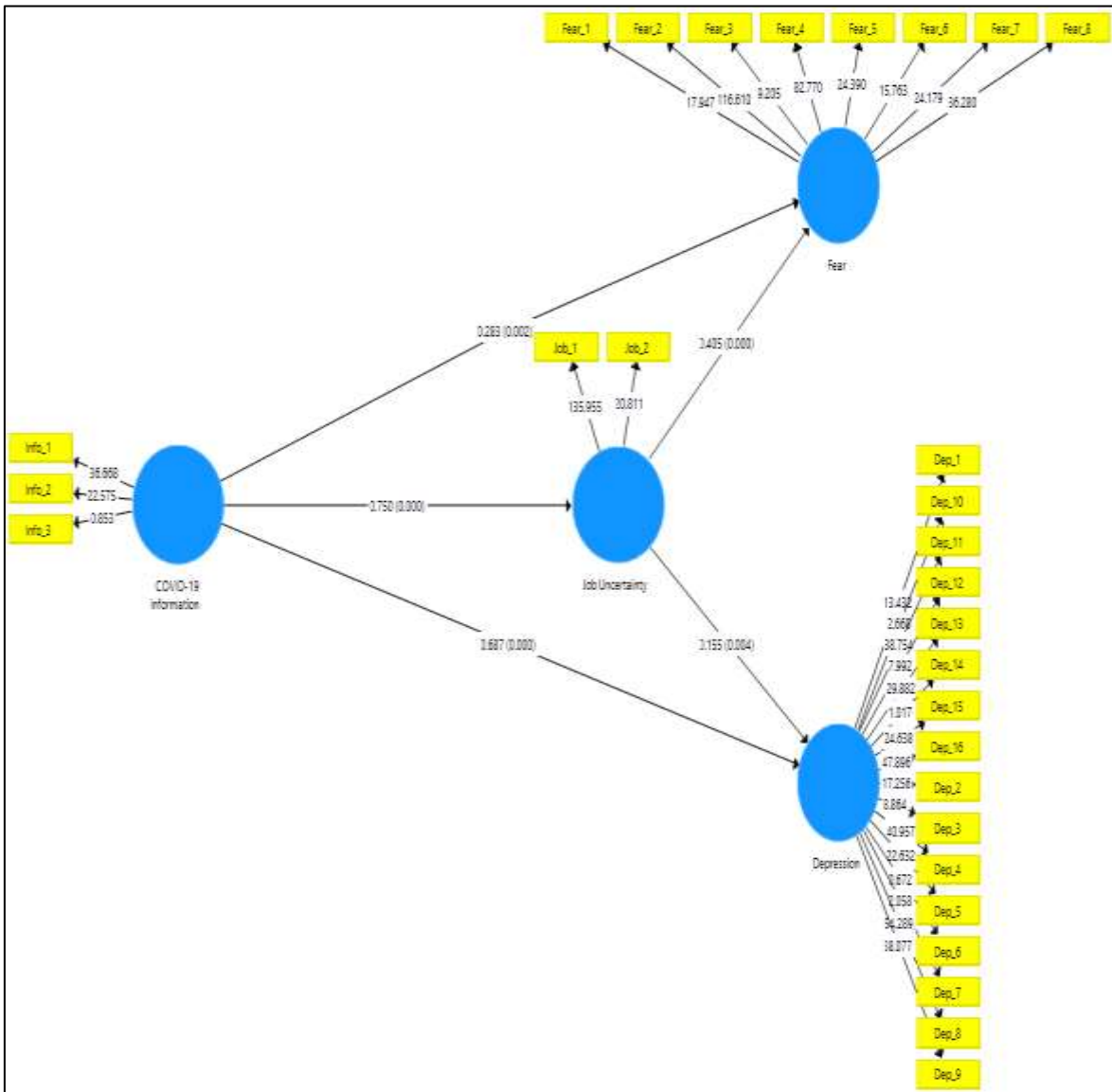
In the above structural model, the values of path coefficients and P-values can be seen in the inner model and T-values in the outer model.

3. Conclusion

COVID-19 has spread globally which has impacted everyone physically as well as mental well-being. This study resulted in explaining that exposure to COVID-19 related information has disturbed Pakistani people's mental health leading to develop fear and depression due to the risk of employment. In this scenario, social media has been widely used by the respondents to seek COVID-19 related information. It further explains that Pakistani people who had more exposure to COVID-19 related information are more vulnerable to undergo mental health issues. Employment uncertainty not only affects the mind of working people but also for those who are willing to work in the future.

In the case of a developing country like Pakistan where jobs have always been a problem due to the spread of COVID-19, people are more tenses, worried and curious to know whether their jobs are secured or not. To resolve these issues, proper measures by every media platform should be taken in a way that the content will develop positivity in the minds of Pakistani people rather than creating fear and depression.

Future Recommendations

1. Pakistani people belonging to different cities can be taken into consideration for observing their points of view.
2. Longitudinal studies can be conducted to study the long-term effect of the Pakistani people.

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