Role of Media in Depression to The Viewers Watching Covid 19 Related News

*Aman Ullah*, Lecturer, Department of Sociology, University of Swabi, Pakistan  
*Abdul Majid Khan*, Lecturer, Department of Sociology, University of Swabi, Pakistan  
*Mahwish Siraj*, Lecturer, Department of Agricultural Sciences, Allama Iqbal Open University, Islamabad, Pakistan

*Corresponding author’s email: aman@uoswabi.edu.pk*

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**ABSTRACT**

**Purpose:** The prevalence of depression among the general population is closely associated with exposure to COVID-19-related news but being a recent phenomenon, little work has been done on this issue. The focus of the present study is to hypothesize the relationship between media exposure to COVID-19-related news and the prevalence of depression across populations in Khyber Pakhtunkhwa, Pakistan and comparatively, measure the source of news watching on a gender basis during Covid-19 among the different age groups.

**Methods:** Primary data were collected from 1150 respondents in Khyber Pakhtunkhwa, Pakistan through a structured questionnaire. Chi-square tests were applied to measure the relationship between media exposure to covid-19 news and depression at bi-variate and multivariate analyses.

**Findings:** Results disclosed that media exposure to covid-19 relates news causes depression among people. In addition, Media exposure was significantly associated with the respondent’s mental health problems at a 0.01 level of significance.

**Implications:** Findings of the study confirm most of the previous scholarly work on this issue, which concludes that watching Covid-19-related news is closely associated with a consequent increase in depression. The study recommended that health intervention campaigns should be initiated by the government on media to decrease the level of fear among people. The study also recommended that content spreading false information regarding COVID-19 may also be removed by the government from the media. Moreover, medical specialists and psychologists may be called to different media programs to share useful information about the pandemic. Official pages, containing the correct and useful information on the said pandemic, may also be created on various social sites by the government authorities for the benefit of the general population.

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**Introduction**

Some uncommon pneumonia cases were identified in Wuhan, China in December 2019, which was named corona disease (COVID-2019) by the World Health Organization, on February 11, 2020 (Anand et al., 2020; Madabhavi et al., 2020; Zhou et al., 2020). Since then, many specifics about the virus, such as its origins and its potential to unfold and spread among people, remain unclear, a growing number of cases have been testified to be resulting of human-to-human transmission (Huang et al., 2020; Li et al., 2020; Özdin & Bayrak Özdin, 2020; Zhou et al., 2020). An empirical study on COVID-19 revealed that this novel virus attacks the human respiratory system (Madabhavi et al., 2020; TunÇ et al., 2020; Waris et al., 2020). It is mostly spread through the lungs and close physical interaction, resulting in gathering infections in families and hospitals (Wang et al., 2021). Fever, fatigue, and dry cough are some of the preliminary syndromes of COVID-19 (Huang et al., 2020). But, some medical experts in COVID-19-affected regions have discovered that a few patients identified with COVID-19 have no longer proven ordinary respiratory signs, such as coughing and temperature. Alternatively, certain COVID-19 sufferers have exhibited the simplest preliminary neurological signs, consisting of the subsequent: (1) cephalgia, dullness, walking unsteady and depression, which can be due to non-particular indicators triggered by COVID-19; (2) apoplexy; and (3) different “neurological diseases” (Huang et al., 2020; Wang et al., 2020). Furthermore, 79% of genetic resemblance was found in coronaviruses and SARS-CoV in 2003 (Anand et al., 2020; Xiong et al., 2020). COVID-19 rapidly spread across the world and contributed to the epidemic (Bao et al., 2020; Özdin & Bayrak Özdin, 2020). The WHO called the disease a worldwide pandemic on March 11, 2020 (Anand et al., 2020).

**COVID-19 & Mental Health Problems**

COVID-19 epidemic significantly affected the social, economic, and psychological life of people across the world (Di Renzo et al., 2020; Nicola et al., 2020). Besides, due to the outbreak of COVID-19, lockdowns on local and national levels upsurge panic and psychological problems among people, primarily associated with depressive behavior. Several empirical studies concluded that epidemics not only increased the risk of mortality but also led to unbearable mental health problems among the people (Duan & Zhu, 2020; Hao et al., 2020; Tan et al., 2020; Wang et al., 2021; Xiao, 2020). For instance, McIntyre and Lee (2020) reported that the ratio of suicide increased from 418 to 2114 in Canada closely co-existed with unemployment. Similar reports were also reported in Pakistan, the USA, India, France, Italy, and Germany (Mamun & Ullah, 2020; Thakur & Jain, 2020). Moreover, recent findings from the United Kingdom, Australia, South Africa, Spain, Korea, India, and Bangladesh indicate that the prevalence of mental health issues specifically depression and anxiety dramatically increase during the epidemic (Das et al., 2021; Jung et al., 2020; Pierce et al., 2020; Rossell et al., 2021; Varma et al., 2021). Notwithstanding, findings regarding COVID-19 and depression within the context of Pakistani society show that coronavirus in Pakistani surges depression among University level students (Salman et al., 2020).

**Use of Media during the COVID-19 Pandemic & Mental Health Problems**

Psychological distress among the population is the outcome of mass lockdown, closing of business activities, and self-isolation (Anand et al., 2020; Bao et al., 2020; Bendau, Petzold, Pyrkosch, Mascarell Maricic, et al., 2021). The situation got further aggravated in China by the misrepresentation of information by news channels which further increased fear and uncertainty among people (Bao et al., 2020). The work of Garfin et al. (2020) concluded that frequent media exposure to any public health issue, especially communicable diseases, can lead to mental
distress. Likewise, the empirical work of Gao et al. (2020) also confirms that falsification of information on social media increased mental health problems. Similarly, the work of Bendau, Petzold, Pyrkosch, Mascarell Maricic, et al. (2021) disclosed that undoubtedly media plays a significant role in disseminating information regarding COVID-19, and other governance arrangements. Broadcasting negative and unfiltered content negatively affects the psychological well-being of the people. Findings from the work of Gao et al. (2020) reconfirm that depression during the COVID-19 is closely associated with exposure to social media or constantly viewing COVID-19-related news. Likewise, Veer et al. (2020) and other research studies also suggested that frequent media coverage significantly contributed to various mental health problems among the viewers (Gao et al., 2020; Sasaki et al., 2020; Tayal & Bharathi, S, 2021). Similarly, an empirical study revealed that during the COVID-19 pandemic, moderately high paces of manifestations of psychological issues were reported in the general population in Spain, China, Italy, the United States, Turkey, and the Netherlands. Risk factors associated with the prevalence of psychological issues in the abovementioned countries was frequent exposure to media/news regarding COVID-19 (Xiong et al., 2020). In addition, an empirical study conducted in Iran during the COVID-19 outbreak explored that about half of the study respondents experience depression, factors that triggered depression are economic loss, fear of infection, and access to COVID-19 news (Khademian et al., 2021). Furthermore, a recent study explored that during the COVID-19 pandemic lockdown in Nepal, the prevalence of depression is more common among those people who frequently access COVID-19 news (Sigdel et al., 2020).

Current Focus
In Pakistan (the research context), the Ministry of Health, Government of Pakistan, report the first case of COVID-19 on February 26, 2020, in Karachi, Sindh migrated from Iran. Likewise, another case was reported by Pakistan’s Federal Ministry of Health in Islamabad on the same day (Waris et al., 2020). In Pakistan media’s role in COVID-19 has been unsatisfactory. The news of COVID-19 is being covered by Pakistan's media. However, the news or transmissions are frequently arranged without medical specialists. Senior journalists or opposing politicians are called as experts for a debate about the COVID-19 epidemic on talk shows or programs, where they just dispute with other participants or journalists to raise ratings. Besides television broadcasts frequently employ frightening phrases and terminology. As it appears that there are endless deaths, with more and more deaths approaching soon, the news disseminates more discussions about death and disappointments than about life and hope. Instead of encouraging people, which certainly promotes depression and anxiety (Latif et al., 2020). Moreover, several empirical studies have been conducted on the negative impact of COVID-19 on the mental health of people across the world. However, minimal empirical work has been conducted in Pakistan from this purview. Excessive exposure to COVID-19-related information via media amplifies stressful behavior and such a situation is proportional to mental agony. This dilemma ultimately results in the development of divergent forms of mental health issues in the target group. The prime focus of the present study is to identify media coverage of COVID-19 as stimulants behind the depression of the target group. Thus, this study was carried out with the following hypothesis:

The Hypothesis of the Study

H1: Media exposure to COVID-19-related news is positively associated with the Prevalence of Depression

Media exposure to COVID-19-related news will increase Depression among viewers

Methods
Ethical approval for this study was granted by the Department of Sociology and Psychology, University of Swabi-Pakistan.

Study Design, Sampling, Sample Size, Setting & Duration
The present study was carried out under the philosophy of cross-sectional design in Khyber Pakhtunkhwa, Pakistan. Primary data was collected from 1150 respondents including males and females through an online survey method while using convenience sampling during the third wave of COVID-19 from 3 March to 5 April 2021.

**Conceptual Framework of the Study**

To obtain answers to study questions i.e. how does media exposure to COVID-19-related news contribute to depression? For this purpose, the current study made up a conceptual framework of the following variables: media exposure to COVID-19-related news (independent variable) and the prevalence of depression (dependent variable), and one background variable (gender). Moreover, gender is the demographic variable in this research that is a type of qualitative variable in statistics. The research variables are the media exposure to COVID-19-related news and the prevalence of depression. Where the information regarding the above-mentioned variables is taken by different attributes in the analysis.

**Table 1:**

<table>
<thead>
<tr>
<th>Background Variable</th>
<th>Independent Variable</th>
<th>Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Media exposure to COVID-19-related news</td>
<td>Prevalence of Depression</td>
</tr>
</tbody>
</table>

**Factors Related to the Research Variables**

The important attributes regarding media exposure and COVID-19 are taken from the empirical work of Ullah and Muhammad (2020). The questions related to the research variables are shared with participants included in the survey. The responses were taken in form of yes or no and afterward, it was converted into coding for analysis. The details regarding the questions asked by the respondents through the questionnaire are mentioned in Table 2.

**Table 2:**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Operationalization</th>
</tr>
</thead>
</table>
| Media exposure to COVID-19-related news | 1. Media keep you busy for multiple hours  
2. You mostly Watching COVID19 related news  
3. Media now a day’s frame COVID-19 related news  
4. Social media exposes you to COVID-19 information  
5. see pictures of covid-19 patients on social media  
6. Use Facebook page or other social networks for COVID-19 information  
7. Sharing covid-19-related news on your social media pages  
8. Downloading clips from media regarding COVID-19 information  
9. COVID-19 content you are watching has a great influence on your mental health |
| Prevalence of Depression | 1. You always get depressed  
2. Smashing things reduce your depression  
3. Problems in appetite  
4. Suicidal thoughts  
5. Difficulty in sleeping  
6. lack of interest  
7. hopelessness  
8. Feeling worried  
9. low in energy. |
| Gender | 1. Male  
2. Female |
| Age in year | 1. 20-30  
2. 31-40  
3. 41-50 |
| COVID-19-related news information sources | 1. Internet media (e.g., We chat groups, WhatsApp groups, Facebook pages, Instagram, Twitter, blogs, and internet news)  
2. Traditional media (e.g., newspapers, television, and radio broadcasting) |
Primary data regarding study variables (i.e. media exposure and depression) was collected through a structured questionnaire via a google survey. The link of the survey was shared among the respondents through different platforms of social media (Facebook, WhatsApp, We Chat).

**Indexation**
All attitudinal statements of the independent and dependent variables were indexed by merging all the items into a single variable for measurement and cross-tabulated. However, the process of indexation was done based on the factors related to COVID-19 and media respectively. The average of all the responses related to COVID-19 and media is then used as the research variables in the analysis.

**Data Analysis**
Frequency and percentage are provided in descriptive analysis with all samples. Moreover, the association between *Media exposure to COVID-19-related news* and the prevalence of depression among people was measured through a Bi-variate analysis. In Bivariate analysis, only the relation between the independent and dependent variables was examined. The Chi-square test was applied to analyze the correlation between the study variables.

The strength and direction of association between variables were measured using Kendall’s Tau-b (Frankfort-Nachmias et al., 1992). It has a value that varies from -1 to +1. The dependent variable can be correctly calculated using the independent variable if the coefficient is 1. A positive coefficient value indicates that the variables have a direct relationship.

**Multivariate Analysis through Contingency Tables**
The multivariate analysis helped to assess further variations in independent and dependent variables due to background variables. In the present study Multivariate analysis was used to assess whether or not the difference in the prevalence of depression due to *Media exposure to COVID-19-related news* was influenced by control variables i.e. gender. To determine the relationship of the study variables, Chi-square tests were applied. All the aforementioned analysis was carried out through (SPSS) version 25.

**Eligibility Criteria**
Only those participants were included in the present study who are currently living in the province of Khyber Pakhtunkhwa. While respondents from other provinces of Pakistan were excluded during data screening. Moreover, incomplete responses were also excluded from the analysis.

**Results**
Data presented in table 3 show that for the male gender, about two-thirds 68.7% of the participant used internet media (e.g., We chat groups, WhatsApp groups, Facebook, Instagram, Twitter, blogs, and internet news) in the age group 20-30 years, compared to other age groups shown in the table. Likewise, about half of the respondents (49.1%) used traditional media in the age group of 41 and 50 years than other age groups. However, for the female gender more than half (64.2%) of the participants used internet media (e.g., We chat groups, WhatsApp groups, Facebook, Instagram, Twitter, blogs, and internet news) in the age group 20-30 years, compared to other age groups. Likewise, about half of the respondents (45.8 %) used traditional media in the female age group of 41 and 50 years than other age groups.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age Group in Years</th>
<th>Information Source</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Internet Media</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>20-30</td>
<td>380(68.7%)</td>
<td>388(54.3%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Traditional Media</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>8(5%)</td>
<td></td>
</tr>
</tbody>
</table>
Relationship of Media Exposure to COVID-19 Related News with Prevalence of Depression (Controlling Gender of the Participant)

The results revealed that watching COVID-19-related content on media triggered various mental health problems among the general population. In the present study, data were collected through an online survey regarding media exposure to COVID-19-related news and the prevalence of depression. To determine the association between people's media exposure to COVID-19-related news and the prevalence of depression, the Chi-square test was carried out. Findings of the Chi-square show that COVID-19-related media exposure was discovered highly significant with people's depression, as the value of Chi-square shows 12.787 highly significant at a 1% level of significance and positive (Tb=0.105). Thus, the above-mentioned findings clearly show that media exposure to COVID-19-related news contributed to depressive behavior among people in the study context. Furthermore, the prevalence of depression caused by media exposure among males and females was further explained through multivariate analysis. The findings of the study show that the association between the role of media exposure to COVID-19-related news and the prevalence of depression among people was found strongly significant (p = 0.000) and positive (Tb = 0.128) in the male participant. However, in the female participants the association in above-mentioned variables was found positive (Tb = 0.067) but non-significant (p =0.139).

Table 4:

<table>
<thead>
<tr>
<th>Background Variable</th>
<th>Independent Variable</th>
<th>Prevalence of Depression</th>
<th>Statistics</th>
<th>Level of significance of the entire table</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>Media exposure to COVID-19 News</td>
<td>Yes</td>
<td>501(89.5%)</td>
<td>204(80%)</td>
</tr>
<tr>
<td></td>
<td>No media exposure to COVID-19 News</td>
<td>No</td>
<td>59(10.5%)</td>
<td>51(20%)</td>
</tr>
<tr>
<td>Female</td>
<td>Media exposure to COVID-19 News</td>
<td>Yes</td>
<td>181(78%)</td>
<td>74(71.8%)</td>
</tr>
<tr>
<td></td>
<td>No media exposure to COVID-19 News</td>
<td>No</td>
<td>51(22%)</td>
<td>29(28.2%)</td>
</tr>
</tbody>
</table>

Discussion

The present study ascertains the relationship between media exposure to COVID-19-related news and the prevalence of depression among people living in Khyber Pakhtunkhwa. Media have been used extensively as a major source for getting health information, especially during health-related pandemics (Ngien & Jiang, 2021). Moreover, the results of the study indicated that media exposure to COVID-19-related news was found strongly significant and positive with depression. These findings could be attributed to the fact that excessive media coverage of COVID-19 could contain videos and news of overpopulated hospitals or dresses that medical teams wear to protect
themselves from this novel virus when treating the patient. Viewing such frightening content could contribute to distressing behavior. Likewise, a reporter from Geneva indicates that the overflow of information may also cause mental health problems (Zarocostas, 2020). Furthermore, they also revealed that an overspill of information during an outbreak also spurred false information and conspiracy theories (Zarocostas, 2020). In addition, the findings of the present study are closely in line with the work of Veer et al. (2021) who conducted an online survey and collected data from “Belgium, Hong Kong, Hungary, Italy, the Netherlands, Poland, Serbia” and some other countries concluded that media coverage to COVID19 significantly co-exists with psychological distress. A recent study conducted in Germany and China explored that a positive association exists between exposure to COVID19-related information and symptoms of depression (Bendau, Petzold, Pyrkosch, Maricic, et al., 2021). However, another research study from Singapore reveals that openness to COVID-19 news is a modifiable danger factor, but one potential approach to alleviating hazards might be through spreading official warnings using social media (Liu & Tong, 2020). Thus, during Covid-19, people in the research site (Pakistan) also got restricted to their house and all their outdoor activities were closed due to mass lockdown. Furthermore, economic crises and other family burdens when accompanied by media exposure significantly upsurge the prevalence of depression (Bueno-Notivol et al., 2021; Kazmi et al., 2020; Mazza et al., 2020). These findings are closely in line with some previous studies. For instance, during the COVID-19 epidemic, contradictory and misleading information, misinformation, and rumors regarding the COVID-19 on social media enhanced fear and psychological problems among people (Bueno-Notivol et al., 2021; De Girolamo et al., 2020; Gao et al., 2020). Likewise, a study conducted in China explored that excessive consumption of social media contributed to anxiety (Gao et al., 2020). Besides, several previous studies have proven the significance of media coverage during earlier pandemics, demonstrating that the type and frequency of news reporting have a substantial impact on people's health attitudes and behavior (Codish et al., 2014; Keramarou et al., 2011; Yan et al., 2016). Furthermore, social media, in particular, may have the capacity to (partially) overcome the issues created by the limitations of face-to-face communication. Many people use platforms like Twitter, Instagram, Facebook, or specific internet forums to share their personal experiences, opinions, worries, moments of happiness, or fears in these times, as evidenced by a dramatic increase in COVID-19-related terms on these channels, reaching many million mentions by March 2020. As a result, this kind of communication may have an essential role in psychological well-being, and using social media to remain in touch with key people is strongly advised by the Germany official sites (Bendau, Petzold, Pyrkosch, Mascarell Maricic, et al., 2021; Wiederhold, 2020).

**Conclusion And Recommendation**

It has been affirmed from the study’s findings that during COVID-19, media coverage of the said pandemic is significantly associated with depression among people. Watching traumatic contents co-exist with poor mental health. The findings of this study were also closely in line with other empirical studies conducted in different parts of the world. Given these findings, the study recommends that health intervention campaigns on media should be started by the government to decrease the level of fear among people. The study also recommends that content containing misinformation regarding COVID-19 may be removed by the government from the media. Moreover, medical specialists and psychologists may be invited to different media programs for sharing useful information as to that effect. Official pages, containing the correct and useful information on the said pandemic, may also be created on various social sites by the government authorities for the benefit of the general population.

**Limitation and Study Forward**

The present study had some limitations. The ratio of the female participant is very low compared to male participation due to cultural and other social restrictions. Moreover, some other factors including economic crises and self-isolation may be contributed to depression. Exposure to media
in COVID-19 news alone could not grip the total reality. However, scholars can work on other factors that negatively influence mental health.

References


