

Solving The Needs Of Individuals Exposed To Covid 19 Infection And Living Alone At Home During The Isolation: We Are With You Mobile Application

Mustafa Kaan DEMİR¹

Nurgül ERDAL²

¹Lisans Öğrenci, İstanbul Medipol Üniversitesi Yönetim Bilişim Sistemleri, mustafakaandemir0@gmail.com, ORCID: 0000- 0003-3332-6333

²Dr. İstanbul Üniversite Cerrahpaşa-Cerrahpaşa Tıp Fakultesi Hastanesi, nurgul.erdal@istanbul.edu.tr, ORCID:0000-0002-2961-3906

Abstract: Coranavirus (2019-CoV), which originated in Wuhan, China, spread rapidly in a very short time, as it was transmitted by droplet and contact. Due to the global epidemic, a pandemic was declared all over the world and various measures were taken to reduce the pandemic. In today's conditions, many people continue their lives alone, away from their families and close relatives. Technological developments and the widespread use of the internet have caused fundamental changes in our lives. Mobile applications were created to meet many needs, shopping, bill payments, training requirements, and all kinds of service orders were transferred to the digital environment. With the mobile applications on smart phones, all kinds of needs are met without being dependent on someone else. We aimed to help patients who live alone at home and underwent isolation due to the Covid-19 pandemic to meet all their needs and to regain their health with the mobile application "We Are With You". The aim of our project is to make such people feel that they are never alone and that we are always with them, to meet their psychological, physiological and social needs in the best way and to ensure that they never feel lonely.

Key Words: Covid-19, isolation, mobile application, single inhabitants

INTRODUCTION

The globalizing world is struggling with an important infectious disease. Any discomfort that occurs anywhere in the world can affect the whole world in a short time. Korana virus or Corana Virus, which was first seen in Wuhan, China in December, has affected the whole world. SARS-CoV-2 virus is known as Coronavirus. The World Health Organization (WHO) named the disease Covid-19 on February 11 and declared it a pandemic. The flu-flu factors that we see around us are in Coronaviruses (CoV). Genetically altered for thousands of years, it creates an epidemic and causes many people to get sick and die. Covid-19, the most feared disease of recent days, causes both death and diseases, damaging our health and causing socioeconomic damages. Individual and social precautions should be taken and regulations (laws and regulations) should be made in order to prevent and eliminate the infection and to treat the sick people (Karcıoğlu, 2020).

The way to prevent the Covid-19 outbreak is social distancing, and until the vaccine is available, it is aimed to slow the rate at which the infection spreads, and this is the only remedy we can do. This situation creates negative economic consequences and becomes more evident in the service sector. Employees are faced with the risk of losing their jobs (Özatay & Sak, 2020). The psychology of the sick people is impaired because they both lose their health and their jobs. It is important to apply psychological treatment to these people. In this

difficult process, both the treatment of patients continues and efforts are continuing to prevent the spread of the virus. Since it is a new virus, scientific studies are carried out and approaches are updated frequently to understand this disease. The public is made aware of updated information and measures from all over the world. In particular, measures aimed at preventing the spread of infection are increasing in importance day by day.

There is no vaccine available to eradicate and prevent Covid-19 disease. Since there is no vaccine, it is very important to know and apply prevention methods and the way to avoid this disease is to avoid this disease (Til, 2020). According to the information we have, the SARS-CoV-2 virus is transmitted between people through droplets and contact. The most effective way to prevent contamination is to wash your hands frequently and at least 20 seconds with soap and water (Alıcılar & Meltem, 2020). Social isolation methods should be applied to prevent infection and reduce its spread. These include reducing or postponing mass meetings and events for a certain period of time, flexible working hours at the workplace, or remotely or from home measures. Although the prevalence of viruses in children is low, it is recommended to suspend education in schools and continue education from a distance, since there is contagiousness.

Covid-19 disease does not distinguish between race, language, religion and gender. However, it causes worse results in the elderly. The risk of



transmission is the same for everyone, but the risk of death increases with age and chronic diseases (Çobanoğlu, 2020). In contemporary societies, people have had to live alone, away from the family environment. In an effort to protect public health, those from abroad, those who have been exposed to infected individuals, or those who are positive for Covid-19, and those with suspected Covid-19 have been sent to isolate their homes to prevent transmission. However, these individuals were sent home on the condition that they were alone without adequate precautions. Quarantine practices are extremely important for social health.

Today, many individuals live alone. But when the form of treatment requires quarantine or other measures that conflict with the autonomy of the patient in terms of public health, we have to consider public health without restricting the patient's right to individual treatment and care. Today, the concept of scooter has caused radical changes in people's habits, facilitated daily life and became popular. People have met most of their needs thanks to smart phones (Uğur & Turan, 2015). This study was carried out in order to facilitate the life of individuals suffering from Covid -19 disease and living alone at home, to meet their needs and make them feel psychologically to and physiologically well.

2. COVID-19

DHACE

A new korana virus emerged in China as a sign of viral pneumonia. It was determined that it was transmitted from person to person (Bai et al., 2020). This infection turned out to be a new and alarmingly contagious feature. In December 2019, an atypical viral pneumonia broke out in China. It has been named Covid-19 as a zoonotic coronavirus similar to SARS. In a short time, the influence of China and other countries caused the illness and death of many people who were gold (Gao et al, 2020).

Coronaviruses are single stranded, positive polarity enveloped RNA viruses. Since they have positive polarity, they do not contain RNA-dependent RNA polymerase enzyme, but they encode this enzyme in their genome. They have rod-like extensions on their surfaces. These protrusions in the Latin "corona", that is "crown" anlaoronaviruses are included in the Coronaviridae family. They are classified into four main types: Alpha, Beta, Gamma and Delta Coronaviruses. These viruses can be found in humans, bats, pigs, cats, dogs, rodents and poultry (domestic and wild animals). In humans, this virus can be a simple cold or progress to severe acute respiratory syndrome (Wilson & Chen, 2020).

Although coranaviruses are enveloped RNA viruses, they have many subtypes. The virus can progress from simple respiratory symptoms to very serious diseases. Six of them, the lower corono virus type (229E, OC43, NL63, HKU1, SARS-CoV, MERSCoV), cause human disease. The causative agent of Covid-19 is SARS-CoV-2 (Şahan et al., 2019). Since they undergo rapid mutation and re-combination, a new virus is encountered at any time and can be passed from animals to humans. There are a wide variety of corona viruses in animals, but it is known to be transmitted to humans from bats, camels and cattle (Huynh et al., 2012; Vijyen et al., 2005). For example, it is known that the SARS epidemic passed from bats and MERS outbreaks from camels to humans (Shi & Hu, 2008). This newly released Covid-19 is linked to the beta group and shows 89% nucleotide similarity to SARS (Chan et al., 2020). Although the first source marine animals are shown, the spread occurs from person to person by droplet and close contact (Ovalı, 2020). In recent cases, it has been found that it occurs in cases where there is no contact. Since asymptomatic individuals carry the virus in their respiratory tract, it has been accepted that they can transmit those around them, but the infection occurs as a result of contact with diseased individuals (Akpınar & Üstün, 2020).

2.1. The Course and Stages of the Disease

World Health Organization-WHO examined Covid-19 infection in the following stages in the guide announced at the end of January 2020.

Table 1. Stages of Covid-19 Infection	
DUASE	

PHASE		
Uncomplicated disease Picture	Viral URTI findings may be fever, cough, sore throat, weakness, nasal congestion, headache, and muscle aches. The elderly and immunocompromised may present with atypical symptoms.	
Mild pneumonia	Pneumonia cases without evidence of severe pneumonia. Cough and shortness of breath	
Severe pneumonia	Adolescent or adult: fever or suspected SYE, plus one of the following: SD> 30 / min, severe respiratory distress or SpO2	



Acute Respiratory Difficulty Syndrome (ARDS)	Onset: new or worsening respiratory symptoms within 1 week after the triggering event. Imaging: bilateral opacities not limited to effusion, lobar or pulmonary collapse, nodules. Pulmonary edema: Respiratory failure not explained by HF or fluid overload. It should be evaluated with EKO. Oxygenation (adult): Mild ARDS: 200 mmHg <pao2 <math="" fio2="">\leq 300 mmHg (PEEP or CPAP \geq5 cmH2O or non-ventile) Moderate-Moderate ARDS: 100 mmHg <pao2 <math="" fio2="">\leq200 mmHg (PEEP \geq5 cmH2O , or nonventile) Severe ARDS: PaO2 / FiO2 \leq 100 mmHg (PEEP \geq5 cmH2O, or non-ventile) SpO2 / FiO2 \leq315 if PaO2 cannot be checked</pao2></pao2>
Sepsis	Adult: Life-threatening organ dysfunction due to dysregulated host response accompanying infection (unconsciousness, tachypnea / respiratory distress, low O2 saturation, decreased urine output, tachycardia, hypotension, extremity cold, laboratory coagulopathy findings, thrombocytopenia, acidosis, high lactate or hyperbilirubinemia Child: Suspected or proven infection and ≥2 SIRS criteria.
Septic shock	Resistant hypotension despite fluid resuscitation, MAP 65 mmHg with vasopressor and lactate> 2 mmol / L.

Reference: Karcioğlu, Ö. (2020). What is Coronaviruses, and how can we protect ourselves?. Anka Tip Dergisi, 2(1), 66-71

In the first cases in Wuhan, it was stated that the incubation period was 3-7 days and the longest was 12.5 days (Li et al., 2020). The incubation period between the intake of the virus and the onset of symptoms is 2-14 days. COVID-19 is seen in various ways. It sometimes causes severe acute respiratory tract infections, and the symptoms are asymptomatic, mild or severe (Surveillances, 2020). At the beginning of the disease, there may be no fever, only chills and respiratory symptoms. High C-reactive protein (CRP) may be the predictor of the disease (Zhang et al., 2020).

The disease is seen differently in humans. But the symptoms and clinical course similar to each other in terms of symptoms are as follows:

1-3 Days: It is accompanied by cold and flu-like symptoms with mild fever, sore throat, nausea and diarrhea if the immune system is weak.

4 Day: The sore throat becomes more severe, there is a hoarse voice, difficulty in eating and weakness. Mild headache and diarrhea begin.

5 Day : Sore throat gets worse. Eating and drinking can be very painful. It becomes difficult to move. Joint pain and pain in movements occur.

6 Day: Dry cough starts, sore throat worsens while talking and swallowing. Severe fatigue begins. Nausea increases. Sometimes there is difficulty in breathing, diarrhea and vomiting worsen.

7 Day: Fever rises to 38 ° C, cough and sputum production becomes more severe, painful body and headache as well as vomiting are observed.

8 Day : It becomes very difficult to breathe. Chest area is felt very heavily, headache and joint pains have increased, fever rises above 38 $^\circ$ C.

9 Day: Symptoms increase further, cyanosis-related cyanosis appears on the face or lips, cough and sputum increase, body and headaches and vomiting increase.

We have little information about the new coronavirus yet. However, as can be seen from the findings in the field, the virus does not make everyone sick. It was observed that very few people watched slowly (Aslan, 2020).

The most common symptoms of COVID-19 are fever, tiredness and dry cough. Some patients may experience pain, nasal congestion, sore throat and diarrhea. These symptoms are mild at first and start gradually. Some individuals become infected but do not develop any symptoms. Most individuals (about 80%) recover without the need for special treatment. Old age, hypertension, heart diseases, diabetes etc. other chronic illnesses require medical attention. Death cases reported so far have generally been reported in individuals of advanced age or with concomitant systemic diseases (Akpınar & Ustun, 2020). Although coronavirus infects individuals of all age groups, it is seen that the elderly population is more affected, considering both its transmission and spread rate and mortality. However, there are a few cases reported in children and even newborns (Wu & McGoogan, 2020).

The increase in infected people and the deaths can cause anxiety, panic, insecurity, fear and so on. caused. In order to manage this process well, doctors and epidemiologists have important duties.



These are beneficial to control the epidemic, reduce panic, share scientific information, follow various developments, and examine patients' findings. Contagiousness, natural history of infection, those at risk, diagnosis and treatment, management of laboratory information and practices are important in preventing infection (Song & Karako, 2020).

2.2. Covid-19 Precautions

Countries have an important role to play in stopping and controlling the pandemic by the World Health Organization. Entry and exit bans to countries, quarantines imposed in areas where the epidemic is detected, international sports and art events that are canceled or in question, and travel restrictions are important (Yusuf, 2020).

The first step of preventive health services is the correct and appropriate vaccination applications. However, vaccination is not always sufficient alone and should be used in conjunction with other prevention methods (Altuğ et al., 2013). Although vaccination is very important in preventing diseases, prevention methods remain important in cases where there is no vaccine yet. There is no vaccine developed against coronavirus yet. Therefore, it is very important to take protective measures.

Hand hygiene, where the virus is transmitted by droplets and contact, is very important. In addition, hand hygiene is the simplest and most effective method in preventing hospital infections. It is used for hand hygiene, hand washing, rubbing the hands with antiseptic solutions or emphasizing surgical hand antisepsis (Çaylan, 2007). Hand washing should be frequent and at least 20 seconds with soap and water. In cases where water and soap are difficult to reach, hand disinfectants containing at least 60% alcohol can be used (Moon, 2012).

In addition to hand hygiene practices, it is necessary to prevent the hands from contacting the face, eyes and mouth. Because microorganisms are easily transported by hands and enter the body with organs such as face, eyes and mouth and cause the development of the disease.

Coronavirus can be found on various surfaces. For example, it can stay for 48 hours in plastic, 72 hours in steel, 24 hours in cardboard, 4 hours in copper, and hours in air. (Van Doremolon et al., 2020). Although these data scare us, it is known that the droplets that will cause the formation of the disease transmitted from the respiratory tract through droplets will not be in the form of particles in such fine erosal and are affected by the effects of sun, wind and heat (Çobanoğlu, 2020).

As with other viral infections, the measures to be taken in COVID-19 are almost the same. To reduce the spread of infection, it is necessary to cover the mouth with a tissue in coughing, sneezing and throw the tissue into the garbage. In the absence of a handkerchief, it is inconvenient when hands are coughed because they can touch everywhere. For this, the inside of the elbow should be used (Karcioğlu, 2020).

It is important to avoid close contact and maintain social distance in preventing droplet tract infections. The virus can spread through droplets up to a distance of 1-2 meters. Paying attention to this distance is an effective method as it will reduce contagiousness. It is important to avoid being in crowded places and pay attention to social distance if necessary. Since this virus is a very dangerous virus, it is very important in travel. Especially long travels make the spread of the virus inevitable. For those who have to use public transportation, never going out with gloves and wearing gloves is not protective, although it seems like protective. Because these places have been touched by many people and without realizing it, hands can touch the mouth, eyes, nose and face and become infected. Environmental cleanliness should be given importance, transportation vehicles should be ventilated frequently, common surfaces should be disinfected It is a recommended situation to regularly clean and disinfect frequently contacted surfaces. The areas that get dirty the most and need to be cleaned are the areas where contact is very frequent, such as tables, door handles, lighting buttons, and great care should be taken to clean these areas. Cleaning should be done with soap and water first, and then bleach water diluted with 1 part in 10 should be used. If alcohol-containing solutions are to be used, care should be taken to contain at least 70% alcohol (Alıcılar & Meltem, 2020).

Since the virus affects the whole world, it is important for people from countries with this disease to stay at their homes for 14 days and apply to the nearest health institutions with a mask. It is extremely important and necessary to leave the suspect persons in quarantine for 14 days without being sent to their homes in order to prevent infection.



It is important for people to wear a medical mask when they are around other people, when they go out for any reason or when going to medical institutions. Mask is an effective method to a certain extent, but it is not enough by itself. Medical masks are disposable and should be replaced when moist. Washable masks are not recommended. In addition, face shields that cover the whole face can be used provided that a mask is worn. If there are COVID-19 patients among family members, they should be in a separate room from other individuals and pay attention to personal and environmental hygiene. Social distance, the patient and his relatives wearing a mask and not being in the same environment with the patient are important. When the laundry of the patient is washed in a separate machine at 60-90 degrees, there is no need for an additional disinfection.

Healthcare workers should use personal protective equipment to maintain resource control. It should create an isolation environment for patients diagnosed with Covid-19 and suspected. Person should be restricted so that contact with the patient is minimal. Healthcare professionals should use a medical mask when entering the patient's room. The use of N 95 mask should be used during procedures such as tracheal aspiration and bronchoscopy that cause erosal formation. It is also the right approach to use in addition to personal protective equipment (gloves, masks, aprons, goggles).

Health workers should have reasonable working hours, and it is important that their needs and medical equipment are provided and protected in psychology.

There is no evidence as to whether pets can transmit the virus. It is not certain that the contagious effect is high in temperature and humid areas. There is no need for nutritional supplements and vitamins to increase immunity, but the most effective methods are to provide a balanced diet, physical exercise and healthy sleep patterns. Adequate rest should be provided to avoid illness.

The whole world is on the red alert in line with the instructions of the World Health Organization. When scientific studies are examined, it is understood that travel is effective in the spread of the virus around the world. The people carrying the virus have carried the virus to all parts of the world with their travels (Wilson & Chen, 2020).

To prevent COVID-19, measures should be taken from the point of entry to the hospital. A first

contact outpatient clinic should be opened and it should provide 24-hour uninterrupted service. Various screening should be done here (Özcan et al, 2020).

Suspicious patients should be given a mask and should be taken to different areas with other people. The distance between them should be kept at least 1 meter apart (Özcan et al, 2020).

Standard measures should be taken in all areas of healthcare institutions. Standard precautions should include the use of personal protective equipment (PPE) when in direct or indirect contact with patients' blood, body fluids, secretions (including respiratory secretions) and intact skin, and hand hygiene should be maintained. In addition, standard measures include prevention of needle stick or piercing / cutting injuries, safe waste management, cleaning and disinfection of equipment and environmental cleaning. In addition to standard precautions, it was stated that precautions should be taken for droplet, contact and / or airborne contamination (Dadashzadeh, 2020).

WHO Recommendations for healthcare professionals:

• To follow determined occupational health and safety procedures and not to expose employees to health and safety risks.

• Participating in occupational safety training provided by the employer.

• Evaluating patients, determining triage and treatment procedures.

• To treat patients with respect, compassion and sensitivity.

• Protecting the confidentiality and confidentiality of the patient's information.

o Determining public health reporting criteria for suspected and confirmed cases.

• Provide and consolidate information on infection prevention, control and public health, including related infections.

• To use, remove and properly dispose of personal protectors.

o Observing the symptoms of the diseases that may occur in itself, if there are symptoms of the disease, self-monitoring, isolation and reporting to the managers.

• To make suggestions to the management.

• To get help with stress and mental health problems (World Health Organization (2020).

All non-essential hospital staff should be allowed to work from home. Collective trainings should be canceled. In patient-related procedures, the patient's room should not be entered unless necessary, hand washing, antiseptic procedures and personal protective equipment should be encouraged and usage rules should be observed. If surgical intervention is to be performed, all nonurgent procedures should be canceled and postponed (Karaca et al., 2020).

It is very important to protect healthcare workers and other patients in patients who have been diagnosed with Covid -19 and are undergoing emergency surgery or cancer treatment. The operational management, perioperative and postoperative management of these patients should be planned in detail. This will protect healthcare workers from infection and provide a legal advantage (Kamer & Colak 2020).

2.3.Covid-19 General Treatment And Care Methods

It is recommended that the person exposed to Covid-19 infection should use regular flu medicines, drink plenty of fluids and spend this time resting. It is better to take a shower instead of antipyretics to fever. Paracetamol, ketoprofen reduce dexketoprofen / ibuprofen drugs can be used to reduce fever. It is recommended to ventilate the room and keep it at room temperature (20C). However, if the complaints continue despite these measures, the hospital should be visited. Especially those who cannot drink plenty of fluids, have nausea and vomiting, have no fever, and have shortness of breath should be taken to the hospital immediately.

In addition to the measures at home in the hospital, fluid replenishment is made through the vascular access. Oxygen is given to those who have breathing difficulties. In addition to the measures at home in the hospital, fluid is given through the vascular access, measures are taken against pneumonia and worsening breathing difficulties, the findings are investigated in the chest X-ray, and respiratory support is given by machine if necessary. Despite these treatments, patients whose fever does not decrease with simple treatments, shortness of breath / respiratory distress worsens, and oxygen saturation decreases should be treated in intensive care units.

Corana virus disease is spreading rapidly, and scientists are doing various researches to cure this disease. They are trying various drugs to cure the disease. Chloroguine is recommended for the treatment of malaria, rheumatoid arthritis and lupus eryt hematosus. It is also effective in preventing pneumonia (Lu & Shi, 2020).

2.4.Covid-19 Home Monitoring

T.R. According to the guidelines of the Ministry of Health, General Directorate of Public Health, Covid-19 (SARS-CoV2 INFECTION) guideline, possible / definite Covid-19 clinic mild cases without chronic disease (lung, heart, kidney failure or immune deficiency, etc.) can be. It is appropriate to follow the older ones in the hospital. Patients who are hospitalized and discharged can be followed at home until they recover. Patients sent home should be followed up by their family physicians, the family physician should be informed about the treatment and care of the patient, the patient should always be contacted by phone and the symptoms should be monitored.

What the patient should do during home follow-up should be explained, and if he does not, it should be stated that he has criminal responsibilities and the consent form containing this information should be signed. He should not accept visitors during his stay at home. If he has to be in the same environment with other people at home, he should wear a medical mask. In order to prevent the risk of contamination to the family members, they should be in different rooms if possible, in a well-ventilated room if they do not, and should maintain social distance. The sick person should wear a medical mask and replace it with a new one when it gets wet or moist. People with chronic diseases and elderly people at home should not be in the same environment as possible with people with suppressed immune systems. The person caring for the patient should wear a medical mask. It should be preferred to stay in the patient's room. If there are other bathrooms and toilets in the house, they should be used, otherwise these areas should be well ventilated and frequently bleach (at 1: 100 normal dilution) should be used.

The patient should cover his mouth with a handkerchief (preferably with a paper tissue) during coughing or sneezing, the used handkerchiefs should be placed in sealed and non-perforated nylon bags and discarded in a second plastic bag, and patients should wash their hands frequently. They should not share their personal needs with anyone else and should wash their common items with soap and water. All kinds of clothing and textile products used by the patient should be washed with laundry detergent at 60-90 ° C. Medical masks and gloves should be used during cleaning. To prevent contamination in inhaled or bodily disposal areas, all surfaces should be cleaned with diluted bleach



(1: 100 normal dilution) and used when there is significant contamination (1:10 normal dilution).

In all suspicious and definite cases, people dealing with the patient must strictly adhere to standard, contact and droplet isolation measures, and use disposable waterproof gowns and, if necessary, overalls, hoods and foot protectors during procedures such as intubation, aspiration, bronchoscopy and sampling in the respiratory tract. Intubation can be done as "clamped intubation". During these operations, the room door must be kept closed and the entrance of other people must be prevented. A separate bacteria and virus filter should be attached to the air outlet of mechanical fans, and balloon-masks with closed reservoirs should be preferred. The materials used for these patients should not be used for other patients (Ovalı, 2020).

Corona viruses are single-stranded RNA viruses, 40-60 nm in size, and are 4 types: alpha, beta, gamma and delta. These viruses have low resistance; They are inactivated with 75% ethanol, chlorinated disinfectants and peracetic acid in 30 minutes at 56 o C (Lu & Shi, 2020).

Family members should also closely monitor their health and apply to the healthcare institution as soon as any symptoms appear. When the general condition of the Covid-19 patient deteriorates, medical assistance should be sought by calling 112 and the health institution should be informed about the patient's condition. If the patient needs to go to the hospital, they should definitely wear a medical mask during the transport.

Home contact monitoring, those who have contact with the Probable / Definite case (close contact / plane contact) are followed for 14 days. Those who have been in close contact with the cases in the confirmation process for Covid-19 infection, if the sample result of the patient they contact is negative, the follow-up is finished, but if it is positive, follow-up is continued until the 14th day. Contacts monitored at home should be followed by the Provincial Health Directorate by phone. In contact, he should spend this time at home. He / she should wear a medical mask when sharing the same environment with other person / persons (house, street, hospital, etc.). In all other measures, it is the same as the patient diagnosed with Covid-19 (Deniz, 2020).

If the test results are positive; the result is notified to the Provincial Health Directorate and action is taken according to the case management scheme. If the test results are negative; If there is a worsening of clinical findings in outpatients, the test is repeated. If alternative diagnosis is not made in hospitalized patients, the test is repeated.

3. MOBILE APPLICATIONS

In our age, many innovations have been made in the field of information and communication as a result of advances in technological fields. Today, technology has become an indispensable part of life and has been used in all sectors (Karabulut, 1989). The most important feature of the information age is technology and communication. In this context, social media brought consumers and businesses in different sectors face to face. They are social platforms where users' information, experiences, interests are shared via the internet or mobile system. They have gained competitive advantage by using these areas in businesses (Eröz & Doğdubay, 2012). While determining their strategies, businesses take into account the user profile, customer needs, views, expectations and trends, following and paying attention (Bekar & Özçetin, 2015).

Businesses use various mobile applications to survive in a competitive environment (Can et al., 2017). Technological advances in becoming an information society have changed the direction of development and increased the quality of life. Traditional mass communication resources have been replaced by new media such as the Internet, social media, and mobile phones. In addition to voice and written communication, smart phones combine the Internet, social media applications, camera, satellite connection, map and many other features in minimal designs with extra features and mobile applications. As the use of these tools increases, changes occur in the social and cultural structure. The most important feature of smart phones is the mobile applications on the devices (Uğur & Turan, 2015). Consumers' habits have changed, the internet has entered their lives and has become an important part of their lives. With the widespread use of the web and the increase in demand, new operating systems have been developed and many different devices have been produced to use them. The best of these are mobile devices that are time and independent. As a result of the rapid development of mobile technologies, computer applications have been replaced by mobile applications. Mobile devices can be used anywhere and anytime, regardless of the time and place concept. As a result of the processing of their personal information, many applications specific to users have been implemented (Özkoçak, 2016). With the widespread use of mobile devices, mobility, internet access and rich multi-media applications, it brings many advantages.



4. DISCLOSURE OF THE PROJECT

One of the most important problems of our age is the changes in our family life and social environment. There has been a transformation from large family structures to nuclear family structures. In fact, for various reasons, my family members had to live alone. Despite the fact that people are in a crowded environment, they struggle to survive in a system where they are alone.

Since most of the COVID-19 cases threatening the whole world are mild, such patients can be followed at home. Because this type of disease is a disease that requires isolation. Considering the situation of the country and the pandemic, patients with mild symptoms can be treated at home by applying isolation methods to treat patients who really need to be followed in the hospital. Individuals with family life can be isolated in a separate room and as long as they pay attention to their isolation methods, they do not get sick. The needs of the patient are met by family members. However, people who live far from family life and live alone face various difficulties during this isolation. This process is a challenging process and has greatly changed the lives and habits of people in the virus. If they go out of the house to meet their needs, they can infect people around them. If they do not, they cannot meet their needs and they are affected psychologically and physiologically.

As we mentioned in our fate, the most effective way to prevent infection is social isolation. For this reason, people who get sick should apply isolation at home and stay in quarantine. Corona virus can be transmitted very easily by socialization. Therefore, it is an important issue to consider all people as infected and to pay attention to social distance and wear a mask. Doctors and healthcare to professionals encourage people to stay at home with the slogan stay at home. However, some of the needs of people who get sick during this period must be met in order to survive. When these people go out to meet their needs, they will threaten the health of other people and cause many people to get sick. With these applications, the lives of sick people become easier and they feel happier and more peaceful.

Seeing this need, we developed a mobile application called "We Are By Your Side". The main purpose of the application, which can be installed on their phones to meet the needs of people who live alone at home, can be downloaded from Android and App Store stores, is to be understandable, easy and accessible for all ages, which can work on all smartphones. Considering the needs of sick people, the options determined by the experts are positioned in order of need. The options will be discussed in four stages in this section.



Figure 2 Content View of the Application

The mobile application contains the following items

1- Solution of Emergency and Health Problems: The targeted people of the project are people who live alone in their homes and are in isolation. These people have little chance of getting help from the environment. Either their relatives live far away or they cannot help because of social isolation. In fact, people living in apartments, estates and residences are not in neighborliness and solidarity as they do not know and trust each other. Our state takes measures to reduce the risk of contamination by imposing a curfew and the slogan of stay at home to protect the health of the people. People need applications that will guide them and meet their needs. For this reason, it has been noticed that they will have difficulties in getting help from people in emergency situations. If an emergency occurs, they will be able to reach healthcare professionals by pressing the "Emergency Half" button on the mobile application. And the ambulance will be activated. They will be directed to the most appropriate and closest hospitals. There are people from many age groups in our society. For people over a certain age, 60 years and over and with certain respiratory and chronic diseases, the effects of the virus are at a lethal level. For this reason, in order for these people to go out on the streets and not to be affected by the epidemic, "Contact the Family Physician" will check whether their health status is under control by the family physicians and if a dangerous situation is detected, inform them to the health institutions and reach the nearest health institutions.



2-Shopping and Providing Health Medicines:

The mobile application is in constant communication with the database of the Ministry of Health established by municipalities, health institutions and the state. Municipalities and health institutions are under great responsibility in this regard.

Through the application, the products ordered by the person who need it through certain contracted markets and neighborhood grocery stores are left to the monitor system of the market and the grocery store, eliminating the risks that may occur when they go out, and ensure that the products reach their homes quickly and cleanly.

In addition, the application ensures that the pharmacies, with the information of the people they receive via e-government, keep their prescriptions from reaching their homes in an integrated manner with the municipalities.

3- Needs of the House and Care of Pets

In our country and in the world, patients who are in quarantine or isolated during epidemic times need professional assistance to continue their daily lives and to provide the necessary rest. All needs should be met by experts and professionals should protect both themselves and the health of the sick or isolated people while performing these tasks. The most important issue in isolation is that people give importance to individual and environmental hygiene and perform this duly. Cleaning is very important at this time and their homes should be cleaned with a private company or specially allocated by municipalities if they wish.

Another important point is to provide regular nutrition. If people cannot cook their own food, nutritious and clean food should be provided with tentacles. Persons doing these jobs must use personal protective equipment. It is important that cleaning is very important at this time and that these people are made to their homes by a private or specially allocated by company the municipalities. Ensuring healthy sleep and rest is an important issue for sick people to recover faster and faster. Cleaning of their homes, necessary clothing for individual use, sheets, towels, etc. cleaning is important. The people who do these should be knowledgeable about this issue and must follow the rules while doing these things. In addition, the work of these people should be supervised by experts and those who do not follow the rules should be punished.

Today, most people keep pets at home. Care of pets should not be neglected during the period of illness,

they should be planned by either the state or the municipality in nursing homes or by sending employees to homes if desired.

4- All About The Corona Outbreak

In addition, the application will raise awareness about the choir virus, how to protect people from this virus, what they can do in emergency situations, if they see on the symptoms, where they can apply, how to manage the quarantine processes and the spread of the disease, if they want they can connect and watch the information broadcasts of the Ministry of Health every day. It allows them to communicate with banks and operators in a controlled manner and send money aid.

4. 1 IMPACTS OF THE PROJECT

The main purpose and effects of the project are the primary health and other basic needs of people living alone in their homes in this difficult time.



Figure 1 Enlarged Version of the Application

1- Effects on Healthcare Professionals: Due to the global pandemic, most hospitals are working over their capacity, healthcare professionals are getting sick due to extreme fatigue, and this virus can carry this virus to their homes and relatives. Fatigue, weakness and etc. caused by this. situations make it difficult to mix their most basic needs. Thanks to the mobile application, the problems that may arise from this are met by making personal analysis of the society in advance and choosing one of them with the options that statistically determine their requests. It supports them in this difficult time by showing them motivation and always being by their side.

2- The Effect on Elderly People Living Single and Alone in the Community: The mobile application enables us to do their jobs comfortably with its simple and light interface. Many of the age group whose society is at the highest risk live alone in their homes. As families live alone in the developing society, their needs are not met by family members. It is very important to protect these people by keeping them in an isolated environment in the society and to anticipate the problems they may experience, and services are provided through the mobile application.

3- How Mobile Application Services Will Be an Advantage to the Society: If about health conditions, health problems that may occur by clicking the "Call Family Physician" button. Family physicians can be contacted. If they want, they can deliver their family physician-approved medicines to their homes by clicking the "Drug Supply" button and being stolen jointly with the Municipality and Pharmacies. If an emergency occurs, an ambulance is called to their homes as soon as possible by clicking the "Emergency" button on the application to protect their safety and health.

If they are afraid of going to the grocery store, they can press the "Grocery Shopping" button to deliver them to them in a safe, healthy, clean, most importantly, isolated environment. It allows them to reach their home safely, almost eliminating the risk. Healthcare professionals, people who have difficulties in fulfilling their needs have difficulties in doing household chores.

With the municipalities with which the mobile application has agreed, the municipality employees assigned by the municipality by pressing the "Help for Home" button on the application, wear special clothes and help people to clean their meals, if they are unable to do their cleaning.

Most people own pets. If they wish, municipal employees can provide food for pets, cleaning, etc. meets their needs. On the other hand, many people had to be dismissed from their jobs. If they want, they can apply to the municipalities and become one of these special officers by going through a specially prepared interview, which supports them a little bit financially.

4 -All About Covid-19: Most people obtain true or false information about corona from among many information, and wrong and dangerous methods are tried. The mobile application project aims to guide people in the right way and to raise awareness in them by reducing the panic atmosphere. They can access the information they want by clicking the "Information About Corona" tab on the mobile application. If they want to see the statistics of the disease, they can access the breaking news from there. They will watch publications organized by experts and see how they can apply the correct quarantine methods. If they see the symptoms of corona on them, they can learn what to do and how

to ensure their isolation by choosing the "Corona Aid" option. If they want, they will be able to follow the rates graphically within the application.

5- The Psychological Impact of Mobile Application on Society: There are many people living alone in our society. The health and motivation of these individuals in this epidemic time is a very important issue. It is a very difficult situation for people who have not experienced such an epidemic psychologically, staying at home, staying in quarantine and restricting their freedom. Going out to meet their needs will cause them to pose great risks or risks. And since they cannot always benefit from the right resources, they are very hesitant and disagree. It poses a danger to them as they try out the wrong information resulting from it. The contents prepared by professors and experts in the application aimed to raise their awareness by removing the wrong information that would remain in their minds that guided them within the information and to support them by removing them from this panic atmosphere.

It aims to provide psychological support at this time by making people who are isolated from the society and those who live alone do not have to fight alone by protecting them from these risks and by making them forget that they are alone and bringing their morale to the highest level with the phrase "We Are By Your Side", which is the name and slogan of the mobile application.

5. DISCUSSION AND CONCLUSION

Virus outbreaks have caused millions of deaths and major economic crises around the world with each passing century. The impact of any future pandemic is likely to be at high risk in developing and developing countries due to limited surveillance and scarcity of health resources. Thanks to the mobile application, it recognizes people that health institutions and the state cannot directly reach or noticed, and digitally directs people without worrying about a potential pandemic without reducing their motivation and provides the isolation of people by observing the health resources that are or will be insufficient worldwide.

The annual flu epidemic results in significant mortality, especially in adults 65 years and older (Sullivan et al., 2017).

Today, large companies, governments and healthcare organizations develop many mobile or web applications. Many core teams are working to develop these applications.



Today, businesses gain competitive advantage in competitive environments with mobile applications.

Various projects have been produced with mobile applications in almost all sectors. Yaman et al. (2016) produced a design-based project from scratch with two mobile applications to increase literacy education for the hearing impaired. With hearing-impaired children studying at ICEM between 2013-2014 conducted at Anadolu University Applied Research Center and 2014-2015 academic year students. The data sources of the project are observation videos of the expert panel observations, video recordings, audio recordings and semi-structured interviews. NVivo 10 software software was used and an increase in learning motivation was achieved at the end of the research (Yaman et al., 2016).

Needs and demands have changed in our age. The applications developed in the past years do not meet the needs today. The problems arising from this are increasing.

Today, some states do not meet health services because their health resources are low compared to the population. Since preparations cannot be made for such a pandemic management, the problem is increasing.

With pandemic applications in the digital age, they can raise people's awareness and use limited resources correctly and restore people's health.

The application made for the "Life Comes Home" pandemic announced by the Ministry of Health allows us to control the situations by adding family members to the risk zones, the presence of metro and metrobus stops, and the daily corona virus table.

On the other hand, "We Are By Your Side" practice is to inform people who live alone about food, hygiene, health problems, corona, taking care of their pets, providing medicines, informing them if a problem occurs, etc. It has many features. And

75% ethanol, chlorinated disinfectants and peracetic acid. (Lu & Shi, 2020). Since they are RNA viruses that can mutate and cannot be noticed by the eye, they can spread rapidly and very dangerously, so they can be transmitted to thousands of people a day through social contact. It can even be fatal for some people. Those who have a mild disease cannot infect other family members as long as they apply home isolation methods and they can regain their health. These patients alleviate the workload of hospitals and contribute to the economy.

every day, additions and deletions are made by being examined over and over again.

People do not leave their homes and communicate with the institutions that the mobile application has contracted with.

The application provides a solution to a different problem among digitally published applications for other pandemics. Having such works on digital without requiring a physical environment provides great advantages.

Since mobile devices and the internet are among the basic needs of most people and everyone has or can have it, instead of creating physical institutions and increasing the money and cost, such applications can be done at very low cost compared to others.

Realizing the things that cannot be found in other applications of the application, there may be people living alone in the society, that they have to continue their needs alone, if they have a bad problem, they have to solve it themselves and instead of looking for environments that will interfere with their needs or make their voices heard, they can solve many tasks through the application at this time. Other applications have such a problem by providing community awareness and awareness. What should we do for it? How rigid it can be provided to people. How do we support them at this time? What kind of a project should we collect? And it raises questions such as how many people can we reach. The most important thing is health. There is always a light in all countries where society is together. And in order to find this light, such projects should be supported and sponsored, and should be supported today for a better future. n epidemic that occurs anywhere in the world can spread all over the world in a short time. Since the Covid-19 virus is transmitted by droplets and respiration, its control becomes more difficult. The most important way to prevent this disease, which spreads very rapidly, is to ensure the isolation of sick people. These viruses have low resistance; They are inactivated at 56 ° C for 30 minutes, with

Since it is not clear when the disease will end, the needs of people living alone and sick in this difficult time are increasing. These needs are health, food, cleaning, home care, pet care and other needs. Digital applications help and guide people in times of epidemics This application, which is made to meet the needs of people who are exposed to the disease and who live alone at home, during the illness, both prevents the spread of the infection and ensures that the needs are met professionally. Because in this practice, those who provide services follow the rules and procedures while providing



services because they are professional. Quality of service is ensured and customer satisfaction increases. As the patient is satisfied with the service, his recovery is accelerated and he feels physically and mentally well. When an emergency develops, the sense of trust increases because they know that they will be helped soon. The feeling of pessimism and loneliness decreases.

Thanks to the mobile application, it tries to meet the needs of people with the name of "We are with you" and motivate them during this pandemic. The application is a digital application designed quickly by experts and professors, taking into account statistics, sociological, health problems and social needs, considering a slightly different problem than the applications previously made in pandemic situations.

With the advantages of the application, it can reduce the densities in hospitals to very low levels. In this way, it can ensure that limited health resources are prepared and used in the most effective and sufficient way. Pademi is a big problem, the situation that can put countries in a crisis situation. During this pandemic crisis, many companies, factories, shopping malls, clothing stores, large food chains, textile workshops, etc. The vast majority of doves had to stop their not working. The inability of these institutions to work and their employees not being able to receive salaries constitutes a huge problem. This application only applies to national measures for the prevention of olmalıdır.pandem in the world not only in Turkey is not sufficient and global measures should be taken. The state should provide aid for food and essential needs, especially to citizens whose financial situation is not good and who cannot be fed adequately. All kinds of needs of citizens who have been diagnosed with a disease and whose isolation process continues at home should be met by the state free of charge. If this is not met, people who are not working will not be able to meet their personal needs, eat, drink and overcome the disease. The disease will worsen and they will have to be hospitalized. Since hospitalization is more burdensome, the state should definitely help these people, individual needs and all kinds of expenses should be met by the state. Thanks to technological developments, individual needs are now tried to be met in digital environments and their control is also easier. Many businesses and government agencies use digital media to keep track of these technology developments and to serve their citizens. These types of applications are one of the requirements of today and make people's lives easier and contribute to them in every way.

REFERENCES

- Akpınar, F., & Üstün ,Y (2020). Kadın Hastalıkları Ve Doğum Pratiğinde Sars-Cov-2 (Covıd-19) Enfeksiyonu İle İlgili Güncel Bilgiler, Türk Kadın Sağlığı Ve Neonatoloji Dergisi 2(1): 13-16.
- Alıcılar, H. E., & Meltem, Ç. Ö. L, (2020). Yeni Koronavirüs Salgını: Korunmada Etkili Yaklaşımlar. Https://Www.İstabip.Org.Tr/5627-Yeni-Koronavirus-Salgini-Korunmada-Etkili-Yaklasimlar.Html
- Altuğ, N., Özdemir, R., & Cantekin, Z. (2013). Ruminantlarda Koruyucu Hekimlik: I. Aşı Uygulamaları. Erciyes Üniv Vet Fak Derg 10(1): 33-44
- Aslan, R. (2020). Tarihten Günümüze Epidemiler, Pandemiler Ve Covid-19. Ayrıntı Dergisi, 8(85):36-41
- Bai, Y., Yao, L., Wei, T., Tian, F., Jin, D. Y., Chen, L., & Wang, M. (2020). Presumed Asymptomatic Carrier Transmission Of Covid-19. Jama. Jama ,14 (323): 1406-1407
- Bekar, A., & Özçetin, Ç. (2015). Yiyecek İçecek İşletmelerinde Mobil Uygulamaların Kullanımı: Foursquare Örneği. Gaziantep University Journal Of Social Sciences, 14(2): 413-430
- Can, B. K., Yeşilyurt, H., Sancaktar, C. L., & Koçak, N. (2017). Mobil Çağda Mobil Uygulamalar: Türkiye'deki Yerli Otel Zincirleri Üzerine Bir Durum Tespiti. Journal Of Yaşar University, 12(45): 48-59.
- Chan, J. F. W., Yuan, S., Kok, K. H., To, K. K. W., Chu, H., Yang, J., ... & Tsoi, H. W. (2020). A Familial Cluster Of Pneumonia Associated With The 2019 Novel Coronavirus Indicating Person-To-Person Transmission: A Study Of A Family Cluster. The Lancet, 395(10223): 514-523
- Çaylan, R. (2007). El Hijyeni. Hastane İnfeksiyon Dergisi, 11: 54-59.
- Çobanoğlu, N, (2020). Bireysel, Profesyonel, Toplumsal, Bilimsel Ve Siyasal Etiği Yeniden Sorgulatan Covid-19 Pandemisi. Anadolu Kliniği Tıp Bilimleri Dergisi, 25(Supplement 1):36-42.
- Dadashzadeh, N., Farshid, S., Valizadeh, R., Nanbakhsh, M., & Rahimi, M. M, (2020). Acute Respiratory Distress Syndrome in Covid-19 Disease. Immunopathol Persa. 2020; 6(2):1-3, E16. Doi: 10.34172/ipp.2020.16
- Deniz, İ. N. A. L., Yağlı, N. V., Sağlam, M., & Kütükçü, E. Ç. (2020). Yeni Tip Koronavirüs (Sars-Cov-2) Kaynaklı Covıd-19 Enfeksiyonunda Akut Dönem Ve Postakut Dönemde Fizyoterapi Ve Rehabilitasyon Türk Fizyoterapi Ve Rehabilitasyon Dergisi, 31(1): 81-93.
- Eröz, S. S., & Doğdubay, M. (2012). Turistik Ürün Tercihinde Sosyal Medyanın Rolü Ve Etik İlişkisi. Dokuz Eylül Üniversitesi İktisadi İdari Bilimler Fakültesi Dergisi, 27(1): 133-157.
- Gao, J., Tian, Z., & Yang, X. (2020). Breakthrough: Chloroquine Phosphate Has Shown Apparent Efficacy İn Treatment Of Covid-19 Associated Pneumonia İn Clinical Studies. Bioscience Trends.
- Huynh, J., Li, S., Yount, B., Smith, A., Sturges, L., Olsen, J.
 C., ... & Frieman, M. B. (2012). Evidence Supporting A
 Zoonotic Origin Of Human Coronavirus Strain
 NI63. Journal Of Virology, 86(23): 12816-12825.
- Kamer, E., & Çolak, T. (2020). Covid-19 İle Enfekte Bir Hastasının Operasyona İhtiyacı Olduğunda Ne Yapmalıyız: Cerrahi Öncesi, Cerrahi Sırası Ve Cerrahi Sonrası Rehberi. Turk J Colorectal Dis, 30: 1-8.
- Karabulut, M. (1989). Tüketici Davranışları: Pazarlama Yeniliklerinin Kabulü Ve Yayılışı, İ.Ü. İşletme İktisadı Enstitüsü Yayınları, İstanbul



- Karaca A.S,, Özmen M.M., Uçar A.D., Yastı A.Ç.,& Demirer S. Covıd-19'lu Hastalarda Genel Cerrahi Ameliyathane Uygulamaları. Turk J Surg 2020; 36 (1): VI-X.
- Karcıoğlu, Ö. (2020). What İs Coronaviruses, And How Can We Protect Ourselves?. Anka Tıp Dergisi, 2(1): 66-71.
- Li, Q., Guan, X., Wu, P., Wang, X., Zhou, L., Tong, Y., ... & Xing, X. (2020). Early Transmission Dynamics In Wuhan, China, Of Novel Coronavirus–Infected Pneumonia. New England Journal Of Medicine.
- Lu, Q., & Shi, Y. (2020). Coronavirus Disease (Covid-19) And Neonate: What Neonatologist Need To Know. Journal Of Medical Virology, 92(6): 564-567.
- Moon, J. J., Suh, H., Li, A. V., Ockenhouse, C. F., Yadava, A., & Irvine, D. J. (2012). Enhancing Humoral Responses To A Malaria Antigen With Nanoparticle Vaccines That Expand Tfh Cells And Promote Germinal Center Induction. Proceedings Of The National Academy Of Sciences, 109(4): 1080-1085.
- Ovalı F, (2020). Yenidoğanlarda Covid-19 Enfeksiyonları. Anadolu Kliniği Tıp Bilimleri Dergisi, 25(Supplement 1): 23-45.
- Özatay, F., & Sak, G. (2020). Covid-19'un Ekonomik Sonuçlarını Yönetebilmek İçin Ne Yapılabilir?. Türkiye Ekonomi Politikaları Araştırma Vakfı, Tepav Politika Notu, (202005):1-8
- Özcan, H., Elkoca, A., & Yalçın, Ö, (2020). Covıd-19 Enfeksiyonu Ve Gebelik Üzerindeki Etkileri. Anadolu Kliniği Tıp Bilimleri Dergisi, 25(Supplement 1): 43-50.
- Özkoçak, Y. (2016). Türkiye'de Akıllı Telefon Kullanıcılarının Oyalanma Amaçlı Tercih Ettikleri Mobil Uygulamalar. Global Media Journal: Turkish Edition, 6(12).106-130
- Shi, Z., & Hu, Z. (2008). A Review Of Studies On Animal Reservoirs Of The Sars Coronavirus. Virus Research, 133(1), 74-87.
- Song, P., & Karako, T. (2020). Covid-19: Real-Time Dissemination Of Scientific Information To Fight A Public Health Emergency Of International Concern. Bioscience Trends. Bioscience Trends Advance Publication Advance Publication Doi: 10.5582/Bst.2020.01056
- Sullivan, S. G., Chilver, M. B., Carville, K. S., Deng, Y. M., Grant, K. A., Higgins, G., & Tran, T. (2017). Low Interim Influenza Vaccine Effectiveness, Australia, 1 May To 24 September 2017. Eurosurveillance, 22(43). Pii=17-00707. Https://Doi.Org/10.2807/1560-7917.Es.2017.22.43.17-00707
- Surveillances, V. (2020). The Epidemiological Characteristics Of An Outbreak Of 2019 Novel Coronavirus Diseases (Covid-19)—China, 2020. China Cdc Weekly, 2(8): 113-122.
- Şahan, C., Özgür, E. A., Arkan, G., Alagüney, M. E., & Demiral, Y, (2020). Covid-19 Pandemisi'nde Meslek Hastalığı Tanı Kılavuzu.
- Til, U. D. A. (2020). Yeni Koronavirüs Hastalığı Hakkında Bilinmesi Gerekenler. Ayrıntı Dergisi, 8(85):53-57
- Uğur, N. G., & Turan, A. H. (2015). Üniversite Öğrencilerinin Mobil Uygulamaları Kabulü Ve Kullanımı: Sakarya Üniversitesi Örneği. Journal Of Internet Applications & Management/İnternet Uygulamaları Ve Yönetimi Dergisi, 6(2);63-79
- Van Doremalen, N., Bushmaker, T., Morris, D. H., Holbrook, M. G., Gamble, A., Williamson, B. N., & Lloyd-Smith, J. O. (2020). Aerosol And Surface Stability Of Sars-Cov-2 As Compared With Sars-Cov-1. New

England Journal Of Medicine. N Engl J Med 2020; 382: 1564-1567 Doi: 10.1056 / Nejmc2004973

- Vijgen, L., Keyaerts, E., Moës, E., Thoelen, I., Wollants, E., Lemey, P., & Van Ranst, M. (2005). Complete Genomic Sequence Of Human Coronavirus Oc43: Molecular Clock Analysis Suggests A Relatively Recent Zoonotic Coronavirus Transmission Event. Journal Of Virology, 79(3): 1595-1604.
- Wilson, M. E., & Chen, L. H. (2020). Travellers Give Wings To Novel Coronavirus (2019-Ncov). Journal Of Travel Medicine, 2020, 1–3 Doi: 10.1093/Jtm/Taaa015 Editorial
- World Health Organization. (2020). Preparedness, Prevention And Control Of Coronavirus Disease (Covid-19) For Refugees And Migrants in Non-Camp Settings: interim Guidance, 17 April 2020(No. Who/2019-Ncov/Refugees_Migrants/2020.1). World Health Organization.
- Wu, Z., & Mcgoogan, J. M. (2020). Characteristics Of And İmportant Lessons From The Coronavirus Disease 2019 (Covid-19) Outbreak İn China: Summary Of A Report Of 72 314 Cases From The Chinese Center For Disease Control And Prevention. Jama.323(13): 1239-1242
- Yaman, F., Dönmez, O., Avcı, E., & Yurdakul, I. K. (2016). Integrating Mobile Applications Into Hearing Impaired Children's Literacy Instuction.Education Ans Sciences,41(188): 153-174
- Yusuf, A. C. A. R, (2020). Yeni Koronavirüs (Covid-19) Salgını Ve Turizm Faaliyetlerine Etkisi. Güncel Turizm Araştırmaları Dergisi, 4(1): 7-21.
- Zhang, J., Zhou, L., Yang, Y., Peng, W., Wang, W., & Chen,
 X. (2020). Therapeutic And Triage Strategies For 2019
 Novel Coronavirus Disease in Fever Clinics. The Lancet
 Respiratory Medicine, 8(3), E11-E12.