

The Psychological Impact of Fake news about COVID-19 on Social Media Users in Pakistan

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Abstract

The present study investigates the psychological impact of fake news on social media users regarding COVID-19 in Pakistan. A quantitative study was conducted through the questionnaire survey to investigate the psychological impact of fear and stress on social media users. Social media usage behavior in pandemics creates more stress and psychological fear cause of fake news. The 400 social media users, that age group divided into two groups younger & older adults part of this study through purposive sampling. The uses and gratification theory supports this study to identify the need to use social media in pandemics. This study reveals the fear and stress of fake news in a pandemic situation having an impact on social media users in Pakistan. The demographic factor also showed that there is a difference in age, gender, and qualification in the impact of fake (misinformation & disinformation) news during COVID-19 in Pakistan.

Keywords: Fake News, Digital Media, Social Media Users, COVID-19, and Psychological Impact.

1. Introduction

Social media had been a growing source of news and information in the world. Fake news had spread like a real virus (Gosztonyi, 2020). Fake news had been a significant issue for the world in every field of life, be it political or social. In critical conditions, fake news had been based on sensationalism and had spread like a real virus. A study of 126,000 rumours spread on Twitter over

eleven years had recognized that they fast-traveled and reached more people than the true stories (Lohr, 2018). The outbreak of the COVID-19 epidemic had spread rapidly across the world, and 206 countries had been affected on 02 April 2020 (Wilson, 2021).

The big issue had been identifying the flow of fake news data on social media in global pandemic conditions. Traditional media was easy to track, but it had been hard to monitor and analyze social media. In the health communication sector, fake news had aroused fears psychologically and socially, creating panic. Before-time breaking news on social media had also had their meaning and sense, with an impact that had been damaging to the maximum.

The then-current condition of the whole world had been critical due to the COVID-19 pandemic. Almost the entire world had been cordoned off, and everyone had been curious about the situation. During that pandemic, the engagement of social media had witnessed an upsurge worldwide. On social media, a massive flow of information had created chaos related to health news. The entire world had been in a health emergency due to COVID-19.

Fake news is a fabricated, false information-based story that has no facts and reality, is provably wrong having attraction, and is distributed under the pretense of having a genuine face and feel (Tandoc et al., 2017).

Health communication on social media was a very sensitive matter. Fake news meant that incorrect guidance on social media could circulate and spread quickly, potentially leading people to take greater risks with their health (Brainard & Hunter, 2020). During the COVID-19 pandemic, there had been a lot of speculation about health information and potential cures circulating on digital media, with discussions about the origin and spread of the coronavirus. The landscape of social media had become characterized by a lack of reality, with conspiracy theories circulating as if they were facts. People easily put their trust in such news, especially when shared by close friends, leading to a psychological impact on social media users. Amid the existing fear of COVID-19, the proliferation of fake news had a severe impact on users. The pandemic had already increased fear and uncertainty regarding

life risks and finite resources (Fofana et al., 2020). COVID-19 had generated fear and uncertainty, affecting mental well-being.

In this study, the term "social media" had encompassed only two platforms, WhatsApp and Facebook. WhatsApp had been an instant messaging application available on all smartphones, enabling users to exchange photos, videos, documents, voice messages, and locations. At the time, WhatsApp had 465 million monthly active users, and its user base was still expanding (Martinez, 2018). WhatsApp was a closed-platform medium designed for personal use. Tracking fake news on WhatsApp had been challenging due to its encryption of conversations, ensuring that only the sender and receiver could access the content. WhatsApp employed an encryption code system for security purposes, making it challenging for public health officials and watchdog groups to analyze or track the spread of false information. Even WhatsApp itself had been unable to monitor the flow of information on the platform (Dodds, 2019).

Facebook was a social media platform where anyone could interact socially. Users could share things, post comments, share pictures, and news links. It offered additional features like chat, audio-video calls, and video clips. Most fake news arrived on smartphones through messages sent by friends or relatives. At that time, it had 2.4 billion monthly active users, making it a widely recognized social media platform worldwide (Szolnoki, 2018). Information on social media was not always authentic or credible. Fake news and inauthentic information on social media had been a continuous and serious threat to users' health. During the global pandemic of COVID-19, a massive flow of false information circulated on Facebook.

The current study had chosen these two social media platforms, WhatsApp and Facebook, which were avidly used by people around the world (Szolnoki, 2018). These social media applications helped the researchers determine the psychological impact of fake news during the pandemic on avid social media users. Most fake news was related to false medications, supposed cures for COVID-19, and the ongoing social situation of lockdown in Pakistan. People had been staying at home and connecting through social media, as they had fewer alternatives due to restrictions. The usage of social

media had increased, primarily because people had more free time. Previous research had focused on fake news on digital and social media during critical situations. The present research aimed to investigate the impact of fake news on demographic factors, frequently used social networking sites (SNS), gender, age, education, and locality.

1.2 Problem Statement

Social media also has a dark side as fake news and sharing manners and attitudes of people without knowing the authentication of information. Fake news in this pandemic of COVID-19 creates an impact on social media users. People are already afraid and stressed regarding COVID-19 but the problem is how much fake news contributes to this psychological fear and stress impact by using social media. The novelty of the pandemic disease demands a study to find out the fake news' effect on users of social media regarding COVID-19 in Pakistan.

1.3 Aims of the Study

- The objectives and aims of this study measure the psychological impact of fake news on social media users in COVID. This study also measures the usage of social media with demographic factors.
- To explore the association between usage of social media and trust of infodemic during COVID-19.
- To investigate the association of fake news with fear among social media users during COVID-19.
- To explore the difference between fear of death and fear of isolation among males and females.
- To know the fear of death among younger adults and older adults.

1.4 Significance of the Study

This study is important from both research and practical perspectives. Health communication alerts on social media, should be ready for critical situations and create an algorithm that counters the fake news for social media on an emergency basis. It will also help the users how they are having

the impact of fake news that is revolving on social media, how they perceive the fake news, and how much they believe in it.

2. Literature Review

The literature review was a past study and written document that presented a coherently contended case based on a thorough understanding of the then-current status of information about a subject of study (Machi & McEvoy, 2016). The existing knowledge and material supported the research on fake news and had also assisted the researcher in exploring new dimensions. In this study, the researcher followed a thematic pattern for the literature review and defined the following themes: (a) Social media fake news and health communication, (b) The impact of social media usage on psychological and health communication.

The phenomenon of fake news had been addressed, particularly in the last five years, often referred to as "the era of fake news" (Wang et al., 2019). The importance of the literature review had been to understand how past studies had been conducted and in which areas further research was needed. Social media had been a platform for fake news from various perspectives, particularly during critical pandemics. In this study, the researcher had aimed to identify the impact of fake news on social media users during the COVID-19 pandemic in Pakistan.

2.1 Social Media and Fear of Fake Health Communication

The social media avid users had been engaged in the coronavirus pandemic in Pakistan, and the circulation of fake news had posed risks to public health (Strekalova, 2017). Between February 2016 and January 2017, information and stories related to the Zika virus on social networking sites had seen fake news being shared more frequently than verified news, although this aspect was not part of this study (Sommariva et al., 2018). On social media, fake news related to health risks or panic situations had misled people and had a serious impact on social media users (Waszak et al., 2018). The theory of the Social Amplification of Risk had examined the fear level and found that the majority of news posts required sentimental components. Client engagement

had significantly increased as the degree of fear and emotional intensity rose from low levels (Ali et al., 2019).

Liu (2021) had discussed the effects of fear among people caused by fake news messages. Traditional news coverage, on the other hand, had created less panic-inducing coverage of the Ebola crisis (Kilgo et al., 2018). In common situations, demographic and belief systems played a role in the spread of fake news (Wang et al, 2019). During the COVID-19 pandemic, fake news related to health and social issues had a massive presence on social media, impacting users (Pulido et al., 2020).

Dsouza et al. (2020) had also revealed that financial crises, loneliness, stress, social isolation, and other factors had an extreme psychological impact that increased during the COVID-19 pandemic. Saladino et al (2020). had conducted a study indicating that fear of COVID-19 had psychological and social impacts on children, students, and other workers. The study by Knowles and Olatunji (2020) had focused on behaviours, anxiety, and fear during the COVID-19 pandemic.

2.2 Usage of Social Media and Fear of COVID-19

In this study, any crises and pandemics that occurred, social media amplified the effect of the pandemic (Zhao & Zhou, 2020). The role of the media had an impact on users in the form of depression and stress (Bendau et al., 2020). The usage of social media had enhanced the COVID-19 pandemic for connectivity (Drouin et al., 2020).

The massive flow of information on social media shaped people's collective response to panic buying reactions during COVID-19 (Naeem, 2020). Fear in middle-aged and elderly individuals was related to the fear of death. The study had also found differences in fear based on age (Cicirelli, 2006). In COVID-19, social media played a significant role in spreading anxiety and fear in Iraq (Ahmad & Murad, 2020).

Pérez-Mengual (2021) had noted that individuals were fearful of personal death due to COVID-19, and the fear of death and anxiety levels were higher in females. The term "fake news" had become a concern during the SARS-CoV-2 pandemic. In the context of health communication, literacy

rates needed to be improved in the digital era to enhance formal and informal communication (Moscadelli et al., 2020). The impact of seeking prominence in sharing fake news, however, was not significant. Fake news significantly influenced the perceived impact of specific groups who shared the fake news related to COVID-19 (Apuke & Omar, 2020).

Alyami (2021) had explored pandemic anxiety related to COVID-19 and its connection to human well-being. This study had also examined how the fear of COVID-19 affected mental health. The sharing of fake news was a source of concern as it aimed to alter people's thought processes. All these past studies had supported the present study in developing a new narrative and dimension of this pandemic.

3. Research Questions

RQ1. How do social media users decide what news to trust in the COVID-19 pandemic condition?

RQ2: Is there any fear of fake news among social media users regarding COVID-19 in Pakistan?

RQ3: What kind of Fear of fake news on social media users?

RQ4. Is there any difference between demographic factors on fear of COVID-19 in Pakistan?

4. Research Hypotheses

H1: There is a positive relationship between the usage of social media and trust in fake news on social media in COVID-19.

H2: There is a positive relationship between fake news and fear of social media users in COVID-19.

H3: There is more fear of death than fear of isolation.

H4: There is more fear of death among old adults than younger adults.

H5: There is more fear of isolation among younger adults than older adults.

H6: There is a difference in the psychological impact of fake news on males and females.

5. Theoretical Framework

The theoretical support of the present study used the Uses and Gratification theory. One of the classical theories of mass communication was the Uses and Gratification theory (Katz, 1973). Elihu Katz initially introduced the Gratification theory. The viewpoint had emerged in the 1970s as Katz and his two allies, Michael Gurevitch & Jay Blumler continually developed the idea. In the guidance of past studies, the Uses and Gratification theory had supported this research.

The theory had supported this research because the theory of Uses and Gratification explained the need to use social media for news and information to connect with the world. In the Uses and Gratification theory, the main purpose had been that people wanted to acquire information, which was a basic human need. In that scenario, people had control over the media to obtain information according to their individual needs. In such situations, people had been highly engaged in social media for their gratification. During the pandemic chaos, people could have easily fallen victim to fake news.

5.1 Implications

In this research, according to need, this theory is implemented in this study. This theory is based on a desire to know and gratification. In this pandemic, people are restricted in their houses and they are worried about what is happening in the surroundings due to the lockdown. There is various need for gratification of the users of social media. Cognitive needs, to fulfil this need for information, knowledge, and facts.

Especially with COVID-19, people use social media to learn how to do things they haven't known about. Social integrity, due to pandemic situations lockdowns happened and compromises the social integrity. In the digital public sphere, people use social media like WhatsApp groups and Facebook pages. Users have the option to what they want to know about anything (Whiting & Williams, 2013). The fundamental justification uses and gratifications theory that the persons will look out media between competitors that satisfy their necessities and prompt outrageous fulfilment (Weaver Lariscy et al., 2011).

6. Method

This part of the study was essentially considered for research. It showed how the study was processed and analyzed in a systematic way. In this methodology, the researcher discussed the research tools and design and how the measurement of the Psychological Impact of Fake News about COVID-19 on Social Media Users in Pakistan was conducted. For this study, a survey was conducted to obtain better results regarding the psychological impact on the users.

6.1 Research Design

This study while Following a quantitative approach, this study intended to develop and validate a survey instrument used to analyse the impact of fake news on social media users regarding COVID-19 in Pakistan. The study was conducted as a survey on social media platforms (Facebook & WhatsApp). All the questionnaires were sent through these two social media platforms to ensure they reached avid users.

6.2 Population

The population of the present study consisted of people from Lahore who had a presence on and were avid users of Facebook and WhatsApp, with ages ranging from 18 to over 55. The population was divided into two parts: younger adults and older adults.

6.3 Sampling

The participants of the study were Facebook and WhatsApp users aged between 18 and 55 plus, further divided into young adults and older adults. The participants were required to have an educational background since it was a prerequisite for the study, given that they were users of social media. A total of 400 participants were selected for this research. The research employed a simple random sampling process to choose a sample from the study's population.

6.4 Sampling Technique

Validity in the study was an essential element to ensure that all aspects of the study were aligned with its nature. The elements of the study were designed

in accordance with the nature of the research. The study, based on a quantitative method, conducted a questionnaire survey to collect data. All the questionnaire questions supported the study, and the sequence of the questions was appropriate and conducive for respondents to provide answers. Simple and easy methods were adopted to facilitate better understanding among the respondents.

The reliability of the study pertained to the consistency of the research results. All the questions were carefully composed in line with the research nature to ensure that the results were reliable and remained consistent when employing another method for the study. The homogeneity of the variables was tested using a correlation test.

6.5 Measurement

The research aimed to measure the psychological impact of fake news and information on social media users concerning COVID in Pakistan. The impact on social media users was assessed through a survey questionnaire. The study also explored the demographic factors influencing the impact of fake news related to COVID-19.

6.5.1 Demographics

In the research, participants were questioned about their demographic features, including frequently used social networking sites (SNS) (Ali et al., 2020), gender, age, and education. These demographic factors provided insights into the impact of fake news while considering age differences, gender, and education.

6.5.2 Fear Scale

To assess the fear of users, a Fear scale adapted from the one established by (Ahorsu et al., 2020). was employed. This scale was specifically designed for measuring the fear of COVID-19 and the fear of fake news and information during COVID-19.

6.6 Data Analysis

The data of this study was examined using SPSS. Given the nature of the research, the Pearson Product Moment Correlation was applied to ascertain

the direct relationship between the impact of fake news on social media avid users.

6.7 Ethical Considerations

The research followed ethical guidelines. The privacy of the respondents was ensured at all costs. The researcher assured the respondents that their information would be kept safe and used solely for research purposes. While answering the survey questions, participants had the autonomy to withdraw from the research at any point.

6.8 Definition of Terms

6.8.1 Fake news

Fake news is a fabricated false information-based story that has no facts and reality, is provably wrong having attraction, and is distributed under the pretense of having a genuine face and feel (Tandoc et al., 2017). In this research, all misinformation and disinformation related to COVID-19 have been included.

6.8.2 Infodemic

The massive information about any concerning problem was very difficult to find a solution (Buckley, 1997). The term "Infodemic" was used by the WHO in February 2020 during the COVID-19 pandemic. All the posts on Facebook and information on WhatsApp related to COVID-19 fell under this term "Infodemic."

7. Findings

This chapter explained the outcomes of the present research. The findings of this study were presented in a sequence without any biases. All the tables and interpretations showed the results of the psychological impact of fake news during COVID in Pakistan. More than 400 participants had responded to the questionnaire, and some of the respondents had filled out the questionnaire non-seriously. Due to non-serious behaviour and temptation, only 400 responses were considered in this present study.

7.1 Demographic Information

This study had included demographic information, such as gender, age, and education levels. Demographic information factors were used to understand the variations in psychological impact among users.

Table 7.1 *Gender Information*

		Frequency	Percent	Valid Percent
Valid	Male	203	50.7	50.7
Valid	Female	197	49.3	49.3
	Total	400	100.0	100.0

In this Table 7.1, the total number of respondents in this study was 400. The gender ratio of male respondents is 203 (50.7 %) and females are 197 (49.3) of this study.

Table 7.2 *Age Information*

		Age	Frequency	Valid Percent
Valid	Younger Adults	18-25	186	46.5
		26-35	63	15.8
	Aged Adults	36-45	91	22.8
		46-55	56	14.0
	Older Adults	More then 55	4	1.0
		Total	400	100.0

Table 7.2 In this study, age is categorized into three parts, younger adults, aged adults, and older adults. This research also finds the variation of the impact age-wise. 186 (46.5 %) participants of this study belong to 18-25 years old, and 63 (15.8%) participants of this study belong to 26-35 years old and also fall in younger adults. In the aged adults' category 91 (22.8 %)

participants in this study belong to 36-45 years old, and 56 (14.0 %) participants in this study belong to 46-55 years old also fall in aged adults. Only 4 (1.0 %) participants in this study.

Table 7.3 Qualification

	Qualification	Frequency	Valid Percent
Valid	Intermediate	44	11.0
	Bachelor	174	43.5
	Master	121	30.3
	MPhil	45	11.3
	PhD	5	1.3
	Others	11	2.8
	Total	400	100.0

Table 7.3 explain the qualifications of the respondents of this study. In this study 44 (11.0%) respondents are intermediate. 173 (43.5 %) respondents are bachelor, and 121 (30.3 %) respondents are Master. 45 (11.3 %) respondents are MPhil, and 5 (1.3%) PhD. In other qualifications, 11 (2.8 %) respondents fall in this category.

Table 7.4 Linear Regression Test to Check the Positive Relationship Between Usage of Social Media and Trust in Fake News On Social Media in COVID-19

Effect	Estimate	R ²	SE	95% CI		p
				LL	UL	
Social media Usage	.259	.067	.052	.176	.381	.000

Note. Total N = 400. CI = confidence interval; LL = lower limit; UL = upper limit.

A simple linear regression was conducted to know the impact of predicting participant's usage of social media based on their impact of fake

news. A significant regression equation was found ($F(1,398) = 28.597, p < .000$), with R^2 of .067. Participants' predicted impact of fake news is equal to $17.504 + .278$ (Usage of social media) Participants' average impact of fake news .259. So the hypothesis is approved.

Table 7.5 Linear Regression Coefficient of Fake News About COVID-19 And Fear of Users

Impact	Estimate	R ²	SE	95% CI		P
				LL	UL	
Fake news on social media	.645	.417	.037	.553	.699	.000

Note. Total N = 400. CI = confidence interval; LL = lower limit; UL = upper limit.

A simple linear regression analysis was conducted to predict participant's Fear based on the impact of fake news. A significant regression equation was found ($F(1,398) = 284.215, p < .000$), with an R^2 of .417. Participants' predicted impact of fake news is equal to $6.968 + .626$ (Fear) Participants' average impact of fake news .645. So that the hypothesis is approved.

Table 7.6 Difference of fear of death in males and females

Var.	Males (n = 203)		Females (n = 197)		t(398)	P	Cohen's d
	M	SD	M	SD			
Fear of Death	22.88	5.34	26.03	5.47	-5.831	.000	0.58

An independent sample t-test was functional to check the difference between fear of death in males and females and to test H3. The result displayed that, there was a significant change between fear of death in males and females. The finding showed that the effects of fear of death on males (M=22.88, SD= 5.34) are less than females (M=26.03, SD=5.47), $t(398) = -5.83, p < .05, d = 0.58$. Cohen d estimated value is 0.58, which shows the effect

based on Cohen (1992). So there is a different fear in males and females. So that the hypothesis is approved.

Table 7.7 *Difference in The Fear of Death On Younger Adults and Older Adults and Public University Students*

Variable	Younger Adults (n = 261)		Older Adults (n = 139)		t(398)	P	Cohen's d
	M	SD	M	SD			
Fear of death	22.05	4.94	28.90	3.82	6.20	0.00	1.55

An independent sample t-test was applied to check the change in fear of death between younger adults and older adults and to test H4. The result showed that there was a significant difference between fear of death in younger adults and older adults. The finding showed that the fear of death in younger adults (M=22.05, SD=4.94) is less than in older adults (M=28.90, SD=3.82), $t(398) = -14.22, p < .05, d = 1.55$. Cohen d estimated value is 1.55, which shows the effect based on Cohen (1992). According to the results, the difference is found in fear of death in younger adults and older adults. So that the hypothesis is approved.

Table 7.8 *Difference of Fear of Isolation Among Younger Adults and Older Adults*

Variable	Younger Adults (n = 261)		Older Adults (n = 139)		t(398)	P	Cohen's d
	M	SD	M	SD			
Fear of Isolation	3.43	1.021	3.93	.411	-5.45	0.00	0.64

An independent sample t-test was run to check the change between fear of isolation among younger adults and older adults and to test H5. The result showed that there was a significant change between fear of isolation among younger adults and older adults. The finding showed that the fear of

isolation among younger adults (M=3.43, SD=1.021) is less than older adults (M=3.93, SD=.411), $t(398) = -5.45, p < .05, d = 0.64$. Cohen d estimated value is 0.64, which shows the effect based on Cohen (1992). According to the results, there is a change in fear of isolation in males and females. So that the hypothesis is accepted.

Table 7.9 *The Psychological Impact of Fake News on Gender-basis*

Variable	Males (n = 203)		Females (n = 197)		t(398)	P	Cohen's d
	M	SD	M	SD			
Psychological Impacts of Fake News	28.55	5.08	30.04	4.78	-3.015	0.003	0.30

An independent sample t-test was run to compare the means of males and females for the psychological impact of fake news & information and to test H6. The result showed that there was a significant change in psychological impacts on males and females. The finding showed that the psychological impacts of fake news on males (M=28.55, SD=5.08) are less than on females (M=30.04, SD=4.78), $t(398) = -3.015, p < .05, d = 0.30$. Cohen d estimated value is 0.30, which shows the effect based on Cohen (1992). Results found that there is a difference in psychological impact on males and females. So that the hypothesis is accepted.

8. Discussion

This research aims to find out the psychological impact of fake news and information on digital and social media users during COVID-19. In this study, the population of Lahore was targeted to get the data and measure the impact of fake news. This study showed the significant results of the social media avid users are having the impact of fake news. During COVID-19 social media users faced fake and fabricated news and the results of fake news on social media avid users having death fear and isolation fear. The comparison of younger adults and older adults has a different level of fear and

psychological impact. In this research, all the hypothesis is approved and accepted.

H1: There is a positive relationship between the usage of social media and trust in fake news on social media in COVID-19.

In the pandemic situation of COVID-19 avid user of social media is increasing to know the information and keep in touch with others (Wong et al., 2020). Due to the massive use of social media users affected the fake news. WhatsApp and Facebook are the tools to expand the information. People regularly share data without any earlier confirmation. In this scenario, most social media users trust fake news, which is very injurious to mental health. In this hypothesis the relation of usage of social media and trust in fake news is positive. Table 5.4 shows the results that there is a positive relationship in the usage of social media and the trust of fake news during COVID-19. More usage of social media causes trust in fake news on social media. This hypothesis is accepted and results are matched with previous studies (Strekalova, 2016; Sommariva et al., 2018).

H2: There is a positive relationship between fake news and fear of social media users in COVID-19.

In this study, H2 is a positive relationship between fake news and fear of social media users in COVID-19. Initially, there is Fear of COVID-19 that already exists in people who are in quarantine (Saladino et al., 2020). In this research, the researcher finds the fear of fake news in COVID-19. In this hypothesis, a linear regression test runs to measure the impact and relation of false news on social media avid users. To run the linear regression test to know the effect of fake news on (Facebook & WhatsApp) users that they have fear after facing fake and fabricated news on social media. In this pandemic, the public is afraid of this virus and after that, any news related to COVID-19 creates more panic and fear in the people, and their fake news is shared three times faster than real news on social media (Ahmad & Murad, 2020). COVID-19 fear and fake news fear mirage and create a panic situation. Fake news is a self-virus that spreads fast (Sommariva et al., 2018).

Results of this hypothesis are approved and as Table 5.5 shows the COVID-19 fear and Fake news fear, there is also panic, stress, fear of

Isolation, fear of death, and other psychological impacts on the social media users. Especially in health information panic situations always mislead the users (Waszak et al., 2018). Fake news & messages that fluting on (Facebook & WhatsApp) have the fear for the users (Hendriks, 2019). These past studies support this hypothesis and the results matched with past studies. According to the results, there is a positive relation between fake news and fear among the users of social media and also has an impact on the users.

H3: There is more fear of death than fear of isolation among the users.

In this research H3 hypothesis is among the users there is more fear of death than fear of isolation during COVID-19. According to the WHO Coronavirus (COVID-19) Dashboard, 3,899,172+ deaths around the world in July 2021 (WHO, 2021). After these deaths, there is a fear of death more than a fear of isolation. This thing showed that people are kept in touch through (Facebook & WhatsApp). This study also finds out that the number of users of social media is rising in COVID-19. Through social media connecting with other people reduces the fear of isolation but the fear of death especially factors of fake news related to death news are creating fear among the users (Pérez-mengual et al., 2021).

Table no 5.6 shows that Fear of isolation exists in users but not more than fear of death on social media (Alyami et al., 2021). On this hypothesis, H3 was tested by the Simple Independent T-test to know the change between fear of death and fear of isolation. There is more fear of death than fear of isolation on social media users.

H4: There is more fear of death among old adults than younger adults.

In this study's H4 hypotheses, there is more death fear in older adults than in young adults. A sample-independent T-test was conducted to know the difference. So there is found a change in fear of death among old adults and young adults. There is also in the past study that more fear of death in old adults than in younger adults (Cicirelli, 2006). Old adults are weak mantle and physically and the specific circumstances of COVID-19 they are having more fear of death with the fear COVID-19. COVID-19 is a virus that affects

humans mostly the weak immune system that is found in older adults (Zhang et al., 2019). All the literature also found and supports this study

The old adults are mostly unaware of the technology and they easily believe in rumors and fake news that flouting on Facebook and WhatsApp are full of rumors during COVID-19. There are many factors behind the fear of death in older adults, like, less social support, and weaker religiosity in society (Cicirelli, 2002). Before that, it was very hard to find out the fear factor in old adults and young adults during this kind of pandemic because this coronavirus is not in the past. So that this hypothesis supports the results and some past studies also support this hypothesis.

H5: There is more fear of isolation among younger adults than older adults.

In this study, H5 and Table 5.8 showed that there is more fear of isolation among younger adults than older adults. To know the difference simple independent T-test was conducted so the outcomes show that yes there is a change in younger adults & older adults. In this research, the results show that there is a difference in fear of isolation among young adults and older adults. Especially in this pandemic, young adults feel the fear of isolation (Cao et al., 2020). In the research dimension in the past studies about fear of isolation among younger adults than older adults is hard to find the difference. In this COVID-19 due to quarantine and social distancing in a pandemic having fear of isolation (Mortazavi et al., 2020).

Older adults are already spending their lives limited in a social circle so they have limited impact on fear of isolation in this pandemic but on the other hand, young adults have a broad social circle so that is why they have more impact than older adults. Usage of social media increases due to lockdowns and social distancing in young adults (Kilgo et al., 2019).

H6: There is a difference in the psychological impact of fake news on males and females.

In this research about H6, there is a change in the psychological impact of fake news on males and females. According to the study and past literature about fake news, especially its impact in a pandemic situation is unable to

find a past gap that fills in this study. In this hypothesis to measure the difference the simple independent T-test. Table no 5.9 outcome presented that yes there is a difference between males and females. Fear of death is common in females more the males (Pérez-mengual et al., 2021). Fear of death is found in females more than males. Females have a more responsible attitude toward COVID-19 than males to hand wash, use sanitizer, wear a mask, and other precautionary measures (Bwire, 2020).

On the other hand, females are also having more impact than males on fake news in this study. The literature also supports this present study that females are having an impact more than males. The hypothesis is tested by the independent T-test and the accepted.

9. Conclusion

The findings of this study underscore the significant psychological impact of fake news on individuals who are avid users of social media, particularly Facebook and WhatsApp, during the COVID-19 pandemic. The results suggest that the surge in fake news and misinformation circulating on these platforms has a tangible effect on the mental well-being of users. Respondents reported experiencing heightened fear, particularly the fear of death, and a sense of isolation. This indicates that the proliferation of unverified and sensational information during times of crisis can have a substantial influence on the emotional state and psychological health of individuals.

A notable aspect of this research is the gender-based differentiation in the psychological impact. It was observed that females tend to be more sensitive to the psychological effects of fake news compared to males. In this context, sensitivity pertains to a heightened emotional response, including increased fear and anxiety. These findings align with broader research in the field, which has consistently shown that gender can play a significant role in shaping how individuals perceive and react to information on social media. Understanding these gender-based differences is crucial for developing targeted interventions and strategies to mitigate the psychological impact of fake news, especially during times of crisis like a pandemic.

These results have broader implications for health communication and information dissemination during public health crises. They highlight the importance of combating the spread of fake news and misinformation on social media platforms, as it can exacerbate fear and distress among users. Additionally, the study underscores the need for tailored approaches to address the psychological impact of fake news, with a recognition that these effects may vary across gender. It calls for a multifaceted effort involving media literacy programs, responsible reporting, and social media platform regulations to mitigate the adverse consequences of fake news on public mental health.

10. Limitations of the Study

Limitations of the study are those points or things that are unexplained in the present study. In COVID-19 fake news has a psychological impact on the social media users, and also demographic factors in this study.

This study consists of only two social media platforms: Facebook and the second is WhatsApp. Quantitative research methods are used in the study which consists of 400 respondents based in Lahore. Only online questionnaires were filled by the respondents due to the lockdown during COVID-19. This survey questionnaire was filled during the COVID-19 2nd and 3rd waves. In this study, random sampling was used to gather the data, that may not represent the whole population of the area.

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