ISSN (P):2788-4821 & ISSN (O): 2788-483X
Volume 3, Issue 1, Page 43-54, April 30, 2022 (Special Issue)

HEALTH INFORMATION SHARING ON FACEBOOK: AN EXPLORATORY STUDY ON COVID-19

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Abstract

Social media is the most crucial part of our daily lives. Today the internet and World Wide Web are being used to influence people around the globe. However, the information available on social media struggles to maintain its credibility because anyone may upload content. Currently, it has been observed that Facebook being the biggest social media platform plays a significant role in the dissemination of information about the COVID-19 pandemic.

The objective of this study was to investigate the information about COVID-19 on Pakistan's biggest page dedicated to COVID-19 known as Corona Recovered Warriors. The researcher conducted a qualitative and quantitative Facebook content analysis. The content was restricted to COVID-19 information available on the Corona Recovered Warriors Facebook page. The posts from June, September, and December were selected to analyze the change in themes of information over time. In Pakistan, in June, the highest number of daily COVID-19 positive cases are reported, September because of the ease in lockdown and lowest number of COVID-19 daily cases, and then December in which the graph of COVID-19 positive case again rises.

A total of 28381 posts were analyzed in three months, and the focus of the posts was on Experience sharing (n=7934), Seeking or clarifying personal status (n=8419), Raising awareness on COVID-19 (n=2614), Support for patient and caregiver (n= 2597), and Product and service promotion (n=3341). A significant link between the number of posts on the Facebook page and the crucial and easy months related to COVID-19 positive cases has also been detected.

COVID-19 positive patients and their relatives or family members share their health information widely with other Facebook users, also highlighting the need for collaboration between healthcare providers and media experts to design appropriate interventions for responding to pandemic diseases.

Key words: COVID-19, Facebook page, Health information, Pandemic.

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Introduction

Health is one of the basic human rights and is essential for the social and economic development of any society. Educational awareness and promotions are critical tools to drive health development.

Health risk communications are essential for protecting public health in the event of a pandemic. In the current scenario of COVID-19, the knowledge gap that exists among scientists and medical professionals can serve as fertile grounds for misinformation in news media. Worldwide people are overwhelmed due to a saturated information environment. Even though each medium is covering news about the pandemic carefully and responsibly. The access amount of information causing stress people are struggling to deal with them.

Curbing the spread of coronavirus to scale back the consequences of infection on a population is a crucial mandate of public health. Media coverage of a plague or pandemics can provide important information to the general public, which successively can trigger positive health behaviors among people, thereby reducing the likelihood of developing this disease.

People are increasingly using Facebook to share medical information. However, little is known about the types of information sharing and its potential health consequences for Pakistan.

Researchers Turki Alanzi and Doaa Khalid Al-Habib conducted a study on the use of social media by Saudi Arabian medical quality staff in 2020. The purpose of their work is to investigate the role of social media in education with educational purposes. Saudi Arabia. The researchers draw on research methods to investigate and interviewed 78 medical staff members working in different hospitals in Saudi Arabia. The results of the study showed that a higher percentage of health professionals use social media for educational purposes, and 82% of participants agree that social media can be used to educate on health issues, and YouTube is the preferred platform to achieve this goal (Alanzi & Al-Habib, 2020).

In 2016 James Kite, Bridget C. Foley, Anne C. Grunseit, and Becky Freeman published their research article on the subject Please Like Me: facebook and Public fitness communique. Their objective is to give perception into the most extensively used social media platform fb for health promotion and conduct change campaigns and sports through public health businesses. studies effects show that video posts entice greater fb customers, and posts which have fantastic emotional appeal or provide authentic statistics attract better levels of user engagement (James Kite, Anne, & Freeman, 2016).

In 2016 worked on Social fitness content and hobby on facebook: A Survey have a look at. The researcher examines the offline and on-line fitness-related sports of fb to become aware of characteristics shared through folks who use social media structures called fb for fitness-associated functions. The researcher's effects confirmed that designing fb fitness-related messages for networks and social organizations have to be in step with customers' preexisting emotional ties and trust to benefit the desired comments(Roundtree, 2016).

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In 2019 Sara Della Rosa and Falguni Sen conducted a study on Health Topics on Facebook Groups: Content Analysis of Posts in Multiple Sclerosis Communities. The focuses of their study were to investigate the potential role of social networking websites in health care and to evaluate whether social networking websites are valid tools for sharing drug-related information by patients. The outcome of the investigation showed social networking websites could be used for educational and prevention purposes for awareness because certain information like patient support, information and awareness, and drug discussion have higher attention from the public (Rosa & Sen , 2019).

In 2016, Zainab A.AlQarnia, Faisel Yunusb, and Mowafa S.Househ published an article titled "Health information sharing on Facebook: An exploratory study on diabetes mellitus." The study looked at 6107 Facebook posts from Arabic-speaking countries that were restricted to diabetes-related Facebook groups. According to the findings, a substantial number of participants in the age bracket of 40-60 years were looking for diagnosis-related information due to limited access to diabetes care in their home countries (Zainab A.AlQarnia, Yunusb, & Househ, 2016).

Sung Un Kim and Sue Yeon Syn in 2016 worked on a research paper titled as Credibility and usefulness of health information on Facebook: a survey study with U.S. college students. In this study, the researchers examine the ways college students in the U.S. perceive the credibility of health information available on Facebook. They take an online survey of 351 students from two different universities for analysis. The result of the study indicates that college students find professional information sources as more credible and useful than non-professional information sources on Facebook (Kim & Syn, 2016).

Zika virus pandemic—analysis of Facebook as a social media health information platform a study conducted by Megha Sharma, Kapil Yadav, Nitika Yadav, and Keith C. Ferdinand in 2017. The cause of this have a look at became to take a look at the effectiveness of fb as an statistics supply for the Zika virus pandemic. The researchers located that misleading posts have been a ways more popular than the posts dispersing correct relevant public health information approximately the ailment (Sharma, Yadav, Yadav, & Ferdinand, 2017).

In 2020 a study conducted by Kai-Cheng Yang, Francesco Pierri, Pik-Mai Hui, David Axelrod, Christopher Torres-Lugo, John Bryden, and Filippo Menczer on The COVID-19 Infodemic: Twitter versus Facebook. In their study, the researchers analyze the low-credibility content on the two most popular social media platforms namely Twitter and Facebook about the pandemic. The results indicate that there is evidence of coordinated sharing of Infodemic content (Yang, et al., 2020).

The COVID-19 Infodemic: A Quantitative Analysis Through Facebook a study initiated by Naseem Ahmed, Tooba Shahbaz, Asma Shamim, Kiran Shafiq Khan, S.M. Hussain, and Asad Usman in 2020. The objective of the research was to assess the utility of Facebook in providing misinformation during the pandemic of COVID-19. The researcher analyzed 454 Facebook posts and found that the tone of the most information on COVID-19 was serious.

Furthermore, the most discussed topics were on medical and public health (Ahmed, et al., 2020).

In 2018 E. Gabarron, M. Bradway, L. Fernandez-Luque, T. Chomutare, A. H. Hansen, R. Wynn, and E. Årsand conducted a study on Social media for health promotion in diabetes: study protocol for a participatory public health intervention design. The observe consequence suggest that an increase in perceived excellent of fitness information is detected after the health promotion intervention for curbing diabetes as compared to the perceived pleasant of health information assessed before the intervention (E. Gabarron, et al., 2018).

Ignacio Hernández-García and Teresa Giménez-Júlvez in 2020 worked on a research article titled as Assessment of Health Information About COVID-19 Prevention on the Internet: Infodemiological Study. They investigated the data about the prevention of coronavirus ailment 2019 (COVID-19) at the net by means of Google search with the terms “Prevention coronavirus”. The effects of the take a look at confirmed that the maximum noted WHO preventive measure turned into “wash your palms often” and a much less common advice become to “stay home in case you feel unwell” (Hernández-García & Giménez-Júlvez , 2020).

While a growing body of educational research has addressed the difficulty of health, there's a scarcity of inquiry linking people's health beliefs and behaviours to media, particularly their evaluations of health information provided by social media platforms like Facebook, Twitter, and Instagram. that's why it's critical to conduct a study to look at the role of social media in communicating the health risk of an epidemic . This study will highlight the role of social media platforms in health information sharing and designing appropriate interventions to enhance public health problems.

Problem Statement

The amount and quality of COVID-19 material available on social media changes and evolves on a regular basis. The influx of both reliable and incorrect information has only helped to exacerbate the difficulty of effective risk communication during a crisis.

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Study Objectives

This study explores the nature of COVID-19 information available on social media platform like Facebook. The objective of this study is to characterize the nature of information received and shared by the people on the Pakistan's largest Coronavirus Facebook page known as Corona Recovered Warriors.

Research Questions

Research questions are mostly used in the area where marginally or not at all study have been done. These type of researches are known as exploratory research where generally the researcher have no idea what they might find after the investigation (Wimmer & Dominick, 2011). The research questions of this study are stated below

1. Which type of themes is being discussed most on the Corona Recovered Warrior Facebook page on the COVID-19issue?
2. Which post types like: Photos, Links, Videos, and Text only appears most on the Corona Recovered Warrior Facebook page?

How the pattern of Facebook page posts changes with the change in COVID-19 infection rate in Pakistan?

The theoretical framework for this study was adopted after careful consideration by the researcher. The following are the theories that have been investigated:
• The issue attention cycle theory.
• Theory of framing

Theory of Issue Attention Cycle

The first lens of viewing the issue of COVID-19 information available on the Facebook page namely Corona Recovered Warrior is Anthony Downs's Issue Attention Cycle. In 1972 Downs' describes the rise and fall of the issue from the public agenda. He explains how problems rise to public prominence and then fall again sometimes unsolved according to the predictable process (Downs, 1972).

In his article, Downs explained the five stages of the cycle, namely the pre-troublesome stage, the shocking discovery and the euphoric excitement, the recognition of the cost of major progress, the gradual decline of strong public interest and the post-troublesome stage (Downs, 1972).

The current situation of COVID-19 is again on the rise in the issue attention cycle due to the new COVID variant from the UK which becomes less severe after the ease in the first lockdown in the country. This reflects Downs's claim that a major problem may resurface from time to time.

Theory of Framing

It is an idea that people use some set of expectations to understand their social world and media contribute to those expectations through framing the information (Baran & Davis, 2012).

Tewksbury and Powers studied "The Impact of the Framework on Readers" and suggested that "the framework should not focus on the topics or issues selected for media coverage, but rather on the presentation of those topics." (Price, Tewksbury, & Powers, 1997).

Since COVID-19 first emerge as a public issue in China in December 2019. Almost all kind of media included social media is disseminating various information on COVID-19. Framing of information affects the media consumers in surprising ways. Framing health information with the severity and the damage it could cause to a large population can motivate people to make riskier decisions.

Method

The study relied upon retrospective qualitative and quantitative Facebook content analysis. The analysis is strictly restricted to Pakistan's biggest coronavirus page on Facebook known as Corona Recovered Warriors. To evaluate the Facebook posts that were publicly available on the Facebook discussion group, a mixed method of qualitative and quantitative content analysis was used.

Study Population

The study population of this research comprised of all the COVID-19 related wall posts of the most popular Facebook page known as Corona Recovered Warriors of Pakistan for a period of three months June, September and December with the relevance of daily new Corona cases. The months were selected on the basis of the first and second corona waves in Pakistan to analyze the fluctuation in trend and frequency of information available on the biggest Facebook page with the change in infection rates.

Unit of Analysis

The unit of analysis is one of the smallest but most important parts of content analysis. In written content, the unit of analysis can be words, symbols, or themes. The unit of analysis for this study is discussed below.

1. **Main themes and their frequencies**
    - Raising awareness on COVID-19

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- Support for patient and caregiver
- Experience sharing
- Product and service promotion
- Sharing latest researches
- Seeking or clarifying personal status
- Sharing recipes to ease the effect of disease
- Educational raising
- Providing spiritual support

2. **Distribution of Content on Post Types**
    - Photos
    - Links
    - Videos
    - Text only
3. **COVID-19 Discussion posts timeline**
    - June, September, and December

Results & Discussions

Table: 1 Main theme and their frequencies in Corona Recovered Warriors Facebook Page

THEMES	NO.OF POSTS IN MONTHS ON FACEBOOK PAGE			TOTAL
	JUNE (N)	SEPTEMBER (N)	DECEMBER (N)	
Raising awareness on COVID-19	1152	206	1256	2614
Support for patient and Caregiver	1724	133	739	2597
Experience sharing	5015	570	2349	7934
Product and service Promotion	2551	69	721	3341
Sharing latest researches	236	76	987	1299
Seeking or clarifying personal status	6234	633	1552	8419
Sharing recipes to ease the effect of disease	1002	124	227	1353
Educational	203	10	273	486

raising				
Providing spiritual support	252	0	86	338

As shown in table 1 them a jority of the posts available on the Facebook page were focused on seeking or clarifying personal status (n=8419) and sharing personal experience (n=7934) with COVID-19. The second most discussed topics were product and service promotion (n=3341) to manage COVID-19 patients in such posts availability, cost and brands of the pulse oximeter and remdesivir injections were the topics of discussion among the Facebook group people. The posts on raising awareness about COVOD-19 (n= 2614) and support for patients and caregivers(n=2597) we reals o the prominent themes. People through Facebook page help out each other to lower down the panic as well as how they can manage to quarantine at home.A significant number of posts on sharing recipes to ease the effect of COVID-19 (n=1353) were found in which people who got recovered from Corona shared their diet plan and day exercise to overcome the disease. Educational raising(n=486) and providing spiritual support (n=3380 remain least discussed.

Table:2 Distribution of content on Post types in Corona Recovered Warriors Facebook Page

POST TYPES	**NO. OF POSTS ON FACEBOOK PAGE IN ALL THREE MONTHS (N)**	**PERCENTAGE (%)**
Photos	9366	33%
Links	274	0.965%
Videos	4835	17.038%
Text only	13906	48.997%
Total	28381	100%

Table 2 represents the popular post types or the way people feel comfortable sharing their COVID-19 stories and other information with the other Facebook user. 48.99% of the total posts were text-based, and 33% were with photos and most of which were the x-rays of the patient's chest to get the doctor's advice on that and the arrangement of Plasma throughout Pakistan. The researcher also observed many posts were with PCR test reports and need clarification of their test status that whether they are COVID-19 positive or not. 17.03% of the video were also investigated most of them were from the medical experts those try to explain the severity of this virus and to highlight the importance of practicing SOPs. 0.96% links were also found in the Facebook posts, and most of them were the briefing from WHO, CDC, and of different research articles that got published in the research journals.

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Table:3 COVID-19 Discussion Posts Timeline in Corona Recovered Warriors Facebok Page

MONTHS	NUMBERS OF POSTS ON FACEBOOK PAGE (N)	HIGHEST & LOWEST NO. OF DAILY COVID 19 CASES IN MONTHS*
June	18369	6825
September	1821	213
December	8191	3795

***In Pakistan during first wave on June the highest number of COVID-19 positive cases on a single day were recorded which was 6825. In September lowest number of positive cases were reported which was 213 in a day. In December second wave of corona virus hit Pakistan and 3795 cases were reported in one single day.** (Ministry of National Health Services Regulations & Coordination., 2020).

The above table shows how the number of posts rises, declines, and then again rises with the highest and lowest number of COVID-19 Cases in Pakistan. In June when the highest number of COVID-19 cases were reported that month there were 18369 posts on COVID-19 people were worried and were also anxious to share the information they had. The ease in lockdown and lower number of positive COVID-19 cases affect the consistency of Facebook posts and only 1821 posts were found on the COVID-19 issue in September. The second wave of COVID-19 strikes Pakistan by the end of November 2020. The number of positive cases again raise, and its impact can easily be seen on Facebook posts, 8191 posts were found on the COVID-19 second wave and many re infection cases were also discussed in December.

Discussion

This study found that Pakistanis widely share and exchange information about COVID-19 health through social media. The first research question of this study was to determine the subject of COVID-19 information and found that after being affected by COVID-19, the members of the "Halo Recovery Warrior" Facebook page basically shared their experience. Most importantly, some posts were found, and people were confused about the state of the corona test results.

Iyengar and Kinder (1987) (Iyengar & Kinder, 1987) pointed out the shortcomings of relying too much on visual information that people can perceive without a social

background. In this case, providing an oral narrative (written/oral) is important to ensure the accurate transmission of the message. The second research question in this study is based on the types of positions shared by group members. The researchers found that the share of text and images is higher than the share of links and videos. The final research question is to find the relationship between the number of positive COVID-19 cases in Pakistan and the number of posts on the Facebook page. The researchers found that there is a significant connection between them. From the data provided in Table 3, it is obvious that in the month when the number of corona cases in Pakistan was high, the number of jobs in that month was also high. It seems that the number of corona cases in the country is very small, and the number of posts on the Facebook page is also very small. Downs pointed out: "The more obvious threats posed by visible forms of pollution, the more vividly they can be manifested. Environmental improvements will receive more public support and the longer the public interest will be maintained" (McDonald, 2009) .

Finally, social networks like Facebook can help patients by providing platforms that make health problems stand out. In addition, in Pakistan, there is a great need for education and publicity campaigns for serious public health issues (such as COVID-19), which are carried out by medical staff and social media groups.

Conclusion

Covid-19 is a global threat that causes millions of deaths in the world. In this study, we examine the information available on the known pages of Covid-19 known to known as Warriors recovered from Crown. This study indicates that the positive patients of COVID-19 and their families share health information with other Facebook users.

This research helps to use the power of the social networking platform such as Facebook to improve public health. In addition, this study emphasizes the need for collaboration with medical providers and media experts, and this research is appropriate to share health information related to Covid-19 through social networking platforms, the purpose is to design appropriate interventions to design. In conclusion, this study suggests that it is possible to take advantage of social networks to achieve a large amount of population among pandemics.

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Limitations

In the field of research, no one can go beyond the scope of their work. There are some potential limitations in this study, which need to be discussed. First, due to time constraints, this study only focused on the COVID-19 Facebook page, while other social media platforms were ignored. Therefore, in order to summarize the results of this study, more Facebook pages related to COVID-19 should be included to obtain a large population for investigation. Second, the researchers checked all Facebook posts themselves, so there may be acerta in degree of subjectivity in the results.

Acknowledgment

During the data collection process for this document, I thank the founder of Pakistan's largest corona virus Facebook page (called Corona Recovered Warriors) for his support.

Conflicts of Interest

The author declares that there are no potential conflicts of interest related to the research work

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