

Section 1

Healthcare

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THE ROLE OF SOCIAL MESSAGING IN THE HEALTH PROMOTION AGAINST COVID-19 IN UZBEKISTAN

During the Covid 19 pandemic, according to health guideline, the people of Uzbekistan maintain social distancing along with the rest of the world. A special republican commission «To prepare a program of measures to prevent the import and spread of the type of coronavirus into Uzbekistan» has been created on the territory of the Republic of Uzbekistan. The social network is a media by which we can spread a message to many people as most people use it today. Social media and the health care system are a special combination. It is one of the most important ways to raise public awareness of new, emerging and emerging health problems. Through Telegram messenger, a health information platform was created and spread regarding Covid 19 by the Uzbekistan government. People were attached to this platform initially very rapidly, but by the time the subscribers were reduced. Survey explored Covid 19 and updates for the same was gripped by the people very fast through social sites. The study enlightened the area of coordination between the internet and health and shows how we can utilize eHealth more and more in low- and middle-income countries.

Key words: Covid 19, pandemic, messenger, social network.

Introduction

COVID-19 has become a serious global public health problem that has affected most countries worldwide and is characterized by a steady rate of spread, leading the World Health Organization (WHO) to classify it as a pandemic. COVID-19 is transmitted from person to person through respiratory droplets and /or direct contact [1,2]. Worldwide, as of July 27, 2020, there were more than 16,249,165 confirmed cases of COVID-19 and 649,208 deaths [3,4].

A special Republican Commission was created on the territory of the Republic of Uzbekistan to «Prepare a program of measures to prevent the import and spread of a new type of coronavirus in the Republic of Uzbekistan» [5]. The first case of Covid 19 infection was registered on March 15,

2020 in Tashkent [6]. At the end of March 2020, public transport in Tashkent was temporarily stopped; special disinfected buses are provided by the Department of Transport of Tashkent for the transportation of medical personnel of medical institutions of the city based on the number of employees [7].

The number of cases of coronavirus as of April 1, 2020 in Uzbekistan reached 173. Since April 1, a self-isolation regime has been introduced, and people over 65 years of age are prohibited from leaving their homes. Restrictions on cargo transportation were introduced on April 2, 2020. As of April 3, 2020, the number of confirmed cases reached 223, of which 25 were cured [8-10].

During COVID-19, social media is a perfect way for individuals and communities to stay connected, even when they are far apart. For

example, when a third of the world's population became infected during the 1918 flu pandemic, according to the Centers for Disease Control and Prevention (CDC), people did not have the same sources of communication that we have now to exchange various news and relevant information quickly.

In modern times, artificial intelligence methods can be used almost not only in all areas of medicine but also in all our lives. Due to its ability to analyze complex medical data, artificial intelligence can be used to diagnose, treat, and predict the outcome of many diseases [11]. Many people are publicly sharing their opinions about various diseases, including COVID-19, on various social platforms. In recent days, it has been possible to see how people, organizations, and businesses use social media to spread COVID-19 and public actions [12].

Research shows that currently, more than half of the world's population uses social networks. [13, 14] Social media and the healthcare system are a specific combination. This is one of the critical ways to raise public awareness of new, emerging and annual health issues. Nowadays, more people are getting news from social networks. As for the elderly, almost 90% of them use social networks to search for medical information and share it. Facebook, Messenger, Twitter, Whatsapp, Telegram, Tik Tok, Viber, Skype, etc. are all accessible social media platforms for people to communicate and exchange ideas on all issues, including health issues [14].

A broad set of Internet communications called «participatory Internet», as online communications provide more accessible and more cost-effective access to many people from different distances of the world. Social networks that allow people to connect, create blogs, platforms that are easily accessible for mobile phones are becoming popular day by day, especially in the health sector. This is very helpful for people to communicate about a particular state of their health with medical professionals, despite the long distance between them [15-17].

According to research, currently, about 40% of social media consumers between the ages of 18 and 24 say that social media significantly influences their health care decisions. As the Google / Complete Hospital study shows, information technology has a significant impact on healthcare, the results of this study showed that more patients used both online and offline sources to study medical facilities; about 80% of patients used to search before making an appointment; almost 30% of patients who watched online videos made an appointment [18].

Materials and Methods

Tools Used: Telegram Messenger.

Telegram Messenger is an instant messaging application that requires a phone number (or user name) to connect to Telegram, users can send messages, photos, videos, audio, etc.

Telegram is available for Android, Windows, iPhone, Linux, Windows Phone, OSX. As of October 2013, Telegram had 100,000 daily active users. Moreover, on April 24, 2020, the number of active users of the Telegram app reached 400 million per month [19-21].

In September 2015, channels were added to Telegram. Channels are one-way messaging, where not users but only administrators can send messages. However, any user has the right to create channels and subscribe to them. Users who join the channel can see the entire message history. Users can join and leave channels at any time. Administrators can grant permission to post comments on the Telegram channel using bots. The channel administrator can get general information about the channel. Each message has its view count, showing how many users have seen the message [22].

There are now many verified telegram channels from health authorities around the world with official news about COVID-19. Currently, such channels are available in many countries, including Uzbekistan.

myGov Corona Newsdesk (official channel of the Government of India in Telegram for communications and citizen engagement, myGov homepage: mygov.in, myGov, covid19 page: corona.mygov.in, myGov Hindi Newsdesk: <https://t.me/MyGovHindi>) - A telegram channel created in India about COVID 19 has a more significant number of participants than other channels dedicated to coronavirus cases. It has 2,914,648 members, average post coverage ~209.7 k daily coverage ~4.4 mposts per day ~21 ERR % 7.2% citation index 85.1 [23].

Telegram as a social messenger for health promotion in Uzbekistan: The COVID-19 pandemic has led to a global health crisis that greatly impacts quality of life. People began to look for all sorts of reliable sources of information about the coronavirus, its spread and prevention, in order to provide themselves and their loved ones with reliable protection.

There are more than 30 Telegram channels about Covid 19 and related cases in Uzbekistan. The most popular and well-known telegram channel is «KoronavirusInfo / stay home!» (Koronavirus Info | Uyda Qoling! @ koronavirusinfouz).

An official Telegram channel with information about the coronavirus has been created for the citizens of Uzbekistan. The messages were published in Uzbek and Russian.

The authors of the initiative were the Ministry of Health, the Agency of Information and Mass Communications under the President of the Republic of Uzbekistan, and Uzbekistan's Youth Union.

The new channel was viral among the country's citizens: in just four hours of operation, the number of subscribers has reached 30 thousand people and continues to grow. The channel had more than 1 million members. This channel is in second place among all the most popular Uzbek telegram channels. Average post reach ~400.1 k daily reach ~5.2 m, posts per day ~15, delude % -35.4%, citation index -798.92. The channel was dedicated to all current events related to the pandemic and coronavirus at the national and international levels. This fast-growing channel publishes daily the number of new coronavirus cases in Uzbekistan and around the world. In addition, channel participants can get reliable information on the coronavirus, how this virus is transmitted, how the clinic of this disease manifests itself, how to carry out prevention, and where to go in the case of a coronavirus clinic, and so on.

This channel was rapidly growing in comparison with similar channels and gaining popularity at the national level. For example, compare with the channel of the same

name created in Ukraine (Coronavii @ Covid19_ukraine), where the channel had 707,943 subscribers, the average post reaches ~ 282k, daily coverage ~ 840.1 k, posts per day ~ 4, ERR % -39.8% and citation index-149.52, then you can see the good popularity of this channel in the Telegram messenger.

This application contains a set of frequently asked questions and answers prepared by qualified professionals by category. In addition, citizens can correspond with operators, send them questions and receive answers from them. The operators of the online consulting module work 24/7. In addition, the official website of the Ministry of Health has created an opportunity for COVID-19 to pass a preliminary test for coronavirus infection. Qualified virologists formulate control questions [24]. A team of 85 experienced doctors, professors and teachers answers all the population questions around the clock. The chatrooms of the consultant are available in Uzbek and Russian.

Ethical issue:

The data was anonymously collected. The system has no identity of the respondent. As per Uzbekistan rules, the study does not need ethical permission.



Figure 1- Posts in march and november

Result and Discussion

Within a month after its creation, the channel actively published posts about the coronavirus, its spread in Uzbekistan and worldwide, and ways of infection, possible symptoms, prevention measures from COVID 19, changes and news related to the pandemic and quarantine in Uzbekistan. The number of posts in March and April was about 1500-2000 per

month; then, it decreased in May and June (Figure 1). This is because, at the beginning of the pandemic and quarantine, people began to take an interest in this situation and look for sources where they can get reliable information about the coronavirus. Since the appearance of many other sources of information (TV, other channels in Telegram, Internet, etc.), posts in this channel fluctuate and there were not as many as there were in March and April.

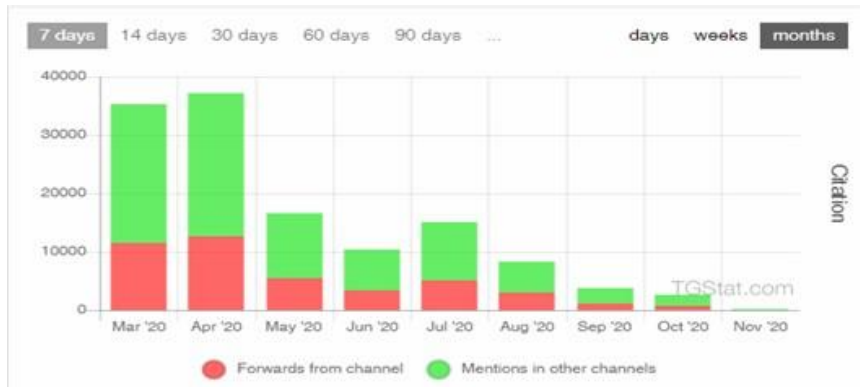


Figure 2 - Citations

As posts, there were also many citations – about 40,000 per month at the beginning of the channel’s creation, and then from May month, they began to fall (Figure 2).

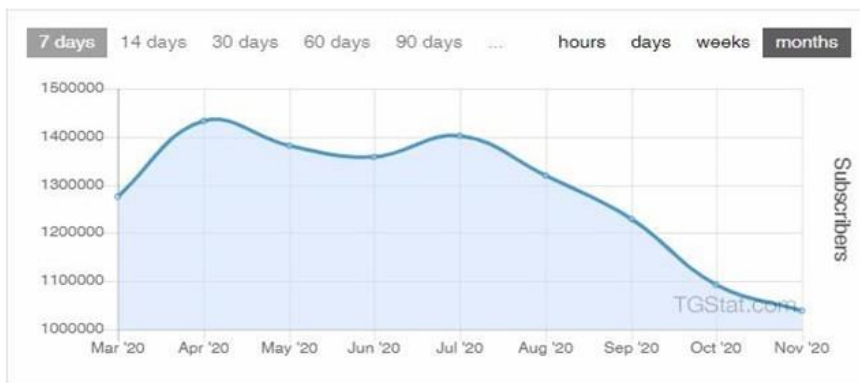


Figure 3- Subscriptions

Subscribers continued to grow, mainly until April and July, just during the peak of quarantine in Uzbekistan. Further, the number of subscribers only began to drop (Figure 3), possibly because the quarantine ended in Uzbekistan and people began to receive information about the pandemic and coronavirus at work, on the street, in public places,

etc. Therefore, it shows that COVID 19 cases are declining according to the statistics and users leave the channel. However, many people still have a wariness and interest in COVID 19. This means that many people were interested in these questionnaires and searching for reliable information, so many of them remain in this channel.

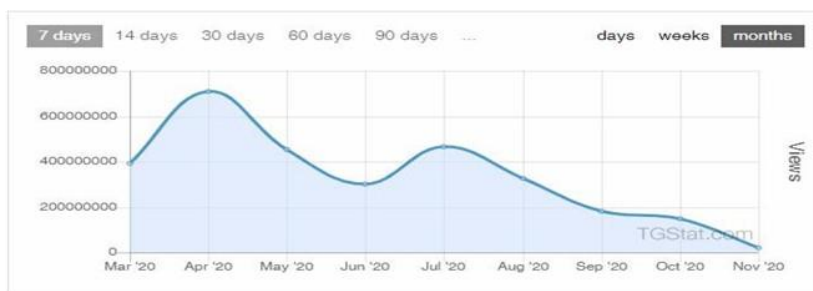


Figure 4-Views

Accordingly, the views began to decrease in this channel (Figure 4) [25].

Besides the posts, general information about the coronavirus, pandemic and everything related to COVID 19, the channel conducted a questionnaire

among the subscribers in order to know to what extent the necessary and reliable information covers people, what they know about the coronavirus and what they would like to learn about this disease and pandemic.

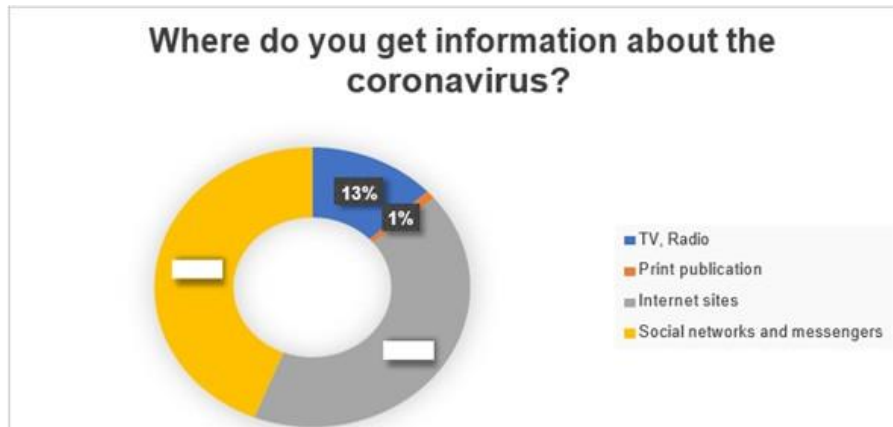


Figure 5- Questionnaire

For example, the questionnaire of March 25 asks where people get information about the coronavirus from 323.3 K people responded to

this questionnaire by leaving their vote, and 1.3 M subscribers watched it. Thus, almost a quarter of all subscribers replied to this question (Figure 5).

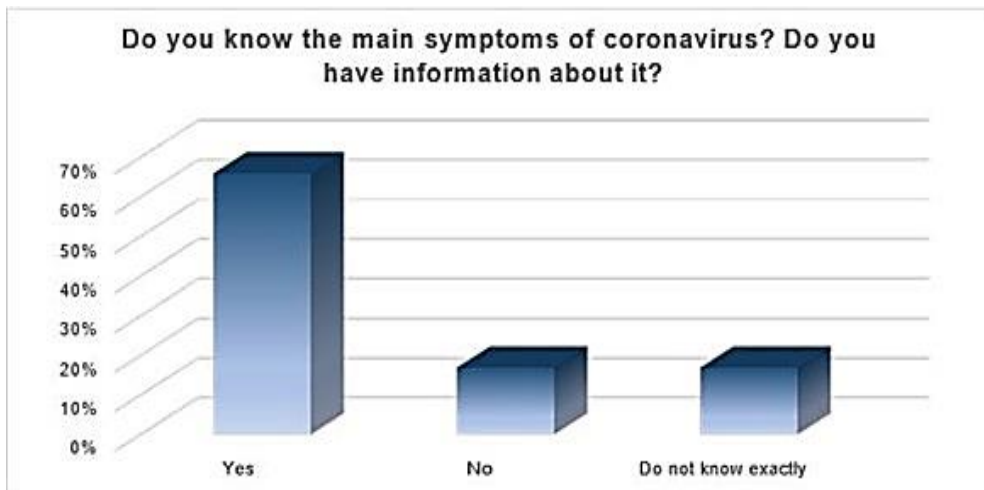


Figure 6- Questionnaire

Another survey from March 26 asks whether people know the main symptoms of coronavirus and whether they have information about it.

This question was viewed by 921.8 thousand and answered by thousand people [26].

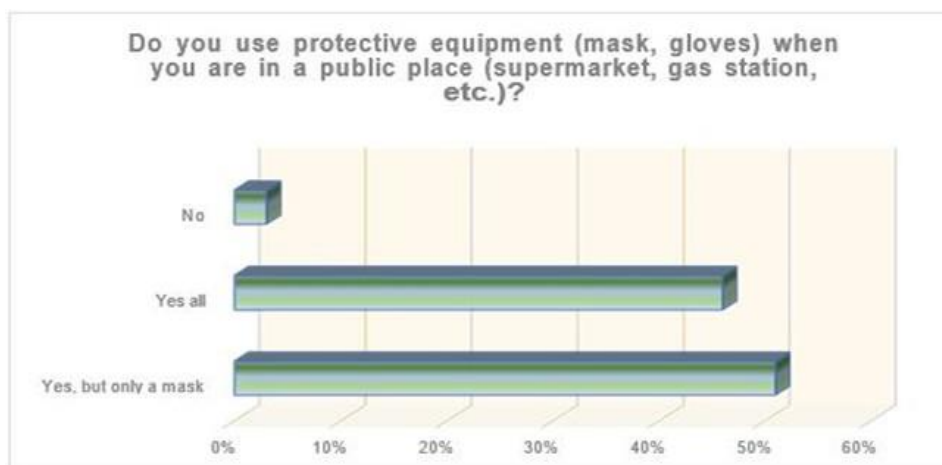


Figure 7- Questionnaire

In another survey, subscribers are asked if they use protective equipment (mask, gloves, etc.) when they are in a public place (supermarket, gas station, etc.)? People also responded actively to this questionnaire and showed their interest in this topic (Figure 6,7) [25].

Conclusions

Social media and the healthcare system are a great combination. Many people are now publicly sharing their opinions about various diseases, including COVID-19, on various social platforms. Social networks that allow people to connect, create blogs, platforms that are easily accessible for mobile phones are becoming popular day by day, especially in the

health sector. Telegram Channels are one of the perfect ways for sending messages to unlimited audiences. An official Telegram channel with information about the coronavirus called Koronavirus Info has been created for Uzbek citizens is very popular among the country's citizens. It has more than 1 Million members—this channel in second place among the most popular Uzbek Telegram channels. The channel is dedicated to all current events related to the pandemic and coronavirus at the national and international levels, which help the subscribers to receive reliable information on coronavirus questions, how this virus is transmitted, how the clinic of this disease manifests itself, how to carry out prevention, as well as where how to contact in case of a coronavirus clinic and so on.

References

1. Contreras GW. Getting ready for the next pandemic COVID-19: Why we need to be more prepared and less scared [Internet]. Vol. 18, Journal of Emergency Management. Weston Medical Publishing; 2020 [cited 2021 Mar 9]. p. 87–9. Available from: <https://pubmed.ncbi.nlm.nih.gov/32181864/>
2. Advice for the public [Internet]. [cited 2021 Mar 9]. Available from: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public?gclid=Cj0KCQiA1pyCBhCtARIsAHaY_5fmt3QP92XVUCXZ_Do02zHYTRjV8mGB1uIWd7L-8bx_C69kT13VVJo4aAmvNEALw_wcB
3. Situation updates on COVID-19 [Internet]. [cited 2021 Mar 15]. Available from: <https://www.ecdc.europa.eu/en/covid-19/situation-updates>
4. Covid-19 Statistics. COVID-19 Coronavirus 2019-nCov Statistics Update (Live): 3,121,118 Cases and 216,508 Deaths [Internet]. 2020 [cited 2021 Mar 9]. Available from: <https://virusncov.com/>
5. R-5537-sleep 01/29/2020. On the formation of a Special Republican Commission for the preparation of a Program of Measures to Prevent the Importation and Spread of a New Type of Coronavirus in the Republic of Uzbekistan [Internet]. [cited 2021 Mar 9]. Available from: <https://lex.uz/docs/4720408>
6. The number of infected patients in the country has reached eight people [Internet]. [cited 2021 Mar 9]. Available from: <https://coronavirus.uz/ru/lists/view/44>
7. news [Internet]. [cited 2021 Mar 15]. Available from: <https://coronavirus.uz/ru/lists/index/35/12>
8. Uzbekistan reports new coronavirus cases | MENAFN.COM [Internet]. [cited 2021 Mar 15]. Available from: <https://menafn.com/1099947887/Uzbekistan-reports-new-coronavirus-cases>
9. Border restrictions for rail freight in Uzbekistan | RailFreight.com [Internet]. [cited 2021 Mar 15]. Available from: <https://www.railfreight.com/beltandroad/2020/04/02/border-restrictions-for-rail-freight-in-uzbekistan/?gdp=deny>

10. COVID-19 pandemic in Uzbekistan - Wikipedia [Internet]. [cited 2021 Mar 15]. Available from: https://en.wikipedia.org/wiki/COVID-19_pandemic_in_Uzbekistan
11. Azimova ND, Ashirbaev SP, Vikhrov IP. THE FIRST STEPS IN ARTIFICIAL INTELLIGENCE DEVELOPMENT IN MEDICINE IN UZBEKISTAN. *Heal Probl Civiliz* [Internet]. 2020 [cited 2021 Mar 15];14(4):314–9. Available from: <https://doi.org/10.5114/hpc.2020.98086>
12. Khader M, Dillon D, Chen XK, Neo LS, Chin J, Leong D. The Role of Social Media During a Pandemic. In: *How to Prepare for the Next Pandemic* [Internet]. 2020 [cited 2021 Mar 15]. p. 129–42. Available from: <https://khoros.com/blog/social-medias-role-during-covid-19>
13. Chaffey D. Global social media research summary August 2020, penulis;dave chaffey. *Smart insights* [Internet]. 2020 [cited 2021 Mar 16];(August 2020):5. Available from: <https://digitalstrategyconsultants.in/blog/global-social-media-research-summary-2020#gref>
14. Pantic I. Online social networking and mental health. *Cyberpsychol Behav Soc Netw* [Internet]. 2014 Oct 1 [cited 2021 Mar 15];17(10):652–7. Available from: [/pmc/articles/PMC4183915/](https://doi.org/10.1089/cyber.2013.0183)
15. Newberry C. How to Use Social Media in Healthcare: A Guide for Health Professionals [Internet]. *Hootsuite Social Media Management*. 2020 [cited 2021 Mar 15]. Available from: <https://blog.hootsuite.com/social-media-health-care/>
16. Korda H, Itani Z. Harnessing Social Media for Health Promotion and Behavior Change. *Health Promot Pract*. 2013 Jan;14(1):15–23.
17. Sendetska S. Social advertising and its influence on the healthy lifestyle of student youth. *Sci Messenger LNU Vet Med Biotechnol*. 2018 Nov 16;20(91):42–5.
18. social media in healthcare [Internet]. [cited 2021 Mar 16]. Available from: <https://innovatedmedtec.com/digital-health/health-social-media-in-healthcare>
19. Ogbo Obaro. What You Need to Know About the Telegram Messenger - Make Tech Easier [Internet]. 2015 [cited 2021 Mar 16]. Available from: <https://www.maketecheasier.com/telegram-messenger-review/>
20. Shu C. Meet Telegram, A Secure Messaging App From The Founders Of VK, Russia's Largest Social Network. *techcrunch.com* [Internet]. 2013 [cited 2021 Mar 16]; Available from: <https://techcrunch.com/2013/10/27/meet-telegram-a-secure-messaging-app-from-the-founders-of-vk-russias-largest-social-network/>
21. SECURITIES AND EXCHANGE COMMISSION, ::Plaintiff, :19 Civ. 9439(PKC):-against -:ECF Case:TELEGRAM GROUPINC.andTON ISSUERINC. US Secur Exch Comm [Internet]. 2019 Oct 11 [cited 2021 Mar 16]; Available from: <https://www.sec.gov/litigation/complaints/2019/comp-pr2019-212.pdf>
22. Focused Privacy, Discussion Groups, Seamless Web Bots and More. *Telegram* [Internet]. 2019 May 31 [cited 2021 Mar 16]; Available from: <https://telegram.org/blog/privacy-discussions-web-bots>
23. Largest catalog of Telegram channels. Statistics, analytics, TOP chart. *Telegram Analytics*. [Internet]. [cited 2021 Mar 15]. Available from: <https://tgstat.com/>
24. All news from Uzbekistan [Internet]. [cited 2021 Mar 15]. Available from: <https://www.podrobno.uz/cat/obchestvo/v-uzbekistane-zapustili-ofitsialnyy-telegram-bot-s->
25. @koronavirusinfouz - Channel statistics Koronavirus Info | Uyda Qoling!. *Telegram Analytics* [Internet]. [cited 2021 Mar 15]. Available from: <https://uz.tgstat.com/en/channel/@koronavirusinfouz>
26. Special Republican Commission to Combat Coronavirus. *Telegram: Contact @koronavirusinfouz* [Internet]. [cited 2021 Mar 15]. Available from: