A STUDY ON OPINION DISTRIBUTION ON COVID 19 VACCINATION IN PAKISTAN: TRADITIONAL AND SOCIAL MEDIA AS PREDICTORS OF OWN OPINION

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Abstract

This research explored the distribution of opinion about a controversial health issue i.e., Covid19 Vaccination in a population set of university students in Pakistan. As Covid19 vaccination became a universal controversy and in a less developed nation like Pakistan it also became a controversial issue among the masses. The current study aimed to explore the distribution of opinions about this health issue and its relationship with traditional and social media. A questionnaire survey involving a probability sample of 400 respondents (selected from a private leading university) was conducted in Rawalpindi, Pakistan; right after the 2019 vaccination started and the scandal of the second Covid-19 wave broke in Pakistan in Feb 2021. The findings suggest that among the population majority are in favor of the vaccination. Moreover, one's own opinion, perception of the opinion of friends and family, perception of the opinion of country people, perception of the opinion of future country people have a significant relationship with the media and social media perception of opinion. Media (including both traditional and social media) is found to have a role in perceptions of opinion as also explained by Noelle Neumann's (1974) Spiral of Silence Theory. Public awareness persuasive campaigns on both traditional media and social media can help the public adopt the Covid19 vaccination at a much more rapid rate.

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Keywords: Covid-19 vaccination, climate of opinion, media congruency, spiral of silence, perceived public opinion, impact of media, media in shaping opinions, social media and covid19 vaccination

Introduction

Vaccination against new corona virus (Covid19) is a controversial subject in several countries, including Pakistan. The race to destroy and wipe out the Novel Corona Virus has resulted in the remarkably quick development of vaccines borne of the immense study of professionals and authorities. Nonetheless, despite the stated scientific rationale and quick solution to the world

Like all other countries in the world Pakistan also got effected by the Noval covid-19. Countries like Pakistan where health system is already in poor condition, awareness and importance of vaccine is crucial. Pakistan Covid 19 immunization took place on February 3rd, as the country continues to combat the virus. On Monday, the first shipment of COVID-19 vaccinations from China landed in Pakistan on a Pakistan Air Force jet (February1, 2021). China has contributed 500,000 doses of the Sinopharm vaccine, which has a 79.3 percent efficiency rate. The second batch of vaccinations has been delivered to the provinces by the National Command and Control Centre (NCOC). All health workers and persons over the age of 40 will be vaccinated as a matter of priority by the government, while others will be immunized privately. According to NCOC data, as of May 23rd, 2021,631,873 persons were partially vaccinated, while 1,193,441 were completely vaccinated (these figures are gone very high now , as of April 12, 2022, 133,528,662 are partially vaccinated 119,771,164 are fully vaccinated and 6,505,852 are given booster dose), while

in Pakistan, it remains a contentious matter for many individuals who do not believe vaccinations.

In this study, we are examining the issue of Covid19 Vaccination and perceptions of opinions about this controversial issue and how traditional and social media is related.

Literature Review

Reasons for Vaccine Hesitancy

Vaccine hesitancy, characterized as a state of doubt and ambivalence about vaccination, is a reasonable point of view that highlights the failure or lack of effective public health message. Concerns about side effects and long-term health impacts, as well as a lack of faith in vaccinations, are the most prominent reasons for apprehension, particularly among black respondents. Some have used these fears to propagate disinformation (Mills et al, 2020), contributing to a long-standing distrust of government and public health agencies among some populations.

Systemic racism and discrimination (Razaietal,2021), as discussed in previous healthcare research under-representation of minorities in health research and vaccine trials, and negative experiences within a culturally insensitive healthcare system have all been found to erode trust in vaccines. Segregation is increasing throughout Europe, and the Bangladeshi and Pakistani populations in the United Kingdom are the most separated. The impacts are amplified when ethnicity intersects with socioeconomic position and educational attainment. Access constraints, such as vaccination delivery site and timing, are other factors that might exacerbate differences in uptake. The current study explores distribution of opinion about COVID 19 vaccination from a population set of Pakistan.

Theoretical Foundations - Spiral of silence

The spiral of silence hypothesis, first suggested in 1974 by German political scientist Elisabeth Noelle-Neumann, contends that public opinion has a tremendous impact on individuals due to evolved habits that have established the importance of socialization. These activities are "not based on rational or logical reasoning, but on emotional, reflexive, and subconscious reactions." (Noelle-Neumann & Petersen, 2004, p. 341). Thus, individuals prefer to remain silent when their opinion is not in majority.

Public opinion as social control is the principle that is linked with the spiral of silence theory. Since effective social structures need to provide forms of institutionalizing agreement (Csikszentmihalyi, 1991), to maintain these required levels of stability, theyrisk individuals with social alienation (Neumann, 1996). At the same time, individuals are continually scanning their world for current and potential representations of public opinion in an attempt to see which views and modes can gain society's acceptance and which will contribute to their alienation (Neumann, 1996). Public opinion as social control is therefore characterized asviews that can be conveyed without causing penalties or social exclusion and the spiral of silence theory further support this phenomenon (Neumann, 1996).

Moreover, the issue is also an important part of the spiral of silence, which mandates that the issue must be controversial and strong for the spiral of silence. And media plays an important role in highlighting the issues and making a public opinion. The selected issue Covid 19 vaccination is controversial.

Media Use and Perceived Public Opinion

How public opinion is perceived (or misperceived) influences an individual's propensity to engage politically, such as speaking out on contentious or moral topics. However, where

multiple views are similarly explained in the media," all proponents and foes of a problem can locate mainstream sympathy for their positions, and should not, therefore, be prevented from sharing their opinions '(Kim, 2004). The media will set the national agenda (McCombs & Shaw, 1972; Wanta & Ghanem, 2007), and evidence shows that the public's views of the climate of opinion can be affected by (Eveland, McLeod, & Signorielli, 1995, Yun et al, 2016). Hence, a consistent view of a contentious topic is offered by media, then this could cause the audience to perceive that the view is often shared by others.

If we talk about the issue of the corona vaccine, then the media is the most important source of information for the common public, they believe in what the media says, how they informed them, build their trust and convince them for getting vaccinated. Austin et al (2021) in their study suggest that media literacy and science media literacy skills help health behavior implementation by contributing to knowledge gain and expectancies. How much a person is relied on media, how much time he is spending on different media can affect his opinion on the corona vaccine?

Based on previous literature, we propose these research questions and hypotheses to examine media's perceptions and public opinion on the issue of Covid 19 vaccination

Research Questions

1. What is the distribution of opinion on the Covid 19 vaccination?
2. Is there any relationship between perceived traditional media opinion with own opinion, perception of friends and family opinion, country opinion, and future country opinion on the Covid 19 vaccination??
3. Is there any relationship between perceived social media opinion with own opinion, perception of friends and

family opinion, country opinion, and future country opinion on the Covid 19 vaccination?

4. What is the effect of perceived traditional media opinion and perceived social media opinion own opinion about on the Covid 19 vaccination?

Hypotheses

1. Perceived traditional media opinion will be positively correlated with own opinion, perception of friends and family opinion, country opinion, and future country opinion on the Covid 19 vaccination

2. Perceived social media opinion will be positively correlated with own opinion, perception of friends and family opinion, country opinion, and future country opinion on the Covid 19 vaccination

3. Perceived traditional media opinion and perceived social media opinion will predict own opinion on the Covid 19 vaccination

Methodology

Procedure

Quantitative research using a survey was done in this study to examine the media use and public opinion on issues of national importance. A questionnaire was designed to measure the variables. Based on the predictions of the spiral of silence theory, two major dimensions were measured in the survey for a controversial issue of covid 19 vaccination: (1) the perception of interpersonal opinion (2) the perception of traditional media and social media opinion.

Population and Sampling

The population of interest in this study was students (undergraduate and postgraduate) from Foundation University

Islamabad (Rawalpindi Campus), and a sample of 404 individuals was drawn from this group using probability sampling (multistage cluster). he identity of the participants of the study is kept hidden. All participants willingly participated in the study, and also they had no objection in using their responses.

Measures

1. Perceived Climate of Opinion

- *Interpersonal Opinion*

Borrowed from Geahart and Zang (2015), this variable is used to measure the interpersonal opinion by multiples researchers in their studies (Matthes et al., 2010; Neuwirth, 2007; Moy & Scheufele, 2000).For measuring perception of opinion, four questions were asked to respondents about their perception of others' opinions, including (a) friends and family, (b) most people in the country, and (c) the future nation (d) personal opinion. Focusing on the issue the respondent's scenario would discuss, participants, placed these four groups on one polarizing side of the debate. For example, for the corona vaccination issue, the following questions were asked: (a) regarding COVID 19 vaccination, do you think the majority of your family and friends are in favor of it or oppose it? (M=.48, SD=.878) (b) Regarding COVID 19 vaccination, do you think the majority of people in the country are in favor of it or oppose it? (M=.12, SD=.994), (c)Regarding COVID 19 vaccination, do you think the majority of people in your country in 10 years from now will be in favor of it or oppose it? (M=.31, SD=.951), (d) regarding COVID 19 vaccination, what is yourpersonal opinion (M= 2.6, SD= 1.7). Each participant's self-classification was compared with these assessments to determine whether their opinion is in favor or oppose with the opinion they perceive to be held by the three reference groups on 6 point scale (6 = favor, 1 = oppose).The

scale was later recoded to include 1, 2, 3, as favor it (recoded as 1) and 4, 5, 6 as oppose it (recoded as -1

2. **Perceived Media Opinion**
   - *Traditional Media*: Borrowed from Geahart and Zang (2015), this perceptual-based assessment of dominant opinions in the media asks respondents, "Thinking about all of the different times you have seen this issue discussed in the media, what do you think about opinion on traditional media(tv,newspaper,radio) related to covid- 19 vaccination(M=.60, SD=.798)".The scale was later recoded to include 1, 2, 3, as favor it (recoded as 1) and 4, 5, 6 as oppose it (recoded as -1).
   - *Social Media*: for social media respondents were asked to think about all the different times they have seen this issue discussed in social media, what do you think about your opinion on social media (Facebook, Twitter, Youtube, etc) related to Covid-19 vaccination(M=.51, SD=.858). The scale was later recoded to include 1, 2, and 3, as favor it (recoded as 1) and 4, 5, 6 as oppose it (recoded as 1).

Results

The data was described through frequency and percentage tables , alongside Pearson correlation was carried out to explain relationship between study variables and also linear regression analysis was also used to test the hypotheses.

Table 1

Demographic Characteristics of the Participants (N=404)

Demographic Variables	Classes	Frequency	Percentage
Gender	Male	145	35.9
	Female	259	64.1

Education	Undergraduate	278	68.8
	MS/Mphil	114	28.2
	PhD	12	3.0
SES	less than 50000Rs	46	11.4
	50000-100000Rs	154	38.1
	100000-150000Rs	81	20.0
	150000-200000Rs	60	14.9
	More than 200000Rs	63	15.6

*SES :socio-economic status

Table 1 explains the sample characteristics of sample based on demographics like gender, education, and socio-economic status.

To measure the perception of opinion on the issue of corona vaccination, six categories of opinion (friends and family, country, future, traditional media, social media, and own opinion) were made. Opinions are characterized as favor and oppose and below table 2 explains the distribution of opinion on covid19 vaccination within sample.

Table 2
Distribution of Opinion (*N=404*)

Categories	Favor it	Oppose it
Own Opinion	75.2%	24.8%
Perception of Friends and Family Opinion	68.4	31.6
Perception of Country Opinion	50.7	49.3
Perception of Future Opinion	64.6	35.4
Perception of Traditional Media Opinion	81.2	18.8
Perception of Social Media Opinion	73.3	26.7
N		404

Table 2 explains the distribution of opinion. The results from the table showed that people are more in favor of the corona vaccine than opposing it. According to the results, people think that most of their friends and family members also support the corona vaccine. People also think that traditional and social

media also support corona vaccination in Pakistan. Another finding from the data shows that there is not much difference in perception of country opinion which means that people of their country still find it a controversial issue as 49.3% think that they oppose corona vaccination,and they think in future (64%) people will start accepting / favoring covid 19 vaccination. This table explains the concerns of first research question of the study.

Table 3

Relationship among Study Variables: Correlations Matrix of
Perception of Opinions(*N=404*)

		1	*2*	*3*	*4*	*5*	*M*	*SD*
1	**Own Opinion**	-					.50	.864
2	**Friends and Family Opinion**	.365**					.37	.930
3	**Country Opinion**	.135**	.314**				.01	1.001
4	**Future Opinion**	.199**	.224**	.234**			.29	.958
5	**Perception of Traditional Media Opinion**	.428**	.288**	.172**	.200**		.62	.783
6	**Perception of Social Media Opinion**	.366**	.242**	.222**	.091	.368**	.47	.886

**. Correlation is significant at the 0.01 level (2-tailed).

The table 3 indicates mean, standard deviation and
correlation values of the study variables. The results showed
significant correlation between media perception of own opinion,
interpersonal opinion and media opinion in a correlation matrix.
The results show that perception of tradition media is correlated
to own opinion r= .428**, friends and family opinion r= .288**,
country opinion .172** and future opinion r= .2**. As detailed in
table 3, all correlation coefficients were statistically significant at
the 0.01 level. Results also showing a positive correlation
between social media with own opinion r= .366**, friends and
family opinion r= .244**, country opinion .222**, and future
opinion .091. There is also a correlation between traditional

media opinion and social media opinion r= .368**. These correlations were significant at the 0.01 level. Hence this table answers the concerns of Hypothesis 2 and 3.The results also indicate that the correlation values of all variables are positive.

Table 4

Regression Analysis (*N=404*). Traditional and Social Media as Predictors of Own Opinion

	B	*t*	*p*
(Constant)		3.283	.001
Perception of Traditional Media Opinion	.452	8.954	.000
Perception of Social Media Opinion	.136	2.894	.004

Dependent Variable: OwnOpinion; R Square =.231; Adjusted R Square=.227;60.162; p=.000

A linear regression was carried out to investigate the degree to which perception of traditional media opinion andperception of social media opinion predict own opinion . A significant regression equation was found (F (2,401) =60.162 , p < .000), with an R2 of .231.

Participants predicted own opinion is equal to 0.162-0.136(Perception of social media opinion) + 0.452 (Perception of traditional media opinion), where traditional and social mediaopinion arecoded as 1 =favor and -1= oppose. Participant's own opinion increased 0.452 for perception of traditional media opinion and.136 for social media. Bothperception of traditional media opinion andperception of social media opinion are significant predictors of personal opinion (p=.000). Therefore, the direct relationship of traditional and social media with own opinion are approved from the current results which supports hypothesis 3.
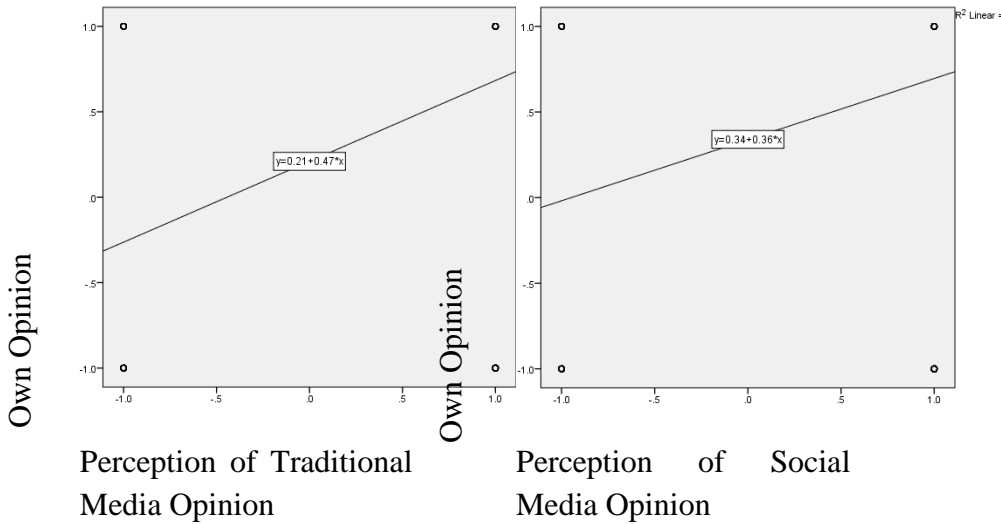
Figure 1: Regression Analysis Graph

Discussion and Recommendations

Media news, the newspaper and internet play a vital role in clarifying what is turning on around the world to the public. In circumstances where audiences do not have clear awareness or understanding of what is going on, they become particularlyreliant on the media to educate them.Though that's not to suggest that we are actually told by the media what to think-people should not unquestioningly consume media messages (Philo, 2008). However, they are essential to setting priorities and concentrating the interests of the public on specific issues that work to narrow the variety of viewpoints and insights that shape public discussion. The emergence of new media has demonstrated that the world consists of a pool of material that is distributed, unfocused, and sometimes conflicting. Mass media, which routinely edit and explain the mass of information, have traditionally made an efficient flow of information between the different independent classes in the public domain feasible, allowing any sense of the world for viewers. When some

information has been favored over others, the privileged role of being authoritative and, in some cases, honest has been essentially granted to them (Fairclough, 2003).

The news media can also strengthen and "trigger" unconscious behaviors, encouraging people to behave. For example, just prior to an election, voters who previously had just a slight affinity for one candidate or party might be motivated by media attention not just to take the trouble of voting, but maybe also to donate cash or in some other way to support a party organization. By making people know what other people think and by bringing elected leaders massive crowds, the news media plays another significant role. In this way, the media causes vast numbers of people and diverse geographical regions to be reached by public opinion. Media organizations are one of the most significant sources of media for the mass audience, who tend to watch news on TV more than on any other platform.

The present study investigated media use and its impact on public opinion on the issue of corona vaccination in Pakistan. The main findings are discussed as follows. In the case of corona vaccination, people are more in favor of vaccination than opposing it and in their perception of opinion traditional and social media both are in favor of vaccination in Pakistan. The main finding of the research is that people's perception of opinion is aligning with the perception of opinion on traditional and social media. A possible reason for these findings is that our main sample was a youth whowere already highly influencedby the media that'sthe way their perception is highly influencedby the media.

Another finding shows that own opinion is also correlated with country opinion, friends and family opinion, and future opinion, which means that ownopinion, is also influenced by the climate of opinion created from the perception of friends and

family, country opinion. Hence, it is reconfirmed that the perception of opinion people develop has a significant correlation with the opinion they perceive from media and social media, i.e., the perceived climate of opinion.

Results of the current study are also alignedwith the previous studies which stated that the media sets the national agenda (McCombs & Shaw, 1972; Wanta & Ghanem, 2007, Chen et al, 2020), and evidence showed that the media can affect the public's views of the climate of opinion (Eveland, McLeod, & Signorielli, 1995; Shamir, 1997; Shanahan, 2004, Geahart & Zang, 2018). Therefore, if the media offers a consistent view of a contentious topic, this could cause the audience to perceive that the view is often shared by others.

Another finding shows the positive correlation between traditional and social media, which means that perception of opinion on traditional and social media, is also correlated. And social and traditional media is promoting the same opinion which is in favor of corona vaccination.

Media has an important role in making the climate of opinion and it influences the opinion of common people. Countries like Pakistan where hesitancy for corona vaccination existedThe conclusion from the current study is that an individual's opinion is influence by the climate of opinion, which is made from their surrounding people and media, which arealsoaligned with the spiral of silence theory which says that people speak when they find their opinion as majority of opinion.

This may help not only the government institutions involved in public policy making by providing them with hard data that can help them understand and determine and utilize the dynamics of mass media role in the process of opinion formation and change in a society like Pakistan. The present study primarily

be an exploratory one that has statistically described the distribution of opinions and perceived climate of opinion on issue of national and societal importance. In particular, the present study utilizes theoretical wisdom from the spiral silence tradition of mass communication research and will thus try to replicate some of its tenets in Pakistan society. In line with the spiral of silence theory that posits public opinion formation as a transactional process of media tenor, audience media use, their own opinions, the perceived climate of opinion and opinion expression on the issue. The findings of the study will thus add to the body of knowledge as it constitutes a first formal test of some aspects of such a theory in Pakistani setting.

Media, not only traditional but also the social media has a significant relation with opinion formation. Thus, media can be used in shaping the opinions of masses, like a major health issue covid19 vaccination can be addressed if persuasive awareness campaigns are launched on traditional media and social media. Media can be effectively used to fight this pandemic.

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