

Crafting Entrepreneurial Pet Brands: Unravelling the Influence of Media Exposure on COVID-19 Anxiety through the Lens of Pet Attachment

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ARTICLE INFO	ABSTRACT
<p>Article History: Received: 26 Nov, 2023 Revised: 16 Jan, 2024 Accepted: 02 Feb, 2024 Available Online: 29 Feb, 2024</p> <p>DOI: https://doi.org/10.56536/jebv.v4i1.77</p> <p>Keywords: Media Exposure; COVID-19; Anxiety; Risk Perception; Pet Attachment; Pakistan</p> <p>JEL Classification:</p>	<p>This study aims to investigate the impact of media exposure regarding COVID-19 on anxiety with the mediating role of risk perception and the moderating role of pet attachment. The target population of the study is pet owners in major cities of Pakistan. The results concluded that media exposure has a significant and positive impact on risk perception, and risk perception has a significant and positive impact on anxiety. Furthermore, pet attachment plays a moderating role between media exposure and risk perception, and there is a partial mediation effect of risk perception between media exposure and anxiety. The study suggests that pet attachment must be considered as a solution to reduce risk perception caused by media exposure to COVID-19. The effect of media exposure regarding COVID-19 on anxiety has not been widely studied in Pakistan, nor has the mediating role of risk perception and the moderating role of pet attachment; therefore, this study is a contribution towards filling this gap. The goal of the study is to find out how business owners in the pet sector strategically mold their brands and deal with the difficulties posed by the COVID-19 environment. It also explores how media exposure affects people's anxiety levels throughout the epidemic, with a focus on how people's attachment to their pets mediates this effect. When examining and interpreting the emotional and psychological components of people's reactions to COVID-19-related media messages in the context of their relationships with their pets, the lens of pet attachment offers a distinctive viewpoint. For future studies, the impact of media exposure on anxiety may be examined across various cities in Pakistan, with larger sample sizes. Managerial implications are discussed.</p>

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INTRODUCTION

World Health Organization (WHO) declared COVID-19 as a global pandemic on 11th March 2020 Ducharme (2020). This health crisis has disrupted the day-to-day life of people. Countries are pushed into country-wide lockdowns; national borders are closed, traveling is restricted, and schools, businesses, government offices, and recreational places are shut down or operational only for a limited number of hours. Similarly, COVID-19 has wreaked havoc in Pakistan. The poor governance, high illiteracy, and poor health care system have made the

crisis worse. On 28th April 2021, a 10.8 percent positivity rate of COVID-19 among those who were tested was recorded, and more than 200 deaths due to coronavirus were observed in Pakistan. These deaths are the highest since the start of COVID-19 till date (DAWN, 2021).

The consumption of media has increased to obtain updates regarding the COVID-19 situation (Allington et al., 2020). Since the virus is highly contagious, people are bound at home and avoid interacting with others; therefore, they rely on media as a source of information. The news regarding COVID-19 is mostly negative i.e., deaths, health care system overload, increase in positivity rate, and violation of SOPs. This negative consumption of media is likely to cause anxiety among people. Shahzad (2023) investigated the impact of the perceived availability of flexible work arrangements on work engagement through the serial mediation effect of self-efficacy and mindfulness. The study revealed that the perceived availability of flexible work arrangements has a positive impact on self-efficacy and in turn self-efficacy also has a significant impact on work engagement. A study investigated the impact of consumer brand identification on purchase intention through the mediating effect of brand engagement. The study revealed that brand engagement performs a significant mediation effect in the relationship of brand identification and purchase intention (Aziz & Ahmed, 2023). A study investigated the impact of pet attachment and anxiety and revealed that keeping pets have positive impact on the mental health pet owners in general. Pet love has negative and significant impact on the anxiety (Israr et al., 2022). In a study of psychological health of older adults who were present or absent in the social relationships. The study found that the people who socially isolated and had no dog or cat reported a low level of psychological health and the group of older who had pet during the COVID-19 reported a high level of psychological health (Ikeuchi et al., 2021).

Some of the apparent effects of COVID-19 are in the form of lives lost, an overburdened healthcare system and an economic downturn causing huge business losses and unemployment (Ducharme, 2020; Shah et al., 2019). However, many other effects of COVID-19 go unnoticed, yet they are vital to be addressed, such as mental health issues. The reason why such issues are not given much importance is because the repercussions of COVID-19 are not as apparent and often emerge later than the former.

Pakistan is a 3rd world country. It has a high illiteracy rate and strong traditional values; as a result, discussing mental health issues is still considered taboo among the majority of the population (Shah et al., 2019). Through this research, the importance of mental health issues can be highlighted. This research also suggests a solution for anxiety caused by the consumption of media related to COVID-19 in the form of pet attachment. Many studies have proved that pet attachment is beneficial for mental health (Cusack, 2014; Jennings, 1997). If pet attachment proves to be a viable solution to reduce ongoing mental health crises, then it could be implemented by the health care system.

The study aims to investigate the impact of media consumption related to COVID-19 on anxiety. It is assumed that media exposure develops a risk perception that leads to anxiety. It is further assumed that the risk perception developed by media exposure can be moderated through pet attachment. In light of this relationship research question of this study is whether pet attachment is a source of relaxation in general and whether pet attachment has an impact on the relationship of media exposure and anxiety. In other words, whether pet attachment mitigates the intensity of anxiety caused by media exposure related to COVID-19. The Supporting Theory for this research is Media dependency theory; it is a systematized approach to the study of mass media effects on audiences. It was introduced in 1976 by the American communications researchers (Ball-Rokeach & DeFleur, 1976). According to this theory, there are three effects caused by mass media on people. The affective effect is relevant to this research (Lin, 2008). The objective of this study is to reduce the anxiety caused by the sensationalism provided by the media to stimulate the public's level of excitement, interest, and emotions. This research uses quantitative analysis to determine the relationship between independent, dependent, mediating and moderating variables. Primary data is collected through questionnaires from 316 respondents who are pet owners and those who live in Pakistan. Because it clarifies the complex relationship between media exposure, COVID-19 anxiety, and pet attachment, this research is significant and provides important information for developing pet brands that are entrepreneurial in the face of pandemic problems.

LITERATURE REVIEW

Media Exposure

Media refers to ways through which news and information are communicated to the people. There are three major types of Media: Print Media (Newspapers, Magazines), Broadcast Media (TV, Radio) and the Internet. Nowadays internet is widely used as a source of obtaining information, and the use of the internet is ever-increasing. The second major source of obtaining information after the internet is broadcast media, although its use is slowly diminishing. Print media is considered the traditional source of obtaining information. It is still being used to obtain information; however, due to the introduction of other media, the use of these sources has largely decreased (SparksNotes, n.d).

Commercial media refers to the media that the private people own. The primary aim of commercial media is to earn profit. Commercial media primarily rely on advertisements and programs to generate profit. It is mostly owned by large corporations, including multinational corporations (Taylor et al., 2017). Mass media industries financed by commercial media include newspapers, TV channels, magazines and the Internet (Biagi, 2011). Government-controlled media refers to media completely owned and controlled by the state. In Pakistan PTV (Pakistan Television Corporation) channel is entirely owned and controlled by the government (Waris Khan & Aziz, 2021). Overseas media refers to foreign news channels operating in the country, such as in Pakistan, BBC and CNN.

In Pakistan, till the initial years of the 1990s, the media was dominated by a single news channel: PTV (Pakistan Television Corporation). In 2002, during the regime of President Parvez Musharraf, licenses were issued to private media groups; this broke the monopoly of PTV. The independent media has been increasing ever since in Pakistan (Ricchiardi, 2012). Moreover, commercial media in Pakistan is not completely independent; there are restrictions on it. In 2002, PEMRA (Pakistan Electronic Media Regulatory Authority) was established. It is an independent institution established under the PEMRA ordinance 2002. The function of PEMRA is to regulate the broadcast media, including TV channels and radio (PEMRA, 2021). As per Nayatel (2021) real-time TV rankings, GEO News, ARY News, Hum TV, Duniya News and PTV Sports are the most viewed channels on the date: Sunday, 11th April 2021. The highest rating is of GEO TV, followed by ARY News.

Anxiety

In order to shed light on the mechanism by which pandemic exposure contributes to anxiety in teenagers, the study set out to investigate the link between pandemic exposure, negative media exposure, negative coping mechanisms, and anxiety in adolescents. The study adds to our knowledge of how exposure to pandemics affects teenage anxiety and emphasizes the significance of negative media exposure and poor coping mechanisms as mediating factors (Chen et al., 2023). The media's coverage of COVID-19 significantly predicts anxiety levels; exposure to more negative news items increases anxiety. Additionally, there is a correlation between anxiety and behavior and knowledge, with higher anxiety being linked to riskier behaviors and less accurate understanding (Windriyoningrum & Sawitri, 2023). According to a prior Israeli study, elevated death anxiety is correlated with heightened concerns about one's security status (Mahat-Shamir et al., 2018). Although the prior study focused on current terrorist attacks, empirical research in the field of TMT has shown that raising the threat of illness also raises the threat of death when people cannot actively suppress thoughts about illness or death or otherwise "defend" against such threats (Arndt et al., 2005).

According to TMT, people find ways to deal with the anxiety (or "terror") that comes with realizing they are going to die by finding significance in things that link them to parts of themselves or lives that will continue when they pass away (Solomon et al., 1991). The mortality salience effect is the awareness of one's mortality. Affirmation of (a) one's cultural worldview, (b) oneself and one's personal beliefs, and (c) one's relevance in the context of intimate personal connections are three typical buffers that reduce the fear of death salience. If psychological buffers against death are not used, then even otherwise healthy people experience reduced life satisfaction, decreased subjective vitality, and diminished significance when faced with death.

A fundamental dread that underlies the emergence, progression, and preservation of hypochondriasis (Furer & Walker, 2008) via a number of methods that may be used to explain how death anxiety may aid in the onset or maintenance of hypochondriasis. This can include

anything from somatic amplification due to a dread of physiological failure to actual death. According to Birgit et al. (2018), anxiety is a manifestation of separation anxiety. Because studies show that mortality salience affects health-related behaviors (Goldenberg & Arndt, 2008), high levels of death dread may set off symptoms of hypochondriasis during a health crisis, such as the COVID-19 pandemic. Adjustment disorder symptoms include obsession with the stressor, excessive concern, frequent and upsetting thoughts about the stressor, or other symptoms may result from these maladaptive symptoms.

Some of the studies that confirm the increasing anxiety among people due to COVID-19 are: A study was conducted in China that included students from top universities of China, both males and females that were 18 to 24 years old. The results of the study showed that Chinese students experienced high levels of anxiety due to COVID-19 (Wang & Zhao, 2020). Another study was conducted in America. The study was based on a sample of 565 American adults, including more than 50 percent of males. The study concluded that people who were diagnosed with COVID-19 witnessed the death of their acquaintances due to this virus and who took the stress of the pandemic experienced high emotional disturbances (Gallagher et al., 2020).

One latest study conducted in Israel concluded that people who reported using social media as a coping tool had a negative impact on them were more likely to experience high levels of distress and anxiety as compared to those who experienced a positive impact by using social media as a coping tool (Levaot et al., 2020). Another study conducted in China concluded that the use of new media and the excessive time spent on it to obtain information regarding COVID-19 have a negative impact on the emotional state of people, such as they are likely to experience anxiety and depression. However, there was also evidence suggesting that information in media regarding the disease, such as its preventative measures, is likely to have a positive impact on the mental well-being of people (Chao et al., 2020). Similarly, a study conducted in Germany in which data was collected from 623 participants through an online survey, concluded that the media consumption regarding COVID-19 by people suffering from preexisting fears leads to anxiety among them, especially when the media consumption is more than moderate (Bendau et al., 2021).

Pet Attachment

There are many studies carried out on pets and their benefits for pet owners. The benefits are not only that keeping pets makes the pet owners physically fit, but mental benefits are also associated with keeping the pets. Having a pet increases the physical activity of a pet owner, such as taking it for a walk or simply fulfilling its needs, such as providing food and bathing. According to Harris et al. (1989), an increase in physical activity prevents many diseases such as hypertension, stroke, heart disease, depression and anxiety. So, it is safe to say that keeping a pet improves mental health, if not directly, then surely indirectly.

Other studies that confirm the direct impact of pets on the mental health of people include a study conducted regarding the human-animal bond and its impact on life goals, self-confidence

and stress, which concluded that the presence of a pet, whether physical or cognitive, reduces stress as measured by blood pressure, when performing a task that is likely to cause distress (Zilcha-Mano et al., 2012). Another study carried out on the impact of pets on the mental health of people, particularly those suffering from long-term mental illnesses, concluded that pets play an important part in managing emotions since they distract from the symptoms and upsetting experiences linked with their mental illness (Brooks et al., 2016). A study pertaining to pets and aged people concluded that pets are advantageous for the mental health of older people since they alleviate boredom and fulfill social needs (Cherniack & Cherniack, 2014).

Risk Perception

“Risk perceptions are beliefs about potential harm or the possibility of a loss. It is a subjective judgment that people make about the characteristics and severity of a risk” (Darker, 2013). A study by Savage (1993) concluded that females, youth, and people who have low-income levels and are more illiterate have a greater risk perception. Pakistan is a developing country majority of people have low incomes, and the illiteracy rate is very high. According to statistics, Pakistan's population comprises the majority of females and youth. The median age in Pakistan is 22.8 years. The majority of people live in rural areas only 35.1% population lives in urban areas. This confirms low-income levels and high illiteracy since rural areas are deprived of higher education (Worldometer, 2021). Another study suggested that people who are generally anxious exaggerate the negative events that may occur; hence, their risk perception is likely to be higher than non-anxious individuals (Tripp et al., 1995). Risk perception is disadvantageous in the sense that it leads to anxiety. However, it is necessary to some extent since it encourages people to take preventative measures. This is confirmed by a study conducted in Bolivia that concluded that women were more likely to perceive risk from consuming information regarding COVID-19 on social media. The greater risk perception encourages the adoption of preventative measures and also the willingness to get vaccinated (Zeballos Rivas et al., 2021). Controlling COVID-19 requires both non-pharmaceutical (NPIs) and pharmacological approaches. They interact intricately with voluntary health-protective behavior, which is complementary to them and contributes to the spread of disease. The study addresses the central topic of risk analysis, which is the linkages between behavior and risk perception. It also points out a knowledge vacuum regarding the dynamic elements of these relationships (Dönges et al., 2022). The study, which focuses on the COVID-19 pandemic, attempts to evaluate how perceived risk and associated behavior evolve over time and identify connections and feedback effects. Major conceptual approaches, including the risk reappraisal hypothesis, are supported by the findings, which have implications for future research areas and health risk management (Qin et al., 2021).

Some studies claim that the risk perception caused by media is often the general risk perception and not the personal risk perception. A study concluded that it is not always true that more media exposure leads to greater risk perception. The type of information plays a vital role in determining whether the risk perception will be developed or not. It further concluded that risk

perception caused by media is general risk perception and less likely to be a personal risk perception (Wahlberg & Sjoberg, 2000). Another study that aligns with the study mentioned above states that media reports impact perceptions about societal risks but not about personal risks. The study further stated that certain conditions determine the influence of media reporting on personal level risk or societal level risk. The conditions are whether the individual is able to identify with the problem, whether the media is able to present the problem strongly and lastly, the probability of an event occurring (Tyler & Cook, 1984).

Research Hypothesis

Media Exposure and Risk Perception

Many studies show the relationship between media exposure and pet attachment; however, there is no general agreement on whether media exposure affects risk perception or not. A study conducted in Bolivia concluded that excessive consumption of COVID-19 information through social media leads to high-risk perception (Zeballos Rivas et al., 2021). Many other studies concluded that media exposure regarding pandemics or any disastrous events leads to high-risk perception (Muñiz, 2020; Rubaltelli et al., 2018). One study conducted in the US related to the Ebola virus concluded that regular messages to warn people resulted in high-risk perception (Sell et al., 2017). Based on the above studies, we can assume that media exposure related to COVID-19 positively affects risk perception.

H1. Media exposure regarding COVID-19 positively and significantly affects risk perception.

Risk Perception and Anxiety

Many studies have been carried out on risk perception and anxiety. One study conducted in China concluded that depending on the type of content consumed by individuals regarding COVID-19, the anxiety may or may not be triggered. It stated that when people consume negative information, such as an increase in death rates or shortage of health facilities, then they experience anxiety whereas, when people consume positive information, such as the reopening of academic institutions, this type of news has an inverse relationship with anxiety since this particular news depicts that the situation is getting better. Moreover, it further concluded that if people perceive more risk from COVID-19, they are likely to experience more anxiety (Liu et al., 2020). A study conducted on the relationship between risk perception and anxiety states that higher risk perception leads to high anxiety (Tripp et al., 1995). Another study conducted in China concluded that epidemic risk perception positively affects anxiety (Li & Lyu, 2020). Based on the above evidence, we can assume that risk perception positively affects anxiety.

H2. Risk perception positively and significantly affects anxiety.

Media Exposure and Anxiety

Anxiety refers to feelings of worry that are often accompanied by physical symptoms such as rapid heartbeat, shaking, sweating and lightheadedness. There has been an alarming increase in anxiety due to COVID-19. The spread of this highly contagious and dangerous disease is leading to a mental health pandemic. Generally, anxiety is considered a negative emotional state, but there are some advantages of being worried, such as anxiety may push us to take action (Anwar, 2020). Social distancing is essential to curb the spread of the virus. People who fear catching the virus and those who have a fear of passing this virus to their loved ones are those who practice social distancing, but excessive worries of catching the disease indulge people in panic buying, as happened in the USA, UK and European countries such as Spain, France and Germany. According to research, the panic was mainly associated with an increase in grocery spending, which included toilet paper, rice flour, pasta, as well as fruits and vegetables (Keane & Neal, 2021), hence resulting in a shortage.

H3: Media Exposure has a positive and significant effect on Anxiety.

Moderating Effect of Pet Attachment

One of the 3 ways pets can provide health benefits, as stated by Friedmann (1990), is that pets can reduce anxiety by providing a safe, comfortable environment, and it is also a substitute to divert attention from worries to something pleasant therefore, indicating that the risk perception will be lower in people who are close to pets. Many studies show that pet attachment reduces anxiety among people, and then some studies show that low anxiety is linked with low-risk perception, therefore suggesting that pet attachment reduces risk perception. Based on the above studies, we can assume the hypothesis mentioned below:

H4. The effect of media exposure on risk perception is weaker for people who have high pet attachment.

Mediation Effect of Risk Perception

Many previous studies show that risk perception plays a mediating role in media exposure and anxiety. One study shows that people who have high media consumption related to COVID-19 have higher anxiety levels, and the people who have a higher probability of getting anxious are the ones who have high-risk perceptions (Liu et al., 2020). Another study stated that COVID-19 leads to negative emotions, and risk perception plays a mediating role between negative emotions and risk perception. The following hypothesis is formulated with the support of previous literature.

H5. Risk perception mediates the effect of media exposure on anxiety.

RESEARCH METHODOLOGY

Participants and Procedures

The survey was distributed among 316 participants to obtain data relevant to the research. The data was collected over two months, May and June 2021. A total of 316 responses were collected. The respondents belonged to various cities in Pakistan, mainly Sialkot, Lahore and Islamabad. The demographic section showed that the respondents comprised 70.9% females and 29.1% males. The majority of respondents were aged 18 to 23 with a percentage of 46.5%, followed by age 24 to 29 with a percentage of 40.5%, then aged 30 to 35 with a percentage of 12%, and only 00.9% of age above 36 responded. The majority of respondents were undergrads, with a percentage of 48.1%, followed by graduates, with a percentage of 38.3%, and 13.6% of respondents were postgraduates. 65.2% of respondents were unemployed, and 34.8% of respondents were employed.

Measure

A survey is used to measure the variables of this research. It consisted of 6 sections. The first section includes the introduction; the second section includes questions regarding media exposure. The third section contains questions regarding anxiety; the fourth section includes questions regarding risk perception. The fifth section includes questions regarding pet attachment, and finally, the last section contains demographics, including gender, age, status and education, for which discretion was given to respondents if they would like to share their personal information. To measure the variables 5-point Likert scale is used in sections 2, 3, 4 and 5.

Media Exposure

The scale to measure media exposure was adapted from (Liu & Liu, 2020). The questions helped to obtain data such as time spent on COVID-19 information and the use of different media sources to obtain such information, including official media and commercial media. There were a total of 3 questions related to media exposure (Brooks et al., 2016; Li & Lyu, 2020; Zilcha-Mano et al., 2012). Cronbach's α 0.713 indicates that questions related to media exposure have good reliability.

Anxiety

The scale to measure anxiety was adapted from (Petzold et al., 2020). The questions were related to the symptoms of anxiety, such as fear, nervousness, restlessness due to COVID-19 and others, such as the extent of preventative measures and the help needed to cope with the feelings. There were a total of 6 questions to measure anxiety. The Cronbach's α 0.884 indicates that questions related to anxiety have good reliability.

Risk Perception

The scale to measure risk perception was adapted from (Oh et al., 2020). It measured personal risk perception through questions such as the perception of how serious COVID-19 is and the probability of being affected by it. There were a total of 4 questions to measure risk perception. The Cronbach’s α 0.772 indicates that questions related to risk perception have good reliability.

Research Model:

The figure below shows the research model. The model has been constructed after a thorough review of the literature

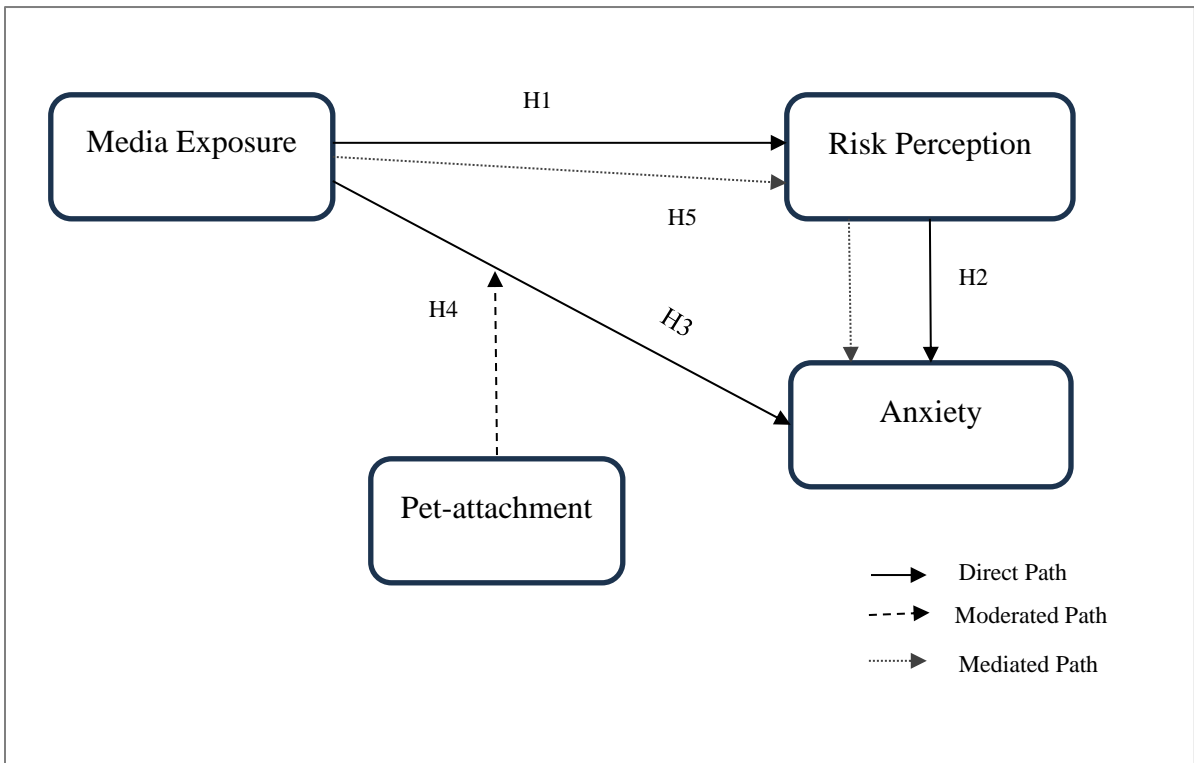


Figure 1. Research Model

RESULT AND DISCUSSION

Table I: Respondents' Demographics

Profile	Category	Frequency	Percentage %
Gender	Male	92	29.10%
	Female	224	70.90%
Age	18-23	147	46.50%
	24-29	128	40.50%
	30-35	38	12.00%
	36 or above	3	0.90%
	Undergraduate	152	48.10%
Education	Graduate	121	38.30%
	Postgraduate	43	13.60%
Status	Employed	110	34.80%
	Unemployed	206	65.20%

Table 1 shows the demographic of the respondents. 29.10 percent were males, and 70.90% were female in the study. The major portion of the respondents fall in the age bracket of 24 to 29, which was 40.50 percent. A large chunk of the data was graduated, which was 38%. The majority of the respondents were unemployed, and their percentage was 65.20 percent.

Table II: Confirmatory Factor Analysis

Constructs	Items	SFL
Media Exposure Cronbach's $\alpha = 0.713$ CR = 0.828 AVE = 0.620	Use of official media sources (e.g., PTV) to obtain information regarding COVID-19.	0.65
	Use of commercial media sources (e.g., GEO News and ARY News) to obtain information regarding COVID-19.	0.89
	Use of overseas media sources (e.g., BBC and CNN) to obtain information regarding COVID-19.	0.81
Risk Perception Cronbach's $\alpha = 0.772$ CR = 0.854 AVE = 0.593	The problem of Covid-19 is serious to me.	0.79
	I am worried that I will be affected by Covid-19.	0.78
	I would likely be affected by Covid-19.	0.75
	I have felt that Covid-19 is dangerous.	0.76
Anxiety Cronbach's $\alpha = 0.884$ CR = 0.912 AVE = 0.634	I felt moments of sudden terror, fear, or fright due to Corona.	0.79
	Felt anxious, worried, or nervous regarding Corona.	0.81
	Had thoughts of contracting the virus, overwhelming with fear, or other bad things happening due to Corona.	0.81
	Felt tense muscles, felt on edge or restless, or had trouble relaxing due to Corona.	0.81

Spent much time on taking preventative measures for protection against Corona.	0.78
Needed help to cope with these feelings, e.g., medications, religion and people.	0.78

All the loadings were above the threshold value of 0.7, except one value of media exposure, which was 0.65. All the values of Cronbach’s alpha meet the standard value, which is 0.70. The composite reliability of all the items was above the standard value of 0.7. The average variance extracted (AVE) of all the variables was above the threshold value of 0.5.

Table III: Correlations Matrix

Variable	ANX	ME	RP
ANX	0.796		
ME	0.354	0.787	
RP	0.763	0.321	0.77
Mean	3.2838	3.2215	3.6361
SD	0.95277	0.8605	0.86973

Note: n = 316. Bold figures on the diagonal are the square roots of the AVE.

The bold values on the diagonal are the square roots of the average variance extracted. The value under anxiety is 0.796, which is a greater value in the corresponding row and column. The value under the media exposure is 0.787, and this value is greater in its corresponding row and column. The value under the risk perception is 0.77, and this value is also larger in its corresponding row and column.

Table IV: Moderation Analysis

Variables	Beta	P-Value
Media Exposure	0.191	0.000
Pet Attachment	-0.329	0.000
H4: Interaction Term	-0.082	0.043

Dependent variable: anxiety. Results are significant if $p < 0.05$.

Media Exposure has a positive and significant impact ($b = 0.191, P = 0.000$) on the anxiety. Pet Attachment has a significant but negative impact ($b = -0.329, P = 0.000$) on the anxiety. At the same time, the interaction effect of media exposure and pet attachment on risk perception is significant and negative ($b = -0.082, P = 0.043$). Under the light of facts, our hypothesis H4 is supported.

Table V(a): Simple Linear Regression Analysis

Hypothesized path	Beta	P-Value
H1: ME-->RP	0.34	0.000 ***
H2: RP-->ANX	0.823	0.000***
H3: ME-->ANX	0.256	0.000***

Notes: ME = Media Exposure, ANX = Anxiety, RP = Risk Perception

*** shows that the P values are less than 0.01 therefore, significant.

The impact of media exposure on anxiety (b=0.34, P=0.000) is significant. Risk perception has a positive and significant impact (b = 0.823, P = 0.000) on anxiety. Media exposure has a positive and significant impact (b = 0.256, P = 0.000) on risk perception.

Table V(b): Mediation Analysis

Variables	Beta	P-Value
H5: Media Exposure-->Risk Perception-->Anxiety	0.777	0.000

Dependent variable: anxiety. Independent variables: media exposure risk perception; p < 0.05 is significant.

Table V(b) shows that Risk Perception significantly mediates the relationship between Media Exposure and Anxiety (b = 0.777, P = 0.000). Under the light of facts, our hypothesis H5 is accepted that Risk Perception mediates significantly.

Descriptive Statistics

The demographics of the respondents in terms of gender, age, education and status are shown in Table 1.

Measurement Model

For statistical analysis, the SmartPLS-4 software package was used. Firstly, the reliability and validity of data were measured, and once the data was proven reliable and valid, then further calculations were applied. The reliability of data was determined through Cronbach’s alpha and composite reliability, whereas, to check the validity of data, standard factor loadings and average variance extracted were calculated. Table 2 shows that Cronbach’s alpha values of all three variables range from 0.713 to 0.884, and the composite reliability values range from 0.828 to 0.912. Both of the values fulfill the minimum requirement of 0.70. Moreover, the standardized factor loading of the 3 variables ranges from 0.647 to 0.890. Almost all standardized factor loadings fulfill the minimum criteria of 0.7 except for one that has a value of 0.647. The average variance extracted values range from 0.593 to 0.634. These values fulfill the minimum requirement of 0.5. Table 3 shows the discriminant validity since the square root of AVE is higher than the correlation coefficients; therefore, the data is reliable and valid.

Moderation Analysis

Table 4 shows the p-values and beta values for risk perception, media exposure and interaction term. The p-values are significant because they are less than 0.05. So, since the effect of the interaction term is significant, this shows that pet attachment is acting as a moderating variable between risk perception and media exposure; hence, H3 is accepted.

Simple Linear Regression and Mediation Analysis

Table 5 (a) depicts that media exposure positively and significantly influenced risk perception since the un-standardized beta is equal to 0.256 and the p-value is 0.000, which is less than 0.05. Hence, H1 is accepted. Furthermore, table 5 (a) also reveals that risk perception positively and significantly affects anxiety since the un-standardized beta is equal to 0.823 and the value is 0.000; hence, H2 is also accepted.

The mediation effect is shown in Table 5 (b). The table concludes that there is a partial mediating effect of risk perception between media exposure and anxiety because when the effect of mediating variable, i.e., risk perception, is controlled, the value of un-standardized beta falls, but the p values are less than 0.05 that indicates a significant relationship between media exposure and anxiety without mediating role of risk perception therefore, H4 is accepted.

CONCLUSION AND POLICY IMPLEMENTATION

From the above discussion, it can be concluded that all the hypotheses have been accepted. The finding that media exposure exerts a positive and significant effect on risk perception is in line with the previous research (Muñiz, 2020; Rubaltelli et al., 2018; Sell et al., 2017; Zeballos Rivas et al., 2021). Similarly, another finding is that risk perception positively affects anxiety. This is again consistent with the previous research of (Li & Lyu, 2020; Liu et al., 2020; Tripp et al., 1995). Our third finding is that pet attachment moderates the relationship between media exposure and risk perception; there is no previous evidence that supports this hypothesis since this hypothesis has not been explored before. Our last finding is that risk perception plays a mediating role between media exposure and anxiety. This is supported by previous research (Chao et al., 2020).

Implications

This study provides quantitative evidence regarding how media exposure through various media sources regarding COVID-19 impacts risk perception and anxiety. This study shows that risk perception mediates the relationship between media exposure and anxiety, and pet attachment moderates the relationship between media exposure and risk perception. Mental health issues are considered taboo among the majority of the population in Pakistan. Through this research, the importance of mental health issues has been highlighted. This research also suggests a solution for anxiety caused by the consumption of media related to COVID-19 in

the form of pet attachment. Pet attachment proves to be a viable solution to reduce risk perception caused by media exposure and, therefore, helps to reduce anxiety, so in order to alleviate the mental health crisis, the healthcare system of Pakistan could implement this solution.

Limitations and Future Recommendations

For future studies, the impact of media exposure on anxiety may be examined across various cities in Pakistan, with larger sample sizes. Moreover, the respondents of this study are from urban areas; future studies can focus on rural areas to see if the same results are produced. The research model can be altered to incorporate other moderating variables that may prove to be a solution for anxiety. Furthermore, this study does not target a specific age group. Future studies can target a specific age group, i.e., adults or teenagers, to specifically study how media exposure regarding COVID-19 impacts their mental health and whether pet attachment plays a moderating role in this relationship across different age groups. Lastly, this study has taken a holistic view of media consumption, whether it was through television, social media, radio, etc. Future studies can target exposure to a particular media source, i.e., social media, to study its impact specifically. The results can then be compared with other media sources to determine which media source contributes more to risk perception and anxiety.

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