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# C19 – SCIENCES & HUMANITIES

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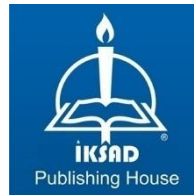
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## **PREFACE**

Since the World War II, COVID-19 pandemic has been considered as a major challenge towards humankind and a global health calamity of this century. Human civilization has faced several instances of health-related outbreaks in the history due to many viruses. COVID-19 has been spreading rapidly throughout the world and has impacted health, economy, education and social dynamics of the population enormously. The first International Conference on COVID-19 Studies conducted by Ankara, Turkey was held from 21-23 June, 2020 to illustrate the impact of this pandemic on whole society and globe. The global impact of COVID-19 was presented and discussed around several areas such as economics, business, politics, education, sports, marketing, tourism, culture, health and medicine, transport, information technology etc.

The objective of this edited book is to present the investigations based on the extensive research on the different areas of life impacted by COVID-19 pandemic and the possible solutions to the challenges faced by people during this testing time. The chapters included in this book were presented in the conference via virtual or face to face mode. The focus of these chapters was placed around COVID-19 pandemic's impact on online customer's behaviour in Turkey, Post-Covid management and organisation thought, conceptualisation of this pandemic in terms of Turkish metaphors, health management perspective of this virus, impact of COVID on education system and

measures taken for crisis management and rethinking assessment practices in online teaching-learning during this pandemic at school level in India.

Significantly, the chapters accepted for presentation in the conference and publication in this edited book address diversity of areas which has been impacted by COVID-19 pandemic. The ideas that could be emanated from these chapters would definitely help us know what are the challenges posed by this virus and the possible solutions to turn these challenges into opportunities and would definitely pave way for unravelling many of the issues pertaining to management, education, health and the conceptualisation of COVID-19.

We congratulate the contributors whose chapters would find a space in the present publication. We believe, they will be a great eyeopener for those who are curious readers and always on the lookout of the solutions to some of the emergent problems with reference to COVID-19.

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**CHAPTER 1**

**MANAGEMENT AND ORGANIZATION THOUGHT  
AFTER CORONA (COVID-19)**

Prof. Dr. Adnan CELIK<sup>1</sup> , Dr. Emre NALCACIGIL<sup>2</sup>

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## **INTRODUCTION**

It is a known fact that the first man united forces to protect himself against the power of nature and wild animals. Therefore, the phenomenon of management and organization goes back as far as human history. Human history is generally treated as "prehistoric times" and "historical times". It is considered as the "Stone" and "Mine" ages. There are "rough-chipped-polished" stone separations in stone periods, respectively. The stone age includes the most primitive period of humanity. Initially, stones in nature were used directly. Tools and equipment obtained by processing them in the following periods; used in security, hunting and agricultural activities. In the mining period, there is a distinction of "copper-bronze-iron", respectively. In this period, tools and materials were made of copper. Bronze was obtained from the mixture of copper and tin, plow was found, and trade for excess agricultural products was started. Subsequently, with the processing of iron, production of quarries and workshops started. The writing was invented towards the end of the mining periods, where trade started to develop.

The invention of writing has been an important development for the recording of history, the expression and sharing of thoughts. The eras, which we call historical periods and have reached the present day through different phases, have been subjected to a five-part distinction. The period starting with the discovery of the writing (4000-3500 BC) and until the fall of the Western Roman Empire (476) was called the "First Age". The time period from the fall of Western

Rome to the conquest of Istanbul by the Ottoman Empire (1453) was defined as the "Medieval Age". The dimension from the conquest of Istanbul to the French Revolution (1789) was called the "New Age". The term "Modern Age" from French Revolution to 2000s; The years after 2000 were named as "Cyber Age" (Baransel, 1979: 215; Simsek, et al., 2019: 30-31). Systematic expression of business science in general and management and organization in particular was mostly in the recent and cyber ages.

Industrial revolutions had a significant impact on the development of business science and management thought. In the "Industrial Revolution" caused by coal and steam machines, managerial thoughts were mostly evaluated in business economics. The "2nd Industrial Revolution", which includes steel, oil, electricity, automobiles and first flight equipment, was the first time that classical theories were exhibited. A different understanding called neo-classical approach has been brought up to the middle of the Industrial Revolution. The "3rd Industrial Revolution" has developed in similar periods with the system and contingency approaches that form modern theories. The "4th Industrial Revolution", which intensifies post-internet developments, social media organization, artificial intelligence and full automation, and the "5th Industrial Revolution", which brings human and machine interaction to completely digital platforms, met new theories developed after modern times (Ferreira and Serpa, 2018: 28 -31; Nahavandi, 2019: 4371; Simsek et al., 2019: 29-30).

This study titled “Management and Organization Thought After Corona (Covid-19)” was organized in three separate sections. First of all, management and organization thought were explained in detail. Then the new generation corona is defined. In the last title, it was tried to analyze how the thought of management and organization after pandemic will be shaped. The article was concluded with a general evaluation.

## **1.MANAGEMENT AND ORGANIZATION THOUGHT**

### **1.1. Historical Development of Management and Organization Thought**

In order to realize the common goals of the groups of people, there is a management phenomenon wherever and whenever they are directed towards the target together, in the form of collaboration, and then managing-managed or leader-followers by doing a division of labor among themselves. Although the arts are considered to be the oldest, the emergence of management as a branch of science is relatively new. Although it has been perceived as organizing the individual and social life since the early periods, the relatively new theoretical and practical studies are one of the main reasons for this (Koontz and O'donnel, 1972: 11-21; Koçel, 2018: 51-57; Şimşek and Çelik, 2019: 3).

It can be argued that group-based management and organization functions started to expand, especially in the "Antique" period and beyond. In other words, there have been important administrative activities in Mesopotamia, ancient Egypt, Mediterranean Region, Chinese society, Indian Region, Turkish, Mongolian and Tibetan cultures. There are also various organizations in the European continent in the periods following the "first" era and in the "medieval" ages. Because slavery evolved into serfdom, some rights and freedoms granted to the church environment and nobles became known to other people over time. The Renaissance era, which was the period when the patristic structure and scholastic philosophy turned into positive thinking, also provided remarkable developments. People's search for full freedom became the first harbinger of the social structure of Europe. With the renaissance and subsequent reforms, and Europe that came to the fore in the race. In the "new" and "modern" ages, the French Revolution, the First World War, the Bolshevik Revolution, the United Nations Organization, the Second World War, the Universal Declaration of Human Rights, the Human Rights Convention, the establishment of the European Union are remarkable. As new states rose, there were also collapses. New collaborations and communities were born, urbanization and industrialization increased, the working class was organized, and demands for individual freedom and trade union rights and social state were accelerated. The last period we call "Contemporary" is the "Space" and "Knowledge" ages. Contemporary approaches have developed new expansions by evaluating previous phases and made important contributions to

management and organizational thinking (Hancerlioglu, 1974: 37-122; Hans, 2013: 3-540; Cevizci, 2017: 3-21; Simsek, et al, 2019: 25-31).

Management and organizational thinking also interact with industrial revolutions. The "Industrial Revolution" caused by coal and steam machines in 1776 supports the general business movements. This is why it is so important for James Watt to operate the steam engine at the Birmingham Soho Works factory in 1764. With the adaptation of engine power to weaving looms, train locomotives and ships, production, transportation and marketing have become quite easy. This period when industrialization started in western European countries, especially in England, was the beginning of the First Industrial Revolution. The "Industrial Revolution", which started with the oil, electricity, and natural gas energy that started in 1856, and subsequently air transport vehicles, includes the periods of the Classical (Traditional) Theories and Neo-Classical (Human Relations) Theories. The "3rd Industrial Revolution", which started in the 1960s and used the first internet, corresponds to the birth of Modern Management Theories. New computing devices, advanced internet applications, artificial intelligence and neural networks, contemporary automation, robot technology, virtual structures and cyber systems, which became widespread in 2010, were covered in the "4th Industrial Revolution". The "5th Industrial Revolution", which has been discussed in recent years, is on the agenda; gene arrangements carried driverless vehicles, solar rooftops, bionic eyes, humanoid robots and other digital platforms. It is witnessed that Post-Modern Management

and Organization Theories are becoming more and more common in Industry 4.0 and Industry 5.0 periods (Ferreira and Serpa, 2018: 28-31; Nahavandi, 2019: 4371; Simsek et al., 2019: 29-30).

## **1.2. Theories Shaping Management and Organization Thought**

Here, the generally accepted ranking in the literature is followed. In other words, classical, neo-classical, modern and post-modern theories are explained separately.

### **1.2.1. Classical (Traditional) Theories**

Under the name of classical management theories, mainly three main approaches are emphasized. The main reason for this distinction is that large-scale enterprises based on production have not yet existed until the 1st Industrial Revolution. For this reason, the historical phases described above are considered as “pre-scientific period”. Three approaches that came to the fore with scientific management are gathered under the classical (traditional) main topic. These; "Scientific Management", "Management Process" and "Bureaucracy" approaches. Scientific management has insisted that if managers accept the scientific approach and look at the design of the works that make up the organizational structure, they can reach high efficiency goals in their organizations. As a result of this, studies such as time and motion study, business economy, incentive wage system and business standards have become widespread. Acting on economic and technical rationality, Taylor assumed that employees will always seek higher wages, behave towards this, and may be deprived of this only if their

physical strength is insufficient. Therefore, there is no reason for those who work against this system (Taylor, 1947: 39; Genc, 2017: 79; Simşek and Celik, 2019: 121).

The Management Process Approach was based on the idea of economic efficiency and efficiency just like scientific management. From this point of view, it can be argued that this is a continuation of scientific management and has been complemented in some ways. However, the management process approach is a separate and more comprehensive approach than scientific management, not only in terms of various aspects of the organizational structure that constitutes the static aspect of the business, but also in developing specific principles related to all areas of management that form the dynamic aspect of the business. emerged as. With the additives of Fayol, the subject of management has become a field that can be taught in schools and has certain principles. Fayol also made important contributions to the organization theory in terms of leading the establishment of an organizational structure based on certain principles (Fayol, 1949: 20-41; Simsek and Celik, 2019: 127).

The third approach of classical theory was the “bureaucracy” approach developed by the German sociologist Max Weber in the early 1900s. Bureaucracy as an organizational structure, model or approach; Contrary to expressing a concept that disrupts the appearance of the works as used in daily conversations, leads to unnecessary correspondence and time losses and gives rise to today's tomorrow, it refers to an ideal form of organization and management.



In other words, according to Max Weber, it should be understood as an ideal organizational structure in terms of bureaucratic structure, effectiveness and rationalization (Weber, 1946: 220-228; Baransel, 1979: 165-167; Simsek, 1991: 45).

Economic efficiency underlies the classical management theories. According to Taylor, the way to achieve organizational effectiveness is based on the scientific basis of management. The main issues that the “management process” approach to ensure effectiveness are the division of labor and specialization, division into departments, and the establishment of a rational organizational structure, where authority and responsibilities are clearly determined. According to the bureaucracy approach, the effectiveness is the formal execution of inter-individual relations, a division of labor based on functional specialization, a clearly defined hierarchical structure, the establishment of authorities with established authorities and responsibilities within this structure, the appointment of experts to certain authorities, the determination of the methods for the work and finally It is envisaged that the selection of the personnel will be made according to the technical knowledge and skills. The principles of Classical Management Theory have always been gathered around the result of how the best organizational structure can be created. In addition, these principles have been accepted as principles applicable to organizations of all types and types. As a result, organizational structures have emerged, called "bureaucratic" or, more generally, "mechanical". Such organizational structures did not pay special

attention to the human element, but did not make it a part of the model. The structure was created by bringing together the elements other than the human element in line with the determined principles, and with the introduction of the human element into this structure, it was assumed that it would behave in the direction predicted by the relevant stage as a machine (robot). It is assumed that the personal problems of the employees will not be reflected in the workplace, and the time spent in the business and the life outside the business are separate. Classical theories have created the first systematic approaches to organization and management and equipped the manager with specific tools to solve problems they may encounter. However, over time, the tools predicted by the model were insufficient in solving some problems, and on the other hand, the fact that the researches showed results contrary to the classical prediction made it necessary to add new concepts to the model. The conclusion that can be drawn from all this written is not that the classical organization and management theories have no validity today. On the contrary, despite the considerable limitations they carry in some ways, the principles of classical theories are still applied in many respects, and have thus been accepted to some extent that they are valid (Taylor, 1947: 39; Fayol, 1949, p.20-41; Weber, 1946: 220-228; Baransel, 1979: 203-205; Simsek, 1991: 48).

### **1.2.2. Neo-Classical (Human Relations) Theory**

The classical organization and management theory that emerged in the early 1900s continued until the 1930s as the only theoretical model that guided the structure and operation of organizations in both America and Continental Europe. However, as a result of the economic crisis that started in 1929 and shook the world, on the other hand, the deficiencies and inadequacies of the classical organization and management theory became more and more heard as a result of the increase in various organizational problems. The announcement of the results of the Hawthorne research under the leadership of behavioral scientists led to the emergence of a new trend in examining organizations. This trend, which emerged under the name of Human Relations later formed the infrastructure of the fields of “Human Resources Management” and “Organizational Behavior” (Baransel, 1979: 215; Simsek, 1991: 66-67).

Scientists from the disciplines of psychology, sociology, social-psychology and anthropology have contributed significantly to the formation of the Neo-Classical theory. They tried to explain “how people behave and why they behave so” and “relationships between structure and behavior” within the organizational structure. In the first plan, unlike classical organization and management theories that emphasize the formal structure of the organization and represent its natural aspect, neo-classical theories have tried to show that the main element that determines the effectiveness of an organization is human. The expected natural result of this effort; The main idea or idea of the

behavioral approach is to understand the "human" element working within the structure of this organization, to make maximum use of its abilities, to examine the interactions between structure and human behavior, to recognize the social groups and their characteristics that occur in the organization, and briefly The new tools and concepts that the administrator can use have been developed and put under his command. While this approach is based on the economic rationality understanding of classical theories, it also added the dimension of satisfying people not only financially but also socio-psychologically. Another feature of the behavioral approach has emerged in the way that it sees the organization as a "social" structure, which is formed by the gathering of people with various needs, rather than being a structural process (the perspective of classical organizational theorists). As a result, the main issues emphasized by the behavioral approach are; human behavior, interpersonal relations, formation of groups, group behavior, informal organization, perceptions and attitudes, motivation, leadership, organizational conflicts, etc. (Baransel, 1979: 215-216; Simsek, 1991: 67-68; Eren, 2003: 21, p.21.-22).

As a result of the developments in social sciences after 1950s, reactions started to come to the Neo-Classical management theory and criticisms were made in various aspects. These can be listed as follows: "The management view, which we call 1. Neo-Classic, has emerged as a reaction to the classic view of management. In other words, the most important feature of neo-classics was their criticism

of classical management theory. The main reason for these criticisms was that the classical management representatives put forward an incomplete view as they considered a single aspect (formal) of the organization and management. 2. It is not always possible to think that the organization is a happy family and the manager is a caring father. 3. It has been an issue that the representatives of both theories argue that there will be no disputes in the organization that has members who are fully material or morally satisfied, and that they are significantly wrong. There is an inevitable contradiction in organizations today. 4. Both theorists tried to explain the events for one reason and overlooked the fact that many factors played a role in organizational efficiency (Simsek, 1991: 78-79).

### **1.2.3. Modern Theories**

The inadequacy of classical and neo-classics in solving management and organizational problems necessitated the development of new research and new approaches in this field. Especially the approach of the two theories to the human element in the business from very different and extreme aspects required a middle way to be found in this regard. Modern management theory is largely due to the need and necessity to compensate for the partial shortcomings of the two approaches previously described and to harmonize their positive aspects. Indeed, this theory has handled and interpreted the attitudes and suggestions of classical and Neo-Classical management theory from a new and different perspective and tried to reach a synthesis. This new rational view stems from the “General System Theory”.

When it comes to modern management theories, “System” and “Contingency” approaches come to mind (Eren, 2003: 51-74; Kocel, 2018: 278-305; Simsek and Celik, 2019: 148-149).

The basis of the System Approach is the realization of the purpose of the whole, which is considered as a “system”. In this view, what matters is the whole, parts are important to the extent that it contributes to this whole. When the system approach is mentioned in management, it is understood that the approach that deals with the management events and the units in which these events occur is related to each other. In other words, the system approach; it treats the organization as a whole, consisting of various parts, processes and objectives. Among the elements that make up the organization are people (employees), machines, material resources, tasks, formal authority relations and small informal groups. These are linked by communication and decision-making processes to achieve goals. Therefore, the organization is the main system. This system includes interrelated and interdependent subsystems. The manager realizes this relationship and dependency while planning, organizing, executing, coordinating and supervising. Before starting to examine the organization as a system, it is necessary to briefly touch upon the benefits of the system approach.

By using the system approach in management, the opportunity to get rid of the stiffness and closeness of the classical theory has arisen. In other words, this approach provided flexibility to organizations and made it possible to examine them more comprehensively. In addition,

the findings of the neo-classical management theory have been started to be applied more effectively (Kocel, 2018, p.279; Simsek and Celik, 2019: 150-151). The system approach contributed to management thought and practice as follows: “1. Organizations are accepted as an open system related to their environment. 2. The interaction between the parts of the system is highlighted. 3. Variable and parameters are viewed from a holistic perspective. 4. It was possible to better evaluate the suggestions, findings and features of Classical and Neo-Classical management theories and compare their advantages and weaknesses. With the system approach, a new and quite different perspective has been brought to administrative thinking; the number of concepts and tools available to managers has increased” (Hicks and Gullett, 1981: 165-166; Kocel, 2018: 291).

In the Contingency Approach, "situation" or "conditions" are emphasized. This model aims to find the management application that will be considered as the most appropriate in this situation, according to the situation in which each business is located, instead of a management application that can be applied anywhere and for any business. When the situations change, the management practice will also change. Contingency is an approach that explores in which situations previous approaches may be more useful and effective. Another feature of this approach is that it treats businesses as systems. As will be remembered, the system approach considered the business as a whole consisting of various sub-systems. The contingency approach focuses on the relations between these sub-systems, on the

one hand, which are the most appropriate management and organizational techniques for that business, according to the characteristics of the external environment. The “status” factor, which is the key concept of the contingency approach, is mainly evaluated according to two factors. These are the environmental conditions in which the business uses the technology. The contingency and accompanying System approach differ from the previous ones on some issues. The classical approach paid more attention to the “business” aspect than the “human” aspect in management and pushed the human to the second plan. The classics think that "if everything is planned and standardized from the beginning, man will do what is asked of him without objection". Modern theories investigated in which situations the classical approach may be valid. In other words, instead of the argument that the classics have “a single management style that is valid everywhere and always”, the argument that the contingency approach can be found and applied “different best management style for different situations” has started to be accepted. Neo-Classical theory put forward the human element that classical theory does not give importance and has argued that the "democratic style of administration" will always give successful results. This time, the modern approach has evaluated this argument in terms of the “situation” and investigated in what cases a democratic and in which cases an authoritarian form of organization and administration would be most appropriate. Thus, it is tried to reveal under what conditions the neoclassical approach suggests (Kast and Rosenzweig, 1985: 115-



117; Simsek, 1991, p.87-88; Eren, 2003: 51-74; Kocel, 2018: 300-304).

When transitioning from modern to post-modern structure, the connection processes of system and contingency approaches are also important. In these, the idea of radical change is mainly dealt with in two theoretical aspects. Environmental Adaptation Approaches (structural condition-dependency, resource dependency, organizational grouping, organizational strategy, information management, agency, transaction cost and institutionalization) argue that change is possible. Another is the population ecology approach, and it has the idea that organizations are difficult to change due to structural inertia (Garcilazo, 2011: 119).

#### **1.2.4. Post-Modern Theories**

This concept, in general, means "after modernism or beyond". Post-modernism started to affect philosophy, economic thought, literature, architecture and fine arts closely from the mid-20th century. The trend predicted the assessment of established feelings, thoughts, structures and behaviors in skepticism and critical approach. In this study, only the dimension of the management discipline of the thoughts and movements developed after modernity was evaluated. The subject started to form an agenda in management and organization discipline since the 1990s. Post-modern management theories, rather than rejecting wholesale previous approaches were evaluated in a contemporary building upon the size of the organizational structure and behavior. It is aimed to transfer the innovations brought by socio-

technological changes to the organizations accordingly. Instead of a single best solution that is valid everywhere and at any time; Each function specific approaches and technologies have brought to the forefront. Those who systematically evaluate managerial thinking generally agree on classical, neo-classical and modern management theories. In some of the post-modern nomenclature, there is no consensus yet. Some of them were perceived as fashion, and were never accepted by business or academic circles. Others have been accepted in the context of post-modern management theories (recent developments) (Berg, 1989: 201-215; Simsek and Celik, 2019: 211).

Among the noteworthy developments in terms of our subject from the 1960s to the end of the 1980s, the following are important; “The trend towards modern business administration, the proliferation of the management profession, management psychology, organizational behavior, professional management, the participation of personal computers in business life, ARPANET, mobile phones, exchanges, OPEC oil crisis and the US Black Monday crisis”. These have been a sign that business and management thinking is pregnant with some good or bad developments. From the early 1990s to the present, the following are remarkable; “www (http, html) specifications, email and text messaging, cold war stop, NAFTA, WTO, AB-Maastricht treaty, colonization, artificial intelligence, robot technology, hybrid cars, flat screen displays, International Space Station, Google search, iMac , Bluetooth, camera on phones, USB flash drives, Mac OS X, Windows App, Facebook, YouTube, smartphones, iPad, hybrid cars, unmanned

vehicles, crowdfunding, Tesla Powerwall, irradiation, Google Assistant, web-based commerce, cloud computing, drone trade, quality movements, environmental awareness, social media, industrial democracy, the effectiveness of global companies, virtual organization, home-office arrangements, trade union movements, women managers, women's rights, children's rights, refugee movements, climate crises, Asian crisis, Mortgage crisis , Covid-19 ”. These positive or negative developments, which came to the fore in the social, economic and technological fields, have also affected the organizational structures closely with individual life (Webb, 2019; Ryan, 2019; Simsek, et al, 2019: 29).

The above developments have accelerated the birth of many new management and organizational theories. Although some of these were also on the agenda during previous management and organization periods, they continued to exist by updating in the light of developments. Others were perceived as fashion and could not find the necessary support from the relevant circles. Post-modern management approaches are generally mentioned in academics, business organizations, sector representatives and other relevant circles; “Management by Objectives, Management of Conflict and Organizational Creativity, Strategic Management, Change Management, Organization Development, Crisis Management, Stress Management, Career Management, Team Management, Learning Organizations, Total Quality Management, Change Engineering, Competitive Benchmarking, Lean Organization, Empowering

Personnel. Theories or approaches can be evaluated within this scope (Simsek and Celik, 2019: 211).

## **2.CORONA (COVID-19)**

### **2.1.Important Viruses in Management and Organization Theories Period**

On the basis of the early 1900s, when management and organizational theories began to be revealed clearly, some issues may be highlighted. The death of more than 40 million people as a result of the Spanish Flu (H1N1 virus / Pigs) between 1918-1919 has affected many things. This crisis environment is the years of “Traditional” management approach. Asian Flu (H2N2), which killed about 1 million people in 1957-1958, corresponds to the end of the "Neo-Classical" period. The Hong Kong crisis (H3N2), which corresponded to 1968-1970 and killed approximately 1 million people, is the beginning years of the "Modern" management theory periods. The HIV / AIDS (virus / chimpanzee) problem in 1981, affecting more than 25 million people, was in the middle of the modern era. “Post-Modern” management thought periods came to the forefront of the following types of health problems: “Swine Flu (H1N1), which affected about 200 million people in 2009-2010; SARS coronavirus from bat and musk cats from 2002-2003; Ebolavirus originating from wild animals in the period 2014-2016; MERS coronavirus from bat and camel in 2015; Covid-19 (LePan, 2020) at the end of 2019.

Viruses that will negatively affect human health have always existed in world life and are known to be from now on. For example, it is suggested that coronaviruses will continue in the following periods, albeit with different names. It is noteworthy in this sense that some emergency medicine specialists in China claim that some kind of virus (Covid-20), which has longer incubation times than Covid-19, is on the agenda (Bloomberg News, 2020). This study is prepared for the possible interaction of management and organizational thinking with the last coronavirus (Covid-19), which affects the whole world, but the cause is still unknown.

## **2.2. Corona (Covid-19) and Its Spread Process**

The first epidemic information under Corona (Covid-19) came from Wuhan (Hubei, China) on December 1, 2019. A virus that emerged in Wuhan province of China started to affect many regions (Hubei, Zhejiang, Guangdong, Henan and Hunan) and cities such as Beijing and Shanghai in January. The problem has also spread to countries like Thailand, the Republic of Korea, Japan, the Philippines and Vietnam. “High fever, dry cough, fatigue, few gastrointestinal infection symptoms” are among the indicators of this virus, which is a new generation disease that can be transmitted from person to person by droplet or contact. It also endangers primary healthcare workers if there is a lack of tight infection control or appropriate personal protective equipment (WHO, 2020 / a: 1; (WHO, 2020 / b: 1; Wu, Chen, and Chan, 2020: 217-220).

The new generation coronavirus contains different dimensions than SARS, Ebolavirus and MERS. On January 30, 2020, the World Health Organization (WHO) announced SARS-CoV-2 (Covid-19) as an internationally worrying public health problem. There have been different approaches pointing to bats as the source of Covid-19. However, a pandemic transmitted from person to person was encountered in the following period (Guo et al, 2020: 1). The virus has started to affect the European countries, the United States (USA) and the world, and has brought various comments. The American administration and some countries accused WHO of not providing timely information. It was announced that the first infected person in the USA was someone from Wuhan in mid-January. On February 28, 2020, WHO raised Covid-19 to a "very high" level in global risk assessment and declared it a global epidemic (Moore and Bell, 2020: 3). Data from a total of 215 countries under WHO has reached terrible levels. As of 25 May 2020, the total number of cases is 5.581.003; The number of people who died was 347,516 people (Worldometer, 2020).

### **3. MANAGEMENT AND ORGANIZATION THOUGHT AFTER CORONA (COVID-19)**

Corona (Covid-19) changed many things. It will either take a lot of time to return to the past, or some lifestyles will never return. Infection specialists, microbiologists, cardiologists, pharmacologists, dieticians, sociologists and psychologists have never been on the agenda before. All media outlets around the world have opened their screens to scientists from this profession. These information and

activities supported by social media have become indispensable elements of daily life. In this title, firstly, the effects of the new generation corona on the socio-economic structure and then how it will affect the management and organizational thinking are discussed.

### **3.1. Effects of New Generation Corona on Socio-Economic Structure**

In addition to the health threat posed by the epidemic, it brought along various economic and social problems on a global scale. Although it is not known at the moment whether it is permanent or not, there are differences in social values and nations have begun to close into themselves. States have adopted the principle of "my own citizen first" to ensure and maintain their existence, unity, functioning and continuity. Although universal truths continue to be accepted in general terms; each society has turned to practices that reflect its common feelings, thoughts, goals and interests. This new situation in the world and states scale has also affected individuals closely. People's attitudes towards certain objects and changes in their behavior are also observed. New situations have occurred in the economic field as well as the social dimension. The global economic bottleneck has affected countries on a macro basis and individuals on a micro scale. There are partial changes in investment, production, employment, marketing, savings and spending patterns.

It is also worth noting the interaction between Covid-19 and urbanization and industrialization. The rapid increase in the size of urbanization and industrialization has undoubtedly affected social life. The growth of large-scale industrial enterprises and significant developments in all aspects of the service sectors carried the rural population to the metropolitan areas. The dizzying speed in human needs or expectations has also led to the rapid depletion of resources. Inter-country and intercultural business negotiations, tourism movements and other travel have facilitated communication between communities. Besides these benefits, these developments also have their drawbacks. Globalization has also facilitated virus mobility. After Covid-19, a significant number of countries turned to various practices aimed at lowering the infection rate. While the protection of social distance and mask applications came to the fore, trade between countries continued, albeit partially. An important development that came to the fore here was the speed towards digital technology (LePan, 2020).

Covid-19 can bring the worst global recession after the Great Depression. According to the "World Economic Status and Expectations Report" published by the UN, the economies of developed countries will shrink by 5% in 2020. The assumption that the total loss of production in 2020 and 2021 will be approximately \$ 8.5 trillion draws attention to the economic dimension of the pandemic. Measures to solve problems in this direction may vary from country to country. So there may be disproportionate. It is known that



on average 36% of people in OECD countries are financially vulnerable. This figure even exceeds the level of 60% in the more backward. Employees in many countries work without an employment guarantee. Their social security umbrella is also inadequate. While developed countries provide various economic supports to business owners and their employees, the same supports are not found in underdeveloped or developing countries. Looking at the supply side of the economy, it will take time for companies that have to reduce their activities to restart production and contribute to global supply chains. It is important practices to shift tax debt of enterprises, to support personnel expenses, and to provide interest-free credit support to new investments and employment. Postponing the mortgage loan debt of households, lowering tax rates and making additional payments to employees can also stimulate the market (Hynes, Linkov and Trump, 2020: 3).

The mandatory transformation in the economy and social life due to the epidemic is expected to highlight the software, communication, online education, data storage, online retail and logistics sectors in the coming years. Uniquely described, the Covid-19 outbreak necessarily transforms businesses and the economy, along with human behavior worldwide. A concrete example of this is experienced in the service sector. Those who comply with the “stay at home” calls by the governments have started to receive many services such as food, grocery shopping and bill payments via e-commerce. Industry 4.0 and Industry 5.0, which started to be discussed more in recent years, are

now important facts. Especially large-scale businesses that are not suitable for these will have a hard time in the future. For digital transformation, it is necessary to start lean production and increase the production accordingly. It is also important to move marketing to e-commerce in many sectors. The software, communication, online education, data storage, online retail and logistics sectors are heading towards a structure that is needed. Of course, in this case, companies from the US and China appear before the race. The USA and China are about 75% in patents on block chain technology; 50% of spending on internet of things; 75% in the market for cloud accounts; it has 90% beauty in global scale digital platform companies (Işık, 2020: 1).

### **3.2. How Will Corona (Covid-19) Affect Management and Organization Thought?**

Pandemic has caused many services to stop or interrupt. While public institutions cannot fully operate, production and marketing activities of enterprises can be difficult. It is known that many companies are in a difficult situation. Even if the outbreak is overcome, it will leave various problems that need to be resolved. It can be thought that those who can overcome them will have experience. In order to get out of the crisis by learning and to respond to the possible developments, the following issues are recommended; “Effective follow-up of developments, access to real information, appointment of personnel suitable for critical tasks, management style open to change, avoiding bureaucratic difficulties, effective communication, employee

satisfaction, flexible production, ease of working from home, supply chain interaction, solution and result oriented (Reeves, et al 2020: 1).

Social contract schemes on the way back to normal, defining the future of business and consumption, economics of scale, rapid mobilization of resources, transition from globalization to regionalization have become more and more talked about. Pandemic has drawn attention to the risks in the global supply chains of the world, among other things. For example, about 60% of the global demand for copper, iron ore, coal and nickel came from China. The difficulty of demanding raw materials, operating materials, auxiliary materials or intermediate products in a possible crisis has been demonstrated. This shows the need for the preparation of alternative plans (Tonby and Jonathan, 2020: 1).

The opinions of the top executives of famous companies and academics that attended the panel, which discussed how the world will look after COVID-19, are remarkable. First of all, it was stated that a common war was fought against a virus threatening the health of the whole world. Everyone agrees that the world will not be the world before pandemic. It was emphasized that every business leader should also be a forward-looking healthcare leader. Pandemic will not cause a pure banking and finance problem like the 2008 crisis; it is stated that it will cause difficulties in issues such as “protection of capital structure, company continuity, communication styles, production styles, marketing types and money transactions”. Failure of some countries' health institutions to give a good examination in this process

has questioned the trust in them. This gap is large enough to lead private sector health initiatives. Flexible working hours and working from home have become preferable. In other words, virtual applications are more preferred in travel, meeting and working arrangements. It is recommended that the current employees are important resources to overcome the crisis and that they continue to be employed with both private and state support. Within the scope of the panel, new opportunities that may arise after the outbreak were also mentioned. Mobile payments came into prominence for receivables and collections. Online banking, new generation financial organization and investment banking have been announced (Garrett, 2020).

Following the outbreak, investments in digital technologies and virtual organizational forms will come to the fore. Especially in the recession periods, those who did this made significant profits. The 2008 crisis and subsequent applications are typical of this situation. While the returns of companies with above average investments reached 6.23%; the remaining 3.88% compound remained at the gain. When the pandemic uncertainty disappears and the economy starts to rise again, investments will most likely pay off (Plant, 2020).

Pandemic can cause some trauma to managers and employees. Many people may not be distracted and set priorities. Some applications are needed to improve these and other problems. First of all, senior management should be flexible and compassionate. Employees can be given more flexibility in their work. Participation can be encouraged.

It can be made to feel open to creative ideas and trust in them. Some deductions can be made from home works and virtual applications. Work-life cycle can be observed more. Jobs can be redesigned to make them more meaningful and motivate employees. Cultures of creativity and generosity can be created in teams. In other words, the entire organization can be made more productive. As humans, we do not like uncertainty and unpredictability. When dealing with uncertainty, it is important to “design the future well, prepare alternative plans, learn from flexibility and similar events from the past” on an enterprise basis. It is also important to create team unity and a sense of belonging in the members. Global cooperation of governments, international organizations, employers' associations and employee representatives is needed to overcome macro level problems (Grant, 2020).

With the pandemic, "Crisis Management" has been much more discussed. The crisis is the tension that is "unexpected and unpredictable, which needs to be answered quickly and in a hurry, threatens values, goals and assumptions by disabling prevention and compliance mechanisms". In the studies on the impact of the crisis on businesses, the definition of "Deadly Disease" by psychiatrist Elisabeth Kübler Ross is remarkable. According to the author, patients first perceive the incident in the pain of having a fatal disease and then approach death through the following stages: “1. Denial and abstraction, 2. Anger-grudge, 3. Get in the way of getting used to time, 4. Depression and pain, 5. Accepting” (Meyers and Holusha,

1988: 8). In this case, crisis management, one of the post-modern management theories, can be considered useful. So managers should implement a good crisis management program. Crisis management includes preparedness or managerial practices for possible disasters. Here, it is essential to evaluate the signals effectively in case of a crisis. Necessary measures should be taken and implemented in order to overcome the crisis with the least loss. The aim is to be prepared for the crisis. In the organizational crisis management process, it is important to “get the early warning signals on time, prepare for the crisis, take control of the crisis, prudent optimism, make plans to return to normal state, draw lessons from the experiences or exit from the crisis” (Barton, 1994: 59; Mitroff, 1988: 15 -20; Smith and Spika, 1993: 33; Çelik, 2010: 79, 214-220).

Organizations and individuals who survived the crisis are expected to gain experience. In other words, learning individuals and learning organizations can be formed. Practices of those who succeed in overcoming the crisis may be the subject of benchmarking. Learning and benchmarking activities may have some difficulties. Due to the time constraint, these decisions should be made in confidence and speed. Reactivating production forms, evaluating houses as offices, and strengthening virtual applications when face-to-face communication cannot be established are areas that require individual and organizational mastery (Grant, 2020). For this reason, information technologies should be fully utilized and the understanding of virtual organization and information management should be expanded.

Nowadays, innovation and creativity management practices, which are widely used in some business lines, can also be used beneficially. Management psychology and organizational behavior discipline should be used to the maximum extent in overcoming the epidemic and subsequent administrative practices.

The interaction between Corona (Covid-19) and classical, neo-classical, modern and post-modern theories; It has been systematically evaluated in the title of conclusion and general evaluation.

#### **4. CONCLUSION AND GENERAL EVALUATION**

Corona (Covid-19) brought various changes to management and organizational thought, either positively or negatively. How will the new generation corona affect the thought of management and organization? As mentioned in answering the question, the usual forms of behavior have started to change. It is difficult to respond to the organizations in the short term whether they are permanent or not with their possible effects. However, various evaluations can be made in terms of generally accepted management and organization theories. For example, “Classical Theories”, on which economic efficiency were started to be more discussed in the corona period. Problems in the health system of many developed countries have revealed that organizing principles are not sufficiently implemented. Although bureaucratic structure is implemented as a form, various communication problems have arisen. The perception of “mechanical organization”, which is one of the criticisms directed to the traditional structure, continued in this period as well. Realizing this, the public

has started to show the “organic organization” supports especially needed by health professionals.

Many principles on which the Neo-Classical Theory was based were more sought after in this period. Every state, especially developed countries, is closed into itself. Tight protection of borders has been one of the solutions of the virus. Especially the closeness to communication between the European Union countries has been very questionable. While states put this distance to each other, domestic behavior varied. Despite the occasional curfew and the need for physical distance, society was able to show solidarity in itself. People shared their anthems, songs and solidarity messages using all kinds of communication tools. It was emphasized that human is a social entity and needs all kinds of physical and psychological support. The emphasis on "return home", "stay at home" or "there is life at home" has been a motto throughout the world. Since "isolation" applications, which come to the fore with the virus, turn people into almost desolate beings, a return to normal should be provided with the help of group dynamics.

In this period, the system and contingency approaches that make up the modern theories also came to the fore. There is a great need for interaction between state organizations, especially health and safety issues. However, there were important problems in practice. For example, it was revealed that the system and subsystem on a world scale are not fully understood. China, where the virus started, has been accused of miscommunication by some countries. It has also been



suggested that the world health organization cannot manage the global health system. Unfortunately, the mechanical, biological and social system associations within the world and the states could not be achieved. A limited number of countries were able to exchange materials and information with other countries. The world has turned into a closed system, albeit temporarily. Even if the epidemic was accepted as a pandemic and an important parameter was introduced, the common solution was late. Some countries, which are claimed to be very developed, pursue vaccines only for their own citizens and have increased both parameter and variable level problems. After all, "entropy", which is a typical indicator of closed systems, appeared at the level of individuals-organizations-states. The new "situation" and "conditions" must be well analyzed to manage the pandemic and beyond. There is a need for effective planning, organization, execution, coordination and control at all levels. For organizations to return to normal, compatible and sustainable management styles should be displayed.

Among the post-modern approaches that stand out in macro and micro scale, the strategic management of crisis and stress has been evident. The statement of UN Secretary General Antonio Gutterres, "Mental health services should be increased in the fight against the Covid-19 outbreak" supports this situation. Creativity is needed in individual and organizational terms and changes must be managed effectively. For the solution of the pandemic, the world should be clamped like a single organization and at least team management should be

established in vaccine studies. Change engineering is needed because some decisions need to be taken and implemented quickly. The return to new normal should be accelerated with information management, network organizations, strong virtual structures and some adhocratic applications. Strategic unions should be established for both public and private sectors on a global scale. While aiming for a healthy environment on a world scale, the services of public organizations should be increased, the private sector should be supported, and especially the career and social rights of all employees should be protected.

The theoretical information in this article is from the generally accepted literature. The information within the scope of Corona (Covid-19) consisted of scientific circles, the sharing of state authorities and information from popular sources since the outbreak started. As of now, there is no definitive solution for the virus. This is the main limitation of the study. Evaluations can be criticized or supported in the light of different data that may emerge in the future. It is believed that the dimension that management and organization thought will gain more clarity after pandemic in future studies.

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## **CHAPTER 2**

# **COVID-19 PANDEMIC'S IMPACT ON ONLINE CUSTOMERS' BEHAVIOUR IN TURKEY: A QUALITATIVE RESEARCH**

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## **INTRODUCTION**

Coronavirus (COVID-19) is an infectious respiratory disease that affects people. The disease, which first appeared in Wuhan, China in 2019, has spread worldwide since its discovery, causing a pandemic (World Health Organization, 2020). The COVID-19 outbreak represents a serious risk to public health, and most of the governments have tried to protect their citizens from the virus by closing parts of their economies (Kraemer et al., 2020). Many countries declared curfews and encouraged their citizens to stay at home (Hasanat et al., 2020: 85). The first COVID-19 case was announced in Turkey on the 11 of March (Euronews, 2020). From this date, Turkey has been trying to keep the COVID-19 outbreak under control by encouraging citizens to stay home and curfew.

In addition to affecting the whole world, the COVID-19 outbreak affected societies in economic, social and technical aspects. One of these effects is seen in the field of business.

Business models have been reversed and the needs for different products and services have changed rapidly. Today, consumers do not want to wait a long time for their orders, and they especially do not prefer to go to traditional stores. Consumers who could not go to stores because of the pandemic also turned to online shopping. For this reason, the COVID-19 outbreak accelerated the transition of consumers from traditional shopping to electronic commerce (e-commerce) (Hasanat et al., 2020: 86). E-commerce is a method that reduces physical contact to zero except the product is received by the

consumer (Hasanat et al., 2020: 85). In addition, reaching the product directly is extremely important not only for health, but also for practical matter, time and energy savings. From business perspective, the COVID-19 pandemic is defined as the great equalizer for e-commerce brands in every industry (Lopienski, 2020). From consumer perspective, small business and large business separation has disappeared in online shopping. On the other hand, businesses in every sector had to adapt to this rapid change (Nakhate & Jain, 2020).

E-commerce has provided solutions for people during COVID-19. The pandemic has caused consumers to change their shopping behavior and to increase online transactions in the field of e-commerce. In this study, it aims to find an answer if there is a change in the behavior of online consumers during COVID-19 pandemic period in Turkey. This study is critical for businesses as it reveals changes in consumer behavior in the COVID-19 outbreak process. Thus, businesses will be able to take necessary measures in line with changing consumer behavior and trends. In addition, this study will guide companies for their strategic plans in this direction and will reduce uncertainties.

This study consists of five sections. In the first section, the introduction is referred, in the second section, the studies in the field of e-commerce during the COVID-19 outbreak are examined. In the third section, the method is presented. The fourth and fifth sections include the findings and results of the research, respectively.

## **LITERATURE REVIEW**

In this section, researches on COVID-19 and electronic commerce are presented. As a result of the literature review, it is seen that there are a limited number of academic studies related to e-commerce during COVID-19 outbreak. Therefore, reports published by private companies on the Internet have also been used as a source.

COVID-19 negatively affected the economic growth of countries (Shetty & Moorthy, 2020: 439). On the other hand, this pandemic significantly accelerated the transition to electronic commerce (Hasanat et al., 2020: 86; Ungerer et al., 2020). A study on electronic commerce and COVID-19 concluded that many businesses have digitalized their workplaces. Another result of the same study emphasized that managers working in the field of e-commerce should adapt to digital transformation immediately. It has also been stated that companies that cannot keep up with this rapid transition will experience serious customer losses (Kim, 2020).

In this process, Amazon, one of the successful e-commerce site, has suspended its services and aimed to serve only the basic needs of consumers. This increased the satisfaction levels of the customers (Murugeswari, 2020: 425). On the other hand, Shetty and Moorthy (2020) pointed out that other businesses, apart from basic needs and agricultural products, have come to a standstill. Considering the food sector within the scope of e-commerce, this new situation, especially where traditional businesses are closed and social distance has become important, has created a great growth opportunity for these online

companies. This increase in the number of consumers who will prefer online shopping is the main reason for the growth opportunity. On the other hand, during the pandemic process, consumers are expected to increase their online shopping volume in the field of e-commerce. In addition, the amount of time and money consumers spend on online shopping will increase (Shahidi, 2020: 9). According to Nielsen market research, consumers received the most preventive health and wellness products, reactive health management materials and storeroom materials. In addition, consumers have only purchased their basic needs. There are also significant increases in the number of products they buy to make use of leisure time.

E-commerce is also dragged into important limitations due to the pressure of the COVID-19 outbreak. The increase or decrease in the demand of a particular online platform is now defined as the e-commerce dependent variable, since it depends on the prevalence of COVID-19 and the customer's behavior towards this global issue (Hasanat et al., 2020: 87).

As it is seen in a limited number of studies, the COVID-19 outbreak process will affect and change consumers' behavior, perceptions and attitudes towards e-commerce. The emergence of these changes is the main motivation for this study.

## **1.METHOD**

This section of the study includes the research method, the study group of the research, the data collection tool, the process of data collection, the analysis of the data, the validity and reliability of the research.

### **1.1. Method**

Qualitative research method is used in this study. In this study, the researchers aim to investigate the behavior changes of online consumers during COVID-19. This method is preferred as it will provide in-depth information from the participants. In addition, one of the most important objectives of qualitative research is to allow individuals participating in the research to express their perceptions and experiences clearly (Yıldırım & Şimşek, 2013). Furthermore, this study is a case study that is one of the qualitative research models and allows for an in-depth analysis and understanding of a specific situation.

### **1.2. Working Group**

The working group of this research consists of 81 participants who accept the interview request in the study. Criteria sampling method was used in the selection of the working group of the research. The basic understanding in the criterion sampling method is to work with a group of participants who meet a set of pre-defined criteria. The criterion of this research is that the participants should have made online shopping at least five times before and during the COVID-19

outbreak. As a result, interviews were conducted with a total of 81 participants who met this criterion and agreed to conduct interviews. Instead of collecting participants' personal information, all of them numbered as 1., 2.,3...81.

### **1.3. Data Collection Tool**

The data collection tool of this study is a semi-structured interview form. The reason for choosing the semi-structured interview form as the data collection tool is that it facilitates in-depth information and provides the opportunity to ask questions at the end. The questions in the interview form were prepared by the researchers after the literature review. In order to ensure the validity, understandability and suitability of the parts and questions in the interview form created by the researchers, the opinions of four experts (two of them are faculty members working in the field of e-commerce, one is from a consultancy firm, and the other one is a manager in an e-commerce firm) were taken. Based on expert opinions, two questions were removed from the interview form and a new question was added to the interview form. Some suitable changes were made on the existing questions and the interview form was finalized. The interview form consists of two parts. In the first part, there are eight short questions including the demographic information of the participants and their online shopping history. In the second part, there are 10 interview questions to learn about the behavior of COVID-19 pandemics in online shopping.

#### **1.4. Data Collection Process**

The data of this research were collected through interviews with a semi-structured interview form. Since there has been an outbreak, data was collected in three different ways. First of all, during COVID-19 period, participants made the interviews in the researchers' offices in accordance with the social distance and wearing a mask. Secondly, participants who did not want to meet in this way had a video call interviews online. Finally, the third way was an online form. Those who were willing to join the research answered the questions through the internet. Each interview lasted an average of 30 minutes. The data collection process was carried out between 25<sup>th</sup> of May and 5<sup>th</sup> of June. After the interviews, transcripts were prepared for each interview. While creating the transcripts, writing the answers of the participant's word by word was cared.

#### **1.5. Data Analysis**

In this research, the data was obtained from the interviews and analyzed by using descriptive analysis and content analysis. In descriptive analysis; the data obtained were summarized according to the themes determined previously and supported by direct quotations. In the content analysis, themes and categories were reached by grouping the answers given within the conceptual framework.



## **1.6. Validity and Reliability**

In order to ensure the validity of this study, it was gotten expert opinions for the questions in the interview form. The interviews carried out face to face or online. Direct quotations were used in the descriptive analysis of the data and the interview transcripts were checked by voice recording to ensure to match.

For the reliability of the study, the researchers firstly clarified and defined their own positions in the research process. Information about the participants was given and the environment and processes in which the interviews took place were explained.

## **2. FINDINGS**

The findings of the study consist of two parts. In the first part, demographic information of the participants will be presented. In the second part, there are descriptive analysis and content analysis results of 10 questions asked to the participants.

### **2.1. Findings of the First Part of the Interview Form**

In the first part of the interview form, eight questions about the demographic characteristics of the participants were asked. Six of the answers given to these questions are shown in Table 1. When Table 1 is examined, it is seen that 53 of the participants are female. When their ages are examined, they are between 18 and 45 years old and average age of the participants is 26.6. It is noteworthy that half of the

participants spend 4 to 6 hours a day on the Internet during COVID-19 outbreak.

**Table 1:** Demographic Attributes of the Participants

<b>Gender</b>	<b>Frequency</b>	<b>Time Spending in the COVID-19 Period (Hours)</b>	<b>Frequency</b>
Female	53	1-3 hour(s)	12
Male	28	4-6 hours	43
		7 hours and more	26
<b>Age</b>	<b>Frequency</b>	<b>Number of Online Shopping Purchased in the COVID-19 Period</b>	<b>Frequency</b>
18-20	15	Between 5-10	59
21-23	12	Between 11-15	10
24-26	13	15 and more	12
27-29	14		
30-32	18		
33 and older	9		
<b>Education</b>	<b>Frequency</b>	<b>The Most Purchased Product Categories During COVID-19</b>	
Student	14	Food	
Associate	7	Clothing	
Bachelor	37	Personal Care	
Master	14	Electronics	
PhD	9		

One of the other questions not included in Table 1 is the average amount of monthly spending on online shopping within a year. It has been observed that the average of the amounts stated by all participants is 936 TL. In the COVID-19 outbreak period (March-June 2020), the frequency of shopping online was asked as well. The majority of the participants stated that they shop at least online once a week.

## 2.2. Findings of the Second Part of the Interview Form

In the first question of the interview form, the participants were asked about their opinions about the benefits of online shopping during the Covid-19 outbreak. When the responses of the participants were examined, it was seen that eight participants gave answers that they did not see any benefit. All the remaining participants (73 participants) stated that they found online shopping useful during the outbreak. The first participant stated that *“There is no benefit, on the contrary, there is financial harm.”* and the sixth participant stated that *“It did not provide any benefit and delays were too much.”* On the other hand, the thirty-first-participant stated that *“They were able to reach our every need such as mask, clothing, food, etc., easily in these days when they could not go out.”* The fifty-third-participant explained as e-commerce provided protection from the pandemic and he could easily access the product he wanted. As a result of the content analysis applied to the answers given to the question, the benefits of online shopping during the Covid-19 outbreak are as follows:

- protects from the pandemic,
- being hygienic,
- being suitable for social distance,
- provides low price advantage,
- provides fast delivery opportunity,
- provides price comparison opportunity,
- being safe,
- offers affordable prices,

- provides easy shopping opportunity.

In the second question, the participants were asked if online shopping during the outbreak makes a difference in their satisfaction level. 48 participants stated that they did not have a difference. The thirty-sixth-participant expressed this situation like *“It was not different than normal”* and the-sixty-fifth participant stated *“It did not make any difference; it was at the level of usual satisfaction.”* 20 participants stated that their satisfaction level towards online shopping increased and 13 participants stated that their satisfaction towards online shopping decreased. Fifth-first-participant said, *“Yes, it did, I was not very pleased with the delays. My level of satisfaction has decreased.”* Another participant mentioned, *“Yes, we understood why online shopping should not be chosen in this time.”* One of the participants whose satisfaction level has increased has stated that the satisfaction is increased and expressed as *“Yes, I was more satisfied.”*

In the third question, the participants were asked whether online shopping in the outbreak did not differ in their level of trust against online shopping. While 50 participants stated that the level of trust did not change, nine participants emphasized that there was a decrease in the level of trust. 22 participants reported an increase in their trust levels. The fifth-sixth-participant, who stated that there was a decrease in the level of trust, stated this situation as *“Yes, my trust decreased because of some sellers.”* And the-sixty-seventh-participant said *“Yes, my trust decreased.”* The-thirteenth-participant said, *“Yes, I can see*

*more and more reliable sites now and I can shop the way I want. As my orders are delivered properly, my satisfaction and trust increase.”*

There was a parallelism between the answers of the second and third questions. When the answers are examined, it can be construed with the customers who are satisfied with online shopping have increased their trust.

In the fourth question of the interview form, the participants were asked if they were faced with any problems in their online shopping during the Covid-19 outbreak. Half of the participants stated that they were not faced with any problems, while the other half stated that they were faced some problems. The-thirty-second-participant said, *"No, I did not have any problem, they were all good with no problem"* and another participant said, *"I had no problems."* When the problems stated by the participants who had problems were examined, it was observed that the problems experienced were sourced from the cargo companies, product and online shopping site, respectively. The-eightieth-participant explained, *"Yes, I had a different color of the product I ordered."* The-fifty-sixth-participant said, *"There were cargo failures, fragile products came broken, due to carelessness of cargo company. The problem was not resolved. I even have cargoes that still are not delivered to me."*

In the fifth question, the participants were asked about the differences regarding the services they got from the online shopping sites during the Covid-19 outbreak. Half of the participants stated that there was no difference in terms of the services they got. The-thirty-first-

participant stated that *“There is a difference and I think some websites have not managed to adequately manage the situation, while some websites can adjust the working speed in such a way that they do not victimize customers.”* Another participant stated that *“Payments and packaging of products were more hygienic and thoughtful.”* When all the responses of the participants are examined, the services provided by the online shopping sites can be listed as follows: More people-oriented, attention to hygienic packaging, free shipping option, and contactless product delivery.

In the sixth question of the interview form, it was asked whether there was any difference in the shopping process during the outbreak specifically related to online shopping sites customer service. 48 participants stated that there was no difference and 12 participants stated that they were irresolute. On the other hand, the number of participants stating that there is a positive difference is only three, and the number of participants who have experienced negative customer relations is 18. The-second-participant, who stated the negative difference regarding customer relations services, answered this question as *“Unfortunately, we had long waits in terms of reaching the responsible person and sometimes this situation was depressive.”* The-forty-fifth-participant, who agreed on what the-second-participant said stated that *“I could not reach customer service, it was difficult for me.”*

In the seventh, eighth and ninth questions of the interview form, the most successful, unsuccessful and preferred online shopping sites in Turkey during the Covid-19 was asked. The outbreak in Turkey, the most preferred sites are Trendyol, N11, Migros Online, Gittigidiyor, Hepsiburada and Getir. In addition, these online shopping sites are also mentioned as the most successful shopping sites. It has been observed that the most unsuccessful online shopping sites are the e-commerce sites that have cargo problems in different sectors. The vast majority of respondents emphasized that late delivery of products and long procurement periods are determinant factors for failure.

Whether online shopping during the Covid-19 outbreak caused changes in online shopping habits and the thoughts about the permanence of these changes were asked as the last question of the interview form. 34 participants stated that there was not any change in their habits. The-seventy-sixth-participant answered this question as *"There is definitely no change. I will do the same amount as I have done before."* While six participants stated that they were indecisive in this regard, half of the participants expressed a positive opinion that e-commerce during the Covid-19 outbreak created permanent changes in their online shopping habits. The-twenty-second-participant said: *"Yes, I think I will use online shopping more often"* and the-thirty-fourth-participant said: *"I have become an e-customer. It can be said that I was biased in previous periods."* Another participant said, *"I have turned to e-commerce by necessity. For this reason, I guess that I will be an online customer from now on."* As a result, 50% of

participants say that the outbreak will create positive changes in online shopping habits. This rate is remarkable.

## **CONCLUSION**

In this study, changes of online customers' behavior from the Covid-19 outbreak in Turkey was investigated between March and June 2020. Interviews were conducted with 81 participants using a qualitative research method through a semi-structured interview form.

The vast majority of participants expressed their opinion that online shopping is very beneficial during the Covid-19 outbreak. During the outbreak, consumers emphasized that e-commerce protect them from the illness and being hygienic are the most important benefits. This is a great opportunity for any business on the online platform. The behavior of consumers with this perspective will increase the volume of online shopping. As a result, businesses must adapt quickly to online channels and take part in this race of having e-customers. Thus, companies will reach their goals and their profits will increase. In the same direction, 25% of the participants stated that there is an increase in satisfaction and trust levels for online shopping, and in this case, it can be considered as a success for online shopping sites. On the other hand, 16% stated that their satisfaction and confidence decreased. The participants stated that the time for shipping the order and the time spent on the cargo played a big role in this decrease. It is critical that online shopping sites should overcome these shortcomings and gain customers' satisfaction and trust. It is suggested that online shopping sites should pay more attention to these shortcomings.



Another important result is the problems that customers have faced. The biggest problem in the Covid-19 period is originating from the cargo companies. It is essential for online shopping sites to solve problems with cargo companies. Because consumers see the companies with cargo company problems as unsuccessful companies. Other problems are derived from products and online shopping sites. They are expected to be more attentive especially in terms of not sending wrong products and returns. On the other hand, during the Covid-19 outbreak, customers have positive thoughts about these differentiated services, especially since they offer more people-oriented products, packaging more hygienically, offer free shipping and provide contactless product delivery. Therefore, it is suggested that continuing these services after the outbreak will play a role in making customers loyal.

The rate of consumers who experience negative customer relations in their online shopping is 22%. Customer relationship management is always critical and becomes even more important in such extraordinary times, especially when the whole community becomes sensitive. Online businesses need to take the necessary precautions in customer relations management, especially in ensuring uninterrupted communication with the customer.

As a result of this study, Trendyol N11, Migros Online, Gittigidiyor, Hepsiburada and Getir have been the most successful e-commerce sites through the consumers in Turkey during the Covid-19 outbreak. Especially, the success of Getir in this process is remarkable. Another

important result is that after the Covid-19 outbreak, consumers will have positive and permanent behavior changes against online shopping. As a result, online shopping has gained and will continue to gain new and loyal customers under the influence of the Covid-19 outbreak times. In this case, businesses need to adapt to this process immediately. In addition, they should take the necessary precautions to be successful in management of cargo companies and customer relations management by evaluating these study results and include these issues in their strategic plans.

As there are some limitations in every studies, this study has some limitations, too. In the research, qualitative research method was preferred and interviews were conducted. The number of participants is limited to 81 participants. In future studies, researchers may apply questionnaires or choose a mixed research method to reach a larger number of participants.

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## **CHAPTER 3**

### **CONCEPTUALIZATION OF THE COVID-19 PANDEMIC: A STUDY ON TURKISH CONCEPTUAL METAPHORS**

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## **INTRODUCTION**

During 15 March 2020 to 1 June 2020, for almost 3 months, Turkish people had to learn how to deal with a pandemic: COVID-19. Right after the outbreak of the pandemic in China then the other countries, Turkish government announced that COVID-19 tests for a few people came up as positive and they set for the fight against the fast spread of the pandemic throughout the country. Numerous precautions actions and procedures followed one another. By 15<sup>th</sup> March 2020, schools were closed, university dormitories were abandoned, the governmental institutes started to work half a day with limited staff, private institutes/firms reorganized their working schedule in such a way that people started to work at home offices using remote systems such as online conferences, electronic managing systems and such. The restaurants and all other indoor and outdoor entertainment were cancelled. All the sports clubs, courts, pools, even the public sports areas, playgrounds were closed and banned for everyone. People were not even allowed to walk or run in public open parks or seashore areas for doing sports. All kinds of flights were cancelled. After a while all the malls, all kinds of shops, except for the food stores and markets were closed. The mosques were closed for any kinds of prayers.

Masks became obligatory in a short time at any kind of public places. Finally, the government started lock-down procedures on weekends and on any other holidays. The lock down procedures started by mid-April and lasted on 1<sup>st</sup> June 2020. This is the exact day when the data collection procedure for our study lasted.

In our study, we aim at detecting the metaphorical expressions used by Turkish native speakers. We use the gathered data to get an understanding of how the participants conceptualized the pandemic during the lock-downs and stay-home regulations. That is because the conceptual analysis of metaphors is key to get an understanding of the cultural, emotional and sociological effects of experiences on human beings. “Experiences are defined by culture and are thus shared by members of a particular culture.” (Kövecses, *Emotion Concepts*, 2002):15. That is to say, analysing the metaphoric expressions and the core concepts that underlie, we can get how the society was affected or how people evaluated the outer world. Metaphors give us an understanding of collective knowledge in this sense. With this in mind, we asked the following research questions at the beginning of the study:

- i. Is it possible to understand how Turkish speakers conceptualize Covid-19 Pandemic?
- ii. Is it possible to define the basic target domains that are used to conceptualize the pandemic?

In order to answer these questions, we conveyed an online survey where adult Turkish native speakers were asked to describe pandemic period and the emotions they felt during.

Below you will be introduced with metaphors as conceptual relations and the conceptual metaphor theory. The basic information on the main terms is followed by the recent research on metaphors used for

COVID-19 worldwide. Although the case is recent, there has been a quantitative amount of research on pandemic. In section 3, methodological details of the study such as limitations, participants, data collection tool and procedure are presented. Findings and discussions on the results of the survey can be read at section 4 which is followed by the conclusion.

## **1. METAPHORS**

The term metaphor evokes the use linguistic items with rhetoric meaning extensions especially in texts with poetic function. This is the traditional, most common use of the term in language and literature studies with the classical approach. Lakoff (1992, p. 202) states that this definition ignores the basic cognitive processes of metaphor and underestimates the guidance and insight that metaphors would suggest about the cognitive processed peculiar to humans. He defines metaphor as “a cross-domain mapping in the conceptual system” (Lakoff, 1992). In these terms metaphor is taken as a function which maps from one concept to another in such a way that the concept A (labelled as the “source” in the theory) is not directly related to the concept B (labelled as the “target” in the theory) but with reference to some similarity in the conceptual meanings or processes or real world references the language user builds a relation between A and B so that s/he talks about one using the other: A IS B. The most common sample of this is LIFE IS A JOURNEY metaphor. The concept LIFE is not defined in terms of the journey in dictionaries or in any standard



form. However, any language user understands the conceptual features which make it possible to define one via the other.

The terms shown in capital letters in the definition of metaphors are not lexical items. They represent concepts, ideas, images in human mind. They belong to the thought level, not to the linguistic or discourse level. (Kövecses, *Levels of Metaphor*, 2017; Kövecses, *Metaphor: A Practical Introduction*, 2002; Lakoff, 1992) This theory, named accordingly as conceptual metaphor theory, is what lies under the study we present here. Thus this is not a literature study where we analyze texts with poetic function but a study which investigates the concepts in the mind of the speakers. This study is about the systemic structure of the way human beings perceive, conceptualize, and distinguish the real world events, situations and entities.

### **1.1. Classifications of Metaphors**

Conceptual metaphor theory questions the system of thought, the analysis is not linear and two-fold but rather includes various aspects and layers of understanding. That is why the term metaphor is classified on distinct levels. The basic classifications are made in terms of conventionality, function, nature, and level of generality of metaphor (Kövecses, 2002).

In terms of conventionality, metaphors can be evaluated as highly conventional or conventionalized (Kövecses, 2002). The first one are

the metaphors which are more common among speakers because the relation between the source and the target concepts are more familiar to the speakers. In the second class, the speakers need more effort since the mapping between the source and target is less familiar. The speaker has to activate the concepts to dissolve the path linking the two concepts.

Metaphors can be labelled in three different ways depending on the functions they perform. Cognitive function of a metaphor being the way people think about or conceive the world. One of these kinds is labelled as structural metaphors, where the source is mapped on the target concept in terms of the way they are constructed (Kövecses, 2002). For example, the metaphor TIME IS MOTION is categorized as structural metaphor : the concept of time is regarded as an entity in a spatial location that moves in certain direction.

The second type of metaphoric mapping is ontological. Such metaphors are created when the source is mapped onto another object, substance or a container: the way it physical exists is what matters in such samples. Personification is one such metaphor. When we build the metaphor LIFE IS A PERSON, for instance when we say “life has cheated me” qualifications of the first entity is reflected on the qualifications of the second (Kövecses, 2002)

The third type of metaphoric relations are orientational. The metaphor is categorized as such if the relationship held between source and target is not about the structure or features but the location or

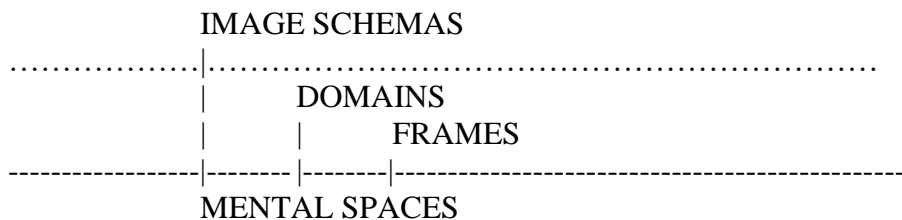
orientation in a three dimensional space. For instance, when we say “speak up” we are not talking about the direction of the speech sound but rather the frequency of it, meaning speak in a higher vibration. The orientational metaphor in this sample is UP IS MORE. (Kövecses, 2002).

In terms of their nature, the metaphors can be classified as emerging from the conceptual information loads acknowledged by the speakers or in terms of the real world images where the source and target concepts can be visualized in. Image schema metaphors originate from real world experiences such as being in a container or feeling the resistance of the wind. When one utters “I’m out of money” this is categorized as image-schematic metaphor. Kövecses (Kövecses, 2002; Pragglejaz Group, 2007; Kövecses, 2002) states that image schemas are basis for other types of metaphoric classifications. In a recent study, (Kövecses, 2017) expresses the image schematic nature of the metaphors and relates directly in the discussion about the levels of metaphors.

Whatever type of cognitive function a metaphor builds, the metaphoric relations are defined to function on four levels: image schemas, domains, frames, and mental spaces. Image schemas are what the humanbeings have in common as prototypes or the most basic concepts in mind. Domains are the source domains in relation to image schemas or to frames, defined as “any kind of coherent segment of human beliefs, actions, experiences or imaginings” (Fillmore, 1975), in order to build metaphoric relations. Frames include more

precise and conceptually more fertile information information than domains. Domains may include frames.

The roles of the source and target concepts may as well be occupied by more context bounded values found in real world communications. These are labelled as mental spaces. Though mental spaces are very specific due to the contextual boundaries, they are still conceptually rich (Kövecses, 2017). Kövecses (2017, p. 333) use the following figure to explain activation relations among the relevant levels:



**Figure 1:** Activation from Mental Spaces to Frames, Domains, and Image Schemas. The Broken Vertical Lines Indicate Activation. (Kövecses, 2017, p. 333)

These activation processes are labelled as being systematic. However, the linguistic metaphors do not have to be within the system. Related to the virtue of literal meaning some instances of conceptual metaphors may be independent but systematic. In such cases we should understand that the source domain should not be defined in another system. Isolated metaphors are the ones to be built within this system. (Kövecses, 2017)

In sum, we understand from the literature that metaphors are relations built between two concepts. Contextual uses, frames they fit in, domains in which they function and image schemas are in progress.

Any of these may activate or be activated by another on different levels and different intensity degrees to build metaphoric relations.

In our study we aim at finding out which conceptual metaphoric relations are constructed by Turkish speakers for the COVID-19 pandemic period.

## **1.2. Studies on Metaphors in Turkish**

Metaphors are mirrors to the minds of human beings, key to understand the way human mind builds relations. Naturally, studies on metaphors by Turkish speech community are frequent (Aksan & Aksan, 2009; Arıca-Akkök, 2017; Özçalışkan, 2003; Yıldırım, 2020). (Aksan & Aksan, 2009) and (Arıca-Akkök, 2017) analyse emotion metaphors in Turkish. Love metaphors share similar structuring in Turkish with the love metaphors in other languages. This also holds for anger metaphors (Arıca-Akkök, 2017). A recent study also studies love metaphors in a specific environment: baby talk (Çetintaş Yıldırım, 2020). The study on parents' infant oriented talks are analysed in terms of the conceptual metaphor theory.

These valuable studies and many others are inspiring and curiosity raising. The interesting finding of these studies saw the seeds of the study presented here.

### 1.3. COVID-19 Related Metaphor Studies

COVID-19 provides a fertile and question raising subject matter for all kinds of scientific research. Metaphors and metaphoric expressions used for the illness itself or the lock-down/stay-at-home regulations.

Busso & Tordini (2020) research on the metaphoric expressions in Italian online newspapers during February 24-May 15 2020. They analyze four different themes to find out COVID-19 related metaphors. They report that society theme emphasises CONTAGATION IS TSUNAMI. Economy related newspaper texts use CRISIS IS TSUNAMI. In social content PEOPLE ARE BUILDINGS and PEOPLE ARE MACHINES is the most common metaphors they noted.

Another study by (Burke, 2020) analyze Donald Trump's (*president of the United States*) metaphoric use of COVID-19 IS WAR. He evaluates the issue as political and tries to find the rationale underneath.

In their study, Koç and Uzun run a questionnaire where Turkish academicians are guided to build metaphors regarding the stay-at-home practices using during March-June 2020 in Turkey (Koç & Uzun Dönmez, 2020). The study is on metaphors, however, researchers do not follow any cognitive approach rather list the linguistic expressions they encounter in the data. The list includes peace, rest, education, restriction, and depression and tiredness.

A cognitive linguistic study notes certain uses of COVID-19 related metaphors and claims that fire metaphors align in a systemic way along with COVID-19 metaphors (Semino, 2020).

Although numerous headings include metaphors in the title to our knowledge, the linguistic studies which include conceptual metaphor analysis is limited in number. We hope our study might be among the first ones of the many so that we get a clear grasp of COVID-19 and the stay-at-home/lock-down periods on societies.

## **2. METHOD**

The study presented here is a qualitative study with interpretive data analysis. We ran a survey for the data collection (§. 2.2) where the participants were guided to fill in the blanks with metaphoric expressions. The survey directed the participants to fill in the blanks in with one or two words-long phrases. The participants were told that they were free to write whatever expression they like. Analysis of their feedback is qualitative. We analysed the results. Used MIP (Pragglejaz Group, 2007) (§. 2.1) and interpreted the metaphors using the general guidelines in General Metaphor Theory (Lakoff, 1992; Kövecses, 2017; Kövecses, 2002). Our analysis ignores the number of occurrences in the data since even the relation is held once, it means that the cognitive system works for the mapping relation between two concepts. With this limited number of participants, quantitative analysis cannot result in prototypical uses. In future research that may also be another possible research subject.

## 2.1. Data Analysis

Metaphors function in the most creative end of language competence. Every second, human beings build a brand-new metaphor for any type of communicative function in any kind of discourse. Metaphor is the way to build an equalization between two non-equal concepts. Anything can be used to describe any other entity/situation/action metaphorically (regarding conceptual pre-conditions). Thus, detecting this connection requires a detailed guide. Pragglejaz Goup (2007) presents a procedure to guide researchers throughout the process. So called Metaphor Identification Procedure (MIP) (Pragglejaz Group, 2007) flows through as follows:

1. *Read the entire text–discourse to establish a general understanding of the meaning.*
2. *Determine the lexical units in the text–discourse*
3. (a) *For each lexical unit in the text, establish its meaning in context, that is, how it applies to an entity, relation, or attribute in the situation evoked by the text (contextual meaning). Take into account what comes before and after the lexical unit.*  
(b) *For each lexical unit, determine if it has a more basic contemporary meaning in other contexts than the one in the given context. For our purposes, basic meanings tend to be*
  - More concrete; what they evoke is easier to imagine, see, hear, feel, smell, and taste.*
  - Related to bodily action.*



—*More precise (as opposed to vague)*

—*Historically older.*

*Basic meanings are not necessarily the most frequent meanings of the lexical unit.*

*(c) If the lexical unit has a more basic current–contemporary meaning in other contexts than the given context, decide whether the contextual meaning contrasts with the basic meaning but can be understood in comparison with it.*

*4. If yes, mark the lexical unit as metaphorical. (Pragglejaz Group, 2007, p. 3)*

In our analysis, we follow the steps to decide whether the expression noted by the participant is a metaphor or not. If yes, we included the expression in our data. If no, we excluded it. That is the basic method how we detected metaphors.

After detecting an expression as metaphorical, we try to dissolve the conceptual metaphoric relation underneath (Kövecses, 2017). At the final stage (§. 0) we list the metaphors used for COVID-19 pandemic and analyse their cognitive structure using the tools by conceptual metaphor theory (Kövecses, 2017; Kövecses, 2002; Lakoff, 1992; Pragglejaz Group, 2007). We aim at reaching the most basic cognitive structures of the way participants perceived COVID-19 pandemic during the stay-at-home regulations.

## **2.2. Data Collection Tool**

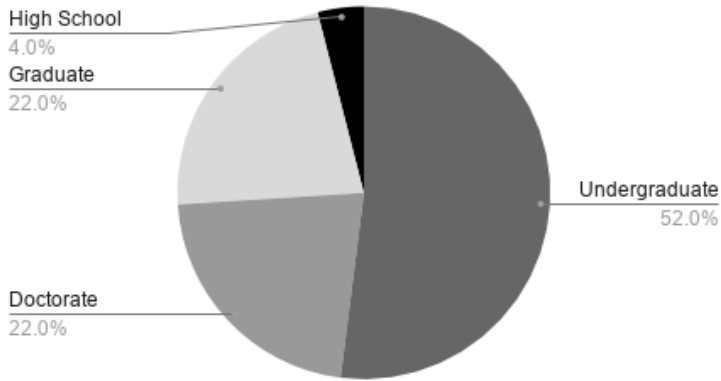
In order to guide the participants to use metaphoric expressions we organized an online survey. The survey was composed of two phases. At one phase, people were asked to fill in the blanks with short answers (one/two-words phrases). At this step participants were guided to use metaphoric expressions. The other phase included demographic information to make sure that the small group of participants was a homogenous one. The survey can be reached via the link: <https://forms.gle/mdUFwL6afFNc52yJ6> .

## **2.3. Participants**

The number of the Turkish native speakers who filled in our survey is 56. When the answers were eliminated 50 of the feedback forms qualified as usable in the study. Non-native speakers, missing or misleading information or duplicated forms were reasons to eliminate certain feedback forms.

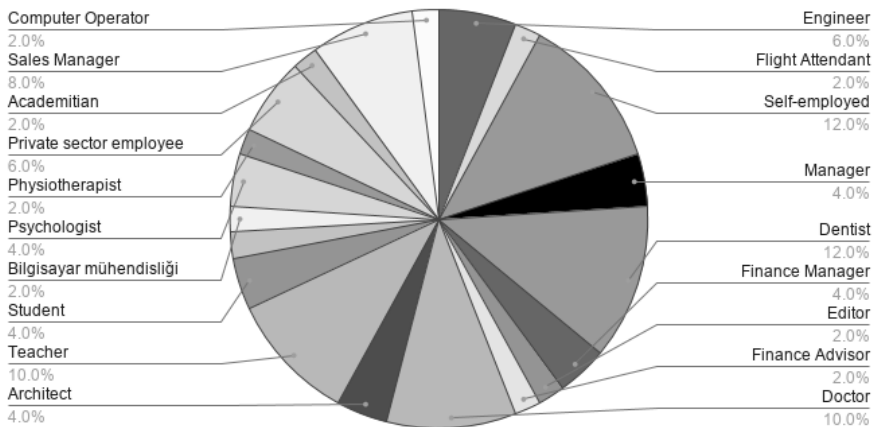
Of the 50 participants within the age range of 20-51 ( $\bar{x}$ : 43,02) 25 were female, and 25 were male. Since the survey was held online, we had the chance to reach participants in different cities. Most of them located in Mersin (29), there were participants in Ankara, İstanbul, İzmir, Urfa, Tekirdağ, Sakarya, Kocaeli, Antalya.

The education level of the participants is as shown in Figure 2:



**Figure 2:** Education level of the participants

The occupation status of the participants varies, including doctors, teachers, engineers, financial managers and many others. Details can be found on Figure 3.



**Figure 3:** Occupation of the participants

Among 50 participants, 17 of them (34 %) stated that they left home everyday during the pandemic, 13 participants (26 %) left home at least once a week. 10 participants (20,4 %) stated that they left home 2-3 times a week. 6 of them (12.2 %) went out 3-4 times a week while 3 of the participants in the study (6,1 %) left the house 8 times or less during the whole 82 days with mobility restrictions.

As for going to work, 30 participants (60 %) stated they did not go to work. They either worked at home, were payed unemployment found or was sent on vacation, while 40 % of the participants had to go to work at least one day a week.

None of the participants to our survey were tested as positive with COVID-19 virus during the 82 days. Only five of them had extended family members inflected, but with no fatal results.

## **2.4. Procedure**

The survey was designed online using google forms. The participants were sent online document link via various social media apps, such as WhatsApp, Instagram or Gmail links.

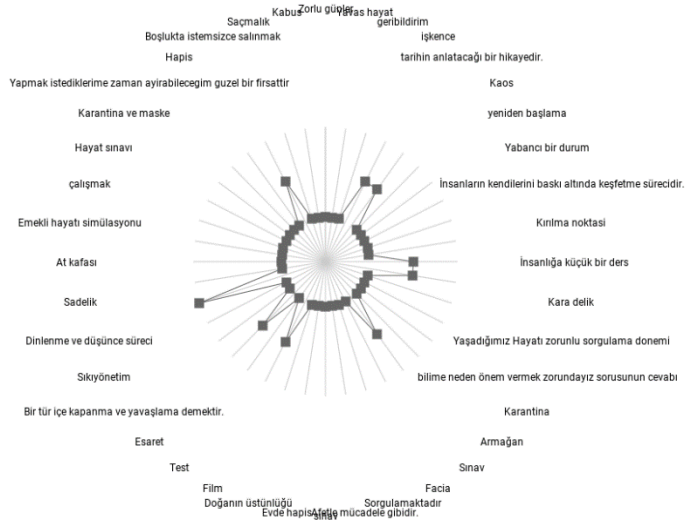
The first section of the form instructed the participants clearly that it was not a language test or else and they were free to fill in the blanks the way they wish. At the end of the very first section occurred the question whether they are reluctant to answer the survey questions or

not. If they clicked on “no” they were automatically excluded from the list. It took almost 15 minutes to fill in the whole survey.

## RESULTS

Our survey, consisting of 11 metaphor related fill in the blanks type of statements, resulted in 50 successful feedback sets (§. 2.3). Two of the fill-in-the-blank statements were designed to directly guide participants to use metaphoric expressions whereas the others were present to make sure that the participant uses the metaphor for targeted aim: Building metaphorical relations between pandemic and target concepts.

The first statement led the participants to express what the COVID-19 pandemic was like. The answers came up were: “*tough days, slow motion, feedback, torture, a story in the history, chaos, restart, strange, a period to re discover oneself, emergence point, a lesson to be learnt, black whole, time to question self, answer to the question “why we should follow the path of science”, quarantine, gift, exam, disaster, questioning, imprisonment, victory of nature, movie, test, slowing down, martial law, time to rethink and rest, retirement, work, mask, opportunity to do whatever, oscillate, bullshit, nightmare*” (see Figure 4 below).



**Figure 4:** Responses to statement 1: “For me, the pandemic due to COVID-19 virus is ..... . Because..... .”

The second statement was “The pandemic is like ..... , for me. Because.... .”. The second part is necessary since it is the only way to make sure the speakers are constructing a metaphoric relation between concepts or not. The responses that came up are: “distant places, a clock that paused, get to know other living organisms around, torture, a war game from outer space, obsession, gut strings, horror movie, endless nightmare, change, seduction, trip to unknown, setting for a trip, imprisonment, misfortune for the century, teacher, war, purification, judgement day, war, animal in a cage, prison, dream, unknown, hell, incubation, military service, tango, solitude, slave, baklava, mystery, exam, stress and detachment, opportunity, death, desocialization, crisis, tango” (see Figure 5).

The final question was inserted in the survey to serve as a final check to see if the expressions used in the first two statements were metaphoric or not. The responses to this statement were not taken in to the analysis process, directly. On a couple of cases, participants also made use of metaphoric expressions at this point. If so, they were added on the list of metaphors. Since the number is low, we do not include a list for the responses to statement 3.

It is easily observed from the lists above that some answers are similar to each other. “*Imprisonment*” and “*animal in a cage*” for example easily fall into the same category. In both concepts, the idea of not being free is clear. In the second one, namely the phrase “*animal in the cage*”, we also set that the human beings are accepted to be animals. This is a nice example of the metaphor PEOPLE ARE ANIMALS. However, such cases are not included in the discussion of the study. The aim here is to understand the nature of the metaphors that relate to pandemic and/or the COVID-19 virus. No matter how compelling the other metaphoric relations are, they are kept aside for different studies and ignored in the realm of this very study.

## **FINDINGS AND DISCUSSION**

As is listed in the previous section (§. **Hata! Başvuru kaynağı bulunamadı.**), metaphoric expressions used for the COVID-19 pandemic can be basically grouped into three categories in terms of the semantic collocations: the expressions with negative collocations (such as “*disaster*”, or “*nightmare*”), with neutral collocations (i.e.

“movie”, “incubation”) and the ones with positive collocations (for instance “discovery”, “opportunity”). However, the lists given in section **Hata! Başvuru kaynağı bulunamadı.**, include a couple of expressions where we do not observe conceptual metaphor structure. One of such expression is the response “*Pandemic is like baklava for me because some get a slice with pistachio and some get a slice with pepper*”. This sample is not a metaphor. When the sample is analysed in terms of MIP (Pragglejaz Group, 2007), it fails to qualify as a metaphor. On the third stage of MIP, we decide whether the lexical unit is more concrete, related bodily action, precise or historically older or not. Then we “decide whether the contextual meaning contrasts with the basic meaning but can be understood in comparison with it”. In the case with “*Pandemic is like a baklava*”, this relation is not satisfied. In this type of a structure, the required mapping cannot succeed. It does not relate to any structural, ontological or orientational conceptual mapping process. This “*pandemic is like baklava*” sample is a simile rather than the metaphoric relation. Or responses such as “*pandemic is a mask, because the virus is spreading too fast*” refers to a metonymic relation rather than a metaphoric one. Samples as such are excluded from our discussion.

The following table displays the list of metaphoric expressions. Some of the expressions seem to be having both positive and neutral collocations. For example, in the case “*pandemic is a dream*”, dream may be both positive or neutral, and in some cases even negative. Such samples were categorized depending on what is included in the



extension of the response. The extension goes like “*Pandemic is a dream for me, because it is hard to believe*”. In this case, we get that the speaker is neutral for the pandemic and the period itself.

**Table 1:** List of Metaphoric Expressions With Collocation Values.

<b>Expressions with Positive Collocations</b>	<b>Expressions with Neutral Collocations</b>	<b>Expressions with Negative Collocations</b>
<i>feedback</i>	<i>slow motion</i>	<i>torture</i>
<i>restart</i>	<i>question</i>	<i>chaos</i>
<i>discovery</i>	<i>movie</i>	<i>black whole</i>
<i>lesson</i>	<i>retirement</i>	<i>disaster</i>
<i>gift</i>	<i>oscillating</i>	<i>imprisonment</i>
<i>opportunity</i>	<i>victory of nature</i>	<i>test</i>
<i>teacher</i>	<i>a clock that paused</i>	<i>martial law</i>
<i>rest</i>	<i>change</i>	<i>nightmare</i>
<i>purification</i>	<i>incubation</i>	<i>gut strings</i>
	<i>dream</i>	<i>horror movie</i>
	<i>tango</i>	<i>judgement day</i>
	<i>emptiness</i>	<i>war/ fight</i>
	<i>seduction</i>	<i>prison</i>
		<i>crisis</i>
		<i>enemy</i>
		<i>animal in a cage</i>
		<i>military service</i>
		<i>hell</i>
		<i>war game</i>

These metaphoric lexical units are the keys to understand the conceptual structure. If we group the units in terms of mental spaces, frames, domains and image schemas we may get the conceptual structure of the metaphoric relations.

On the most specific level we have metaphors created by mental spaces mapping into certain domains (Kövecses, 2017). Most of these can be classified as structural in terms of their conceptual function. The lexical metaphors such as “*war*”, “*military service*”, “*enemy*” reflect one of the most conventionalized metaphors (Burke, 2020): PANDEMIC IS WAR. When we analyse this common metaphor in terms of the source and target concepts and their relation, it becomes obvious that the metaphor is mapping from the source to the frame of “being in a war”. Since the relation holds among the structuring of the concepts, this metaphor is categorized as a structural metaphor.

Two similar conventional structural metaphors that was found in the data are PANDEMIC IS PUNISHMENT, in (1) - (3), and PANDEMIC IS DESTRUCTION, in (4) - (6). The following expressions are samples where these metaphors are observed.

- (1) Pandemic is the judgement day.
- (2) Pandemic is hell.
- (3) Pandemic is torture.
- (4) Pandemic is a black hole.
- (5) Pandemic is a chaos.
- (6) Pandemic is disaster.

The mapping of the items (1) - (6) are form the source concept pandemic to the frame of punishment and destruction.

Among the negative collocated metaphoric expressions, we can include the samples (7) - (11). The lock down procedures and stay-at-home regulations easily explains the rationale behind the metaphors in these samples. We do not aim at running a quantitative analysis, though we feel the necessity to note that 18 out of 50 participants used one or more of these metaphoric lexical items which relate to being in prison in one of the statements in their response forms. It is what builds the metaphoric relation in these samples is a highly conventional metaphor.

(7) Pandemic is imprisonment.

(8) Pandemic is martial law.

(9) Pandemic is prison.

(10) Pandemic is animal in a cage.

(11) Pandemic is military service.

The expressions above, (7) - (11), map from the concept of pandemic to being imprisoned. We explain the metaphoric relation underneath these uses as PANDEMIC IS PRISON. One may claim that being in prison and being punished are highly similar and should occur in the very same domain. However, PANDEMIC IS PRISON is not structural but is ontological in terms of metaphoric function. The source concept is mapped onto PRISON image schema, not a frame.

Another metaphor that we tracked down in the data is still related but different in nature. For all of the samples (14) - (17) we observe the concept mapping to the target domain IMMOBILITY or LACK OF MOTION. This mapping relation is clear in all of the following samples.

- (12) Pandemic is a clock that paused.
- (13) Pandemic is a slow motion.
- (14) Pandemic is retirement.
- (15) Pandemic is oscillating.
- (16) Pandemic is incubation.
- (17) Pandemic is emptiness.

PANDEMIC IS LACK OF MOTION is another highly conventional metaphor mapping from the source concept to the target domain. Different from the previous conceptual metaphor, it is structural in nature. The mapping relation is from the source concept to the target domain not to the image schema.

Some metaphoric relations did not come up with expressions with negative or with positive collocations, such as the samples (14) - (17). Expressions “dream” and “movie” also exemplify the neutral collocations. We claim that these expressions are related to the metaphor conventionalized metaphor PANDEMIC IS FICTION. We classify this conceptual metaphor as structural built by the mapping of the concept of the frame FICTION. We should note that some

negative collocated expressions also fall under this category, i.e. “pandemic is a nightmare” or “pandemic is a horror movie”.

On the positive end of the continuum, we listed positive collocated metaphoric expressions, as the ones in (18) - (21).

- (18) Pandemic is discovery.
- (19) Pandemic is gift.
- (20) Pandemic is opportunity.
- (21) Pandemic is purification.

One conceptual metaphor on positive continuum is PANDEMIC IS GIFT. We define this one as a conventionalized metaphor where the source is mapped to the target of GIFT frame. It is ontological in nature.

We define another similarly positive conceptual metaphor to be PANDEMIC IS EDUCATION. This conceptual metaphor is expressed in statements like (22) - (25).

- (22) Pandemic is teacher.
- (23) Pandemic is test/exam.
- (24) Pandemic is question.
- (25) Pandemic is feedback.

We categorize the education metaphor as being highly conventional one. The conceptual metaphoric relation is built from the source to education frame. The function of it makes us claim that this is a structural metaphor.

To sum up, we can list the specific level conceptual metaphors about the pandemic derived from our data in Table 2:

**Table 2:** The Specific Level Metaphors Derived From the Data.

Collocations		Nature	Highly Conventional
Negative	PANDEMIC IS WAR	Structural	
	IS PANDEMIC DESTRUCTION	Structural	
	PANDEMIC IS PUNISHMENT	Structural	+
Neutral	IS LACK OF MOTION	Ontological	
	PANDEMIC IS FICTION	Structural	+
Positive	PANDEMIC IS EDUCATION	Structural	
	PANDEMIC IS GIFT	Ontological	+

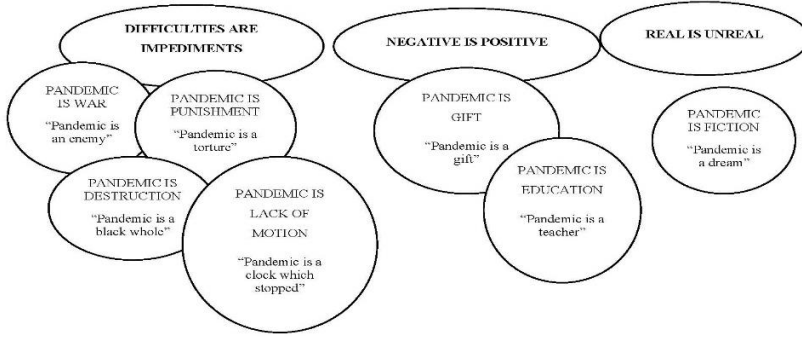
The first three rows display the negative collocated metaphors. These metaphors are highly conventional. The next two rows show the neutral collocations, the first one being highly conventional. Among the positive collocated metaphors of pandemic, the first one is also highly conventional. We clearly show on the table that two of the metaphors are ontological. They map to image schemas, not frames or domains.

All the metaphors listed on Table 2 can be categorized as specific level metaphors. It is still possible to analyse the source concepts and mental spaces that underlie the listed metaphors. Therefore, we can get the generic level metaphors to relate to the metaphoric expressions. The event structure described by Kövecses may be useful in such an analysis (Kövecses, 2002). The conceptual metaphor PANDEMIC IS WAR/ PUNISHMENT/ DESTRUCTION/ IMMOBILITY may be categorized in a similar way. We offer the generic level metaphor DIFFICULTIES ARE IMPEDIMENTS as the generic level conceptual metaphor to capture all these uses.

As for the positive collocated conceptual metaphors, namely PANDEMIC IS GIFT/EDUCATION, a new generic metaphor can be suitable. To our point of view, it is best to offer the generic metaphor NEGATIVE IS POSITIVE as the generic level metaphor to explain these uses.

Similarly, we suggest the generic metaphor REAL IS UNREAL to explain the metaphor PANDEMIC IS FICTION.

The whole conceptual metaphoric relations built by taking the pandemic as the source and the target concepts chosen by our participants can thus be schematised as in the following:



**Figure 6:** Generic Level Metaphors- Specific-Level Metaphors- Sample Expressions on Pandemic: Turkish Native Speakers Conceptualization Map

Except from the metaphors listed and exemplified in Figure 6, there are some metaphoric relations which we could not relate to any of the metaphoric mappings below. These samples include “*pandemic is tango*”, “*Pandemic is a stranger.*” Last but not the least, we feel the necessity to state that the generic or specific dependent metaphors are of great value to get an understanding of human cognitive systems. Nevertheless, it is these independent but systematic metaphoric relations that cognitive science is required to hunt. The cognitive mysteries of human reasoning lie under the explanation which covers all the samples including the independent ones.



## CONCLUSION

From the outbreak of the pandemic caused by COVID-19 virus as declared by the Turkish government on 10<sup>th</sup> March 2020, citizens of Turkish Republic just as the rest of the world entered a new way of living which included random lock-downs and stay-at-home practices guided with the fear of severe health problems and fatal risks. People had to learn how to deal with a pandemic in the 21<sup>st</sup> century where the number of dead people were announced on TV and any other media on daily basis.

In such a context, we collected the data during the lock-downs on weekends. Our data collection procedure ended on 1<sup>st</sup> June 2020, the day when lock-down procedures were announced to be over in Turkey. At least for that moment. This makes the analysis and data of the study noteworthy. We are not sure whether such regulations will follow in the coming days or not, but even if they do, it is not going to be the first. This study presented here was designed with the aim of getting an insight to the understanding of the Turkish native speakers of the pandemic in 2020. As a linguist, the best way to find out how people perceive entities/events/situations is to analyse the metaphors with the tools of Conceptual Metaphor Theory (Lakoff, 1992; Kövecses, 2002).

With these in mind we came up with certain insights. Our analysis showed that some people were getting the worst of the period. They thought that they were in a war. The illness destroyed their lives. Some people just felt as if they were frozen. Everything stopped and nothing was moving anymore. Some of the participants, on the other hand, perceived the period as an educative period to re-discover who they are, to re-connect with nature and a gift to do all of these positive changes.

Wittgenstein (1933) hypothesized that “the limits of our language is the limits of our world”. We can never be sure if the language limits our world or vice versa is ever proved to be right, but one thing is certain: we can get a clear understanding of the way human mind works by analysing the way human being uses language.

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**CHAPTER 4**

**EVALUATION OF THE COVID-19 PROCESS FROM  
THE HEALTH MANAGEMENT PERSPECTIVE**

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## **INTRODUCTION**

The precautions taken against epidemics, which have been seen many times in the development process of humanity and are socially and economically disastrous, must be implemented decisively. At this point, health managers have important duties. Although the epidemic is not a new situation for human history, it continues to be a difficult situation to deal with today. In today's conditions in which the population has increased, developing technology can be effective up to a point in the process of combating the epidemic.

The epidemic process, which includes multidimensional effects and consequences, has the characteristics of a crisis. Although the definition and content of the concept of crisis differs (Aksoy and Aksoy, 2003) according to the areas (security, economics, etc.) in which it occurs, a crisis that emerges in the field of public health is ahead of the others in terms of the audience it affects and its consequences. The areas affected by the epidemic most are transportation, migration, communication, finance, water and sanitation, defence, shelter, and education (Smith, 2006). It can be said that the sector that is the most effective among these sectors in the epidemic process is the transportation sector. Having more air travel accelerates the spread of the epidemic and increases the effects of the epidemic in parallel (Ho et al., 2020). On the other hand, the sector that provides the necessary logistic support for people to stay in their homes during the quarantine process is again the transportation sector.



Epidemic diseases, which have been on the agenda more frequently in recent years, have replaced the terror threat that has been on the top of the world agenda for a long time and has become an important issue in the international arena. The epidemic compels politicians to act together, as it is not just a threat to a particular audience or society and has consequences that concern the entire world (Smith, 2006). Because the epidemic is not only limited to the field related to health services, it also affects other sectors to a large extent. It is clear that the effects of the epidemic, which affects almost all sectors in the economic system, will take longer than the duration of the epidemic. For example, when it is evaluated in terms of the tourism sector which is one of the sectors where the effects of the epidemic emerge most, the epidemic more affects the country where it emerges, and it also significantly reduces the mobility in neighbouring countries. In this process, not only international tourism, but also the entertainment industry and domestic tourism are affected (Henderson, 2004). In this process, the harms that health tourism has gotten or will get should be considered. The process may provide the advantage of getting ahead in the field of health tourism in the near future for the countries that could control the epidemic faster and may cause countries that could not control the epidemic in a short time to lose confidence in health tourism.

The public health crisis should be managed in the best way due to the sectors that it affected and its impact on the national and international arena. Because the failure to manage the process well in one society

also affects other societies. One of the most important issues to be considered in the process of managing the public health crisis which also includes controlling social responses is the transparent and up-to-date sharing of information about the course of the epidemic (Lee, 2009; Ho et al., 2020; Brooks et al., 2020 ). Because one of the important risks that arises is that individuals in the society lose their trust in each other, even in health services and the state with the fear of epidemic because of the anxiety they feel (Ho et al., 2020). The emergence of such a situation will cause great difficulties for the employees to manage the epidemic process and deliver the health services that people need to receive.

There is a lot of evidence in the literature about other internal dynamics of the society that supports the integrated approach to the epidemic process. The most important stressors in the epidemic process are the lack of timely and accurate information with the fear of infection. However, during the epidemic process, these stressors are accompanied by economic problems and social stigma, and the negative impact of these variables continues after the epidemic (Brooks et al., 2020; Verma et al., 2004; Maunder et al., 2003). There are studies revealing evidence that unemployment, social isolation, and being away from work, which are experienced in the epidemic process, are associated with mental problems (Chua et al., 2004a). At this point, it is remarkably important to proactively manage the process by considering all variables.

It is possible to say that the developing technology has positive and negative effects in managing the epidemic process. New technologies and developments emerging in transportation processes increase the speed of spread of the epidemic. In providing the health services process, health technologies that increase the quality of service and the chances of living are one of the positive contributions of technology during the epidemic process. In addition, developments in communication technologies enable information to be shared and disseminated quickly. Rapid sharing of knowledge and experience enables effective solution suggestions to be implemented earlier. However, it can be said that the rapid spread of false information also makes the process difficult to manage.

With the first incident seen on December 1, 2019 in Wuhan, China and put the world on alert, COVID-19 has the characteristic of being the public health crisis with the greatest spreading effect until now (Liu et al., 2020). In this study, the details of managing the process are tried to be explained in the light of the literature and under the titles mentioned. The evaluation of the research results and application examples conducted in the past epidemic processes constituted the basis of this study. The titles created within the scope of the study include handling the epidemic process socially and with the management of health institutions, and examples of different country practices in previous epidemic processes. It is hoped that this study, which will address the ways to be followed and the points to be considered in the management process in order to keep the public

health physically and mentally at the highest possible level, will contribute to the literature as a summary information that will be beneficial for healthcare managers.

## **THE MANAGEMENT PROCESSES OF THE COMMUNITY HEALTH CRISIS**

The epidemic is a crisis because of the areas it affects. Therefore, it would be more appropriate to handle it as a community health crisis. Community health crisis is an extremely important issue due to the uncertainty and versatile effect it creates. In the process of managing this crisis, it is useful to know the content and stages of the crisis concept. It is possible to address the process of the epidemic in three stages: the first stage, during which the warnings were received, the crisis period and the resolution period or the post-crisis process. (Demirtaş, 2000). In fact, the process of crisis management needs to be evaluated before the crisis begins or at the latest when the first signals are received. It is important that all institutions in the community are prepared for a possible emergency, and that they can make quick decisions in a possible emergency situation by developing strategies on probabilities through processes such as exercises or planning. Creating a team before the crisis, training the team on crisis management, determining the roles and responsibilities of the team members, and creating a culture dominated by constructive criticism and discipline within the team constitute the first stage of the process (Efstathiou et al., 2009). This approach is extremely important in managing the crisis process. The sudden and very rapid progress of

the process requires a proactive approach. Although controlling the infection is an important step, it should not be forgotten that the effects and results of the process will spread over a longer period of time. Therefore, in our study, process management was discussed under two titles: epidemic process and post-epidemic process.

## **1. THE EPIDEMIC PROCESS**

Evaluation of the epidemic process with its realistic size and its size at the point of social perception and possible consequences will make the negative consequences of the epidemic process be minimized. In this context, managing the epidemic process with a mixture of realist and social constructive approaches will have more positive results (Smith, 2006). In other words, in the management of the epidemic process, it is necessary to resort to guidance not only of death and transmission rates or economic indicators, but also of psycho-sociological processes.

It is thought that it would be useful to manage the epidemic process in two dimensions, namely the social scale, which is the larger scale from the perspective of health management, and the scale of the smaller scale health institutions. Because managing the process at the social and health institutions level requires some similar variables to be brought under control, it also includes variables that differ from each other. It should be kept in mind that with considering the policies formed regarding the management of the social process will reflect to the management processes of health institutions, the details in the

implementation process will also make important contributions in order to overcome the process with the least harm.

### **1.1. Social Process**

Managing the epidemic process at the national level includes variables other than carrying out health services. In this context; It is important to adopt an approach that includes coordination of communication processes, social mental health protection and socio-economic processes. Decisions taken during the epidemic process should be made at the national level and by benefiting from the experiences of the World Health Organization and other countries. Sharing accurate and transparent information in the management of the social process is an issue that should be addressed at the first stage. Because the approach towards protecting public health and maintaining people's trust in the state during the epidemic process is the basis of health policy. At this point, sharing the transparency and information sharing through various communication channels by updating should be taken into consideration. Thus, the spread of false news that may cause chaos is also prevented (Ho et al., 2020; Brooks et al., 2020). The primary studies, which should be carried out respectively, about how the public should behave during the epidemic are as follows: creating visuals including practical tips such as hand hygiene and wearing a mask and announcing them from all communication channels, sharing the current information about the epidemic regularly and transparently by the most authoritative people of the country, creating images that propose strategies to facilitate mentally coping with the epidemic and

announcing them through various communication channels. In the next process, it is necessary to prevent discrimination and stigmatization, which is usually seen in the epidemic process. Because it is remarkably important to manage the psychological process in parallel with the treatment in the epidemic process (Ho et al., 2020). It is extremely important to use mass media to convey the right messages. For example; The basis of negative outcomes such as social stigma, which continues even after the epidemic process ends, can be laid by mass media during the epidemic process (Williams and Gonzalez 2011) Socially, mass media have a great and important role in the management of the epidemic process. (Smith, 2006). For this reason, the use of mass media is of great importance in transferring the regular and accurate information by managers.

One of the primary issues is to form a team with experts in their field in order to manage the public health crisis correctly. In the process where the team is working and making decisions, also the top-level healthcare manager must manage the process with the team in making decisions that include operational planning and the areas of cooperation with other nations. During the epidemic process, resources should be used in a balanced and effective manner, and priority should be to protect public health. In this process, it is necessary for the health manager / managers to evaluate the events meticulously and seriously, to make flexible, free from dogmatism, and to make fast and correct decisions. In decision-making processes, it should be acted in an algorithmic and coordinated manner towards

real expectations in parallel with a plan and preparation. The health manager is expected to be spiritually strong and reveal his team's inspiring aspect, approaching events rationally and analytically. (Efstathiou et al., 2009). Under the leadership of the health manager, it is extremely important to bring into action the decisions taken by the team, which includes experts in their fields and perspectives from different disciplines. A mental health professional should be included in the same team to make decisions about the mental health of the community; National guidelines on infection prevention processes need to be expanded to include this issue (Ho et al., 2020). Thus, a mental preparation process will be initiated at the social level regarding the epidemic and its effects will continue for a long time.

During the epidemic process, the psychological dimension of the epidemic should not be neglected, and community health services should cover not only the processes related to the epidemic treatment but also the services about sanity and mental health of the society (Duan et al. 2020; 300). Because the epidemic process causes many problems, especially posttraumatic stress disorder (Hawryluck et al., 2004; Maunder et al., 2006). Stress is an element that should not be limited only to the psychological problems it poses. Stress, whose responsibility for diseases is considered as an increasing factor every day, was first described by Hans Selye. It was also suggested by Selye that stress, which was defined as 'individual response to environmental stress factors' by Selye in 1950, has consequences that cause death as well as damaging human health; and today, many cases that prove this



situation are defined in health processes (Selye 1950; Selye 1955). The differences between individuals regarding the responses to the stressors may differ according to the occupational groups. In the process of providing health services, not only stressors but also the reactions differentiate. For example, emergency departments are units where employees feel themselves more under pressure even outside of the epidemic process due to the nature of the service. Healthcare professionals working in emergency departments, who have intense stress and high anxiety levels, are developing various strategies to deal with this situation. They can choose to increase their hedonic (delightful) consumption behaviour as well as go for activities that are enjoyable, keep the person away from tension, distress, and disability (Ertürk et al., 2019). This result that should be evaluated as a risk factor not only for healthcare professionals but also at the social level is a proof at the point of noticing the negative effects of stress on quality of life.

Anxiety that is felt during the epidemic process is considered normal up to a certain point, and patients and employees need to adapt to stress. Stress factors by being identified, it should be ensured that both patients and employees are made aware of that the feelings and thoughts they experienced during this process are normal. It is remarkably important that employees who will provide psychological support in the process are experts in their fields, have a flexible approach and are trained on the subject (Mauder et al., 2003). Emergent psychological problems caused by the fear of the disease

cause more difficulties for the people with poor mental health and their families in the quarantine process (Ho et al., 2020). The emergent psychological problems become a greater danger when combined with personal characteristics or previous psychological diseases (Thurackal et al., 2020). The emergence of the disease in the person may cause new attacks related to existing mental diseases (Maunder et al., 2003). When the treatment process begins, it is difficult to find adequate and well-equipped personnel to provide mental support to patients in the health institution where the treatment is applied or in quarantine practices at home. When focusing on the rather challenging treatment process, the psychological process can be ignored. It is remarkably important to provide psychological support at the beginning of treatment. Because as the symptoms increase, the psychological process gets worse for those who are in close contact with the disease and other risk groups. At this point, it is not recommended that employees, such as psychiatrists, psychologists and social workers who are supposed to provide support, are in the environment where the treatment continues in terms of contamination risk. The fact that those who should give this support during the treatment process are healthcare workers causes the existing role loads of healthcare workers to increase. Another important problem that arises in this regard is the lack of competence on the subject. Healthcare professionals do not know what to do to reduce patients' psychological difficulties due to complex work procedures, heavy workloads, and the lack of standardized training in psychiatry or clinical psychology (Duan et al., 2020). Providing the psychological

support that should be provided in parallel with the treatment process from outside the hospital environment, and planning the mental support professionals who will work for a fee and/or work as a volunteer from the beginning of the process will be an important step at the point of avoiding the epidemic process with minimum harm. Coordinating this support at the national level with non-governmental organizations, professional organizations and volunteers is a critical issue that needs to be evaluated at the social level.

To get through the process easily it is important to carry out the quarantine process with the volunteering of the person and to limit the quarantine period as far as the process requires. It is useful to inform that people should behave carefully in the quarantine process in order to improve the voluntary quarantine approach and protect other people (Brooks et al., 2020, Hawryluck et al., 2004). It should not be forgotten that prolonged quarantine application will increase the psychological problems. The quarantine period should be as long as medical necessity. It is stated that quarantine processes that are extremely strict and long-lasting and include uncertainty and lack of adequate information as in Wuhan, China, are worrisome related to other aspects of public health (Brooks et al., 2020). In the quarantine process, measures should be taken to prevent adverse conditions affecting people's well-being as well as treatment (Hawryluck et al., 2004). In this process, solutions to reduce boredom and improve communication should be produced for people. For this reason, for people who are quarantined or in the process of treatment, the

provision of telephone and internet connections should be evaluated within the scope of need, not luxury (Brooks et al., 2020).

It is stated that during the quarantine process that requires social isolation and keeps the person away from their relatives the patients expressed that they are afraid of losing their relatives most and being stigmatized and unemployed, and their feelings of guilt, anger and fear increase with concerns about the well-being of their families (Maunder et al., 2003, Tam and et al., 2004). In other words, the socio-economic problems caused by the epidemic increase the stress experienced by the patients during the treatment process and prolong the social recovery process.

As can be seen, managing the epidemic process is an issue that needs to be addressed with its social long-term effects. This process should be managed through quarantine approaches that include transparent and accurate sharing of information, the creation of a committee accompanied by the health manager and involving experts from different disciplines, and measures to protect community mental health. It is important not to ignore the relation between stigmatization of people who have had an infection or are in the risk group and community mental health, and not to ignore the relation between socioeconomic problems (such as unemployment) and community mental health; in addition, it is also important to approach the process in a holistic way.

## **1.2. Process Management in Healthcare Organizations**

The management process in hospitals should be addressed in two different dimensions including the treatment process and the management of employees related to business processes. In this process, it is necessary to be aware of the needs and expectations of patients and employees. It should be a priority for healthcare professionals to feel confident that infection control measures are adequate and appropriate in this process and to follow these rules (Chua et al., 2004b). There is evidence that determining the health workers who will work in the epidemic process on a voluntary basis and forming teams with people who have more social cohesion will reduce the burnout and depersonalization that may occur in the process (Kebapçı and Akyolcu, 2011; Tam et al., 2004). It is extremely important for healthcare workers who are dealing with the epidemic to provide training on infection prevention and to enable the protective equipment to be used. The protocols that should be followed in this process should be clearly established, it should be ensured that employees can communicate clearly with their managers, and employees with burnout or psychological distress should be identified early and encouraged to get support. Because employees are not always willing to take advantage of psychological counselling services created for them (Ho et al., 2020; Tam et al., 2004). It may be misleading to focus on only healthcare professionals who are in contact with infected patients during the epidemic process. It has been observed that employees who work with infected patients experience

stress due to their workload, but the level of transmission-related stress is similar in also healthcare workers who do not work in infected services. While it is quite interesting that employees in uninfected services experience the same level of stress, this situation is explained for two reasons. The first of these is explained as "the possibility of having patients with no symptoms", and the second is explained as "not having protective equipment as much as in infected units" (Tam et al., 2004). In this context, to eliminate a potential risk and make employees feel safe, a necessity of taking security precautions in also the services where there are no infected patients emerges.

Support to be provided for healthcare professionals during the epidemic process should not be limited to protective health equipment. Because the expectations of healthcare professionals and the social support to be provided in the epidemic process are also remarkably important (Liu et al., 2020). The results obtained from the study addressing the question of what healthcare professionals' expectations are during the epidemic process are as follows; providing fast, accurate and transparent information and the inclusion of guidelines (32.6%), setting up scanning stations and directing patients to a predetermined hospital for the treatment of SARS (15.8%) and providing protective equipment (15.4%) (Verma et al., 2004). In this process, it will be appropriate to record the contact information, especially telephone numbers, of healthcare professionals working in the process in order to be able to provide both changing treatment

protocols and instructions and direct information within the process. At this point, creating a categorization and classifying the data in this way will also prevent the communication processes from being interrupted. For example, a categorization can be made as family physicians, emergency staff, infectious disease staff and intensive care staff. At this point, it should be taken into consideration that the same employee may be employed in more than one service and the arrangement should be made accordingly.

The importance of psychiatric discipline should not be overlooked in the management process of the epidemic process in hospitals (Maunder et al., 2003; Kang et al., 2020). Due to the psychological problems experienced after the SARS epidemic process, it is recommended to provide psychological support from the first intervention period in the COVID-19 process to the patients (Duan et al., 2020). It is stated that psychiatrist guidance must be applied to evaluate the needs of employees and patients and to arrange a supportive institutional response. It is remarkably important to organize the sleep process for the patients and manage the process together with the psychiatric consultation. Emphasis is placed on the effects on stress reduction by ensuring that patients do not feel alone during the process and even playing jokes on patients by healthcare professionals (Maunder et al., 2003).

In addition to providing general and medical needs of quarantined people in hospitals, it is remarkably important to inform about the disease and the general course of the disease. The most challenging factor in this process is the restriction of one's freedom. Therefore, ensuring that the person communicates with his family and loved ones will make the process easier to overcome and will prevent the psychological problems that may arise in the long term (Brooks et al., 2020). Because there is a lot of evidence in the literature about the long-term negative effects of the quarantine process. For example, the results of the study conducted with 129 people in quarantine during the SARS epidemic in Canada show that these people experience a high rate of psychological problems. It is seen that participants show symptoms of posttraumatic stress disorder (PTSD) at 29% and depression at 31%. It is also among the findings of the same study that factors such as prolonged quarantine time and meeting or direct exposure to someone with SARS caused an increase in score in the specified variables. Participants state that social isolation and especially not being able to contact family members are the most challenging factors in this process, and the necessity to wear a mask and fever measurement are secondary factors. In this context, 60% of the participants believe that the disease will not be transmitted to themselves, 59% of them are worried about their family getting infected and 28% of them are worried about infecting their family (Hawryluck et al., 2004). At this point, it can be considered as an interesting finding that the anxiety of the person's family getting infected is higher than the anxiety of the person's getting infected.



Understanding the mental state of the patients, who apply to health institutions due to illness, and healthcare professionals are important in terms of managing the process more successfully as a whole. Studies conducted in previous epidemics provide important clues about what patients and healthcare professionals feel during this process. Research in Canada reveals that SARS patients experience more uncertainty, fear, loneliness, boredom, and high anxiety, insomnia and anger associated with stigmatization both in the process of infection and after it, and worry about the effects of contamination on family members and friends (Maunder et al., 2003; 1245). As can be seen, social stigmatization, which is one of the long-term effects of the epidemic in both studies, draws attention. It is possible to say that the negative consequences of social stigmatization are almost the opposite with perceived social support. There is even evidence in the literature that perceived social support has a positive relationship with general health status (Liu et al., 2020). Reducing the anxiety experienced by hospitalized or home-quarantined people will make important contributions both to patients in the treatment process and to increase the efficiency of hospital staff. In fact, these results can be evaluated among the evidence revealing the connection between the treatment process and social processes.

The model, which was created in Canada during the SARS epidemic to manage the epidemic process in a healthy way, was created by making arrangements such as; creating a committee within the hospital, creating an isolation service for the disease and assigning

more experienced nurses in this service, providing psychological support besides treatment for patients and employees, and solving logistics and communication problems. It is stated that the mentioned regulations are effective in preventing the deterioration of the mental health of healthcare workers during the epidemic process (Maunder et al., 2003).

There are also examples of social support for healthcare workers during the epidemic process. A campaign was launched with the contribution of the media around the country in order to prevent new employees to be added to healthcare workers who died in the process of combating the SARS epidemic in Hong Kong. The protective equipment, oranges, vitamins, and nutritious tonic beverages provided within the scope of the campaign have made healthcare professionals feel better and motivated in the process (Chua et al., 2004b). Social support perceived by healthcare professionals during the epidemic is remarkably important. There is important evidence in the literature that the perceived social support regardless of the healthcare professionals' contact with the infected patient differs from the social support received by other individuals in the community (Liu et al., 2020). At this point, it is thought that the activation of non-governmental organizations will have important effects in order to increase the morale of health workers and support their motivations during the epidemic process. For example, it is thought that the messages received by the healthcare workers from the civilian

population while working, or other supporting elements will create a positive social connection outcome in this process.

It is clear that the absence of competent organizations that plan and coordinate psychological intervention during the epidemic process is worrisome about negative effects that will occur in the future. Epidemic experiences should not be limited to efforts to strengthen the medical infrastructure (Ho et al., 2020). Apart from the treatment process, it can be said that the management of the epidemic process in health institutions is largely related to social processes. For example, the reaction of the society in this process determines even the number of patients who need treatment.

Issues that should especially be paid attention about the management of the process in health institutions are as follows; to provide protective equipment to all healthcare professionals in health institutions, especially healthcare professionals working with infected patients, and to ensure their use in the management process of the epidemic; to establish treatment protocols perceptibly and clearly; to correctly configure communication processes; to provide psychological and social support primarily for healthcare professionals.

## **2. THE PROCESS AFTER THE EPIDEMIC**

Managing the process after the epidemic is under control is also remarkably important. This process should be planned both to prevent a new epidemic process, to heal the wounds caused by the epidemic, and to create new opportunities with the momentum created by the new paradigm that emerged during the epidemic process.

In order to understand the psychological problems arising at the end of the epidemic process and take precautions, only stress assessment will be insufficient. Other psychological responses such as fear, anger, guilt, and social stigmatization should also be considered (Hawryluck et al., 2004). This understanding, which starts with social stigmatization and has consequences for isolation, is also subject to public health. Managers should also consider social stigma after the epidemic process (Williams and Gonzalez 2011). In the study carried out by Hawryluck et al., 51% of the participants stated that people escaped from them in the post-quarantine process, 29% of the participants stated that they were not invited to social organizations, 7% of the participants stated that they were not called by their friends, and 7% of the participants stated that their families also were not invited to these meetings because of them. This situation is important proof that the effects of the process are long-term.

It should be taken into consideration not only the negative effects that may arise from taking sudden and very hard precautions at the moment of the emergence of the epidemic process but also the

resolution process that may lead to the emergence of negative consequences with a sudden relaxation. As the measures should be gradually hardened, the transition to the normalization period should also be carried out gradually. However, the process after the epidemic should also include carrying out studies to reduce the effects of traumas occurring in healthcare workers and society. At this point, it should be known that it will be difficult to determine who is in the risk group and to deal with the post-epidemic process.

In the long-term evaluation of 997 participants who were treated for SARS disease in Hong Kong, it was seen that physical and psychological recovery lasts longer in chronic patients after recovery. There is evidence that men have more psychological flexibility and are less affected by the process, but those who have more psychological flexibility need more social support, and post-traumatic stress disorders are more common in women after the epidemic (Bonanno et al., 2008; Maunder et al., 2006). The evidence that factors such as being young and women and living alone increase the mental health problems experienced also supports this situation. (Kang et al. 2020; Kebapçı and Akyolcu, 2011; Tam et al., 2004; Maunder et al., 2006). Another study that is not related to the epidemic process shows that the perceived stress and psychological resilience in healthcare workers do not differ by gender. The same study shows that experience reduces perceived stress and increases psychological resilience (Aşkın, 2019). When it is considered that there is more evidence in the literature that the process has more long-

lasting effects on women workers, it can be said that both people with chronic diseases and young women living alone constitute the group that should be supported primarily and spiritually in the post-epidemic process.

It should be considered that healthcare professionals may experience psychological problems at the end of the process. In Canada, in order to evaluate the long-term psychological effects of the epidemic on healthcare workers, the study in which the patients who were treated during the SARS epidemic process and the employees of the hospitals that were not active in the treatment process were compared, which contains important evidence about the impact of this process on healthcare workers. In this process, despite the trainings and the psychological support given to the employees, it is seen that the negative effects continue on the employees. The epidemic may have long-lasting effects on healthcare workers up to 18 months later, and these effects could be as follows; burnout, distress, and post-traumatic stress, avoiding face to face with patients, reducing working hours, and more alcohol and cigarette consumption etc. (Maunder et al., 2006). In the results of the study carried out with the participation of 259 people consisting of physicians and nurses who work in public hospitals in Turkey, it is seen that the hedonic consumption tendency has emerged among the employees who experience burnout and desensitization in order to socialize (Ertürk et al., 2019). These results provide significant evidence about the dimensions of the negative behaviour that people may unwittingly display when the process is not

intervened and indicate that especially healthcare professionals should be supported spiritually and socially, even after the epidemic is taken under control.

In the process after the epidemic, after the measures related to the normalization of life are taken, activities should be done for the elimination of the problems caused by the epidemic. For example, it is thought that organizing various sports activities and hobby courses will have positive effects for healing social wounds and restructuring processes. In the literature, there are studies forming evidence at this point. For example, the study, which was conducted with the participation of 360 women in Turkey, reveals substantial evidence regarding the effects of participation in the hobby courses. According to the results of the research, it shows that going to hobby courses makes a significant difference in mental health variables such as somatization<sup>2</sup>, obsessive-compulsive disorder<sup>3</sup>, interpersonal sensitivity<sup>4</sup>, depression<sup>5</sup>, anxiety disorder<sup>6</sup> and hostility<sup>7</sup>. The results of the same study show that variables such as obesity, social relationships, having the opportunity to vacation, reading books, watching television, playing sports and using the internet do not make a difference in the mentioned mental health variables (Dıđrak, 2014).

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<sup>2</sup> The emergence of stress in a health-damaging dimension.

<sup>3</sup> A psychiatric condition with physical symptoms that cannot medically be explained.

<sup>4</sup> A psychiatric condition about having obsessive and compelling thoughts.

<sup>5</sup> A psychiatric condition that affects daily life negatively, and that emerges with the tendency to be always in a state of sadness and to get away from pleasure.

<sup>6</sup> Psychiatric condition in which anxiety disorder is experienced.

<sup>7</sup> A psychiatric condition that runs on with anger bursts, rage and aggression.

Findings obtained in the study reveal important evidence about the importance of creating hobby courses in this process.

While the risk of disease in the epidemic process constitutes the primary threat, the loss of a loved one, the fear of stigmatization and the anxiety of losing patients are the secondary threat of the epidemic. It is remarkably important to carry out the necessary interventions to eliminate this situation, which causes emotional problems, and functionality in interpersonal relationships to decrease (Verma et al., 2004). One of the issues to be considered after the epidemic process is social stigma and the negative consequences of this situation. Because there is evidence that infectious diseases clearly cause social stigma (Williams and Gonzalez, 2011). Also, in the study conducted in Singapore with the participation of 1049 healthcare professionals during the SARS epidemic in 2003, it reveals that those directly involved in the care process of patients among healthcare professionals are concerned about stigmatization.

It is thought that it will be beneficial to better understand the concept of the social stigma that occurs during and after the epidemic and causes negative results. To characterize a situation as a social stigma, there must first be a reason for stigma. Then, a grouping is formed based on the characteristic element that is the subject of stigmatization. There is a clear distinction for the two groups formed at this stage. For example, this definitive distinction, which occurs in the form of patients and non-patients, creates the notion of "we" and "them". As the "sense of we" strengthens, a sense of weakness and



impotence is created related to the "other" (Williams and Gonzalez 2011). Stigma due to the illness, which is defined as the most harmful form of social stigma, sometimes becomes a barrier in the treatment process, and even due to the negative psychological effect it creates, it has to be taken into consideration with medical treatment. In fact, in some cases, fear of social stigma can cause not demanding for treatment (Williams and Gonzalez 2011; Brooks et al. 2020). Unfortunately, although individuals are educated, social stigma is sometimes carried out irrationally (Williams and Gonzalez 2011). It can even be seen among healthcare professionals. It is important in terms of preventing possible psychological problems that the relationships of healthcare workers, who are quarantined or infected during the epidemic process, with their colleagues, to be monitored by their managers during the period after they start work (Brooks et al., 2020). The negative effect of the stigma associated with the disease cannot be easily eliminated even with increasing knowledge and medical technology. Social stigma, which creates the perception of "us" as a majority and "them" as a minority, results in the emergence of harmful behaviours towards society (Williams and Gonzalez, 2011). Thus, this situation takes place in society in a way that people are not aware of. Generally, this situation, the effects of which increase in the post-epidemic process, should be also taken under control. In this process, messages to be sent by mass media can contribute significantly.

One of the approaches that should be introduced in the post-epidemic process is to turn the effects of the process into positive outcomes. Deciding by calculating the effects of risk perception in behaviour will enable the process to emerge with more positive results (Smith, 2006). These risks that people face during the epidemic can also be considered as an opportunity to develop positive attitudes such as environmental awareness. For this, both political and educational processes should be structured accordingly. Although the results of the research on the epidemic are promising, it is seen that the political approaches and legal regulations introduced in today's world are insufficient. At this point, it is thought that the adoption of an approach, which provides many positive outcomes and evolves into global citizenship behaviour, by all countries will be guiding (Williams and Gonzalez 2011). In addition, healthcare managers should evaluate their experiences in the subsequent processes in line with the reactions of society during the epidemic. In order for the behaviours that pose risks in the epidemic process to not occur again in another epidemic process, training programs should be created or programs that will produce learning outcomes related to the subject should be included in the training processes (Smith, 2006). There is evidence that the epidemic process brings out some positive behaviours in healthcare professionals. These behaviours occur as increasing the empathy approach towards patients, taking more care of the patients' psychological conditions, and displaying a more altruistic<sup>8</sup> attitude in other disease-related processes (Tam et al.,

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<sup>8</sup> Altruism means waiting for another reward or response other than the satisfaction

2004). It should be taken into consideration that the support and maintenance of this emerging feeling are important in the process of providing health services.

It is stated that functional recovery in SARS epidemic process is more difficult than infection treatment and it leaves psychological sequelae in the subsequent process. At this point, the role of the information provided in the epidemic process is extremely important. However, the danger posed by infectious diseases for human life is permanent. For this reason, studies should be carried out to include health-related issues in educational programs in the post-epidemic period. These studies will also benefit in terms of preventive health services (Chua et al., 2004b; Yılmazel and Çetinkaya, 2016).

It is possible to use the anxiety about losing co-workers and relatives during the epidemic process to reconstruct and improve existing relationships in the post-epidemic process. It is believed that carrying out studies that will contribute positively to making the social climate positive at home and at work will bring positive results in this process.

The post-epidemic process should be considered as an opportunity both to treat social wounds caused by the epidemic and to gain new perspectives. Identifying the most affected risk groups in the epidemic process and taking measures for social stigmatization should be the first steps to be taken in this process. Working on providing the necessary spiritual and social support to these groups will benefit the

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of having done good to people.

healing of the wounds caused by the epidemic. It is thought that it will be beneficial to gain permanent health behaviours by including the emergent sensitivity to the training processes and to use them in subjects such as environmental awareness, for achieving new gains.

### **Examples of Practices in the Epidemic Process**

It is seen that there are many studies in the literature, which evaluates the subject from different aspects, about the subject that crisis processes threatening public health are not always managed successfully. By considering that it will be beneficial in the management of epidemic processes, application examples from various countries are included in this section. The first of these examples includes problems arising from the improper management of communication processes. It is stated that in 2003, during the SARS epidemic, the lack of transparency in Hong Kong, the poor management of the communication processes and the inability of the authorities to be sufficiently visible in the process caused the epidemic results to be worse than other countries (Lee, 2009).

In the SARS epidemic process in Canada, a unit in a training and research hospital that previously provides polyclinic services for employees has been turned into a social and mental support unit by including also business therapists, and a comfortable area with relaxing music and snacks has been created in this unit. Healthcare professionals and managers, who are experienced and leads other employees, have pioneered all employees to benefit from this new

support unit. Meetings were held with healthcare professionals from different fields to ensure interdisciplinary approach in the management of the process in the health institution. It was observed that employees who needed psychological support refrained from expressing their concerns to the psychiatrists or therapists they worked with. Also, the need for therapy was rearranged accordingly. E-mail and telephone communication channels have been created for patients who are under quarantine in their homes (Maunder et al., 2003).

It is revealed that establishing a transparent communication resource for the follow-up of the process of the measures taken in India regarding COVID-19, encouraging the public to convey the story of abroad or contact, making the use of a mask mandatory in public places, and providing broad information about hygiene rules give positive results (Thurackal et al., 2020). The measures taken in Singapore during the COVID-19 epidemic process are as follows: identifying high-risk groups, identifying people with psychiatric risk, providing support for healthcare workers, and providing accurate and up-to-date information (Ho et al., 2020).

People at risk of psychiatric morbidity among people in quarantine or hospital during the COVID-19 epidemic in Singapore were identified as follows; those who have existing mental health diseases, foreigners who are far from their home country, those who are over the age of 65 and are in the risk group, those with a chronic disease, and psychological risk groups. To identify these individuals, it is recommended to request a consultation from the emergency

departments, and to conduct epidemiological research by psychiatrists. It is appropriate to provide peer support at the point where the access to mental health professionals is limited (Ho et al., 2020). In such a situation where resources are limited, it is possible to benefit from people who have been trained on disasters and emergencies before the epidemic occurs. It should not be forgotten that peer support to be provided should be done under the consultancy of a mental health professional.

In Singapore, which has previously experienced the SARS epidemic in 2003 and the H1N1 epidemic in 2009, the first measures were taken with the yellow alarm process that began after the first incident occurred on 23 January. These measures are such as travel advice for citizens of the country, restricting entry to people traveling to China in the past two weeks, and mandatory quarantine implementations in case of contact. In Singapore, which raised the alarm level suddenly to orange with the spread of the epidemic on February 7 and with the inclusion of various cases that did not have links to previous cases or travel to China, a panic atmosphere prevailed among the public due to the exhaustion of products such as food and toilet paper in the markets throughout the country. The growth of fear caused by the uncertainty in the public was tried to be reduced with the speech of the Prime Minister of Singapore, and work was begun to take psychological measures (Ho et al., 2020). This situation may be related to previous epidemic experiences and quarantine practices, or it can be considered as the natural effect of the measures taken during the epidemic

process. However, the factor to be considered in this process is that measures have been taken regarding the changes planned for the alarm level. It is thought that making the statement from the very beginning by the most authoritative person of the country to reduce the feeling of panic in the public that will emerge will reduce the effects of panic.

In Canada, three different programs, which were created to reduce stress during the epidemic and two of which are coordinated by the Canadian Medical Association and one from the Canadian Psychological Association, are carried out over the internet. Among these studies, the first of the studies carried out by the Canadian Medical Association is defined separately for each state and is a guidance page, which includes public employees and / or associations, where people experiencing stress can receive service ([www.cma.ca/provincial-physician-health-program](http://www.cma.ca/provincial-physician-health-program)) When the registered state is selected, the website redirects to the institutions and organizations that are effective in the region and the services provided are listed. The second study carried out by the Canadian Medical Association is the web page that summarizes the psychological problems that may arise during the epidemic process and includes suggestion ([www.cma.ca/maintaining-your-and-your-familys-well-being-during-pandemic](http://www.cma.ca/maintaining-your-and-your-familys-well-being-during-pandemic)). In the website created by the Canadian Psychology Association in the epidemic process, the necessary guidance for the psychologist support provided to health workers who fight the epidemic is included (<https://cpa.ca/coronavirus/psychservices>) (Wu et al., 2020).

In the application examples, it is seen that the responsibilities that managers should take in managing the epidemic process are preventing the formation of panic, not ignoring the psychological processes and especially psychological and social support practices in hospitals for healthcare professionals.

## **CONCLUSION**

In this study, it is aimed to present a perspective on the management of the epidemic process in the light of the literature research. It is believed that the study, in which the effectiveness of the epidemics experienced and of the measures taken in previous years were attempted to be evaluated, will contribute to the literature on the management of the epidemic process. The titles created within the scope of the study contain the handling of the epidemic process socially and with the management of health institutions, evaluation of psychological risk factors for healthcare workers during the epidemic process, and examples of different country practices in previous epidemic processes.

It is extremely important in the epidemic process to adopt an approach where the resources are used in a balanced and effective manner and the priority is to protect public health. In this process, it is remarkably important that the healthcare manager / managers rigorously evaluate the events and make flexible, free of dogmatism, fast and correct decisions. The decisions made need to be made in an algorithmic and coordinated manner towards real expectations in parallel with a plan



and preparation. In the epidemic process, the health manager is expected to reveal the aspect of him that gives inspiration to his team and is mentally strong, and to approach events rationally and analytically (Efstathiou et al., 2009).

Managing the epidemic process is an issue that needs to be addressed with its societal long-term effects. In this process, it is an issue that should be evaluated with the quarantine approaches that contains transparent and accurate information sharing, establishing a committee in which both the health manager accompanies and experts from different disciplines get involved, and the measures to protect public mental health. It is important not to ignore the relationship between the stigmatization of the people who have had an infection or are in the risk group and community mental health, and the relationship between socio-economic problems such as unemployment and community mental health. Also, it is important to approach the process in a wholistic way.

In the treatment process, it can be said that societal processes are effective on many variables, especially the number of patients in need of treatment. The treatment service that the health institutions provide is also significantly determinative at the point of the course of the disease and at the point of the trust of the society towards the health services and the state. For this reason, it is extremely important that the process in health institutions is managed meticulously. Issues to be especially careful about managing the process in health institutions are as follows: providing protective equipment for all healthcare

professionals, especially healthcare professionals working with infected patients and ensuring their use, creating treatment protocols apprehensibly and clearly, structuring communication processes correctly, and providing psychological and social support, primarily for healthcare professionals.

The studies that should be carried out within the scope of social services during the extended quarantine process should also be carried out with greater care. One dimension of studies in the field of social services is activities for disadvantaged groups such as people who became unemployed, or disabled and elderly people who cannot go out. These activities should be the activities that aim at meeting the needs of these groups and meeting their morale and motivation. In fact, it would be an appropriate approach to allow disabled people to go out onto the street with only one of their relatives in this process, especially on the days when curfews are declared. On the other hand, it is very important to monitor risky groups in the quarantine process, which can form a ground for increased violence and abuse. In this process, it is necessary to use the mass media and specify the free emergency call codes to apply in case of emergency. It is extremely important to make the necessary planning for the coordination of social services, healthcare professionals and law enforcement officers at the point of responding to possible denunciations as soon as possible. Otherwise, the negative situations caused by the quarantine process and whose traces cannot be erased for many years will be more experienced.

The post-epidemic process should be evaluated as an opportunity both to treat social wounds caused by the epidemic and to gain new perspectives. Identifying the most affected risk groups in the epidemic process and taking measures for social stigmatization should be the first steps to be taken in this process. Conducting studies on providing the necessary mental and social support to these groups will benefit the healing of the wounds caused by the epidemic. It is thought that to gain permanent health behaviours by including the emergent sensitivity in education processes and to use it in issues such as environmental sensitivity will be beneficial in terms of obtaining new gains.

The results obtained in the light of the literature in this study, and the subject that should be handled as a priority in terms of health manager in the epidemic process, is to create a team in which there are people who are experts in their fields and in which primarily members from different disciplines involve. Along with taking measures to prevent transmission, providing transparent, accurate and regular information sharing is extremely important for the proper management of the treatment process and the social process. Along with the treatment protocols that are explicitly and clearly created for healthcare workers and to take the highest level of occupational health and safety measures for healthcare workers, to not neglect the psychological risk factors faced by healthcare workers in this process are also extremely important issues in the process management. In terms of protecting community mental health, psychological support should be provided

in parallel with the treatment process. At this point, it should not be ignored that also the processes of social stigma and of socio-economic such as unemployment are remarkably important in terms of the protection of community mental health in the short and long term.

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## **CHAPTER 5**

### **A STUDY ON THE EFFECTS OF COVID-19 OUTBREAK ON THE EDUCATION SYSTEM AND THE MEASURES TAKEN IN THE CONTEXT OF CRISIS MANAGEMENT**

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## **INTRODUCTION**

Although there are many different definitions for crisis, what all definitions have in common is that crises evoke negative situations. Negative situations are encountered from time to time both in individual human life and in organizations, and if these situations have a large impact, they are called crises. Multiple definitions of the crisis are made in the dictionary of the Turkish Language Association as “Spiritual depression seen in a person's life; When something is scarce; Sudden and excessive desire for something”. As seen from the definitions, crisis is a concept used to describe situations that arise suddenly and are considered to be vitally important. A person is a social entity in contact with family, friends, co-friends, etc. For this reason, it is impossible for people to stay away from the changes and transformations taking place in society and not be affected. As well as the positive changes and transformations that occur in society, crises also affect human life.

The outbreak, named as COVID -19, which emerged in China's Vuhan region in December 2020, has spread all over the world. The virus, declared as a pandemic by the World Health Organization on 11 March 2020, has profoundly affected people's lives, lifestyles, social lives, habits, and education, work lives and has become a global crisis that has engulfed the world.

The first case of the virus was identified on 11 March 2020 in Turkey, and since then managers have had to take various measures to deal with the negative effects of the crisis. If the crisis can be managed well, the negative consequences will be minimized. Therefore, the measures taken are of great importance. In this study, the effects of COVID-19, which is described as a global crisis, on the education system in Turkey and the measures taken against the crisis were examined and recommendations were developed. In the first part of the study, the issues of crisis and crisis management are explained. In the second section, information about Covid-19, which is referred to as the global crisis, is given and the measures taken in relation to the education system are mentioned in this context. In the last section, the measures taken were discussed and proposals were developed.

## **2. CRISIS AND CRİSS MANAGEMENT**

### **1.1. Definition of the Crisis**

The crisis is defined as a major mismatch between an organization's plans and experiences. However, the most important feature of crisis processes is that there are developments other than planned developments. According to Kernisky, the crisis is situations that suddenly appears and cannot be predicted, whose results cannot be controlled or whose results cannot be changed. The crisis refers to the situation that threatens the organizational functioning and the organization cannot respond to the process. (Akyol, 2014: 2).

Although the word crisis has different meanings in every area of science, it evokes a negative situation in terms of the word. The crisis is defined as “A negative or harmful situation that slows or stops the routine activities of the enterprises or disrupts the flow in the internal processes, prevents the operation of the enterprise as a system, that negatively affects the performance of the business, can tarnish the image of the business and needs to be answered quickly and often occurs in an unexpected situation caused by all kinds of natural or human origin, external or internal elements” (Torlak and Altunışık, 2012: 320).

The crisis also means the point of a situation turning good or bad, the moment of life and death, the sudden developments in the direction of abuse and dangerous moments. From a macro point of view, the crisis is instability caused by populist policies, fluctuations in growth rate, rapidly changing external conjuncture, increase in unemployment and inflation, decrease in income level, deterioration of income distribution and decrease in welfare. In terms of micro, the crisis is getting more and more intensified and deeper in competitive conditions as a result of contraction in demand and increase in production costs due to technological, economic, social changes and developments (Kutman, 2001). One of the most important features of the crisis is that it spreads in a short time and usually takes the business to a complete deadlock. In order for the organization to survive the crisis period with minimal damage, management should set aside the usual methods and deal with the main causes of the crisis

with courage and address the crisis (Kent, 1979: 21).

The main features of the crisis are listed below (Sumer and Pernsteiner, 2009, p.37):

- Generally, crises cannot be predicted,
- Forecasting and crisis prevention mechanisms of businesses may sometimes be insufficient,
- Crises threaten the existence of businesses and the future of the business,
- There is insufficient information about preventing the crisis, the time required to overcome the crisis, and explanation about the crisis,
- The crisis should be intervened without losing time,
- The crisis creates tension in the people and / or businesses that will come up with explanations.

## **1.2. Crisis Management**

It is inevitable for businesses to face “crisis” due to the uncertainty and change in the environment. In this case, the important thing is to “manage the crisis”. In crises that may encounter, in order not to encounter negative and irrecoverable results, every business must meet the concept of crisis management.

Since the 1990s, increasing attention has been given to crisis management worldwide. Crisis management has entered the area of interest and competence of managers in public and private sector businesses. Since individuals and institutions in society may face permanent uncertainties and various risks, the smallest uncertainty and risk that can be ignored and considered as negligible can be the beginning of major negativities for the enterprise, employees, society and even the country concerned. Therefore, all businesses, regardless of scale, must analyze any potential risks they may face from their establishment and take precautions for them (Murat and Mısırlı, 2005).

Crisis management is defined as taking steps to detect potential problems in advance, prevent them or take control of their results and react when crises arise. As can be understood from the definition, crisis management includes the stages from the prediction of crises and the steps that prevent the occurrence of the crisis or limit the consequences when it cannot be stopped (Mackenzie, 1995: 73-74). From time to time, businesses may be affected by uncertainties and sudden changes in their environment, and may encounter unexpected negativity and dangers. The success of the business management and the continuity of the business depend on the management skills that may be extraordinary when it comes to its place in such situations. Even the steps to be taken in these periods may create opportunities beyond the dangers and negativities for the enterprise. Crisis management is a process that is needed in such situations. For

businesses that do not put crisis management on the agenda, even a simple change can be a crisis. Crisis management does not consist only of the practices put forward when the symptoms of crisis started or after the crisis started. Crisis management should be considered as part of strategic management in businesses; Because the basis of strategic management is to make decisions and plan under uncertainty. Enterprises should be able to make predictions by carefully analyzing both internal and external environmental conditions while preparing their strategic plans and be able to prepare the measures related to them (Temiroğlu, 2018). In fact, when all these efforts are considered, crisis management has a different approach from the classical management approach and some unique features.

The main purpose of crisis management is to create organizations that can detect crises in advance, decide on their types, take some precautions against the crisis, learn new things from the crisis and collect themselves very quickly (Pearson-Mitroff, 1993: 49). The most important thing to do at the time of the crisis is that managers ask the right questions. Instead of wasting time focusing on the answers to questions about finding a criminal, such as “Who caused this crisis,” or “Who is responsible for this crisis?”, action should be taken without delay to resolve the crisis. It is of great importance to develop alternative plans in crisis management, to be able to evaluate and look differently, to work in a team and to manage the change and to be stable from the moment of crisis.

The methods to be followed to bring the organization out of the crisis to a stable period are mentioned as follows (Tutar, 2000: 96-97):

- To prepare a short-term, flexible crisis plan,
- To conduct studies on how to reach the necessary information for the solution of the crisis in the organization,
- To establish a management information system to get results and achieve the goals by processing the collected information,
- To establish the infrastructure to review the relationship between crisis formation and development processes and to eliminate negativities,
- To create a crisis management team consisting of experts who are experts in their fields in order to assist the top level in management,
- To implement the crisis plan created by the crisis management team as a whole.
- As can be seen, in order to be effective in crisis management, it can be said that the managers facing the crisis should have a good planning and organizational ability, as well as good analysis ability and conduct public relations very well.
- It is also stated that ideal crisis managers should have some basic management skills. These skills are grouped into six groups (Tutar, 2000; 89):
  - Ability to observe and follow developments,
  - Ability to think of different alternatives at the same time,
  - Ability to understand different viewpoints of different people,



- Ability to involve people in decisions and to create and run teams,
- Ability to develop and change employees,
- Ability to manage change.

### **1.2.1. The Aims of Crisis Management**

The aim of crisis management is to reduce the results of the crisis situation, to increase the speed and quality of the organization's response to the crisis, and to take the necessary precautions by making preparations against different types of crisis as much as possible (Yılmaz, 2010). Accordingly, the goals of crisis management can be listed as follows (Sözbilir, 2010: 29):

1. To give managers the ability to perceive, recognize, evaluate and overcome the crisis in advance,
2. To provide the managers with the necessary skills and all the theories and strategies developed in the field of crisis management,
3. To provide managers with the ability to develop plans to escape from crisis or turn crisis into opportunity,
4. To provide managers with information and experience about the process of the crisis by evaluating the past experiences of crisis.

Accordingly, it is possible to talk about crisis management as well as well managed crisis. A well-managed crisis can strengthen the image

of social responsibility prevailing in the public and ensure profitability in the long run. In addition, a well-managed crisis can increase cooperation among employees and strengthen employees' morale and motivation. Although crises have various disadvantages, crises can provide some improvement and lead to innovative ideas. In this respect, crises generally have the potential to bring along opportunities. Therefore, one should think of crises as an earthquake risk, take measures or protect accordingly, and emphasize that the important thing is to manage the crisis well (Tsang, 2000; Augustine,1995).

### **1.2.2. Stages of Crisis Management**

The crisis management process can sometimes turn into a rather complicated process. All stages of the process must be rigorously evaluated so that the organization can survive the crisis with minimal damage. It would be beneficial for the organization managers to be calm in times of crisis, to make plans for crisis situations, to directly deal with the solution of the crisis, to work in a courageous, calm and disciplined way.

Managing crises is a whole of practices that include predicting crises to a certain extent, keeping the positive views of the relevant stakeholders in the crisis process, protecting their positive views on business processes, taking the necessary measures to minimize the possible effects of the crisis, and revealing the positive developments that the crisis will offer (Rousaki and Alcott, 2006:30-38).

With these applications, it is possible to discuss the basic stages of crisis management under three headings. These are prevention, preparation and control of the crisis. Accordingly, the prevention phase includes activities developed by managers by receiving warnings to detect and prevent the crisis that will occur. This stage is of great importance for the prevention of the crisis. Businesses that perform this stage in the best way can manage potential crises correctly. The second phase, the preparatory phase, covers the necessary planning to deal with it when a crisis occurs. In the event of the emerging crisis, decisions such as which way the companies will follow and press releases to be made can be handled at this stage. The focus of the crisis control phase is the organization's response and related elements for a real crisis (Draft, 2006: 253). According to Augustine (1995), crisis management is handled in six stages. These stages are as follows:

1. Avoidance of crisis,
2. Preparing to manage the crisis,
3. Noticing the crisis
4. The crisis stage,
5. Solving the crisis,
6. Using the crisis to benefit.

As discussed in crisis management stages, there are two important approaches in crisis management. One of them is "crisis avoidance

approach” and the other is “the crisis resolution approach”. While the crisis avoidance approach aims to prevent the crisis by activating the necessary crisis prevention and control mechanisms such as early warning systems, the crisis resolution approach aims to save the business from the crisis situation with the least cost and loss (Dinçer, 2004: 423-424).

### **1.3. Successful Crisis Management Cases Across the World**

There are examples of successful crisis management that take place worldwide. In these examples, it is possible to get information about the crises experienced by firms and how these firms manage these crises. Two examples of crisis management are presented below (Konakçı, 2019):

The example given for the first crisis management takes place approximately 37 years ago. The crisis happened in the United States, and the brand was a painkiller called Tylenol. At the time, this painkiller had a large market share in the American country. It had exactly 1 billion dollars of drug volume in the country. Everything was going well for the company that produced the pain killer. However, then an unexpected incident happened and three people who used Tylenol died. It was learned that painkillers were used for murder in events that took place in Chicago. Difficult times started for the manufacturer from now on and after the events, the company decided to withdraw the entire Tylenol pain reliever from the

market. Although the company collected the medicines, it was seen that they stood behind and defended their medicines. The company even managed to refresh the trust by making an analysis. However, the developments at that time showed that people were still hesitant about taking this medicine. The company, which did not give up its case, introduced its more protected drugs after a certain period of time. Along with the investment and trust, the company regained its old days in 1983, and after 3 years, the drug poisoning case came back to the agenda in 1986. When the company received full votes from the public about reliability, the company was able to take part in the list of the most successful crisis management examples of the period, facing the challenges.

The second example is about the fact that KFC, which has the world's most famous chicken restaurant chain, is in the midst of a major crisis in the UK. The company, known as Kentucky Fried Chicken and founded in America in 1952, is among the world's largest chicken companies. The company, which has more than 20 thousand restaurants in 130 countries of the world, was on the verge of a major crisis in the UK. Dates show a near time this time. KFC consumed chicken stocks in 2018 throughout the UK. KFC has started to close restaurants one by one in the region with 900 restaurant chains, and the event that caused a big crisis has made a lot of noise worldwide. The depletion of chickens has resonated not only in restaurants but also through social media. Taking action against this situation, KFC showed an interesting example of crisis management, and the

company made fun of the situation and explained the situation in humorous language. The company executives first apologized to all people by sharing a photo, and changed the letters of the company that was previously KFC into FCK. In the statement, they managed to get the company out of the bad situation with the crisis management policy they followed by making the explanations such as, "There can be no chicken restaurant without chicken."

## **2. COVID-19 PANDEMIC**

In wars over the ages, epidemics that spread rapidly caused more casualties than firearms and fireless weapons . COVID-19, which was declared as a pandemic by the World Health Organization on March 11, 2020, has become a health crisis experienced by many countries around the world. A pandemic is a common name for epidemic diseases that spread and affect a continent or worldwide (Medipol.com.tr). It is possible to reduce the spread of infection in society through prevention and control measures. In this way, the number of people who will be infected in the early stages of the pandemic can be reduced.

When making a pandemic decision for a disease, three criteria are taken into account. These can be listed as follows: (TÜBA, 2020: 19)

- It is a new virus or a mutated factor,
- Ability to easily switch to people,
- Easy and continuous transmission from person to person.

When the historical process is examined, it is seen that many epidemics affecting the world are treated as pandemics. These include: plague, cholera, typhus, smallpox, Ebola and flu (Spanish flu, Asian flu).

### **2.1. Plague**

The outbreak, which began in Central Asia and China, has resulted in the deaths of about 30% of the population in Europe. This disease is popularly known as the "Black Plague". The bacterium *Yersinia Pestis* is found in animals in general and is most commonly transmitted to humans through fleas. The disease is known to spread when fleas bite people and/or infect people from infected person to person. Too much of the mouse population due to lack of infrastructure and poor hygiene conditions in crooked urban settlements also causes the plague to spread faster. Since plague is a bacterial disease, it is possible to prevent the disease with antibiotics used today ([www.medicalpark.com](http://www.medicalpark.com)).

### **2.2. Cholera**

Cholera disease, seen in India in 1817, is a pandemic that spread across the world through trade routes (Uzlu, 1948: 8)

It is an intestinal infection caused by the bacterium *Vibrio cholera* and is a disease with acute and severe diarrhea ([www.hsgm.saglik.gov.tr](http://www.hsgm.saglik.gov.tr)). Today, by taking simple precautions, the possibility of getting the

disease can be reduced. In particular, care should be taken to ensure that the water used is clean.

### **2.3. Typhus**

Typhus comes from the word “tuphos”, which means “smoke” in ancient Greek. According to historical documents, typhus was a decisive factor in the outcome of many wars (Raoult, Woodward & Dumler, 2004: 127). Typhus disease is one of the common diseases caused by insects. It is also known by the name spotted fever. It infects and spreads to humans through creatures such as lice, fleas and mites. It is one of the infections caused by a bacterium. It is a disease that can be fatal if left untreated, with fever and rashes. ([www.ameliyat.com](http://www.ameliyat.com))

### **2.4. Smallpox**

The disease is transmitted through the airway and face-to-face contact. It can also be transmitted by the clothing and bedding of sick people. It is known that the infected person can infect up to 5 people in the outbreaks that occur in the community. In the event of an outbreak, the most important point is to prevent the spread of the outbreak. Finding cases, identifying their contacts and vaccinating is the main thing to do in disease outbreaks (Akın, 2001: 337). The first smallpox vaccine was found by E. Jenner in 1796, and the process of eradicating the disease took more than 200 years. To this end, a worldwide vaccination program has been carried out



[www.winally.com](http://www.winally.com)

## **2.5. Ebola**

The Ebola outbreak affected several countries in West Africa in 2014. The virus is transmitted to humans from wild animals and spreads in the human population from person to person through contact with the blood, various secretions, organs or body fluids of sick people, and with objects infected by such fluids. It is a virus that can be transmitted from person to person and is named after a river in Africa, and is highly lethal in humans and mammals ([www.afad.gov.tr](http://www.afad.gov.tr)).

## **2.6. Flu**

Influenza is a disease that causes infections and millions of deaths in humans for many years. Of the three types of the virus, Type A usually causes outbreaks in humans, poultry, and pigs, while B and C only cause outbreaks in humans (Ceyhan, 2006: 81). Recently, transmissible virus of poultry-related illnesses and deaths due to of avian flu have aroused a great interest.

It was determined that the factors of the three major epidemics that appeared in 1918 with the name "Spanish Flu" with the H1N1 type, with the name "Asian Flu" with the type H2N2 in 1975 and the "Hong Kong Flu" with the type H3N2 in 1968, were initially transmitted from birds (Patrick, Hastings & Krewski, 2016:66). It is estimated that the Spanish flu, which has been passed down in history as a

deadly epidemic and affected the whole world in the last months of the First World War, caused the death of 50 million people worldwide, including 675,000 people in the United States (Sharp, 2005:17). Another epidemic that started in China in February 1957 and spread to the Far East and then to Australia, America and Europe is named as the Asian flu. The number of deaths caused by the outbreak is estimated at 1.1 million worldwide, with 116,000 in the United States ([www.cdc.gov/flu](http://www.cdc.gov/flu))

The recent epidemic diseases are as follows: (TÜBA, 2020: 22):

- SARS (2003)
- Influenza A H1N5 (avian flu) (2007)
- İnfluenza A H1N1 (swine flu) (2009)
- MERS (2012)
- Influenza A H7N9 (2013)
- Ebola (2014)
- Zika (2015)

It has been known for many years that diseases can pass from person to person. In parallel with geographical discoveries and the advancement of technology, diseases have also been moved far further away from the geography in which they originated. After the plague epidemic that started in China and spread all the way to Europe, Venetians who applied 40 days of isolation to prevent the diseases that came with ships could be said to have used the quarantine for the first time in modern terms (Bulut et al., 2016:16). With quarantine

application, the risk of transmission of the disease can be reduced and the number of people affected is tried to be kept under control.

In this context, the Covid-19 pandemic is similarly an easily transmitted human-to-human disease with fatal consequences. The total number of cases worldwide was 13103290; the total number of deaths was 573042. The number of people caught up in the Covid-19 outbreak in Turkey is 214001 and the death toll is 5382 ([www.worldbank.org](http://www.worldbank.org). Accessed on 14 July 2020).

### **3. EFFECTS OF COVID-19 ON THE TURKISH EDUCATION SYSTEM**

The Covid-19 outbreak has spread to the whole world in a short time and has threatened human life, and therefore the authorities in each country are trying to overcome the crisis in order to minimize the effects of the outbreak. Due to the virus called pandemic and affecting millions of people, various restrictions on politics, economy, education, social life, etc. are introduced, the effect of the pandemic is tried to be weakened by the measures taken.

According to the data of the World Bank, the number of students in closed schools worldwide is 1133323872, and the number of students in schools that are partially closed is expressed as 50134558 ([www.worldbank.org](http://www.worldbank.org). Accessed on 14 July 2020).

The data released by the Ministry of National Education on the number of students in Turkey is shown in Table 1.

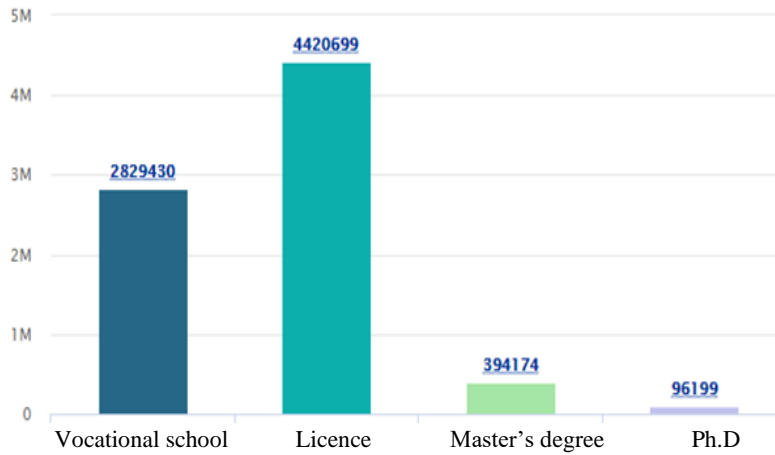
**Table 1:** Number Of Schools, Students, Teachers And Classrooms In Education Institutions By Level Of Education The Educational Year 2018/19

(Level of education)	School/ Institution	Number of Students	Number of Teachers
		Total	Total
<b>Total of formal education</b>	<b>66 849</b>	<b>18 108 860</b>	<b>1 077 307</b>
Formal education (Public)	<b>54 036</b>	<b>15 088 592</b>	<b>907 567</b>
Formal education (Private)	<b>12 809</b>	<b>1 440 577</b>	<b>169 740</b>
Formal education (Open education)	<b>4</b>	<b>1 579 691</b>	<b>-</b>
<b>Pre-primary education</b>	<b>10 669</b>	<b>1 564 813</b>	<b>51 143</b>
Pre-primary education (public)	<b>5 317</b>	<b>1 306 139</b>	<b>30 079</b>
Kindergarten	2 624	387 182	21 612
Nursery-Class	19 919	815 484	38 286 <sup>(2)</sup>
Institutions not affiliated to MoNE (public)	2 693	103 473	8 467
Pre-primary education (private)	<b>5 352</b>	<b>258 674</b>	<b>21 064</b>
Kindergarten	3 635	154 063	12 585
Nursery-Class	1 225 <sup>(1)</sup>	48 794	3 873 <sup>(2)</sup>
Institutions not affiliated to MoNE (private)	1 717	55 817	8 479
<b>Primary school</b>	<b>24 739</b>	<b>5 267 378</b>	<b>300 732</b>
Primary school (public)	22 931	5 005 214	268 065
Primary school (private)	1 808	262 164	32 667
<b>Lower secondary school</b>	<b>18 935</b>	<b>5 627 075</b>	<b>354 198</b>
Lower secondary school (public)	16 874	5 099 275	312 761
Lower secondary school (private)	2 060	338 046	41 437
Open lower secondary school	1	189 754	-
<b>Upper secondary education (General secondary education+Vocational and technical secondary education+Religious education)</b>	<b>12 506</b>	<b>5 649 594</b>	<b>371 234</b>
Upper secondary education (public)	<b>8 914</b>	<b>3 677 964</b>	<b>296 662</b>
Upper secondary education (private)	<b>3 589</b>	<b>581 693</b>	<b>74 572</b>
Open education high school	<b>3</b>	<b>1 389 937</b>	<b>-</b>
<b>Total of general secondary education</b>	<b>6 242</b>	<b>3 250 334</b>	<b>175 275</b>
General secondary education (public)	3 065	1 668 086	109 981
General secondary education (private)	3 176	474 465	65 294
Open education high school	1	1 107 783	-
<b>Total of vocational and technical secondary education</b>	<b>4 640</b>	<b>1 793 391</b>	<b>149 147</b>
Vocational and technical high school (public)	4 226	1 511 876	139 869
Vocational and technical high school (private)	413	107 228	9 278
Open upper vocational secondary school	1	174 287	-
<b>Total of religious education</b>	<b>1 624</b>	<b>605 869</b>	<b>46 812</b>
Imam and Preacher High School - Anatolian Imam and Preacher High School	1 623	498 002	46 812
Open education religious high schools	1	107 867	-

**Source:** <http://sgb.meb.gov.tr>

According to data from the Ministry of Education in Table 1, there are 18108860 students in 66849 educational institutions who are still actively taking formal education at pre-primary education, primary and secondary education levels. The number of permanent and contract teachers is 1 077 307.

**Table 2:** Number Of Students By Level Of Education



**Source:** <https://istatistik.yok.gov.tr>

Data on the number of students enrolled in higher education is shown in Table 2. According to the data in Table 2, the current number of students in higher education in Turkey is 7740502.

**Table 3:** Number Of Teaching Staff

<b>Professor</b>			<b>Associate professor</b>			<b>Faculty Members with Ph.D.</b>		
Male	Female	Total	Male	Female	Total	Male	Female	Total
19591	9230	28821	10038	6698	16736	23187	18423	41610
<b>Faculty Member</b>			<b>Researchers</b>			<b>Grand total</b>		
Male	Female	Total	Male	Female	Total	Male	Female	Total
18719	18962	37681	25109	26381	51490	96644	79694	176338

**Source:** <https://istatistik.yok.gov.tr>

According to the data in Table 3, the number of teaching staff currently employed in higher education institutions in Turkey is 176338 people.

The total number of students is 25849362, which corresponds to about a third of the population. Teachers and lecturers are a huge number of staff consisting of a total of 1253645 people.

The first case of Covid-19 was identified in Turkey on 11 March 2020. As of this date, managers have taken quick decisions and put them into practice in accordance with crisis management strategies. The first decision taken in this context is the decision to interrupt face-to-face education. With the decision announced to the public, the Minister of National Education announced that the time is an intermediate holiday until March 30, 2020 and that the remaining one week will be realized by distance education method, effective from

March 16, 2020. Distance education is a system in which students can continue to receive education without having to leave their homes by using Turkish Radio and Television Association (TRT) channels through the Education Information Network (EBA) system from 23 March 2020. Due to Covid-19, millions of students had to take their education remotely. The distance education process was offered to students through TRT television channels at three different grade levels: primary school, middle school and high school through TRT and the Internet within the scope of EBA. In this context, private schools have provided their students with the opportunity to receive education via the internet in addition to EBA TV. Due to the increase in the number of cases due to the pandemic in Turkey, it was decided on March 25, 2020 that schools would not be opened until April 30, 2020 and that the process would be continued by distance education method ([www.setav.org](http://www.setav.org)).

Distance education is an educational process that was realized in the form of correspondence in America in the 1700s, which was later differentiated by the mailing of course materials, developed through radio and TV, and skipped the age through computer and internet. The last ring of this process (MOOC) can be expressed as Massive Open Online Course (Ergüney, 2015: 16). Although Turkey is one of the developing countries, the internet is widely used because of the public's desire to follow technology closely. TRT TV's broadcast is not difficult to reach. In similar reasons, the transition to distance education system has not been difficult for Turkey.

For university students who have higher Education, YOK (The Council of Higher Education) has tried to reduce the effects of the crisis by taking various decisions. In this context, a model was planned for the continuous execution of education and training activities. In this process, the world samples were examined and the decisions taken by the Universities of the countries where the outbreak occurred were evaluated and the selection of the best alternative was tried to be made among those alternatives.

In order not to interrupt the learning processes of the students during the interruption of education due to Covid-19 measures, YÖK management carried out studies in 5 basic areas: “legislation, infrastructure, human resources, content and implementation”. ([www.covid19.yok.gov.tr](http://www.covid19.yok.gov.tr)). For universities whose infrastructures are ready for distance education, the legislation has been amended to allow them to do Distance Education. Within the framework of feedback from universities, a decision has been taken to address the needs of universities that have insufficient infrastructure under the Coordination of YÖK and in cooperation with other universities. Trainings were conducted for the teaching staff to provide the necessary competence in order to carry out the processes of “learning and teaching in Higher Education in the Digital Age”, also called training of trainers in the field of human resources. The most important element of distance learning is content creation. For this purpose, the decision has been taken to ensure that all the learning resources prepared by universities are made available for use in



distance education applications. It has been decided to make all courses in the digital environment in Anadolu, Atatürk and İstanbul Universities' pools open to access. As regards implementation, universities have been given the opportunity to use synchronous (simultaneous) or asynchronous (non-simultaneous) distance learning methods.

Considering that the global outbreak of Covid-19 occurred after the start of spring semester training and that some students had no opportunities to attend distance learning, students who have received their associate, undergraduate and postgraduate education are entitled to freeze their registration in the spring semester of 2019-2020 academic year if they request it. It has been decided that the frozen period is not to be counted as the maximum period of study. In addition, it has taken a further decision to take into account the epidemic impact process and the requirements of the student in determining the dates of the thesis submission, defense and proficiency exam of the graduate students and that the thesis defense and proficiency exams can be conducted with digital facilities “provided that they are conducted and registered in an auditable environment and conditions”.

Due to the Covid-19 outbreak, many companies in our country have stopped their operations or started to work flexibly / part time. For this reason, higher education institutions are empowered to be able to perform missing education with different compensatory education

methods to ensure that students who receive applied education do not experience victimization and do not lose their years in graduation due to the fact that students do not have the opportunity to continue with applied education or become limited.

Students were given the opportunity to access the course contents of the universities within the scope of the 6 GB “Support to Distance Education” quota, which will be defined free of charge by mobile operators.

For Turkish students who do not want to return to their university due to the outbreak of Covid-19 and for foreign nationals who want to study in Turkey, 50 percent restriction in the international transfer quotas of higher education programs other than medicine, dentistry, pharmacy, law, teaching, engineering and architecture programs, which have the condition of success in entrance to higher education, has been removed, and these programs have been allowed to be allocated to foreign quotas as much as domestic transfer. In addition, in order to ensure that Turkey continues to be a center of attraction for foreign students, decisions have been taken that allow for pre-registration for international students and also for late registration by extending the application and registration process until December 15, 2020.

The Covid-19 pandemic has caused quite a change in the education system. Remote training has become mandatory in this process. Distance education is an educational method with both benefits and drawbacks. The benefits of distance education can be listed as (Ergüney, 2015: 20):

- Providing training opportunities anywhere with Internet connection,
  - Opportunity of education in mother tongue,
  - Ability to choose from many course tools and materials,
  - Being independent of time and space,
  - Easy and fast lesson preparation,
  - Shareable and reusable course materials,
  - An informal learning environment,
  - Supporting education with interaction between learners,
  - Low-cost or free quality education opportunities,
  - Enabling the individual to learn at his own pace and at any time,
  - Supporting lifelong learning
- The drawbacks of distance education are as follows (Ergüney, 2015: 21):
- A certain skill is required to follow the digitally prepared course materials.
  - Learners have difficulty creating their own course content
  - In terms of assessing learners 'success, there is a' copy ' problem in online education
  - It takes time and effort to follow the lessons.

- Sufficient hardware (computer, speaker web-cam etc.) and internet connection is required.
- It does not offer the university experience (school climate) which is part of personal development.
- Participants should have self-study and follow-up discipline.
- Due to the initiative of the participants to follow the lessons, the dropout rates are high.
- Lack of opportunity to work in a laboratory environment and failure to give experiment-based courses remotely.

## **CONCLUSION**

The Covid-19 pandemic, which affected the whole world, caused the deaths of many people and changed their habits, lifestyles, and ways of doing business. Inevitably, education systems have also been affected by this outbreak. Managers, who tried to minimize the effects of the pandemic in the process, have designed their decisions to reduce or stop the spread of the outbreak as a solution to the emerging crisis. For this reason, schools, especially the headquarters of the education system, have become idle. In the process, university students were less affected. The technology, infrastructure and human resources of the universities that are responsible for producing and sharing information are much more advanced than the primary and secondary schools.

Providing distance education to millions of students from different income groups who are students in primary and secondary schools is an extremely difficult task. As a matter of fact, the education given by EBA TV during the pandemic of high school senior students' Transition to Higher Education exam (YKS) was found insufficient and not included in the exam subjects. During this period, teachers working in schools under the Ministry of National Education lost their functionality as lessons were conducted via EBA TV. The individual effort of the teachers to get students to follow the lesson online has been insufficient. As the exam system was evaluated to be unhealthy, the grades prior to the pandemic process were accepted and the students were not evaluated.

However, there are millions of asylum seekers in our country. School-age children of these people are at a disadvantage in achieving education. According to the results of the Red Crescent's research on the Access status of temporary and internationally protected children to distance education, the reasons for non-follow-up of children are listed as follows: lack of knowledge about distance education, technical deficiencies, language barriers, problems with access to EBA TV, teacher and parent apathy ([www.reliefweb.int](http://www.reliefweb.int)). In the decisions taken by the managers, they should evaluate all the details that may affect the future of the country and produce solutions to the problems of the disadvantaged groups. Education is a process that involves not only students and teachers, but also parents and administrators. Therefore, it is very important to inform parents about

distance education and to raise awareness.

However, this is not the case with universities. Student-oriented decisions taken by YÖK are aimed at saving both faculty members and students from their problems. Although there were some problems in practical courses, the courses were transferred to the students in a healthy way, and the student was allowed to listen to the course at any time with the registration method. Universities with strong technological infrastructure had the opportunity to manage this process more easily. With the prepared course materials, students with disabilities were also allowed to follow the lessons.

*Covid-19 has both positive and negative consequences on the education system. It is possible to list the positive results as follows:*

- The distance education system carried out through EBA has been updated quickly and has taken its place in the education system.
- Due to the pandemic, the adaptation of technology to the education system and the transition to the digital education system gained momentum.
- Due to the pandemic, all stakeholders of the education system have become familiar with digital literacy.
- Through digital education, equality of opportunity was achieved between schools.
- Teachers have become more involved with technology.
- *The negative consequences of Covid-19 on education can be*

*listed as follows:*

- Schools lacking technological infrastructure and socio-economic familial conditions can make it difficult for students who are not well-off to reach distance education.
- Studies for disabled and special needs students are insufficient.
- Teachers away from technology can be alienated from the system.
- Individual differences between students can be ignored if Distance Education, Live lessons and e-learning platforms are not well managed.
- Parents ' level of education, socio-economic status and lack of home environment may prevent students from entering the system.
- Students with restricted areas of movement at home may face some health and psychological problems. Some unwanted behaviors such as low motivation, anxiety and stress may occur in students.

The effects of the pandemic need to be minimized in order to eliminate this crisis situation that is engulfing the world. In order to achieve this, we must support the decisions that managers have taken based on their crisis management strategies and support them in implementing the decisions.

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**CHAPTER 6**

**RETHINKING ASSESSMENT PRACTICES IN ONLINE  
TEACHING-LEARNING DURING COVID-19 AT SCHOOL  
LEVEL**

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## INTRODUCTION

Uncertain times brought up by COVID-19 pandemic have embarked changes at several levels globally. Reimagining education has become predominant at this hour. In India, educational institutions have been shut since the mid of March, 2020 and directed to shift from face to face learning to online mode of learning starting from pre-primary to higher education level. With the overall change in the mode of teaching and learning, change in the examination and assessment practices is a derivative. Many national and international level webinars and conferences highlighted the scope, issues, challenges, future roadmap of learning and teaching during COVID-19 but very minimal focus has been shifted towards the process of assessment and examination at school level. The paper explains the symbiotic relationship between teaching-learning and assessment. It presents the status of assessment practices, methods, tools and challenges that are followed and faced by school teachers during these uncertainties.

Black & Wiliam (1998) administered more than 250 studies to establish the relationship between intentional use of assessment in enhancing learning and improving teaching practices. Assessment is a part and parcel of the learning process and thus, becomes important to be studied and focused upon in a desirable manner and amount. The role of assessment in learning is to guide the individuals to appreciate their own achievements, to identify the areas where further

improvement is required and most importantly to learn from their mistakes.

### **Keeping a Balance Between Assessment Purposes**

Assessment for learning, assessment of learning and assessment as learning are three majorly discussed purposes of assessment by Earl, L. M., Katz, M. S., Manitoba, & Western and Northern Canadian Protocol for Collaboration in Education. (2006). Traditionally, the emphasis was placed on assessment of learning, where assigning grades or numbers or percentages to pass a judgement about student's achievement in a specific course, semester or year in a summative manner.

Assessment for learning or formative assessment enquires and represents the continuous learning process of the students to help teachers to find appropriate ways to enhance their learning. Assessment for learning is a continuous process which works as a tool for teachers to improve their planning further. The use of this assessment helps teachers to identify the gaps in students' learning, their alternative conceptions, prior knowledge, probable learning styles, individual needs and differences and plan differentiated instructions for learning to grow in a more constructive manner. The role of continuous feedback is imperative in this type of assessment which keeps the learning active.

Assessment as learning or metacognition in process defines the prime role of students in their own learning process. It guides students to reflect upon one's own thought processes critically and build a personalised connection between learning and assessment. Teacher's role is further extended here to include such activities, context and instructions to provide enough opportunities to students to monitor their own learning process and become independent. Learning to learn is the main principle of this type of assessment which is yet to be explored in depth. It demands time and descriptive feedback from teachers to develop this competence and autonomy among students to self-assess themselves.

There is no one fit solution or plan to show the balance between these three types of assessment. Every classroom is different and every student is unique in their own ways in each classroom. It requires the educators to educate themselves about the types of assessment and its purposes, various methods, tools and practices and most importantly about their students to find a balance between all three types of assessment purposes. Questions like what to assess, why to assess, what methods would be suitable, how can the quality of such assessment be ensured and how is the information from assessment is to be used, could help in finding a balance of different purposes of assessment (Earl, L. M., Katz, M. S., Manitoba, & Western and Northern Canadian Protocol for Collaboration in Education. (2006).



## **From Face to Face to Online Mode: Rethinking Assessment in India**

The outbreak of COVID-19 pandemic brought about unplanned and immediate changes in the overall education system in India. A country, where about 31.7% of population have access to smart phones (Statista, 2020), 451 million active internet users and among them, at state level, NCT of Delhi has the highest internet penetration rate of 69% (India Internet 2019, Internet and Mobile Association of India), the number of internet users has a significant headway to growth in the upcoming times. Online mode of education has been put into use like never before by educational institutions, consequently, opened up avenues for new research studies and reflections. The evident shift from face to face to a complete new era of online learning and teaching is at its nascent stage and would be too early to make any judgement in terms of its effectiveness. The sudden change has brought about many systemic level changes in education, of which assessment is an intrinsic component. As the time of crises continues, revisiting assessment practices at school level becomes evident and adaptation is required to meet the everyday challenges with creativity and critical thinking skills.

Central Board of Secondary Education (CBSE, 14<sup>th</sup> May, 2020) has recently released a circular catering to the special needs and challenges imposed by COVID-19 pandemic on education system where it is recommended to follow the competency based education

approach in relation to the learning outcomes set for each subject in advance. Criterion referenced Assessment is suggested to be practiced in cognizance with learning outcomes framed to measure the level of competency of each child. A balanced use of assessment for learning and assessment as learning by incorporating objective type and performance type assessment strategies has been further proposed to be implemented in all the CBSE schools in India (CBSE, Circular No. Acad-34/2020).

Considering the budding stage of the complete online mode of learning and assessment, the present study attempts to shed light on the status of assessment practices used by teachers of Delhi-NCR during COVID-19 which would highlight the choice of assessment purposes, methods, tools, online platforms and challenges faced by school teachers. Such information would further contribute in analysing the gaps and requisites and helps in illuminating the ways for improving learning and assessment in current times.

Unprecedented changes in the process of learning and teaching during COVID-19 pandemic has changed the perception of teachers and students related to learning as well as assessment and evaluation. The planning and implementation of online education has steadily taken place but very less light has been shed upon the process of assessment of students during this time. Students as well as teachers are finding it very complex to comply with the national or state level guidelines related to ‘assessment & evaluation’ issued from time to time with the

very limited resources available. The scarcity of resources and knowledge regarding online assessment seems to be the big hurdles of the current time.

## **REVIEW OF LITERATURE**

Any specific study based on online assessment at school level during COVID-19 could not be found, though many newspaper articles and online blogs by the educationists were found to be relevant in this regard. Studies, which were conducted before the spread of coronavirus, in the same area were reviewed for the present study. Important issues like technological competency of academic staff for online learning (Gillett-Swan, J., 2017), challenges of online learning for students (Kearns, L. A., 2012), the need of conducting authentic online assessment (Kim, N., Smith, M. J., & Maeng, K., 2008), significant need to improve teachers' assessment practices (Onyefulu, C., 2018), the need of completing primary resource demands for e-assessment (Sangi, N. A., 2008) and need of policy related debates about the use of technology for assessment purposes for resolving ethical concerns (Timmis, S. et. al., (2016) were focused upon online learning and, specifically, assessment process.

## **RESEARCH QUESTIONS**

1. What type of assessment methods and type of questions/items are used by the school teachers of Delhi-NCR in online teaching and learning during COVID-19?
2. What is the status of assessment practices used by school teachers of Delhi-NCR in online teaching and learning during COVID-19?
3. What are the challenges of online assessment faced by school teachers of Delhi-NCR during COVID-19?

## **METHODOLOGY**

### **Population and Sample**

Descriptive survey design was used to gather data and assessing the status of assessment practices used by school teachers in online education during COVID-19 crisis. The targeted population comprised of school teachers teaching academic subjects from primary to senior secondary level in the capital region of Delhi, India. Due to coronavirus pandemic, online mode of data collection was used via google forms by employing Exponential Discriminative Snowball Sampling technique. By using this technique, online questionnaire was circulated among various groups of teachers via email and WhatsApp where they were requested to further circulate it among the targeted population. A total of 72 school teachers participated in the study.

## **Tool for Data Collection**

A questionnaire was designed by the researcher for the data collection by using Google forms. The questionnaire comprised of three sections, where, the first sections included questions related to basic information of participants, section second included closed ended questions related to the choice of assessment methods, online education platforms, types of questions/tasks included in assessment, type of online assessment tools used where respondents were given a choice to select multiple responses in a check box form. Section three included statement type questions using 5-point scale (Very rarely, Rarely, Occasionally, Very frequently, Always) based on preferred assessment practices highlighting the concepts of assessment for learning, assessment of learning and assessment as learning. Another part of this sections included statements on difference between face to face and online assessment, challenges of online assessment and assessment as a tool of teaching by using 3-point rating scale under Agree, Disagree and Cannot decide. An open-ended question based on challenges of designing and conducting online assessment by school teachers during COVID-19 was also a part of the questionnaire.

## **Analysis**

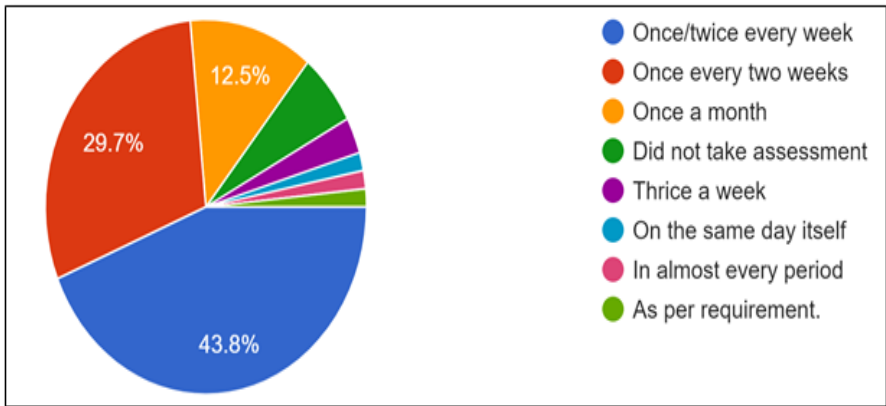
The data were analysed using descriptive statistics.

## **RESULTS**

The result is represented as per the research questions posed in the beginning.

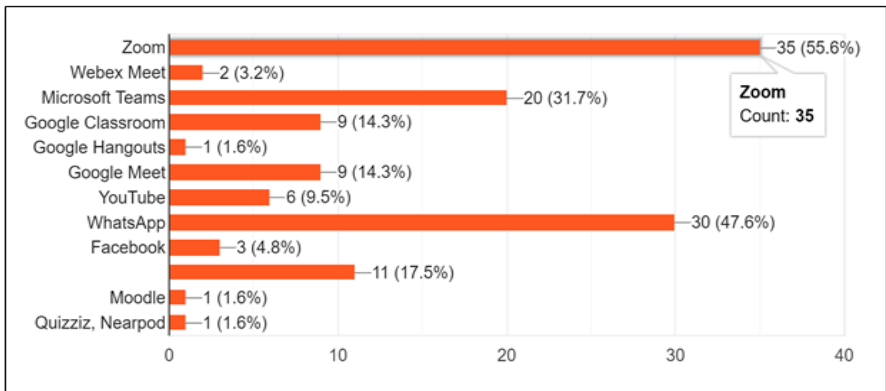
### **Research Question 1: What types of assessment methods and type of questions were used by the school teachers of Delhi-NCR in online teaching and learning during COVID-19?**

Two check box type questions in the questionnaire were included to answer the above research question. First, the teachers were asked to indicate the type of assessment methods used in online education during COVID-19 times and second, they were asked to indicate the types of test items that they used in designing online assessments. To support these two questions, few pre-requisite questions were asked related to the rate of students' access to online learning, how frequently do they assess students in online learning, preferred online tools/platforms for designing assessment and tools for conducting assessment during these times of crisis. The analysis was done by using cross-tabulation and figures shown below.



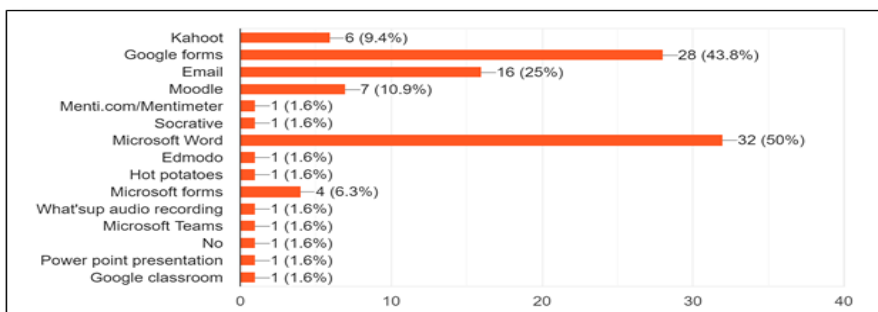
**Figure 1. Frequency of Assessing Students in Online Learning**

Results from **Figure 1** revealed that 43.8% teachers assess their students once/twice every week, 29.7% once every two weeks, 12.5% once a month and very few, only 6.3 % teachers assess their students every day while teaching, 1.6 % assess as per the requirement and 6.1% said they did not take assessment during this pandemic.



**Figure 2. Preferred Online Platform for Teaching-Learning**

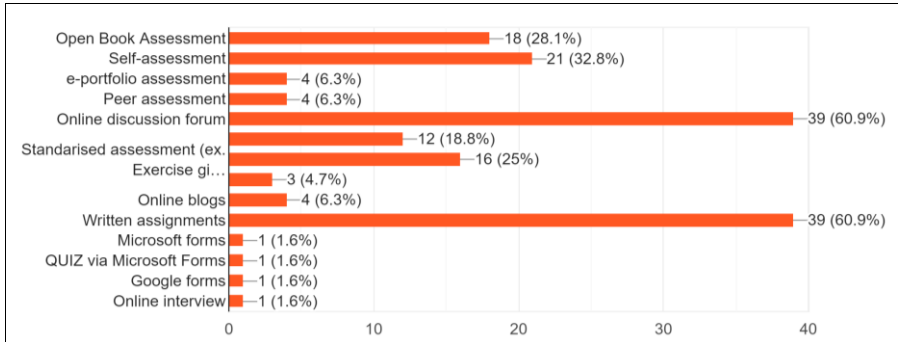
As shown in **Figure 2**, the most preferred online platform used by school teachers for online teaching-learning were Zoom (55.6%), WhatsApp (47.6%), Microsoft Teams (31.7%) and Google classroom and Google Meet with equal number of responses (14.3%). While other modes like Webex meet, YouTube, Facebook, Moodle, Recorded Audio/Video/Audio-Video were a preferred choice of very less teachers.



**Figure 3.** Preferred Online Tools/Platforms for Designing Online Assessment

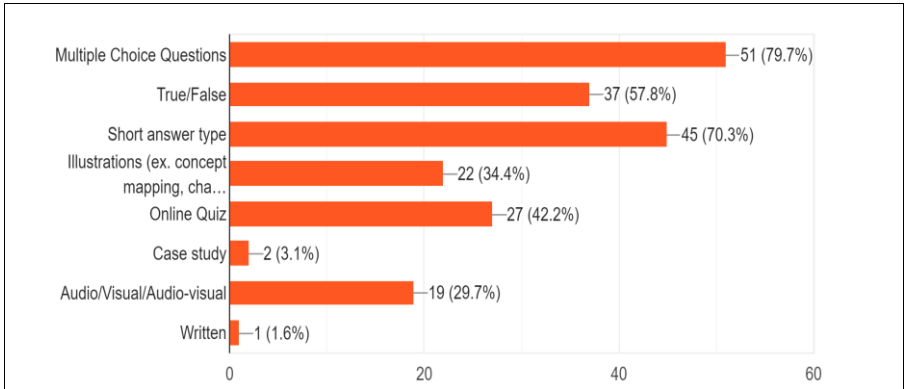
Another **Figure 3**, showed that Microsoft Word (50%), Google Forms (43.8%) and Email (25%) were the most preferred tools for designing online assessment during COVID-19 by the school teachers.





**Figure 4.** Type of Assessment Methods used during Online Teaching and Learning

To answer the first research question, **Figure 4** illustrates the results. The most preferred assessment methods were Online Discussion Forums (60.9%) as well as Written Assignments (60.9%). Average preference was given to Open book assessment (28.1%), Self-assessment (32.8%) and Standardised assessment (25%). Assessment methods like e-portfolio, peer assessment, individual assessment plans, online blogs and learning journals were used by very less number of school teachers.



**Figure 5. Type of Questions used in Online Teaching-Learning**

As indicated in **Figure 5**, MCQs (79.7%) and short answer type (70.3%) and True/false (57.8%) were mostly used in designing online assessment by school teachers. Other types of questions like illustrations, online quiz, audio/video interpretations were chosen by average number of school teachers, however, case study type was the least used type of question by the school teachers. Presented below are the findings of second research question.

**Research Question 2: What is the status of assessment practices used by school teachers of Delhi-NCR in online teaching and learning during COVID-19?**

**Table 1. Status of Assessment Practices of School Teachers of Delhi-NCR in Online Teaching and Learning during COVID-19**

S.No.	Statements	Very rarely	Rarely	Occasionally	Very frequently	Always
<b>Assessment for learning</b>						
1	I discuss the criteria and mode of assessment with students.	5.60%	7.00%	18.00%	18.00%	51.40%
2	I make sure that each student participates in assessment process.	7.00%	4.20%	16.70%	25.00%	47.10%
3	I discuss assessment activity/task with the students to help them understand the objective of the assessment better.	7.00%	2.70%	19.40%	15.30%	55.60%
4	Together with the students, I discuss ways about how to improve on their weak areas.	8.30%	4.20%	13.90%	27.80%	45.80%
5	I use multiple types of assessment methods to cater to the learning styles (Audio, Visual, Kinesthetic etc.) of the students.	7.00%	2.70%	23.60%	23.60%	43.10%
6	I help students to use different platforms to showcase their learning such as blogs, online learning journals, online discussion forum etc.	9.70%	13.90%	26.40%	34.70%	15.30%
7	I provide regular and descriptive feedback on student's learning through various modes.	2.70%	8.30%	20.80%	23.60%	44.50%
<b>(Mean of 1,2,3,4,5,6,7 Assessment For learning in %)</b>		<b>6.76%</b>	<b>6.14%</b>	<b>19.83%</b>	<b>24.00%</b>	<b>43.26%</b>
<b>(Mean of 1,2,3,4,5,6,7 Assessment For learning in Number)</b>		<b>4.9</b>	<b>4.4</b>	<b>14.3</b>	<b>17.3</b>	<b>31.1</b>
<b>Assessment of Learning</b>						
8	I have an accurate basis to show the learning of students like ranks, grades, marks etc.	11.20%	9.70%	22.20%	20.80%	36.10%
9	I prefer to assess students at the end of course or semester.	7.00%	4.20%	16.60%	23.60%	48.60%
<b>(Mean of 8,9 Assessment of learning in %)</b>		<b>9.10%</b>	<b>6.95%</b>	<b>19.40%</b>	<b>22.20%</b>	<b>42.35%</b>
<b>(Mean of 8,9 Assessment of learning in Number)</b>		<b>6.6</b>	<b>5</b>	<b>14</b>	<b>16</b>	<b>30.5</b>
<b>Assessment as Learning</b>						
10	I help students to set their goals and monitor their own learning.	5.60%	5.60%	18.00%	22.20%	48.60%
11	I provide opportunities to students to assess their own learning and find ways to improve further.	8.30%	4.20%	19.40%	23.60%	44.50%
<b>(Mean of 10, 11 Assessment as learning in %)</b>		<b>6.95%</b>	<b>4.90%</b>	<b>18.70%</b>	<b>22.90%</b>	<b>46.55%</b>
<b>(Mean of 10, 11 Assessment as learning in Number)</b>		<b>5</b>	<b>3.5</b>	<b>13.5</b>	<b>16.5</b>	<b>33.5</b>
<b>Overall Online Assessment</b>						
12	I keep in mind the purpose of assessment while planning assessment for students.	11.20%	2.70%	12.50%	13.90%	59.70%
13	I find online assessment effective in analysing students' level of learning.	8.30%	11.20%	34.70%	38.80%	7.00%
14	I try different ways to ensure that students participate in assessment process in an honest manner.	8.30%	7.00%	19.40%	12.50%	52.80%
<b>(Mean of 12, 13, 14 Overall Online Assessment in %)</b>		<b>9.27%</b>	<b>6.97%</b>	<b>22.20%</b>	<b>21.73%</b>	<b>39.83%</b>
<b>(Mean of 12, 13, 14 Overall Online Assessment in Number)</b>		<b>6.7</b>	<b>5</b>	<b>16</b>	<b>15.6</b>	<b>28.7</b>

As shown in Table 2, total 14 statement were asked under different sub-headings by using 5-point Likert type scale where n=72 and their

percentage of responses as well as average means in each response category were mentioned. Under **‘Assessment for learning’** 7 statements were asked wherein mean percentage of 43.26 showed practices followed ‘Always’ and very less were observed to follow these practices ‘rarely’ or ‘very rarely’ except no. 6 statement based on helping students to use different platforms to showcase their learning such as blogs, online learning journals, online discussion forum etc, where most of them preferred to use this occasionally or very frequently. **‘Assessment of Learning’** included 2 statements where on an average 42.35% were seen to follow these practices ‘Always’, however, results showed that 19.40% ‘occasionally’, 6.95% ‘rarely’ and 9.10% ‘very rarely’ in terms of following the assessment practices. Two statements based on ‘self-assessment’ were asked under the sub-heading **‘Assessment as Learning’**, where on an average 46.56% respondents were seen to follow these assessment practices ‘Always’ with their students in online learning. Rest of them fell under the categories of ‘occasionally’ to ‘very rarely’.

Three statements were asked related to **‘Overall Online Assessment’**. The average of 39.83% respondents kept the purpose of assessment in mind ‘Always’ and 22.90% ‘very frequently’ while rest of them were seen to follow these practices ‘occasionally’, ‘rarely’ or ‘very rarely’. Only 7% said they find online assessment effective in analysing student’s level of learning ‘Always’, while around 72% said ‘Very frequently’ or ‘Occasionally’ and 20% approx. believed it to be true

‘Very rarely’ or ‘Rarely’. Next part shows results for the last research question.

**Research Question 3: What were the challenges of online assessment faced by school teachers of Delhi-NCR during COVID-19?**

An open-ended question was asked related to answer the above-mentioned research question. From the descriptive responses of participants, the major challenges of conducting online assessment confronted at the time of COVID-19 pandemic were, large class size, authenticity of assessment results, probability of parental help or interference is high, network issues, supervision, planning online assessment by using different modes is time consuming and response rate of students in completing assessment is less, and individual monitoring of students is difficult.

Responses like,

*“Yes, Conducting online assessment is challenging as compared to the physical classroom environment. In online classroom, teacher cannot provide a complete learning environment as at times it depends a lot on the parents also to check whether students are attentive during the class or not. Also, 20% parents in private schools are not tech savvy. So, it gets difficult to ensure 100% teaching learning for each child. As children find mcqs easy, so their writing practice can't be determined during*

*online classes. In nutshell, 2 hr online class cannot replace the 6-hour teaching session.”*

*“I agree, that assessment done online is difficult as we cannot be totally sure of the authenticity of the work done. Major challenges:1. Unavailability of internet, 2. Authenticity of work done and submitted.”* shows the abovementioned concerns and challenges faced by respondents in conducting online assessment.

Only 3 participants said it is not challenging. One of them said, *“No, Most students participate and try to improve themselves. Even if they are cheating then also process of learning is there. But few ( for whom the main concern is about) escape. But this happens during regular classes too. So no regrets.”*

One more question related to ‘if you attended any online training/workshop on ways of conducting online assessment during COVID-19’, to which 70.3% said ‘Yes’ and 29.7% said ‘No’. The results of this question could be seen in relation to the challenges faced by the respondents in the discussion section.

## DISCUSSION

With respect to first research question, Online discussion forums, written assignments and standardised assessment were the mostly used assessment methods in online mode which is in line with a study by Bulawa, Seeco, Kgosidialwa, and Losike-Sedimo (2017), the majorly used online assessment were written assignments, exams, group discussions and presentation. With these, other type of assessment methods like e-portfolio, Open-book test, self-assessment, online blogs/learning journals, peer assessment and online interview/viva were also used by teachers, though comparatively in less number, which is in consistent with the findings of the study done by Wallace and White (2014), which explained that teachers use different assessment methods to provide evidence of student learning.

The results also highlighted that MCQs, short answer type and true/false were majorly used for designing online assessment which shows similarity with the study done by Frey and Schmitt (2010), which showed evidences that short answer type or fill-in-the-blank, and multiple choice questions/items were chosen by the teachers very frequently in online assessment.

The overall findings of research question 2 indicates that around even less than half of the teachers were ‘Always’ following the assessment practices fall under three major purposes of assessment i.e. ‘Assessment for learning’, ‘Assessment of learning’, and ‘Assessment

as learning' while more than other half of the teachers followed these assessment practices frequently, occasionally, rarely or very rarely. This is in view of the recommendations made by Manitoba Education, Citizenship and Youth (2006) and Kubiszyn and Borich (2000), who believed that assessment has various purposes, and it is important to maintain a balance between three major purposes of assessment and use various assessment methods to inform and extend learning of students. The reason being more than half of the teachers were not following these practices 'always' might be the reasons related to the challenges raised by them in the next part of the questionnaire while assessing students online.

As it can be seen that more than half of the respondents were occasionally or rarely using the formative assessment practices in online teaching -learning, the question based on challenges in the way of planning and implementing online assessment as a part of learning process speaks volume. The challenges like planning online assessment is time consuming and difficult than face to face assessment relates to the views of Hannafin, Oliver, Hill, Glazer, and Sharma (2003) who emphasised that "the distant nature of Web-based approaches renders difficulty in many observational and participatory assessments". Another major challenge raised by majority of respondents was authenticity in planning, conducting and analysing online assessment which was also reiterated by Kim, Smith, & Maeng, 2008 in their study on Assessment in Online Distance Learning, where



they mentioned the importance of authentic assessment activities/tasks. With these, other challenges mentioned earlier in results section indicates that planning and conducting online assessment to strengthen each student's learning in complete online environment is yet to be explored and researched enough to find solutions to such challenges with evidence based results.

## **CONCLUSION AND IMPLICATIONS**

The 21<sup>st</sup> century human race is becoming digitised every year at multiplying rates. Though educationists and researchers all over the world have been into the process of analysing, devising and rethinking new ways of integrating technology within education to strengthen the learning process of each child, this COVID-19 pandemic has given a steer rise to technology to take over our learning process. With a number of challenges and issues associated with online teaching and learning, it has opened up new vista of knowledge, dialogue and research. One such element is rethinking, planning and implementing assessment as an integral part of online learning. The present study highlighted the status of online assessment at the time of COVID-19 at school level.

The effective use of online-assessment processes in India, however, depends upon establishing the solutions to the procedural and technological challenges that hinders the usability and reliability through detailed literature review of studies done in this area earlier as

well as exploratory study designs. The findings showed that only half of the teachers followed the formative assessment practices always yet another half were following the same occasionally or rarely, which is a matter of major concern and needs practical solutions to their problems to bring them to level of satisfaction. Several implications can be made as per the results discussed of the present study, such as:

1. Use of well identified rubrics for assessment purposes would help in maintaining the authenticity of assessment tasks which was repeatedly referred as a challenge of online assessment by the respondents.
2. Teachers need continuous online trainings based on planning and implementing online assessment practices as per the grade level and subject they are teaching to resolve the day to day challenges faced by teachers in online assessment with expert advice.
3. More than half of the teacher were seen to follow the assessment practices occasionally to rarely which implied that during these testing times, teachers are required to learn, reflect and try out new teaching and assessment methods and practices. They need to think beyond their comfortable level of using repetitive face to face assessment methods. This could be better done by decentralising some of their responsibilities on student's and parent's shoulders by using self and peer assessment methods

which were seen to be used by a very less number of teachers in the present study.

4. For policy makers and teacher trainers in education, this is the time to make more significant and immediate investments in required technological resources and professional development programs as per the specific needs of the students and teachers by using various online modes.
5. Teachers at individual levels may join online teaching blogs and journals worldwide. As this pandemic is common around the world now, the successful practices of teachers around the globe might be helpful in overcoming many related challenges of online assessment.

## **CONCLUSION**

The limitation of the present study is that it only included school teachers of capital region of Delhi state of India. Due to physical geographical issues the number of sample did not represent all school teachers of the selected state. Therefore, one should be careful when making generalisations. A larger sample size is recommended for future studies. Regardless of the limitation, the study has contributed to the existing literature which is lacking in India during current time of crisis.

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