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Editors

Hakan TAN
İbrahim SERBESTOĞLU



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PREFACE

Globalization can be defined as a process in which the world becomes increasingly interconnected in economic, cultural, political, and technological terms. This process intensifies interactions among countries, societies, and individuals, gradually erasing boundaries between them. Such proximity and the intensification of relations promote global trade and investments, stimulating economic growth. Additionally, globalization facilitates the rapid dissemination of new knowledge and technologies worldwide, enabling people to access these advancements on a global scale. Moreover, globalization enriches cultural diversity, fostering mutual recognition of different lifestyles.

One of the most influential and beneficial domains of globalization is undoubtedly science. Through globalization, knowledge and science have transcended national borders, becoming a shared value for all humanity. The foundations of science were laid in Mesopotamia, Ancient Greece, India, China, and the Islamic world. Even during those times, knowledge was shared and developed across various cultures. The Renaissance and Enlightenment periods in Europe marked a rebirth of knowledge, accelerating the concept of universal science. In the modern era, the internet and open-access platforms have endowed science with a truly universal character. At this stage of globalization, scientific activities, and technological advancements increasingly rely on international collaboration among scientists, driving progress. It is evident that many projects of global significance have been realized through the contributions of scientists from different countries. Furthermore, it is nearly certain that global challenges such as climate change, pandemics, and energy crises cannot be resolved without international cooperation and universal scientific research.

In this context, the universalization of science in a world where boundaries in economic, cultural, political, and technological domains are becoming

increasingly transparent is a natural outcome of this process. Science, which has evolved and grown since antiquity, continues to advance through new universal contributions and has become a shared heritage. Thanks to the contributions of scientists from around the globe, the knowledge produced is disseminated worldwide simultaneously and made available for all humanity's benefit. The valuable works in this book undoubtedly contribute to the shared scientific heritage of the world from the moment they are published.

Editors

Asst. Prof. Dr. Hakan TAN

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CHAPTER I

THE CONCEPT OF ORIENTALISM IN THE CONTEXT OF ISLAM STUDIES AND HISTORICAL DEVELOPMENT

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1. Introduction

The concept of orientalism is one of the most contentious in the context of the dialectic between the West and the East in international relations. In this regard, it is notable that there is a diversity of perspectives in the existing literature on the conceptualisation of orientalism. Furthermore, there is a lack of consensus regarding the origin of orientalism and the scope of activities encompassed by orientalist studies. These debates primarily originate from differing perspectives on whether orientalists operate on a religious or secular basis. This ambiguity in the literature hinders both the conceptualisation of orientalism and the construction of a coherent historical narrative of its development.

This study highlights the shift in orientalist activities from religious to secular grounds over time, demonstrating a correlation between this transition and the economic, cultural, and religious developments in Western European society. It is evident that this transformation in orientalist studies has resulted in significant disruptions to the semantic framework of the concept. In this context, it is evident that orientalist studies, which were predominantly conducted for religious reasons prior to the sixteenth century, were underpinned by a conceptual framework that was inherently religious in nature. However, it can be argued that the increasingly secular worldview of Western European society contributed to the transformation of orientalism into a secular field of activity and an academic discipline after the sixteenth century. During this period, it is notable that philological studies played a significant role in shaping the academic

identity of orientalism, moving it away from its religious roots. Nevertheless, this does not signify that orientalist activities were entirely divorced from religious considerations throughout this period. Rather, it suggests that alternative justifications were introduced alongside those that were religious.

In terms of the limits of our research, the term “*Orientalism*” is used to refer only to studies on the religion of Islam and the regions where Muslims live. Consequently, studies on other religions and regions are excluded from this definition of orientalism. In other words, the focus is on the evolution of orientalist activities directed specifically towards Islam and Muslims from the seventh century to the nineteenth century, and the concomitant shift in the conceptualisation of orientalism. To this end, the conceptual framework of orientalism and the approaches in the literature on its historical development are first discussed, and a framework is subsequently constructed on this basis.

2. Conceptual Framework

It is asserted that the concept of orientalism is derived from the English word “*Orient*”, which denotes the east. Its etymological origin is purported to be the Latin word “*Oriens*”, which signifies sunrise. Conversely, some sources posit that the term “*Orientalism*” entered the English lexicon from the French word “*Orientalisme*”. In Turkey, the term “*Şarkiyat*”, derived from the Arabic word “*Şark*” meaning “the east”, was previously employed in lieu of “*Orientalism*”. Currently, however, the term “*Oriental Science*” is more frequently utilised. In Arabic literature, the concept is expressed by the word “*İstişrak*”, while the term “*Müsteşrik*” is used for a person who carries out oriental activities. (Bulut, 2007, p. 427; Dikici, 2014, p. 47; Köse & Küçük, 2015, p. 110). 110) While the concept of orientalism is defined as “*Oriental Science*” in its most basic sense, it is more broadly accepted as “*Western-centred institutional activity that studies the East in various fields such as religion, language, science, thought, art and history, and develops value judgements about the East*” (Bulut, 2007, p. 428). However, it can be argued that this definition is based on an approach that reflects the conception of the concept in the minds of the modern period.

Temporal progress or historical change, in conjunction with external influences, gives rise to the alteration and transformation of a multitude of phenomena. One of the phenomena that is unable to resist the advance of time is the concepts that form part of our mental images. In other words, it is established that concepts are unable to maintain their intrinsic nature in the context of historical transformation and temporal progress, and that they have undergone certain semantic ruptures as a result. Given that concepts are susceptible to shifts

in meaning that occur in their content over time, it is evident that orientalism is similarly affected by this semantic change. The rapid change in the content of concepts such as orientalism, which has a particularly pronounced political dimension in the context of international relations, poses a significant challenge for the development of a clear and coherent conceptual framework and definition. In light of the aforementioned considerations, it becomes evident that defining orientalism in a manner that encompasses the entirety of its historical evolution presents a greater degree of complexity in comparison to the definition of many other concepts. It can also be argued that a number of sub-factors contribute to the emergence of ambiguity in the conceptual framework.

One of the principal factors influencing the conceptual boundaries of orientalism is the existence of disparate approaches to the genesis of orientalism. For example, there is a divergence of opinion as to the origin of orientalism. Some scholars posit that it originated before the modern period, whereas others consider it to have emerged in the context of modernity. Consequently, those who construct definitions of orientalism in the pre-modern context tend to emphasise religious motives to a greater extent than those who take modernity as a point of departure. However, the second group goes beyond this initial emphasis and attempts to reconstruct the concept with different arguments. This differentiation is closely related to the transformation of orientalism's functions over the course of historical development.

Those engaged in the interpretation of the concept of Orientalism within a religious framework direct their attention to the activities that occurred prior to the colonial period. This perspective defines orientalism as a field of study that encompasses all works produced since the seventh century, which evaluate the East as a place that is simultaneously feared, admired and hated. During this period, the East is primarily addressed within a framework centred on Islam and the Prophet Muhammad. Indeed, the perception of non-European communities as “*savages*” who should be converted to Christianity in Western thought during this period provides the foundation for the activities of orientalism. This approach posits that orientalism serves as a vehicle for missionary endeavours. (Zakzuk, 2006, p. 8; Paret, 2011, p. 14; Kılıoğlu, 2015, p. 339)

It can be observed that the research conducted on the Eastern world and Islam under the guidance of the Church had a direct impact on the religious content of the term. Furthermore, the aforementioned definition is corroborated by the fact that the term “*orientalist*” was used in the seventeenth century to describe a member of the Eastern and Greek churches. This usage is based on the research carried out by Eastern Christians in order to defend their religion against

Islam (Bulut, 2010, p. 3). This demonstrates that the concept of orientalism had an important religious dimension in the seventeenth century and was used to describe Eastern Christians.

It can be observed that the concept of orientalism was not limited to Eastern Christians during this subsequent period. To illustrate, the term “*orientalist*” was initially employed in an article published in England during the eighteenth century to describe Edward Pocock (d. 1691), a clergyman with an interest in Oriental studies. Similarly, during the first quarter of the nineteenth century, the term was used in the obituary of French orientalist Louis-Mathieu Langlès (d. 1824). The aforementioned examples illustrate that the designation “*orientalist*” was no longer exclusively applied to individuals residing in the East. Instead, it was also used to describe those living in Western Europe who engaged in the study of the East. Furthermore, from this period onwards, orientalism transcended its initial focus on the religious aspects of the East, encompassing a more comprehensive approach to the region. This shift in focus may have contributed to the perception that the concept was evolving beyond its religious connotations. This represents a significant turning point in the development of orientalism as a more comprehensive field of study. (Bulut, 2007, p. 428)

Indeed, it can be argued that during the eighteenth century, the scope of the concept’s application broadened, with orientalism also encompassing those residing in Western Europe who engaged in research on the Orient. From this period onwards, orientalist activities are situated within a framework that encompasses the social, cultural, and political dimensions of the East, in addition to the religious context. Consequently, the concept of orientalism gradually expanded its boundaries. In the latter half of the nineteenth century, social and political developments in Europe led to a further diversification of the content of the concept. During this period, orientalism became a concept that expressed the interest of a diverse audience, including missionaries, politicians, painters, and philosophers engaged with the East. With the inclusion of the United States of America in these studies, the concept became more comprehensive and complex. (Bulut, 2007, p. 428) Consequently, the meaning framework of orientalism can be approached in two ways: positively and negatively.

The researchers in the first category, who adopt a positive approach towards orientalism, seek to evaluate this concept as an unintentional branch of science shaped by an academic curiosity. This group places particular emphasis on the positive effects of orientalism between two different cultures and its contribution to the recognition of a foreign culture. Notable proponents

of this approach include Bernard Lewis (d. 2018), John MacKenzie and Lynce Thornton. However, it seems probable that the fact these researchers are also orientalists has influenced their perspectives and definitions of orientalism. In this framework, they argue that orientalists produce information in accordance with the criteria of objective science (Bulut, 2010, pp. 3-5). Bernard Lewis, who endeavours to define orientalism in this context, attributes two different meanings to the concept. He posits that orientalism represents, on the one hand, an artistic movement that emerged when artists travelling to the Eastern world elected to portray the East as the subject of their creative output. On the other hand, it is a collective term used to describe the field of academic philology, especially after the Renaissance, which studies Eastern languages in a Western context. (Lewis, 1982, p. 51). With these definitions, Lewis addresses orientalism from a more theoretical standpoint. Nevertheless, the practical implications of this theoretical definition in the field remain open to debate.

Indeed, it can be argued that philological studies conducted in the West played a significant role in the development of orientalism as an academic discipline. Nevertheless, it can be readily argued that this perspective has a reductionist quality with regard to oriental activities. This is because this approach restricts the scope of orientalism to academic and artistic studies, thereby excluding its social, political and religious dimensions. We believe that a more accurate interpretation of Lewis' approach to orientalism would be as a defensive measure against the criticisms present in the existing literature, rather than as an attempt to define the concept in a comprehensive manner.

A significant number of researchers who challenge the framework proposed by Lewis have sought to develop an alternative definition of orientalism, emphasising the social and political dimensions of orientalism that have been largely excluded. It can be stated that these researchers adopt a critical approach to orientalism. The aforementioned scholars, namely Edward Said (d. 2003), Muhammad al-Bahiy (d. 1982), Malik b. Nabi (d. 1973), Mustafa Sibai (d. 1964), Maryam Jamilah (d. 2012), Anwar Abdulmalik (d. 2012) and Bryan S. Turner, can be included in this group (Bulut, 2012, p. 2).

It is beyond dispute that Edward Said is the most prominent member of this group, both in terms of his approach and the impact of his work. Said posits that orientalism represents the conceptualisation of the East that has been shaped by the West. In his definition, Said posits orientalism as an institution that makes judgments about the East. Consequently, orientalism passes judgement on the East, shapes the East and endorses the opinions held about the East. Orientalism

represents a means by which the West may exert dominance over the East, effectively becoming its ruler. Consequently, he constrains the scope of oriental studies to a field that justifies the West's perceived superiority over the East, rather than a purely scientific endeavour. Indeed, as Said asserts, orientalism reconstructed the East for the benefit of the West. In a sense, the process of orientalism enabled the West to establish hegemony over the East.(Said, 2016, p. 16; Bulut, 2010, pp. 7-8)

It is evident that the arguments put forth by Said, which seek to correlate orientalism and colonialism, have resonances in the real world. This has contributed to the rapid dissemination of his thesis and its adoption by scholars in a multitude of geographical contexts, particularly in regions that have a history of colonialism. For this reason, Said's thesis is regarded as a paradigm-shifting approach to orientalism in the social sciences (Bulut, 2007, p. 436). Additionally, Said's approach has been critiqued in the literature by orientalist such as Bernard Lewis (d. 2018), who argues that it is a reductionist approach that aims to highlight only the negative aspects of orientalism, to deal only with Arab geography instead of the whole East, and to hide the positive aspects of relations between societies.(Lewis, 1982, p. 57 et al.)

In conclusion, the concept of orientalism, in the most general sense, can be defined as the imaginative construct developed by the West about the East. However, the concept has experienced various breaks along the way. It can be stated that these breaks have been shaped both by the function that orientalism has assumed in the historical process and by the perspectives of the researchers on this orientalism. Accordingly, while the framework of the concept is seen to have had a religious character in the period known as "*church orientalism*", which belonged to the pre-colonial period, it is observed that new fields of activity were opened up by preserving the religious content in the subsequent period. In this context, it would be more appropriate to construct the framework for orientalism in the modern period at the centre of colonialism together with the entire historical accumulation.

3. Historical Development

In the context of the historical development of orientalism, the prevailing view among scholars is that orientalism emerged as a scientific discipline during the eighteenth and nineteenth centuries. Said and Kalın posit that orientalism emerged as an academic discipline in the nineteenth century, although they contend that its foundations are much older. Bulut, on the other hand, refers to

both the eighteenth and nineteenth centuries. (Said, 2016, p. 14; Kaln, 2016b, p. 138; Bulut, 2010, p. 9). However, it is seen that there are different approaches in the creation of the historical background of orientalism, which is considered as a discipline. The formation of disparate views suggests that researchers adopt varying approaches to the factors that precipitated the emergence of orientalism. To illustrate, a researcher who interprets the concept of orientalism through the lens of conflict between Islam and Christianity might situate their analysis at the outset of the first Muslim-Christian struggles. Researchers who adopt an approach that situates the concept of orientalism within the context of colonialism tend to situate its origins in the colonial period. The objective of this study is to present an overview of the various approaches to the development of orientalism and to establish a framework for its analysis.

3.1. Orientalist Activities in the Context of Religious Ground

Although the emergence of orientalism as a systematic discipline occurred during the eighteenth and nineteenth centuries, the history of the Orientalist archive, which Westerners consulted during periods of difficulty, has a much longer provenance. (Bulut, 2010, p. 9) The question of whether attitudes towards Islam in the pre-modern period were individual studies or whether they can be evaluated within the scope of orientalism, which is an institutional activity, remains a separate problematic issue. Nevertheless, the acquisition of the various forms and characteristics of orientalism that we recognise today is the result of a historical process.

Kaln, who posits that orientalism attained its systematic structure in the nineteenth century, is one of the researchers who cite the tension between Islam and Christianity as a factor in determining the point at which orientalist activities first emerged. He posits that the architects of the inaugural anti-Islamic polemics were Christian theologians, including Bede (d. 735), John of Damascus (*Yuhanna al-Dimashkī*) (d. 749) and Theodore Abū Qurra (d. 825). These individuals did not view Islam as a novel religion but rather as a heretical offshoot of Christianity. In this context, their assessment of the Prophet Muhammad is typically characterised as that of a “*false prophet*” (Kaln, 2016b, p. 48). The impetus for Christian clergymen to engage in research on Islam can be attributed to the fact that Eastern Christians were disquieted by the advent of Islamic expansion into European territories via Andalusia in 711 AD. (Kızılcık, 2018, p. 153) Initially, as Western Christians were not yet fully aware of the perceived threat posed by Islam, it was Eastern Christians who initiated

these studies. However, as the borders of Islam continued to expand, Western Christians must have also become uneasy, as evidenced by the fact that research on the Islamic faith also began among them in the eleventh and twelfth centuries. Indeed, the prevailing view among scholars is that these endeavours undertaken by Western Christians constituted the genesis of orientalism.

The date in question is taken as a reference point for the beginning of orientalism by researchers who cite the meeting organised by Pope Urban II in 1095, which resulted in the Crusades being decided, the first translation of the Qur'an in the twelfth century and the simultaneous preparation of the Latin-Arabic dictionary. Alternatively, the Council of Vienna in 1312 is identified as the first place where orientalism emerged. The decision taken at the Council of Vienna was to establish Arabic language chairs in European universities. (Kalın, 2016b, p. 80; Köse & Küçük, 2015, p. 112; Özçelik, 2015, pp. 58-59) In the same context, some scholars recognise the Christian theologian Raymond Lulle (d.1315) as the founder of orientalism. Lulle established a missionary school on the island of Majorca that taught Arabic. He concurred that it was a superior approach to engage in discourse with Muslims rather than engaging in conflict with them. (Zakzuk, 2006, pp. 17-18; Kalın, 2016a, p. 110) However, the majority of Western works from this period, particularly those pertaining to the Prophet Muhammad, are a reiteration of the narratives presented by Eastern Christians during the Byzantine era, rather than a genuine historical account. In these narratives, the image of the Prophet Muhammad is portrayed in a negative light, as a "*false prophet, sorcerer, sick, lustful and merciless*" (Kalın, 2016a, pp. 82-82). Indeed, despite the long-standing focus on the "*lust and violence*" associated with the Prophet Muhammad and Islam among Westerners, their primary challenge has been the dearth of primary sources. (Kalın, 2016b, pp. 45-51)

The sixteenth century saw a significant development that transformed the situation, enabling Westerners to access primary sources directly. The geographical discoveries, which are believed to have had a direct and indirect impact on the economic, social, religious and political future of Western European societies, can be defined in the context of our research as the starting point of a process that is thought to have caused radical changes in orientalist studies by Westerners themselves, who travelled to Islamic geographies in large numbers. In our opinion, it would be more accurate to regard this period as the beginning of the systematic period in which both the scope and the purpose of orientalism would change.

3.2. Transformation of Orientalism into an Academic Discipline

The sixteenth century should be considered as a period in which a number of changes emerged within the Western society itself and this detail of the issue should not be ignored. Because the social phenomena characterised as Renaissance, Reformation, Geographical discoveries and Scientific revolution, which would result in modernity, showed Europeans the fact that there was another world outside the teachings of the Medieval Church both geographically and intellectually. Christianity, which took its share from this newly formed world view, lost its only validity for European society and began to regress in social life. Thus, “*beyond and others to be discovered*” became ready for Europeans. (Kalm, 2016b, p. 137)

The discovery of the Cape of Good Hope by Vasco da Gama in 1498 and subsequent description of the region as part of the Far East by Westerners marked the beginning of a new era in orientalism, opening up a route from the southern tip of Africa via the Cape to the Far East. The growth of political and economic relations between the East and the West during the sixteenth century, coupled with the considerable number of Western travellers visiting the East, resulted in a notable surge in the production of literature about the East. For example, Guillaume (Wilhelm) Postel (d. 1581), regarded as the inaugural orientalist of France, was appointed as the head of the Arabic chair established at the College de France University in Paris in 1539. In 1536, King Francis I of France appointed Postel to the Ottoman Empire. He facilitated the dissemination of Eastern cultural traditions to the West by translating the manuscripts he had amassed in Jerusalem and Syria during his tenure. It is documented that Arabic was first taught as a course in the same institution in 1587. Lewis, whose ideas on orientalism as an academic discipline we have already discussed, identifies the establishment of the Arabic Chair at Cambridge University in 1633 as the point of origin for orientalism. (Güngör 2011, pp. 23; Bulut, 2012, p. 10; Kalm, 2016b, pp. 82-82)

It can be argued that the humanist tendencies that emerged in Europe during the sixteenth century and subsequently led to a greater objectivity in studies of the Orient compared to the previous period. At this juncture, Joseph Glenvill (d. 1680), a member of the English royal family and a clergyman, in his 1668 publication, delineates the transformative impact of geographical discoveries on Western minds. Glenvill (2020, p. 842) asserts that, contrary to the accounts provided by their ancestors, Westerners who travelled in these previously unfamiliar regions encountered friendly and kind people who

shared their knowledge and riches. The framework that Glenvill proposes is that orientalist activities contributed to the demise of the old illusions that arose from geographical discoveries. Nevertheless, while the veracity of this assertion is open to question, it is nevertheless evident that orientalist activities have begun to assume a more prominent position within the academic discourse.

While it is possible to discuss a shift in terms of quantity, such as the growth in the number of individuals engaged in orientalist pursuits and the fact that it is a topic of interest within the academic community rather than the religious domain, it is challenging to perceive a qualitative transformation in the substance of these studies. In this context, the views of Martin Luther, who is positioned as the leader of the Reform movement, can provide insight into the approach of orientalism during this period. Despite Luther's rejection of the Christian perception of his time in a holistic sense, it is evident that he continued the legacy initiated by his predecessors in Christian thought, albeit with a disregard for this in his polemics on Islam. One of his most notable theses is that the devil dictated the Qur'an to the Prophet Muhammad as a "*sedition*" (Erbaş, 2004, p. 174). Consequently, the Qur'an is not the word of God, but rather the words of the Prophet Muhammad "*inspired by the devil*". This relationship that Luther sought to establish between the Qur'an and the Prophet Muhammad, and the conceptualisation of Islam as "*Mohammedanism*" in the context of the religion of the Prophet Muhammad within the framework of orientalist thought, should be interpreted as a manifestation of the same idea.

Luther established a correlation between the expansion of Islam and the fact that Islam is a religion of the "*sword*". According to him "*...the Qur'an or creedal teachings of the Turks teach them to overthrow not only the Christian faith but the whole worldly administration. Muhammad, who expressed this belief, ordered that people should be governed by the sword, and the use of the sword, which is frequently mentioned in his Qur'an, is characterised as the noblest work.*" (Luther, 2008, p. 43)

During this same period, the approaches to the relations between Europeans and the local peoples living in the geographies they visited as a result of geographical discoveries provide us with significant insights into the nature of orientalist activities at that time. Bartolomé de Las Casas (d. 1566) was the first Spaniard to elucidate the relationship between Europeans and local peoples. Bartolomé de Las Casas, a Spaniard, served in the Indian islands from the beginning of the sixteenth century and documented the inhumane practices

there in his work, titled *A Short Account of the Destruction of the Indies*. He asserts that Europeans held the view that the appropriation of lands belonging to other peoples did not contravene either divine or natural laws. In this context, Casas recounts a discussion he had with a clergyman regarding the existence of spirits among the indigenous peoples. (Casas, 2020, pp. 574-575) This is what Orientalism's view of non-Western societies presents to us.

Indeed, this perspective of orientalist thought provides a framework for understanding how geographical discoveries were simultaneously inaugurated the colonial process. It is argued that colonialism emerged as a consequence of the West's egocentric comprehension of the universe. It can therefore be argued that the Western-centred understanding of the universe provided by orientalism enabled the West to pursue its own agenda of "civilising" the other. Moreover, when the growing military power of Europe identified the Eastern lands as an area of expansion, it endeavoured to create a legitimate basis for its colonial activities by activating the orientalist literature that had accumulated until then. (Kalin, 2016b, p. 33; Paçacı, 2001, p. 92)

The name of Silvestre Sacy (d.1838) is of particular significance in underscoring the pivotal role of language studies in the evolution of Orientalist studies and its transformation into an autonomous academic discipline. The "School of Oriental Languages" established by Sacy in Paris in 1795 and the students trained there both contributed to the transformation of orientalism into an academic discipline and facilitated the expansion of the field of orientalism during the colonial period, extending from philological studies to encompass history, geography and religion (Taşçı, 2006, p. 146). Furthermore, Napoleon Bonaparte (d. 1821) took a group of linguists, archaeologists and social scientists, collectively known as the "Mission de l'Égypte" (Mission to Egypt), with him during his campaign in Egypt in 1798. A significant proportion of Napoleon's entourage comprised students of Sacy's (Güngör, 2011, p. 27). This interconnectivity between orientalism and colonialism is exemplified by the appointment of British Orientalists, spearheaded by William Jones (d.1794), as civil servants in the Subcontinent by the British East India Company, the architect of the colonial order in India even before Napoleon. (Arberry, 1943, p. 30)

Consequently, this network of relations with orientalists, who appear to be employed by imperialist states that perceive the exploitation of the rest of the world as their prerogative, exemplify the nexus between orientalism and colonialism. These individuals serve as the intellectual foundation for the

policies developed in these geographies. In the context of Michael Foucault's analysis of the relationship between knowledge and power, the vast corpus of knowledge produced by these orientalists, who are the servants of power, serves two distinct functions. Firstly, it provides a legitimate basis for imperial goals in international relations. Secondly, it attempts to justify imperial goals as beneficial activities for those living in colonial lands.

As has been previously stated, a series of phenomena that originated in Europe during the sixteenth century, accelerated during the seventeenth and eighteenth centuries, and reached its zenith in the nineteenth century, resulted in the decline of religious thought and the loss of the exclusive validity of the worldview shaped by the tenets of Christianity. This development facilitated the exploration of geographies outside Europe by Westerners. For those who associate orientalism with colonialism, the advent of orientalism can be traced back to this process. In this context, researchers who construct the historical process of orientalism through the relationship between orientalism and colonialism posit that the origin of orientalism is in the seventeenth and eighteenth centuries. The earliest studies on Islam were conducted by notable figures such as Pococke, Hugo Grotius (d. 1645), and George Sale (d. 1736), which laid the foundations for the emergence of orientalism. Indeed, there was a notable surge in the study of orientalism during the nineteenth century. In the span of just half a century, tens of thousands of articles, theses, dissertations, and books have been published, while the number of courses offered in university departments has also increased. (Köse & Küçük, 2015, pp. 112-113)

The exponential growth of orientalist studies can be attributed to the profound transformations occurring in Europe. The social, political and colonial structure of nineteenth-century Europe made it imperative to gain knowledge of the East. However, this was necessary not only to exploit the East but also to realise the project of universal modernity. In this century, which is referred to as the "*classical orientalism*" period by some researchers, it is asserted that orientalism was established by figures such as Sir William Jones, Silvestre Sacy, Joseph von Hammer-Purgstall (d. 1856), Karl Gottlieb Pfander (d. 1865), Edward William Lane (d. 1876), and Ernest Renan (d. 1892), and that it experienced a significant surge in the twentieth century.

It can be argued that the fact that the knowledge produced by the West, which has imposed its power on other societies in political, economic and military contexts, is regarded as indisputable truths has opened the doors of a world waiting to be rebuilt, rather than a feared East for Westerners. It is

estimated that over six hundred thousand publications were produced in Europe and America by the twentieth century. The most prominent figures in this field of study are Ignaz Goldziher (d.1921), Carl Heinrich Becker (d.1933), David Samuel Morgoliouth (d.1940), Sir Hamilton Alexander Roskeen Gibb (d.1971) and Henry Eugénie Corbin (d.1978). (Kalin, 2021, pp. 116-139) In his work, Said establishes a relationship between colonialism and orientalist activities, proposing that orientalism emerged in the nineteenth century. He asserts that the activities initiated by France and England prior to the Second World War were subsequently assumed by the United States following the Second World War. Kalin, who shares this perspective, asserts that the institutionalisation of orientalism coincided with the advent of colonialism. (Kalin, 2016b, p. 137; Said, 2016, p. 14)

Consequently, the gradual transformation of economic, political and cultural conditions in Western societies since the sixteenth century has led to an expansion in the scope of orientalist studies. The field of philological studies played a role in the transfer of orientalism to the realm of academic inquiry during this period. Rather than seeking objective knowledge, these academic activities appear to have been driven by a desire to legitimise Western superiority over Eastern cultures. In this context, it can be argued that the process initiated by the geographical discoveries and culminating in colonialism resulted in the integration of orientalism into colonial activities. Ultimately, orientalist activities, which were initially driven primarily by religious motivations, underwent a transformation following the advent of geographical discoveries, becoming an established academic discipline. This evolution led to the emergence of diverse fields of inquiry, particularly within the realm of philology.

4. Holistic Approaches to Orientalism

It has already been pointed out that it is a separate problematic whether it would be an anachronistic reading to accept the studies on the Eastern world or Islam as orientalism in the historical process. Some researchers have attempted to address this issue by dividing orientalism into distinct phases and constructing a historical process. One such researcher, Taşçı, posits that orientalism studies in the West comprise five distinct phases. In the initial phase, he acknowledges the initial encounter between Muslims and Eastern Christians (specifically, those in Egypt and Syria).

From approximately 650 AD onwards, the research conducted by Christians on Islam was characterised by a defensive stance, reflecting their own beliefs. During this period, orientalism sought to establish the notion that

Islam constituted a heretical sect of Christianity. The second phase of Orientalist activities commenced with the decline of Muslim influence in Andalusia during the thirteenth and fourteenth centuries. The occupation of significant Islamic centres, including Córdoba and Toledo, during this period gave rise to a further development. This is the translation of the works of Islamic scholars from Arabic into Latin, which continued for at least a quarter of a century. The translations conducted at this juncture of orientalism were wholly subject to the authority of the Church. While the defensive psychology of Christianity persisted during this period, it can be argued that missionary activities increased as a consequence of the acquisition of political and military power.

The third phase is characterised by a radical departure from established methodology, a consequence of the Enlightenment Period. In this context, the eighteenth century and the first half of the nineteenth century represent the third phase of orientalism. In this phase, three distinct approaches to Islam emerged. In accordance with the initial perspective, as with the preceding two phases, Islam was perceived as a heretical offshoot of Christianity. The second approach is characterised by the assertion that Islam is a false religion, distinct from Christianity. The third group is led by German Enlightenment thinkers who view Islam as the sole rational and natural religion.

The fourth phase of orientalist studies represents a historically critical period. During this period, research institutes specialising in Arabistics and Islamic sciences were established. In the fourth period, renowned orientalists such as Sacy, Goldziher, Welhausen, Paret, Sprenger, and others produced new works by consulting primary sources. The final phase is that of Applied Orientalism. The most notable aspect of this period is that orientalists had the opportunity to apply their theoretical knowledge in practice. For example, C. H. Becker, in addition to being a renowned orientalist, held a position of influence as a politician (Taşcı, 2013, pp. 9-27). The experience of orientalism in the Indian context can be readily evaluated within the framework of applied orientalism. Sir William Muir, one of the orientalists under consideration in this research project, was an orientalist who produced a four-volume work on the life of the Prophet Muhammad, which was characterised by a polemical approach. Concurrently, he served as the Deputy Governor of the North-Western Provinces of the British Government in the Subcontinent. (Woodhead, 2006, p. 94; Cap, 2021, pp. 395-396) William Wilson Hunter, the author of "Indian Musalmans", a book that was also offensive to Indian Muslims, was the head of the Education Commission of the British Government in the Subcontinent.

Özçelik, another researcher who deals with the development process of orientalism by dividing it into phases, analyses the development process of orientalism in four periods. The initial period extends until the formation of the Asiatic Society in 1784. Özçelik posits that during the initial phase, Eastern Islamic Civilisation held a more prominent role, whereas orientalists occupied a relatively passive position. In this period, Orientalist studies are regarded as driven by the desire to gain insight into Islamic civilisation, which is perceived as a superior cultural tradition.

The second period in this chronological sequence is the period from 1784 to the Second World War. This period also corresponds to the period in which the phenomena described as the Enlightenment and modernity emerged in Western Europe. During this period, Europe-centric interpretations of history, science, and philosophy emerged. Consequently, while orientalists have assumed an active role, the East is positioned as a passive entity. The primary objective of this period is to conduct research in conjunction with colonialism. The third period is the period following the Second World War, during which decolonisation – that is to say, anti-colonial activities – began. During this period, the field of orientalism shifted its focus from the history and civilisation of Islam to a greater emphasis on the direct social and political dynamics of Muslim societies. The final period is the period following the terrorist attacks of 11 September 2001. This period saw the globalisation of the discourse of orientalism, which emphasised the distinctiveness of the East in comparison to the West. Some researchers posit that this was a period of clash of civilisations. (Özçelik, 2015, pp. 60-62)

5. Conclusion

In light of the information currently available, it can be posited that the methodologies associated with the historical evolution of orientalism are inextricably linked to the significance ascribed to the concept. Those who interpret the concept through the lens of religious history cite the Wars of Mute and Tabuk and the Crusades as the point of origin. The process, which commenced in approximately the seventh century, continued its development in a religious context, within the framework of the Crusades in the eleventh century and the decisions of the Council of Vienna in the fourteenth century. It can be posited that for these individuals, the history of orientalism and the history of missionary work are inextricably intertwined. Those who situate the concept within a framework of colonialism and orientalism consider the

seventeenth and eighteenth centuries to mark the beginning of social and political developments in Europe, following the geographical discoveries of the sixteenth century. Subsequently, the concept underwent further development, becoming embedded in the political structures of the West. Both approaches concur that philological studies facilitate the historical evolution of orientalism. In light of these approaches, it is possible to identify several key points in the historical development of orientalism.

Although the history of orientalism is as old as that of the East and West, in the context of our subject, it has a religious character until the modern period. In this period, orientalism can be defined as the collective of disparate and largely individual endeavours that, at times, regard Islam as a superior civilisation to be emulated and, at other times, as a menace. The studies conducted during this period were characterised by an amateurish approach to defending Christianity against Islam. However, the developments that commenced in the West during the sixteenth century and subsequently became a European-centric intellectual construct pervading every domain by the nineteenth century gave rise to a transformation in both the nature and function of orientalism.

This process saw two distinct developments. Firstly, orientalist activities underwent a transformation, becoming more systematic in structure through the establishment of philological studies. Secondly, the developments that followed the geographical discoveries resulted in the colonisation of the remainder of the globe by Western European powers. From a political perspective, the accumulated knowledge about the East by orientalists up to that point made the relationship between colonialism and orientalism inevitable. Since the colonial period, orientalism has been functioning as the “*exploratory arm of colonialism*,” as famously observed by Said.

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CHAPTER II

VIRTUAL REALITY AND AUGMENTED REALITY APPLICATIONS IN ARCHAEOLOGICAL SITES: TROY ANTIQUE CITY

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1. Introduction

In virtue of the rapid development of technology, it can be seen that virtual reality applications have started to spread to all areas of life today. As well as there are many different definitions in the literature on virtual reality, Stone (1991) stated that virtual reality applications are multimedia environments that increase human-machine interaction to a level that can be perceived by human senses. Although it can be said that Stone's definition of virtual reality is a summary of the definitions at that time, it can be considered that it is still valid in terms of the point virtual reality applications have reached today. However, the concept of virtual reality is used in many different fields and in different

ways today which has caused virtual reality applications to evolve and develop according to the sector in which they are used differently (Greengard, 2019). With the developments in virtual reality applications and technologies, hologram and similar applications are widely used in many fields such as medicine, tourism, architecture, and education (Aslan, 2017; Kečkeš & Tomičić, 2017). By means of virtual reality, it is also possible to protect cultural heritage products, to complete the structures that can no longer be updated to their original state due to certain reasons, and to use it as an attractive tourism product with its unique nature. In this context, virtual reality applications in the field of cultural heritage can be classified as follows (Sürücü and Başar, 2016):

- Applications for virtual reconstruction,
- Applications for on-site experience and guidance,
- Applications for scientific analysis,
- Applications for virtual restoration,
- Virtual museums,
- Educational games.

In this research, the potential of technological applications in archaeological sites is examined specifically in the ancient city of Troy, located within the borders of Çanakkale province. In line with the findings obtained as a result of the research, the potential of the ancient city of Troy for virtual reality and augmented reality applications was evaluated. It is thought that the study will be a guide for similar studies that would be conducted on other historically important archaeological sites.

2. Literature Review

In the literature review on the use of virtual reality applications in the tourism sector, Demirezen (2019) stated that in process of this technology is used in the tourism sector, it could provide benefits such as providing sustainable competitive advantage, increasing attractiveness and service quality, creating an innovative image, and facilitating marketing and promotional activities. In a study examining virtual reality applications in practice, it was stated that the preliminary experience provided by virtual reality affects the destination image positively and can be used as a marketing tool (Griffin, Giberson, Lee, Guttentag, & Kandaurova, 2017).

In the relevant literature, there are studies referring the potential and positive effects of using virtual reality applications in tourism marketing (Tekin,

2017; Neuburger, Beck, & Egger, 2018; Özbek & Ünüsan, 2018). In another study examining virtual reality applications in the tourism sector, it is mentioned that it would be beneficial to pre-experience hotel rooms and usage areas in the lodging industry, places to go on tours in the field of agency, and foci of interest in the destination in the field of destination via virtual reality applications (Durmaz, Bulut, & Tankuş, 2018). In addition, it is seen that virtual reality applications are an interesting and impressive element and create a sense of reality about the destination pre-travel (Kaleci, Tepe, & Tüzün, 2017). In another study, it was mentioned that augmented reality and virtual reality applications are compatible in terms of developing the tourism experience, providing in-depth and useful information at low cost on the supply side, and in terms of obtaining information about the destination easily and be able to share the tourism experience on the demand side (Kounavis, Kasimati, & Zamani, 2012).

The study in which the potential of an ‘augmented reality destination game’ that would be able to developed through virtual technologies in the Troy Ancient City region of in Çanakkale province examined, the opinions of young people who play digital games above a certain level were examined concerning to the subject. In the study aforementioned, it was concluded that the destination game to be created with virtual-augmented reality applications will have a great impact on the destination becoming a priority of choice, can extend the duration of stay in the region depending on the substantiality and quality of the game, and will be of great importance in increasing the rate of revisits to the region (Köseler, Başaran, Niyet, Özkök, & Sünnetçioğlu, 2019)

Wherewith the developing technological applications and current events, certain changes can be seen in the operational structure of the tourism sector. Such that, in the tourism sector, which is one of the sectors most intensely affected by the Covid-19 pandemic process, it is thought that tourism practices should be re-planned by blending with virtual reality applications distant in social aspect but virtually connected manner (Mohanty, Hassan, & Ekis, 2020). As an illustration of technology-oriented operational changes in the tourism sector, according to the report in The Guardian (2015), ‘Henn na Hotel’ in Japan carries out its activities such as front desk operations, luggage delivery to the room, food and beverage presentation in the lobby through robots within the scope of robotic tourism concept. Over, within the scope of an application carried out in Japan, tourists first receive services as if they were on a journey in a place prepared in the concept of an airplane, and then go on a tour lasting about two hours in various parts of the world by wearing virtual reality glasses; this initiative which generally targets the masses who do not have the opportunity to

go abroad and therefore the cost is kept relatively low (NTV, 2018). By means of tourism applications developed in virtual reality environment, it is observed that the participation of disabled people in recreational activities is facilitated and these experiences positively affect the treatment process of the disabled individual (Kulakoğlu Dilek and İstanbullu Dinçer, 2020). It occurs that virtual reality applications have become prevalent in Turkey as of 2018 as well. Such that, Jolly Tour has added 360-degree virtual guidance and pre-experience practice to its agency services as of 2018 (Mercan, 2018).

The aim of this study is to create a frame of mind for technical VR applications, examples of which can be seen in other ancient cities, by revealing the virtual reality potential in the Troy Antique City and the Troy Museum. In conjunction with the development of technology, the increase in technological opportunities and the Covid-19 pandemic process, it is seen that the importance and potential of virtual reality applications have emerged and their fields of usage have increased. Considering the impact of today's Z generation, called digital natives, on future tourism trends, this study is important in that the development and protection of the attractiveness of the ancient city of Troy, which is seen as a centre of attraction in the international sense today. This research which is related to the virtual reality applications in ruins is limited to the ancient city of Troy in Çanakkale province due to time and space constraints.

As a result of the review on the relevant literature, the following questions emerged:

- Is the utilization of virtual technology in the Ancient City of Troy and Troy Museum at sufficient level?
- At what level is the potential of the Ancient City of Troy and Troy Museum intended for virtual reality and augmented reality applications?
- Is it possible to reconstruct the ancient artefacts in the Ancient City of Troy and Troy Museum through virtual reality applications?

3. Virtual Reality and Augmented Reality Technologies in the Protection of Cultural Heritage in Ancient Cities

The notion of cultural heritage could be defined as all of the artistic or symbolic signs transmitted to current society through past cultures. On the basis of this definition, there is an idea that the cultural elements belonging to various societies accumulate the inheritance that creates today's cultural richness by forming and diversifying cultural identities. In this context, the protection of the

cultural heritage in question should be seen as the cornerstone of any cultural policy to be created (ICCROM, 1990).

Virtual technologies have been used for different purposes in various ancient cities and museums at present. Through the medium of various technological equipment, processes such as the preservation of the historical artefacts or artworks having unique value, diversifying and increasing the experience of the concerned artefacts, and facilitating access to cultural items are carried out. Therefore, academic studies can be found in the relevant field.

It is accounted that virtual technologies to be integrated with ancient sites for various purposes should have some features in order not to damage to the related sites. According to Ruiz et al. (2002), in order to apply virtual technologies to an ancient site in a right way, the following criteria must be taken into account:

- High technologies compatible with the natural environment: The compatibility of the technological equipment that may be used in archaeological sites with the environment should be provided visually and physically.

- Respect for the ecosystem, the type of tourism and the protected area: It should be ensured that the cultural structure is not deformed by counting to the characteristic structure of a region suitable for cultural tourism. It is worth to ensure that technological applications do not overshadow the historical pattern, and to enrich the real experiences of tourists interested in tourism area in question in a way not to deteriorate.

- Creativity potential intended for the destination: The process of integrating technological equipment with ancient sites may require a long time and high financial costs. In this context, attention should be paid to the adaptability feature of these technologies to the elements such as tours, routes, etc. that could be created to promote efficiency and the benefits that generated for the surrounding population.

- Interdisciplinary structure and process management: Technological applications for sites in need of conservation require views from different disciplines and an interdisciplinary endeavour. The process should be conducted in a manner that can efficiently use the know-how of different specialties such as archaeology, museum management, architecture, information technologies and history.

Öztürk (2019) states in his study on virtual reality and augmented reality applications in the field of tourism that these applications are used for different purposes in various destinations around the world. In this study, it is mentioned

that these new technologies could be utilised effectively in areas such as tourism marketing, destination accessibility, protection of cultural heritage, besides in areas such as evaluated in the potential tourists' decision-making process as an effective element and creating a destination or business image through pre-visit experience opportunities.

It is prevailed also studies regarding the Troy Museum in the relevant literature. To exemplify, Akgül (2021), in his study on the virtual museum application of the Troy Museum, investigated whether this application has an influence in the context of museum visit intention. Accordingly the results of the related study, virtual museums create some kind of pre-experience or advertisement effect and have positive effects on museum visit intention.

In another study on the Troy Museum, promotional activities and visitor experience issues related to the museum were analysed. In this context, the study in which the positive and negative aspects of the Troy Museum were analysed, it was mentioned that the information for the history and culture of the ancient city through various technological applications such as cinevision, hologram, etc. was satisfactory. In addition, the participants within the scope of the research expressed that additions such as 3D virtual reality applications and museum restaurant related to the progress of the Troy Museum could be beneficial (Korkmaz, Savaşçı, & Aydın, 2019).

Many museums in Turkey use virtual technologies actively these days. At this point, looking at the usage of digital technologies in museums, while the province which has the highest number of virtual museums is Ankara having 8 virtual museums, Çanakkale ranks second having 7 virtual museums. Following these provinces, there are 4 virtual museums in Istanbul and 3 virtual museums in Şanlıurfa, Çorum and İzmir (Yıldız, Ayyıldız, & Tavukçuoğlu, 2022).

In conjunction with augmented reality and virtual reality applications, today it is also possible to complete historical asset that cannot be exhibited in their entirety through virtual means and to show their former state to visitors. In this sense, Vlahikis et al. (2001) completed some historical sites in a virtual setting and added some objects (such as athletes running on ancient tracks) through technological applications and tools to enhance the reality of the virtual environment in question. In his postgraduate thesis, Sürücü (2017) studied the virtual modelling of a cultural heritage product by investigating all the details of Salih Bozok Villa. In another study in the same field, an application named 'TeosVR' developed for the ancient city of Teos, which is located within the borders of Izmir province today, and the architectural works in the city were redesigned in a virtual setting

in line with archaeological information and presented to the service of users with photographs of its current state (Varinlioğlu, 2020).

4. The Use of Virtual Technologies in the Troy Museum and in the Ancient City of Troy

Today, technological applications are used for various purposes in museums and ancient cities. The usage of technology in ancient cities and museums aims such as to increase and diversify the guest experience, to elaborate the historical narration of the relevant place, and to create a pre-experience before the visiting. The relevant literature is researched, studies are found indicating that technological applications were used for similar purposes in the Troy Museum (Korkmaz, Savaşçı, & Aydın, 2019; Akgül, 2021).

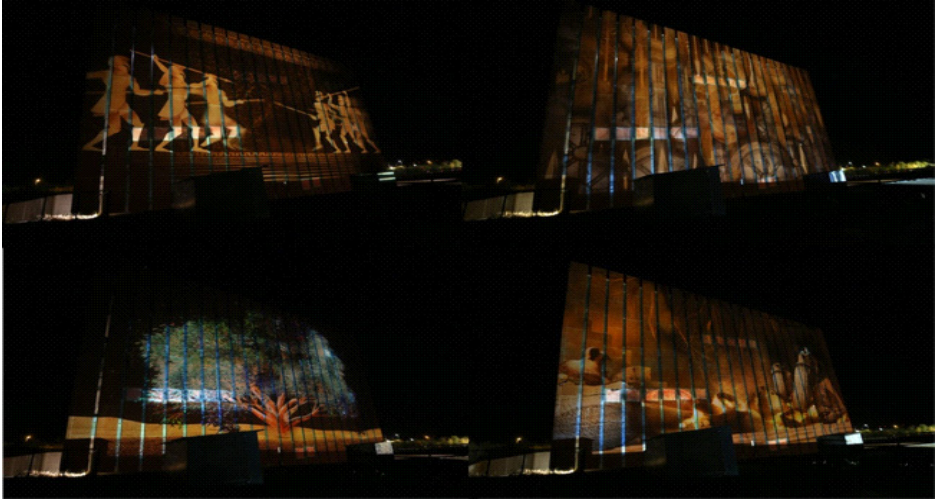


Image 1. Sections from Troy Museum 3D Mapping Show

The 3D Mapping demonstration in Image 1 sets an example in terms of the technological applications in the Troy Museum. The related application consists of surface preparation, to accomplish 3D modelling, to form the content to be projected, to calibrate of lenses and projectors and projection phases. In the 3D Mapping application performed at the Troy Museum, significant events and individuals in the history of Troy were highlighted, and the details about the Troy culture and the Trojan War were included. In Image 2. the art lovers viewing the event are shown.



Image 2. Guests Viewing the Troy Museum 3D Mapping Show

Another sample of technological applications in the Troy Museum is the virtual museum project. Virtual museum applications are used in many destinations today due to the accessibility to museums and ancient cities and the opportunity to pre-experience them. Owing to the developed virtual museum application in a detailed way, Troy visitors could do their preliminary readings over the internet and have access to notable artefacts in the museum before and after their visit.

Within the Troy Museum, it is possible to find designs regarding to the functioning of daily life in Troy. Daily life activities in Troy houses and the processes such as the production of tools and equipment having the characteristics of the period are conveyed through various digital designs and holograms. In addition to these, there are visual contents that allow you to listen to the Iliada stories of heroes such as Helen, Hector and Achilles, who played an important role for the Trojan War, in their own words.

5. Conclusion

Considering the story texture within the Troy Museum and the Ancient City of Troy, it is conceivable to think that the Troy Museum was planned in a way complementary to the ancient city. Such that, it is seen that artefacts that are difficult to be exhibited or protected in the ancient city by reason of natural and

environmental factors are preserved in the museum. A similar situation is also encountered in the practice of technological equipment. It is conspicuous that the usage and diversity of virtual technology in the museum is rather high compared to the ancient city. As the reason for this difference can be considered to be the risk that technological designs may disrupt the historical texture in the ancient city and the difficulty of protecting technological equipment, just as historical artefacts, and building the necessary basis without damaging important artefacts.

At this juncture, virtual reality technologies get involved as an occasion for the protection and exhibition of cultural heritage items that have historical artefact value. For instance, in a study conducted for the Ancient Rome period, it was aimed to be able to visit the city in a virtual environment by understanding the periodic texture and urban structure of the city better. The 4th century AD Roman period was selected for the virtual descriptions and the designs were implied accordingly. Through the programme that emerged following the technological design process, it was provided with the opportunity that visitors would be able to wander through the streets of Rome during the relevant period and even having a three-dimensional touristic experience inside by entering some important buildings (Fleury and Madeleine, 2012). Assessing the technological facilities of the date and period when the relevant study was conducted, it is seen that a similar project should be carried out for Troy in line with today's opportunities and information regarding Troy. It is obvious that the most appropriate period for Troy in terms of trying to design these in question technological artefacts based on a certain period is the period of the Trojan War. The architecture and historical events during the Trojan War provide the necessary materials for a similar project.

The completion of damaged artefacts in ancient cities through augmented reality technologies is possible. At that point, the completion of a structure that is considered to be important in the Ancient City of Troy via augmented reality technologies will enhance the visitor experience, reveal the periodical importance of the artefact and also help its protection.

The ancient city of Troy is of high importance in terms of historical event pattern. In this context, it is thought that telling the story of Troy using virtual reality and augmented reality technologies will positively affect the touristic experience. It is thought that the story of Troy will become more intriguing for today's generations who have the feature of 'Homo Ludens' and 'Digital Native' in the event of the opportunities such as virtual reconstruction and artefact completion offered by the relevant technologies are utilised.

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CHAPTER III

THE AZERBAIJAN FACTOR IN US FOREIGN POLICY TOWARDS THE CAUCASUS REGION

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1. Introduction

This study analyzes the role of Azerbaijan in shaping U.S. foreign policy towards the Caucasus, focusing on energy security, geopolitical dynamics, and regional stability. The study's objective is to evaluate how Azerbaijan's strategic position, energy resources, and regional relationships influence U.S. policy decisions. Employing a mixed-methods approach, the research integrates historical analysis, geopolitical mapping, and evaluation of key treaties and diplomatic engagements. It draws from primary sources, such as U.S. State Department archives, and secondary academic analyses to contextualize Azerbaijan's significance. Findings highlight Azerbaijan's critical role as an energy supplier and strategic partner, contributing to Europe's energy diversification and reducing reliance on Russian resources. The Second Karabakh War shifted regional power dynamics, reinforcing Azerbaijan's importance in regional stability and U.S. diplomatic strategies. The results underscore the necessity for a nuanced U.S. policy that aligns energy security, regional cooperation, and democratic values. Azerbaijan's influence on U.S. foreign policy extends beyond the Caucasus, impacting broader international energy and security frameworks.

The geopolitical situation in the Caucasus is complicated and has a big impact on U.S. foreign policy, with Azerbaijan being an important player. In the last thirty years, Azerbaijan has become a key partner for the West's energy security, especially as the world seeks alternatives to traditional suppliers. The ongoing tensions with Armenia, especially over Nagorno-Karabakh, make this relationship even more complex, attracting interest from global players and requiring careful strategies from the United States. Moreover, Azerbaijan's ties with Turkey and the effects of Russian influence highlight the challenging diplomatic efforts that the U.S. must undertake to protect its interests. Therefore, understanding Azerbaijan is crucial for a full understanding of U.S. actions in the Caucasus, as it relates to wider strategic issues that go beyond this region.

1.1. Overview of the Caucasus Region

The Caucasus region is an important area between Europe and Asia, marked by various ethnic groups, languages, and historical issues. This mix has made the region a hotspot for instability, especially because of ongoing territorial disputes like those in Nagorno-Karabakh, South Ossetia, and Abkhazia. These conflicts have attracted outside powers, making local situations more complicated. For example, the 2020 war over Nagorno-Karabakh highlighted the complex relationship between ethnicity and sovereignty, with global players like Israel providing military aid to Azerbaijan (Ben Aharon et al., 2023). Additionally, the geopolitical importance of the Caucasus is increased by the interests of neighboring countries, such as Russia and Turkey, and global powers like the United States, which aim to control energy resources and strengthen political ties in this crucial area (Ordukhanyan et al., 2022). Such factors emphasize Azerbaijan's key role in shaping U.S. foreign policy in the region. This context underscores the intricate geopolitical issues, especially the contested areas that are crucial for understanding the complex landscape.



Image1. Map of Georgia and Russian-occupied territories of Abkhazia and South Ossetia

1.2. Historical context of US foreign policy

In the 20th century, U.S. foreign policy changed a lot due to different geopolitical situations and ideologies. After World War II, America entered a phase of expansion, focusing on containing communism and forming key alliances mainly in Europe and Asia. But towards the century's end, the U.S. turned attention to areas like the South Caucasus because these regions were important for energy and stability. The fall of the Soviet Union led to a reassessment of U.S. interests, supporting (Gabelia et al., 2018)'s claim that the area has complicated ethnic conflicts that harm political and economic growth. At the same time, the 9/11 attacks shifted U.S. priorities, making a strong presence in Central Asia necessary to address threats, as noted by (KOUHI-ESFAHANI et al., 2016), which looks at Iran's foreign policy changes in a quickly evolving regional situation. This complicated history has led to a thoughtful approach in foreign policy, making Azerbaijan an important ally for the U.S. in dealing with the challenges of the Caucasus.

1.3. Importance of Azerbaijan in regional dynamics

Azerbaijan is in a key spot as a link between Europe and Asia, making it important in regional situations, especially relating to global energy safety and geopolitical actions. After the Second Karabakh War, Azerbaijan took on a key role, shifting the power balance in the South Caucasus and boosting its

status as a dependable energy source for Europe, which is trying to cut back on Russian gas use. Also, Azerbaijan's growing partnerships with Turkey and Western countries presents an important change in the region, especially with worries about Russian influence following the invasion of Ukraine (Gadimova-Akbulut et al., 2024). This changing geopolitical scene calls for a detailed look at Azerbaijan's multi-vector foreign policy that aims to balance ties with both the East and West, establishing it as a vital contributor to regional security and economic connections (Broers et al., 2023). The relationship between Azerbaijan's resources and its geopolitical plans has major effects on U.S. foreign policy in the Caucasus.

1.4. Objectives of the essay

In looking at the goals of this essay, it is important to outline the various roles that Azerbaijan has within U.S. foreign policy toward the Caucasus region. This analysis seeks to evaluate how geopolitical changes, especially after the Second Karabakh War, have changed American interests in the region, as highlighted by the shifting power dynamics explained in (Gadimova-Akbulut et al., 2024). Additionally, this essay will look at the effects of Azerbaijan's partnerships with countries such as Turkey and the impact of outside influences like Russia and Iran. The interaction of these factors points to a bigger story about regional stability and energy security, which are crucial for U.S. strategy. By combining the independent review of these geopolitical changes, this work aims to provide a complete understanding of the importance of Azerbaijan in the context of U.S. efforts to promote peace and stability in the Caucasus. In the end, the essay aims to clarify how these dynamics influence not only bilateral relationships but also have implications in broader international contexts, particularly regarding energy routes and security partnerships in the post-Soviet region.

1.5. Methodology and sources used

This study uses a mixed-methods approach that combines both qualitative and quantitative analyses to look at how Azerbaijan affects U.S. foreign policy in the Caucasus region. The main method includes primary sources, like documents from the U.S. State Department and interviews with regional experts, which offer detailed insights into the strategic reasons behind U.S. policy. Secondary sources, including scholarly articles and reports, are also used to provide context about the geopolitical situation, particularly emphasizing Azerbaijani energy resources as an important factor in U.S. interests (Oflar, 2023). Geopolitical

maps, like , help to illustrate territorial dynamics and show the importance of Azerbaijan in the wider context of U.S. foreign policy. By bringing together these different sources and methods, this study creates a full understanding of how Azerbaijan impacts American geopolitical strategies in the Caucasus, showing the links among energy, security, and diplomacy in the area.

2. Historical Background of US-Azerbaijan Relations

The path of U.S.-Azerbaijan relations shows a complicated mix influenced by geopolitical goals and past events. After Azerbaijan became independent from the Soviet Union in 1991, the United States saw its importance because of the energy resources in the area and its role as a link between Europe and Asia. Early meetings were filled with excitement about Azerbaijan's chance to be a major energy provider, leading to important cooperation efforts, including the 1994 Contract of the Century, which allowed Western investments in Azerbaijan's oil industry. This alliance was also driven by common goals to fight regional threats and encourage stability in the Caucasus (Gorgulu et al., 2009). However, the growth of these relations has faced challenges due to worries about governance problems, making U.S. foreign policy in the region more complicated (Van Hoof et al., 2012). In summary, grasping this historical context is essential for understanding the current U.S. foreign policy dynamics in the Caucasus.

US-Azerbaijan Relations Historical Data

year	event	source
1992	US establishes diplomatic relations with Azerbaijan	U.S. Department of State
1994	Signing of the Contract of the Century for oil extraction	BP Group
2001	Azerbaijan joins the U.S. Coalition Against Terrorism	Council on Foreign Relations
2005	President Ilham Aliyev visits the U.S.	White House Archives
2010	U.S. and Azerbaijan sign Strategic Partnership Agreement	U.S. Department of State
2016	Azerbaijan cooperates with NATO for military exercises	NATO Communications and Information Agency
2020	U.S. reaffirms support for Azerbaijan's territorial integrity	U.S. Department of State Press Release

2.1. Early diplomatic engagements

In the complex early days of diplomacy, Azerbaijan stood out as an important partner for the United States after the end of the Soviet Union. Once the USSR fell apart, Azerbaijan's place in the world became more important, especially because of its energy resources and its understanding of Western ideas. The United States' early diplomatic actions were marked by a varied approach that aimed to build connections not just with Azerbaijan, but also with its nearby countries. Building relationships included working together on security and economic projects to promote stability and democracy, which were key for U.S. interests in the Caucasus. Additionally, Azerbaijan's efforts to assert its independence in the face of regional challenges show the story presented in (Dalay et al., 2021), where its dealings with Western nations are seen as vital for maintaining balance in the area. This background highlights Azerbaijan's strategic role in the U.S. foreign policy framework during a complicated geopolitical time. The groundwork established during these early diplomatic efforts still affects current relations and partnerships in the region. This serves as a relevant visual representation of the key territorial and political dynamics during these early years, emphasizing the geopolitical importance of these first interactions.



Image2. Map illustrating the geopolitical boundaries of Armenia and Azerbaijan, including disputed regions.

2.2. The impact of the Soviet Union's collapse

The end of the Soviet Union in 1991 changed political relations, especially in the Caucasus region. The rise of new independent countries like Azerbaijan was an important change in Eurasian politics. The new independence of these countries led to ethnic conflicts, notably regarding Nagorno-Karabakh, while also allowing foreign powers to gain influence in an area that was once under Soviet control. As a result, the U.S. aimed to build connections with these nations to encourage democratic changes and maintain regional stability. Analysts have pointed out that changes in U.S. actions towards Azerbaijan are seen as key moments reflecting wider U.S. goals in the political scene after the Soviet Union fell apart (Bashirov et al., 2017). Additionally, the complex security situation in the South Caucasus has caused competition among local players, making Azerbaijan's role more complicated and affecting U.S. foreign policy choices in this unstable environment (Derghoukassian et al., 2006). Therefore, understanding these changes is important for evaluating the developing U.S. approach in the Caucasus. To help explain these issues, a geopolitical map of the involved regions offers a visual aid that highlights the territorial conflicts and changing alliances that have developed since the collapse of the Soviet Union.

2.3. Azerbaijan's strategic significance post-9/11

Azerbaijan has taken on an important role in U.S. foreign policy, especially after big changes in the world following 9/11. Its key location next to Iran, Russia, and the Caspian Sea makes it a vital partner in fighting extremism and ensuring safe energy routes. The country acts as a pathway for oil and gas exports to Europe, which complicates Russia's power in the area and offers Europe alternatives to depend on Moscow for energy. In the context after the Soviet Union, the renewed attention on Azerbaijan shows its ability to support U.S. interests during regional conflicts (Bowring et al., 2003). Its energy resources give it influence in international talks, enabling Azerbaijan to become an important player in energy security, especially as the U.S. manages its ties with Middle Eastern countries while building connections in Central Asia (Vera et al., 2012). Thus, Azerbaijan's importance after 9/11 is in its ability to change regional situations and support U.S. goals.

2.4. Key treaties and agreements

The details of strategic treaties and agreements in the Caucasus region show how important Azerbaijan is in U.S. foreign policy. The key pipelines

that connect Azerbaijani gas and oil to European markets, like the Baku-Tbilisi-Ceyhan pipeline, demonstrate Washington's desire to lessen Europe's dependence on Russian energy. This effort supports wider U.S. goals of encouraging stability and supporting independent cooperation in the region, particularly concerning gas routes that avoid Russia (Bajrektarevic et al., 2015). Furthermore, Iran's established relationships with Central Asian countries after the Soviet Union highlights the need for the U.S. to have a careful approach that balances regional interests with Iran's influence (Wastnidge et al., 2017). As a result, treaties that promote military cooperation and economic partnerships—while considering security issues—are essential for maintaining and enhancing U.S.-Azerbaijani relations, which in turn influences the larger dynamics in a complicated geopolitical landscape.

Key Treaties and Agreements Involving Azerbaijan and US Foreign Policy

Year	Treaty/Agreement	Description	Significance
1992	US-Azerbaijan Friendship Charter	Established broad principles for mutual respect and cooperation in economic, cultural, and security fields.	Set the foundation for US-Azerbaijan relations and engagement in the Caucasus.
1994	Agreement on the Transportation of Oil and Gas	Facilitated the establishment of the Baku-Tbilisi-Ceyhan pipeline.	Enhanced energy security and reduced dependence on Russian energy supplies.
2001	Cooperation in the Fight Against Terrorism	Agreement to cooperate in intelligence sharing and military assistance.	Strengthened strategic partnership between the US and Azerbaijan post-9/11.
2006	Baku-Tbilisi-Ceyhan Pipeline Agreement	Formal agreement on the construction and operation of the pipeline.	Critical for exporting Caspian oil to Western markets, underlining US interests.
2018	US-Azerbaijan Action Plan	Framework for enhancing bilateral relations, focusing on economic, defense, and democratic development.	Reiterated commitment to support Azerbaijan's sovereignty and territorial integrity.

2.5. Evolution of bilateral relations over the decades

The relationship between the United States and Azerbaijan has changed a lot since Azerbaijan became independent in the early 1990s. This change has been influenced by both regional factors and shared interests. At first, the U.S. saw Azerbaijan as an important route for energy resources, leading to efforts to build economic connections and partnerships in energy projects, particularly with the Baku-Tbilisi-Ceyhan pipeline. The influence of Russia and Iran has complicated this relationship, with Azerbaijan trying to find a balance while asserting its independence. Looking at the developments from the post-Soviet era to now shows a pattern of strategic patience and diplomacy, highlighting Azerbaijan's important role as a regional partner for stability and security. With the U.S. reviewing its foreign policy priorities, understanding this history is crucial for future interactions in the Caucasus region. Furthermore, the process of democratization has played a significant role in U.S.-Azerbaijan relations. Both countries have often faced challenges in their commitment to democratic values due to Azerbaijan's internal political changes, especially after the 2018 presidential elections, which attracted more attention from international observers. The U.S. has pushed for democratic reforms, linking them to regional stability and emphasizing that good governance is vital for development amid security threats. This ongoing interaction between the U.S. supporting democratic values and Azerbaijan's political situation will likely continue to influence their diplomatic relations. While both countries gain from their partnership, the strength of their relationship depends on balancing geopolitical interests with supporting democratic initiatives (Freire et al., 2007). In summary, the changes in U.S.-Azerbaijan relations show the intricate link between foreign policy and regional security issues. As Azerbaijan becomes an important player in energy transit and regional diplomacy, how the U.S. engages will depend on Azerbaijan's ongoing commitment to democratic principles, despite various internal and external challenges. The history of this relationship includes periods of cooperation and the difficulties posed by geopolitical realities and domestic political trends. Future collaboration will need a careful understanding of these factors as Azerbaijan tries to keep its independence in a historically tense geopolitical setting (Derghoukassian et al., 2006).



Image3. Analysis of Azerbaijan’s Foreign Policy and Regional Dynamics

3. Geopolitical Significance of Azerbaijan

Azerbaijan is important geopolitically because it sits at the meeting point of Europe and Asia, making it a key spot for energy and trade routes. It has large oil and gas supplies, which makes it very important for providing different energy supply routes to Europe, helping to lessen dependence on Russian energy. This importance is supported by studies showing that Azerbaijan’s energy exports and growth in infrastructure foster cooperation in the area and boost economic development, attracting interest from outside powers, including the United States (OFL, 2023). Additionally, the struggle for influence by big powers like Russia and the United States in Azerbaijan illustrates the careful balance Azerbaijan needs to keep in its foreign relations (Vera et al., 2012). Thus, knowing Azerbaijan’s geopolitical role adds depth to discussions about stability in the region and sheds light on the subtleties of U.S. foreign policy in

the Caucasus area. The map showing Azerbaijan's energy routes underscores these interactions.

3.1. Azerbaijan's location and its implications

Azerbaijan is located at a key spot between Eastern Europe and Western Asia, which is important for its geopolitical role. This country acts as an important land link that connects the Caspian Sea to the larger energy markets of Europe and the Middle East, as noted in (Kazemzadeh et al., 2017). Because of its abundant energy resources, Azerbaijan attracts attention from regional powers like Turkey and Iran, as well as global countries such as the United States. This strategic location significantly affects U.S. foreign policy related to the Caucasus. The area's complexities, especially the ongoing issues between Armenia and Azerbaijan, show the need for a careful approach. Therefore, Azerbaijan's geographic benefits not only boost its influence in the region but also draw international interest and involvement, as shown in the study of energy dynamics and security issues discussed in (Gadimova-Akbulut et al., 2024).

3.2. Energy resources and energy security

Azerbaijan is important for energy and security, which shows its key role in U.S. foreign policy in the Caucasus. As Europe wants to get different energy sources and reduce reliance on Russian gas, Azerbaijan becomes an important partner, especially through projects like the Southern Gas Corridor (Meister et al., 2011). This project not only helps move energy from the Caspian Sea to Europe but also boosts Azerbaijan's geopolitical position. Additionally, the country's consistent economic growth from energy exports—mainly oil and gas—makes it a dependable supplier for nearby countries, which helps with regional stability (Freire et al., 2007). In this situation, U.S. involvement in improving Azerbaijan's energy security is crucial, not just for the direct import of energy resources but also as a response to possible threats from regional conflicts. The close link between energy and security here highlights the need for a steady and strategic U.S. policy regarding Azerbaijan and the South Caucasus. An image showing Azerbaijan's trade relations with major partners visually demonstrates the increasing economic connections that support its energy status.

3.3. Regional conflicts and stability

Understanding regional conflicts in the Caucasus is key for grasping stability there. The long-standing tensions and rivalries, mainly between Armenia and

Azerbaijan, keep collaborative security efforts from forming, which are needed for stability. As seen in the framework of Regional Security Complexes, outside interference increases these tensions and makes state-building after communism even harder (Derghoukassian et al., 2006). The improving relations between Turkey and Armenia are central to this situation. Turkey wants regional stability and sees diplomatic relations as vital for easing historical conflicts (Gorgulu et al., 2009). These diplomatic moves could lead to more cooperation, but they depend on resolving the balance-of-power issues common in the South Caucasus. In this unstable setting, any changes in alliances or new partnerships could either strengthen or weaken stability, so close observation of Azerbaijan's geopolitical actions is important for U.S. interests. A map of the region's geopolitics shows the relevant territories and highlights the complexities of the Armenian-Azerbaijani conflict, underlining the need for a deeper understanding of these issues to guide U.S. foreign policy effectively.

3.4. Azerbaijan's role in NATO and partnerships

Azerbaijan has a key role with Western military groups like NATO, which is vital for regional security and U.S. foreign policy. Being part of NATO's Partnership for Peace program, Azerbaijan has taken part in joint military drills and training, improving how well they work with Western forces while also maintaining distance from Russian control. This is especially important now with rising tensions in the South Caucasus, especially after the Tovuz clashes, leading Baku to rethink its security plans and strengthen military connections with Turkey, which reinforces its ties to NATO (Latifli et al., 2021). Additionally, Azerbaijan's energy supplies are essential for Western interests, creating partnerships that go beyond military ties to include major energy agreements, making it a crucial ally in the area (Yusubzada et al., 2021). In conclusion, Azerbaijan's role in these partnerships highlights its significance in U.S. efforts to promote stability in the Caucasus region.

3.5. Influence of neighboring countries on US policy

The geopolitical situation in the Caucasus greatly affects U.S. foreign policy, especially due to the impact of nearby nations. The complicated relationships among regional players require a careful examination of how they connect. For example, Turkey's attempts to improve relations with Armenia show how bilateral efforts can influence larger geopolitical plans, making Turkey an important partner for the U.S. to counteract Russian

power in the area (Gorgulu et al., 2009). Moreover, the conflict between Azerbaijan and Armenia highlights an unstable security situation, which forces the United States to be careful in its diplomatic actions to strengthen stability and encourage democratic progress (Derghoukassian et al., 2006). These factors also appear in economic ties and energy politics, especially as Azerbaijan becomes a key energy supplier for Europe, aligning U.S. interests with regional stability and economic growth. Therefore, the effects of neighboring nations play a direct role in shaping U.S. policy in the Caucasus, underlining the importance of regional partnerships in achieving broader strategic goals.

4. Economic Interests and Energy Policy

Azerbaijan is important in the South Caucasus energy sector, creating a complicated link between its economic goals and wider political strategies. The country's large oil and gas reserves have drawn significant investments from foreign countries, mainly from the West, which wants to lessen reliance on Russian energy. This strategic focus is clear in projects like the Southern Gas Corridor, which allows Azerbaijani gas to be shipped directly to Europe, improving energy security and variety for EU nations. The political effects of these energy partnerships show the competitive nature of regional politics, where the involvement of the EU and the U.S. in Armenia and Azerbaijan is key for maintaining stability in the area (Freire et al., 2007). Additionally, with shifts in global energy dependence, Azerbaijani energy policies show a growing need to balance connections with both Western allies and longtime partners like Russia and Iran, showing the complex navigation required in this diverse environment (Van Hoof et al., 2012).

4.1. The role of oil and gas in US interests

American foreign policy has been connected to oil and gas for a long time, especially in important areas like the Caucasus. The finding of large oil reserves in Azerbaijan made the country important for diversifying energy supplies for the U.S. and its allies, offering an option to decrease dependence on unstable areas like the Middle East. As mentioned in (Bashirov et al., 2017), the politics of oil influenced U.S. relations with Azerbaijan, especially as energy security became very important after the Cold War. The creation of the Baku-Tbilisi-Ceyhan pipeline not only helped send Caspian oil to Western markets but also showed how the U.S. shifted its focus to countries with energy resources that

could improve European energy security, as noted in (Yılmaz et al., 2012). Therefore, oil and gas interests continue to play a key role in shaping U.S. foreign policy strategies, with Azerbaijan acting as an important center in this geopolitical situation.

Oil and Gas Production in Azerbaijan (2010-2023)

Year	Oil Production (million barrels per day)	Gas Production (billion cubic feet per day)
2010	0.75	1.2
2011	0.85	1.3
2012	0.85	1.4
2013	0.84	1.5
2014	0.79	1.7
2015	0.77	1.8
2016	0.69	2
2017	0.73	2.1
2018	0.77	2.3
2019	0.8	2.4
2020	0.72	2.5
2021	0.75	2.6
2022	0.73	2.7
2023	0.78	2.9

4.2. The Baku-Tbilisi-Ceyhan pipeline

The Baku-Tbilisi-Ceyhan (BTC) pipeline is a key part of the energy situation in the South Caucasus and has a big impact on U.S. foreign policy there. By providing a way for Azerbaijani oil to reach Western markets directly, the pipeline helps reduce European reliance on Russian energy, fitting U.S. goals to encourage energy security and variety among its European partners. The BTC also represents a larger attempt to connect Azerbaijan to the world energy system and boost political cooperation among the involved countries, like Turkey and Georgia. Recent studies highlight that the success of Southern Corridor projects, including TANAP and TAP, shows long-term economic and political advantages for Georgia, a vital transit nation (CHITADZE et al., 2015). Moreover, Azerbaijan's strategy of using its energy resources for foreign policy amid ongoing geopolitical tensions adds to the importance of the BTC in shaping U.S. relations in the Caucasus area (Vera et al., 2012). In this light, the BTC not only promotes economic development but also strengthens U.S. involvement

as a way to counter Russian influence, highlighting the complex elements of today's international relations in this crucial region.

4.3. Economic aid and investment strategies

In the complex field of international relations, economic help and investment plans are important in shaping foreign policy, especially regarding Azerbaijan's role in U.S. diplomacy in the Caucasus area. By building economic partnerships through specific investments, the U.S. not only helps create stability but also secures important energy routes, which supports larger geopolitical goals. Economic aid focused on infrastructure and technology has helped Azerbaijan grow while also benefiting American economic interests. This approach matches the findings from (Alexander Chubrik et al.), which show the need for better financial planning and more budget transparency in countries like Azerbaijan. Good public finance management can open up space for civil society and improve governance. Additionally, investing in Azerbaijan helps counter Russian influence, emphasizing how economic strategies are key to the U.S. response to the complex situation in the Caucasus region, as represented in this changing geopolitical environment (Freire et al., 2007).

Economic Aid and Investment Strategies in Azerbaijan

Year	US_Aid_to_Azerbaijan_ million_USD	Azerbaijan_FDI_from_ US_million_USD	Total_Aid_to_Caucasus_ region_million_USD
2021	5	450	100
2022	6	520	120
2023	7	600	140

4.4. Impact of energy independence on US foreign policy

Energy independence has greatly changed U.S. foreign policy, especially in its relationships in regions with many resources like the Caucasus. As the U.S. focuses more on making its own energy, this change has allowed for bolder diplomatic and military actions that aim to lessen the need for foreign energy sources. In promoting energy independence, the U.S. has sought stronger connections with Azerbaijan, which is crucial in the Southern Gas Corridor that supplies Europe with different energy options and decreases its reliance on Russian gas. This has important geopolitical effects since Azerbaijan's key location supports U.S. aims to limit foreign influence and ensure stability in the South Caucasus (Derghoukassian et al., 2006). Additionally, the enhanced

U.S.-Azerbaijani relationship shows how energy partnerships can sway larger foreign policy goals, especially as the U.S. tries to align its energy needs with regional security issues (Freire et al., 2007). In the end, the focus on energy independence has not just helped U.S. domestic goals but has also strategically placed it in the complicated energy geopolitics of the Caucasus.

4.5. Challenges in energy cooperation

Energy cooperation in the Caucasus area has many challenges that make geopolitical dynamics and international involvement difficult. A central issue is the conflicting interests of local players and outside powers, especially due to past grievances and land disputes. Azerbaijan is an important energy supplier, mostly to European markets, but its relationship with Armenia complicates this role. Additionally, Russia's influence in the region adds to the complexities. The improvement of relations between Turkey and Armenia is vital, but the historical issues that hinder this process make regional stability more challenging (Gorgulu et al., 2009). Moreover, the energy infrastructure's vulnerability to geopolitical stresses raises worries about reliability and security, creating a need for the U.S. to manage these complexities with care. As highlighted in the analysis of energy partnerships, maintaining a stable and varied energy supply from this region is full of political risks, emphasizing the challenges of international energy cooperation.

5. Human Rights and Democratic Governance

Democracy and human rights are very important in how the United States deals with foreign policy, especially in the Caucasus, with a focus on Azerbaijan. The Biden administration has shown that it wants to support democratic governance around the world, but this goal has many obstacles in areas with authoritarian governments. The European Union's attempts to push for democratic changes in Armenia highlight the difficulties in using conditionality in international relations (Van Hoof et al., 2012). Even with reforms to improve EU operations, competition among institutions raises doubts about how consistently they support regional allies (Freire et al., 2007). These factors make it necessary for the U.S. to carefully review its interactions and plans. In the end, encouraging democratic governance in Azerbaijan requires a careful balance—advancing reforms while managing the complex geopolitical interests of the U.S. in the Caucasus.

5.1. The balance between strategic interests and values

Dealing with foreign policy is hard and needs a balance between interests and supporting democratic values. For the United States and Azerbaijan, focus on energy security and stability is very important. For example, Azerbaijan's role in sending energy to Europe shows its importance to U.S. goals, especially in reducing Russian power (Marcin Kaczmarek et al.).



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Friends at Last: The Rapid Rise of Turkey-Uzbekistan Relations

Svante E. Cornell

Turkey and Uzbekistan are the two largest countries in the Turkic world. As a result, the relationship between them is a determining factor for the prospects of Turkic cooperation. For most of three decades, the difficulties in the bilateral relationship was a key impediment to Turkey's influence in Central Asia. Since 2016, however, the arrival of a new leadership in Uzbekistan coincided with Turkey's turn in a nationalist direction to provide a major boost toward a more fruitful and cooperative relationship. While Turkey's relations with Uzbekistan have much ground to make up compared to its ties with Azerbaijan and Kazakhstan, the two states have made it priority to do just that.

A Turkey and Uzbekistan are, by far, the largest of the six Turkic-majority states. With populations of 85 and 35 million, respectively, they constitute 120 of the 165 million of the population of Turkic-majority states. Furthermore, the two also have more varied and balanced economies than resource-dependent Azerbaijan and Kazakhstan, and have also consistently been the most powerful military powers in the Turkic



Photo courtesy of President.uz.

world. They are also custodians of some of the centers of the most illustrious historical empires that emerged in the broader region – the Ottoman and Timurid empires.

Obviously, there are major differences between them. Turkey is much larger and more developed than Uzbekistan, with a GDP of \$3.2 trillion and \$33,000 per capita, adjusted for purchasing power parity. Uzbekistan clocks in at \$450 billion and

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Image4. Analysis of Turkey-Uzbekistan Relations in Central Asia

5.2. US interventions and responses

When looking at U.S. actions in the Caucasus, an important point involves how the United States reacts to regional conflicts and builds partnerships, especially with Azerbaijan. Historical examples show that the U.S. typically wants to ensure energy security and reduce Russian power in the area. A key example is the U.S. backing of Azerbaijan during the 2016 fighting over Nagorno-Karabakh, which highlighted its role as a vital energy source and a buffer against Iranian and Russian growth. This support was shown in policy

papers that stressed the importance of stability in a region facing many geopolitical issues, especially related to Russia's military moves and the effects of the Ukraine war noted in recent documents (Demosthenes Campos et al., 2022). Thus, interventions are part of a larger plan to create partnerships that lessen risks and support U.S. goals in energy and regional stability. The geopolitical map showing Azerbaijan's crucial location and its energy routes visually represents these issues, emphasizing how local disputes are linked to global energy security.



Image5. Political map of Nagorno-Karabakh and surrounding regions highlighting key access routes.

6. Conclusion

In conclusion, the complex factors of geopolitical issues in the Caucasus region show how important Azerbaijan is for U.S. foreign policy. The historical background of Azerbaijan's location, especially concerning energy resources, points to its possible role as a key ally for the United States in diversifying energy sources and reducing foreign influence, particularly from Russia and Iran. As mentioned, the balance of power between nations shapes the South Caucasian Regional Security Complex, making American diplomacy challenging (Derghoukassian et al., 2006). Additionally, Azerbaijan's changing democratic system is important for U.S. interests, supporting efforts to improve

regional stability and governance reform (Freire et al., 2007). In the end, the varied relationship between Azerbaijan and the U.S. not only boosts energy security but also aids broader strategic goals, showing how vital Azerbaijan is in the geopolitical situation of the Caucasus.

6.1. Summary of key findings

An in-depth look at Azerbaijan's strategic position shows important insights into its role in U.S. foreign policy concerning the Caucasus area. The study points out that Azerbaijan is balancing strong relations with Turkey while dealing with complicated ties with Russia, especially in the post-Soviet context marked by competition and outside influence (Derghoukassian et al., 2006). These factors highlight Azerbaijan's importance in energy security discussions, particularly with a noticeable rise in trade with nations like China and the EU. Furthermore, the informal networks among non-profits in Azerbaijan and Georgia support the role of civil society in influencing public policy and international relations (Aliyev et al., 2015). Overall, these results show that Azerbaijan is not just a crucial link for Western interests but also represents the complex relationship between national identity, regional stability, and geopolitical strategy, which affects U.S. policy priorities in the area.

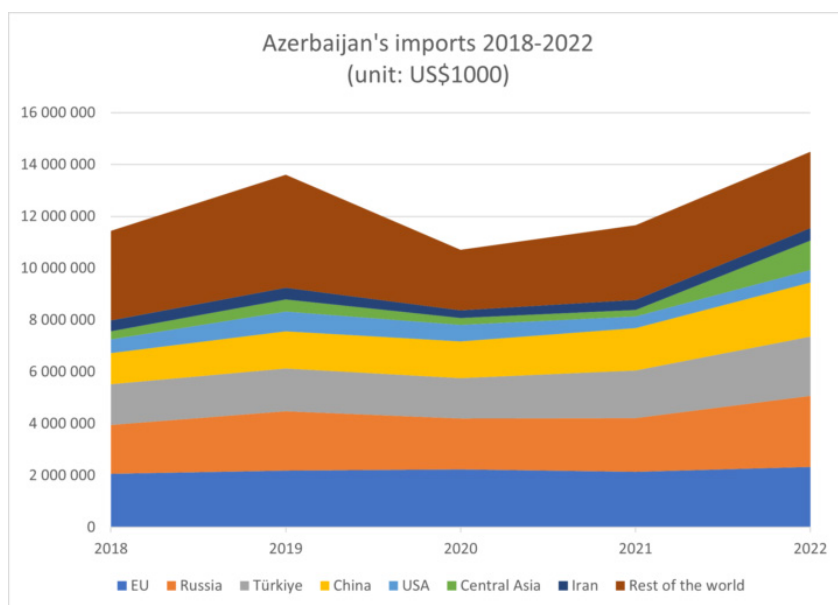


Image 6. Azerbaijan's Imports by Source (2018-2022)

6.2. Implications for future US foreign policy

As global political situations change, the effects on U.S. foreign policy in the Caucasus area are getting more complicated. The U.S. needs to manage its ties with Azerbaijan and Armenia, two countries that have a long history of conflicts, especially over land issues like Nagorno-Karabakh. The ongoing mix of diplomacy, trade relations, and regional safety may face more challenges due to growing foreign influence from Russia and Turkey, which could weaken U.S. strategic goals (Freire et al., 2007). For example, Azerbaijan is changing its energy partnerships with countries around the world, especially as it plays a key role in supplying energy to Europe. The U.S. must actively engage in energy diplomacy and regional safety. Therefore, future U.S. foreign policy should focus on promoting stability through direct involvement, boosting support for democratic institutions, and creating economic chances that align with U.S. interests while nationalism and regional competitions are on the rise (Derghoukassian et al., 2006).

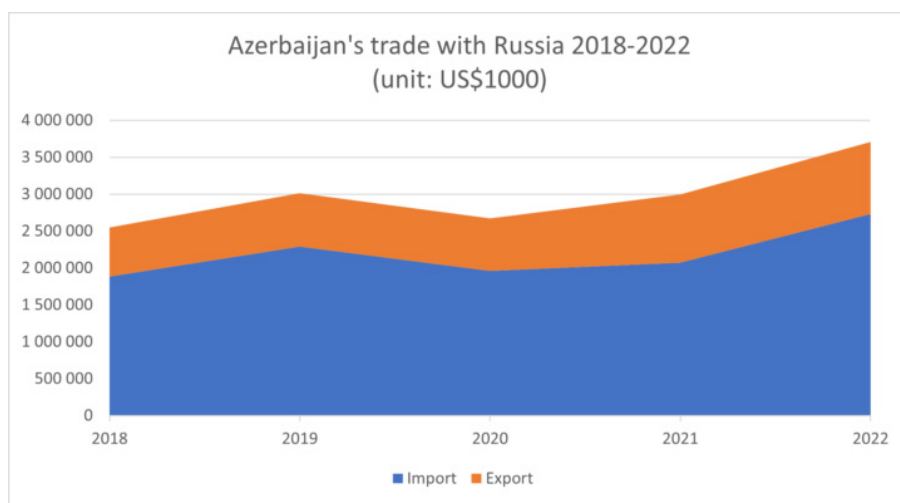


Image7. Azerbaijan's Trade with Russia from 2018 to 2022:
Import and Export Analysis

6.3. The role of Azerbaijan in regional stability

In the complicated geopolitical situation of the Caucasus, Azerbaijan stands out as an important factor in building regional stability. Its location as a link between Europe and Asia, along with its energy resources, benefits both national goals and wider international interests, especially those of the

West. Azerbaijan's role in handling the difficult relationship with Armenia over Nagorno-Karabakh is significant; ongoing diplomatic efforts, despite past conflicts, show a readiness to communicate, which can help ease regional tensions (Derghoukassian et al., 2006). Additionally, Azerbaijan's involvement in teamwork initiatives strengthens collective security efforts, which are crucial for tackling cross-border issues like terrorism and organized crime. This varied strategy, shown by its balancing act between connections with Iran, Turkey, and Russia, highlights Azerbaijan's special role as a stabilizing influence in a generally unstable area (Freire et al., 2007). Therefore, Azerbaijan's efforts are key to creating a collaborative environment that supports lasting peace and growth in the Caucasus region.

6.4. Recommendations for policymakers

Due to the complicated geopolitical situation in the Caucasus area, policymakers need to use a varied approach when dealing with Azerbaijan. Creating a strategic partnership that focuses on energy security and builds economic connections is very important since Azerbaijan is a key player in transporting oil and gas. Moreover, more dialogue about environmental and social issues linked to energy projects in the region should be emphasized, as indicated in studies (Broers, 2023). This will not only help local communities but also supports larger U.S. foreign policy goals of encouraging sustainable development. Furthermore, it is important to assist Azerbaijan in managing its relationships with nearby countries, especially Armenia and Russia, by promoting regional cooperation and peace initiatives (Gamaghelyan et al., 2010). This well-rounded method would support U.S. interests while also helping bring long-term stability and prosperity to the Caucasus.

6.5. Final thoughts on the Azerbaijan factor in US strategy

In summary, Azerbaijan's special geographical spot and its rich resources greatly impact U.S. plans in the Caucasus area. Using its oil and gas assets, Azerbaijan has become an important player for Western energy security, especially with the current issues with Russia. This situation fits with U.S. goals to lessen Europe's reliance on Russian energy, promoting stability in the area (Image1). Additionally, Azerbaijan's foreign policy, which balances connections with Turkey and relations with Iran, highlights its key role in U.S. strategies for influence and security in the region (Image6). The U.S. must manage these considerations wisely as it deals with complex partnerships and regional issues

while encouraging democratic growth in Azerbaijan. In the end, understanding the role of Azerbaijan is critical for evaluating U.S. foreign policy goals in the Caucasus and addressing larger geopolitical issues (Image5).

Azerbaijan occupies a pivotal and highly valuable position in the geopolitical landscape of the Caucasus, serving as a cornerstone of U.S. foreign policy objectives in the region. Its strategic location at the crossroads of Europe and Asia, combined with vast energy resources, makes Azerbaijan indispensable for advancing energy security, regional stability, and global geopolitical strategies. As a key supplier of oil and gas to Europe, Azerbaijan plays a crucial role in diversifying energy supplies, reducing dependency on Russian resources, and bolstering transatlantic energy cooperation through projects such as the Southern Gas Corridor.

Beyond energy, Azerbaijan's partnerships with regional and global powers, including Turkey, Iran, and Israel, further enhance its strategic importance. Its role in reshaping the regional balance of power, particularly after the Second Karabakh War, underscores its growing influence in mediating regional conflicts and supporting broader U.S. objectives for peace and stability.

However, Azerbaijan's internal challenges, including human rights concerns and democratic deficits, present a moral dilemma for U.S. policymakers. Balancing these concerns with strategic imperatives requires a pragmatic yet value-driven approach. Strengthening energy partnerships, supporting conflict resolution, and encouraging governance reforms will ensure Azerbaijan remains a reliable and influential partner.

In sum, Azerbaijan's geostrategic value, energy significance, and diplomatic potential make it a vital ally for the United States. A deeper, more balanced engagement with Azerbaijan will enable the U.S. to secure its regional and global interests while contributing to the stability and prosperity of the Caucasus.

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CHAPTER IV

THE ARCHITECTURAL AND HISTORICAL CONTEXTUALIZATION OF THE COMPLEX OF AMINU'D-DIN AT MARDIN¹

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1. Introduction

Mardin is a historically significant city in the Southeastern Anatolia region of Turkey. While the exact time and circumstances of its founding are unknown, the city reached its peak or golden age during the Artuqid rule in the Middle Ages, between the 12th and 15th centuries. The name “Mardin” first appears in the historical records of the Roman historian Ammianus Marcellinus, who lived in the 4th century AD. In ancient Syriac sources, the city’s name is recorded as “Marde,” while Arabic sources refer to it as “Mâridîn.” (Taşdemir, 2003: 43).

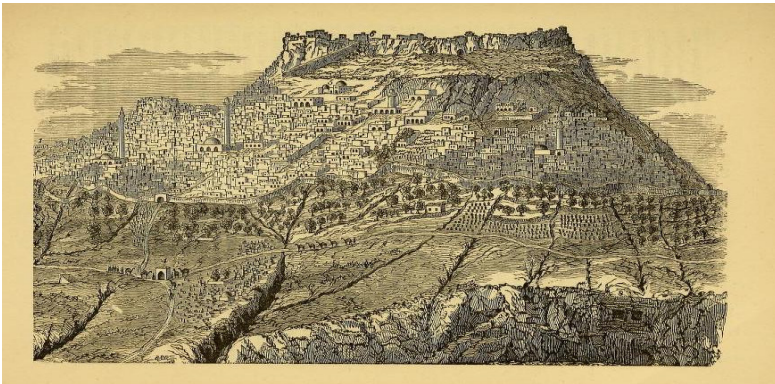


Figure 1: A gravure of Mardin

1. This article is derived from the PhD dissertation titled “XII-XIV. Yüzyıllarda Anadolu’da Tıp Kurumları” completed in 2017 under the supervision of Prof. Dr. Bozkurt Ersoy at the Ege University’ Institute of Social Sciences.

2. Historical Background

Mardin had remained as an important castle settlement due to its strategic military location from the emergence and spread of Islam in the 7th century to the 11th century (Fig. 1). The city was annexed to Islamic lands by Iyad ibn Ghanm in 640 during the caliphate of Umar ibn al-Khattap and then it is noted in historical records for rebellions around the year of 751 (Minorsky, 1991: 540). Mardin came under Hamdanid rule in 873 but surrendered to the Abbasid Caliph al-Mu‘taḍid in 894, during which its castle was destroyed. However, following Hamdanid attacks, Mardin’s defensive structures were rebuilt around the year of 966–967. According to Arab geographers, Mardin was a prosperous city known for its large markets and agricultural production. From the 10th century onwards, it emerged as one of the key centers of the region known as “al-Jazira” and “Diyar Rabi’a”. At the beginning of the 11th century, Mardin briefly came under the influence of the Marwanids before falling under the rule of the Seljuk Turks in the latter half of the century. Over time, particularly during the Artuqid period, Mardin became the political, social, and economic center of the region called “al-Jazira” from the beginning of the 12th century (Taşdemir, 2003: 43-44).

The city of Mardin came under Turkish rule in 1085 when the Great Seljuk Sultan Malik Shah I ended Marwanid entity. Starting from 1093, the Artuqids, a powerful Turkmen family, succeeded in establishing control over Mardin and Hısn-ı keyfa (Hasankeyf). Following the death of Sokman ibn Artuq, the ruler of Hısnıkeyfa, in 1104, his brother Najm al-Din Ilghazi ibn Artuq took his place. Sokman ibn Artuq’s son, Ibrahim, became the ruler of Mardin. However, shortly after, in 1106, Najm al-Din Ilghazi also captured Mardin and established the dynasty of “Tabakat-ı Ilgaziyye.” This marked the beginning of the Artuqid dynasty of Mardin, which would rule the region for three centuries. (Taşdemir, 2003: 44).

Despite the sieges led by Salah ad-Din Yusuf ibn Ayyub in 1183, al-Malik al-Adil I in 1198, and his son Al-Ashraf in 1202–1203, Mardin remained unconquered. However, in 1203, the Artuqids of Mardin became vassals of the Ayyubids by paying an indemnity of 150,000 dinars. In 1260, the Mongols besieged Mardin, and after an eight-month blockade marked by famine and outbreaks of disease, the city surrendered. The Artuqids of Mardin maintained in relative security until the late 14th century, aided by their loyalty to the Ilkhanate and familial ties established through royal marriages with the dynasty. In 1384, Timur (Tamerlane) besieged Mardin. He captured and chained the Artuqid ruler Isa was and took him to Soltaniyeh, while most of the city fell, except

for the upper citadel. Mardin endured another siege and plundering by Timur in 1401, yet the upper citadel once again resisted capture. Nevertheless, the Artuqid dynasty survived until 1408 (Minorsky, 1991: 540).

3. Architectural Features

The complex is in the neighborhood of Eminettin in the city center of Mardin, situated on a steeply sloping terrain descending from north to south. The architectural complex is popularly referred to as the “Maristan”. Historical sources indicate that the Aminu’-d-din Complex consisted of a maşjid, a madrasa, a maristan (hospital), a hammâm (bath), and a fountain. The maristan has not reached today and the exact location of the maristan remains unknown (Fig. 2). In some publications a zawiya is also considered one of the elements of the complex (Fig. 4) The historical records of the last years of 18th century indicate that the existence of a zawiya at the south of the hammam and it is not one of the original architectural elements of the complex (Açıkyıldız Şengül, 2017: 25-26)

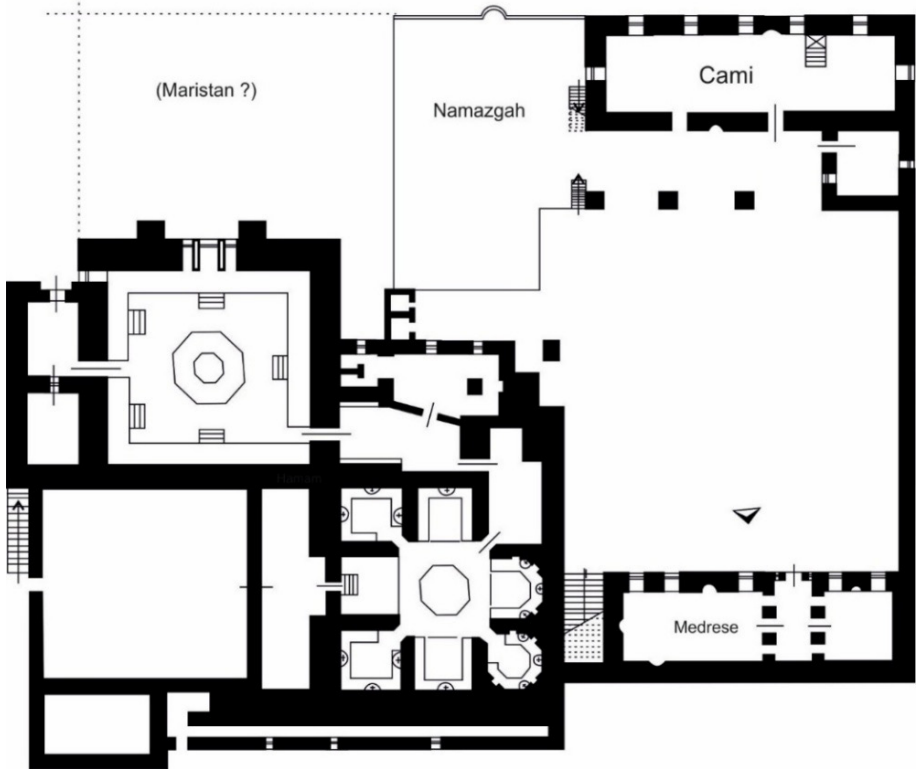


Figure 2: The plan of Aminu’-d-din Complex (Kutlu, 2017: 305)

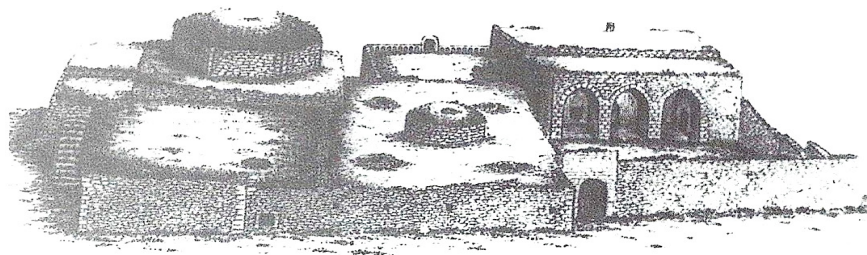


Figure 3: Aziz Tezcan’s depiction in 1938 (Cantay, 1992: Res.1)

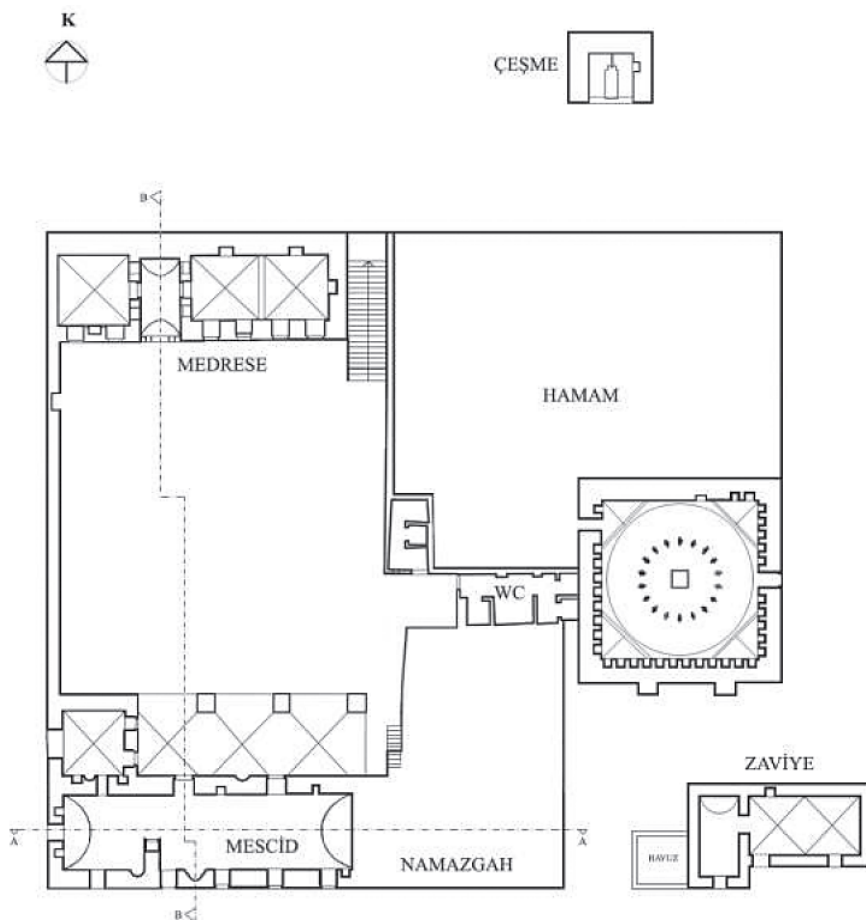


Figure 4: The plan of Aminu d-Din' Complex (Açıkyıldız Şengül, 2017: 19).



Figure 5: The fountain of the complex (view from the west)



Figure 6: The fountain of the complex (view from the south)

The courtyard is situated to the north of the complex. A fountain is the courtyard, and appears to be almost independent of the main structural units (Fig. 5, 6). It is believed by local people that the fountain, fed by a natural water source reputed to have healing function, supplied water to the bath of

the complex and was used for treatments involving healing water. The Fountain is rectangular in plan and designed as a barrel-vaulted iwan, oriented north-south axis. There is a rectangular platform to the south of the fountain's iwan. The roughly hewn stone material is used to build the fountain and only the arch of barrel-vault is highlighted with well-cut stone blocks. Besides that, natural water flowing through a pipe located on the northern wall of the iwan. The pipe was framed by a semi-circular arch.

The main entrance of the complex is located on the northern side (Fig. 7). The façade of the main entrance is higher than the courtyard walls and the opening is semi-circular arched. From the main entrance, a multi-step staircase leads to the courtyard, with the madrasa structure situated just west of the staircase. The courtyard features a rectangular plan, measuring 17.60 x 20 meters (Anonymous, 2022: 9).



Figure 7: Main entrance of the complex (view from the north)



Figure: 8: The profile plan of the Madrasa' Façade (Açıkyıldız Şengül, 2017: 23).

The south wall of the madrasa (Fig. 8), which currently serves as the imam's quarters, features a rectangular entrance opening measuring 1.00 x 1.85 meters, leading to the courtyard (Fig. 9, 10). This entrance opens into a rectangular space measuring 2.20 x 4.55 meters, covered by a barrel vault. Both the west and east walls of the space contain one entrance opening, providing access to adjacent rooms, as well as a window on each side, for a total of four windows.



Figure 9: The Madrasah (view from the southeast)



Figure 10: The madrasah (view from the east)

The east wing of the madrasa contains a rectangular space measuring 7.62 x 3.70 meters, which is divided into two units by a pointed arch, creating a square section. The units have groin-vaulted ceilings and four windows on the south wall, opening to the courtyard. Additionally, there are three niches: two on the north wall and one on the east wall. It is noted that the madrasa has lost much of its original character (Sözen, 1970: 86-89; Altun, 2011: 65).



Figure 11: The masjid (view from northwest)

In the portico outside the prayer hall of the masjid (Fig. 11, 12), there is a mihrab niche, measuring 0.80 x 1.75 meters with a depth of 0.35 meters. Two entrance openings, situated to the east and west of the niche, provide access to the prayer hall. The western entrance has a rectangular opening measuring 0.90 x 1.75 meters, while the eastern entrance is slightly larger, with dimensions of 1.00 x 1.85 meters (Anonymous, 2022: 9). The eastern entrance, being wider, serves as the main entrance to the prayer hall. To the west of the portico, there is a small room with a barrel vault (Fig. 12). The room, which has a square plan, features two cupboard niches and a window overlooking the prayer hall.



Figure 12: The portico of the masjid



Figure 13: The prayer hall of the masjid

The prayer hall, measuring 16.00 x 4.30 meters (Anonymous, 2022: 9), has a rectangular plan and a barrel-vaulted ceiling that widens in width (Fig. 13, 14). There are two semicircular-arched windows on the east and west walls, and five rectangular windows on the south wall—three to the east of the mihrab and two to the west—making a total of seven windows. The mihrab niche in the prayer hall has a round arch, measuring 0.75 x 1.85 meters and with a depth of 0.40 meters (Anonymous, 2022: 9). The mihrab, flanked by corner columns on both sides, also features a round arch. To the west of the mihrab, there is a modestly sized stone minbar, which has very plain features (Fig. 13). It is evident that the masjid has lost much of its original characteristics, reflecting the alterations made during later repairs. In a similar view, Ara Altun (1995: 119) suggests that the masjid and its portico were renovated during the 14th and 15th centuries.



Figure 14: The mihrab of the prayer hall



Figure 15: The east part of the prayer hall

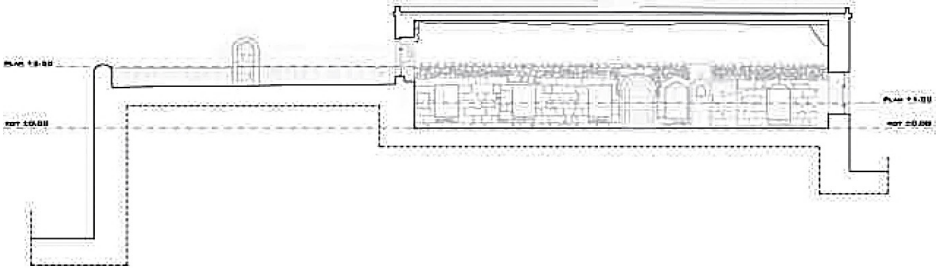


Figure 16: Profile Plan of the masjid and namazgâh or open-air prayer platform (Açıkyıldız Şengül 2017: 22).

The raised platform to the east of the masjid, accessible by stairs, serves as the open-air prayer place called “namazgah” or *musalla* (Fig. 16, 17, 18). It features a stone mihrab niche, and its floor is covered with stone (Fig. 18). It does not retain its original features as well, and even the railings bordering the area to the south are from a later period.



Figure 17: The open-air prayer place called “namazgâh”



Figure 18: The open-air prayer place (from the north)

To the north of the *namazgah* and adjacent to the bath is the *ablution space*, used for ritual ablutions (Fig. 19). It has a rectangular plan with a groin-vaulted superstructure, supported by two arches resting on a pier. Today, it continues to serve as a place for ablution.



Figure 19: The courtyard and the abluion space of the complex



Figure 20: Superstructure of the bath (from the south)

The bath, one of the main elements of the complex, is located to the northeast of the masjid and the east of the madrasah (Fig. 20). It has become private property and is in a separate courtyard. The courtyard of the bath is reached by descending a staircase in the north. The caldarium of the bath is in the western, the tepidarium is the center, the apodyterium located in the

eastern part of the structure and a large open air courtyard to the north. The western and southwestern parts of the bath structure adjacent to the masjid, madrasa, and namazgâh has been severely damaged (Fig. 20). According to old records and plans detailing the state of the bath before its demolition, it originally featured a four-unit, cross-shaped caldarium.



Figure 21: The Apodyterium of the bath (from the east)



Figure 22: The Apodyterium of the bath (from the southwest)

The Apodyterium of the bath (Fig. 21, 22) has a square plan and is a single-domed space with a diameter of approximately 11 meters. The dome is supported by stepped squinches. The interior walls are decorated with asymmetrically placed niches, including arched niches on all four sides (Altun, 2011: 66). There is an eroded and unreadable inscription on the eastern facade (Fig. 25). In a plan drawn by Cantay based on Aziz Tezcan's work, two rectangular rooms are shown to the east of the changing room, but these spaces have not survived to the present day (Fig. 2, 3).



Figure 23: One of the spaces of the bath

The purpose of the square-planned space and the narrow corridors connecting the two large sections located diagonally opposite each other has not yet been identified. (Altun, 1995: 119). In fact, there is a rectangular space divided into two sections by a pointed arch, along with two units covered by groin-vaults (Fig 23, 24). It is possible that this area functioned as a maristan. However, since these spaces were used as residential purposes and have lost their original architectural characteristics, they no longer reflect any traces of a maristan's original function.



Figure 24: One of the spaces of the bath

It is believed that the healing power of water and hydrotherapy-based treatments were performed in the bath of the complex, which features a natural water source thought to have healing effects (Fig. 5, 6). Additionally, it is suggested that theoretical courses in medicine were conducted in the madrasah section of the complex, while practical medical treatments were carried out in the bath section (Altun, 1995: 119).



Figure 25: The eroded inscription on the eastern facade of the bath

4. Patronage

The construction inscription of the Aminu'd-din Complex has not survived to the present day. It is widely accepted that the patron of the structure is Aminu'd-din, the brother of Artuqid Malik Najm al-Din Ilghazi (1104–1122). However, it is believed that following Aminu'd-din's death, the completion of the complex was overseen by him (Altun, 1995: 119). No detailed information exists in historical sources regarding the life of Aminu'd-din. Consequently, the dating of the complex must rely on some events from the life of Najm al-Din Ilghazi. Historical records indicate that Najm al-Din Ilghazi began ruling Mardin in 1106, establishing the Mardin branch of Artuqids, and continued his reign until his death in 1122 (Sevim, 2000: 89–90). Based on this information, the construction of the complex began before 1106 and was completed prior to Najm al-Din Ilghazi's death in 1122. Therefore, the structure can be dated to the first quarter of the 12th century.

4.1. Patron

Aminu'd-din, the patron of the complex, was the son of Artuk Bey, a prominent figure during the reign of the Great Seljuk Sultan Alp Arslan. Artuk Bey, from the Döger tribe of the Oghuz Turks, joined Sultan Alp Arslan's army in 1063 along with the Turkmens loyal to him. He participated in several campaigns against the Byzantine Empire (Sevim, 1991: 424). According to Abdüsselam Efendi (2007: 41), Artuk Bey captured Mayyāfāriqīn (modern-day Silvan) in 1068 and subsequently expanded his territory. After the Seljuk victory at Manzikert in 1071, he commanded the Seljuk central army and conquered the basins of Kızılırmak (Halys) and Yeşilirmak (Iris) in Central Anatolia. In 1076, he participated in campaigns in Syria and tried to conquer the Diyâr-ı Bekr region in 1083. During this time, tensions arose with the Marwanids, leading to a fallout with Sultan Malik-Shah I. As a result, he entered the service of the Seljuk Sultan of Damascus Tutush I.

In 1085, Artuk Bey was appointed by Tutush I as Wali of Jerusalem and its surrounding lands. Despite this, he continued his efforts to dominate the Diyâr-ı Bekr region with the Turkmens under his command. In 1086, he defeated the Anatolian Seljuk Sultan Suleiman Shah I ibn Qutalmish near Aleppo. After conducting activities in the Baghdad region in 1087, he returned to Jerusalem, where he served as "wali" until his death in 1091 (Sevim, 1991: 414–415). Artuk Bey had three sons: Aminu'd-din, Najm al-Din, and Sungur.

Sungur passed away during Artuk Bey's lifetime (Abdüsselam Efendi, 2007: 41). However, according to Ibn al-Azraq al-Fariqi, Artuk Bey had sons named Sokman, Ilghazi, Behram, Abd al-Jabbar, Siyavuş, İnal, Alp-Yaruk, Beğtaş, and Alataş (Turan, 1973: 139). Similarly, C. Cahen (1991: 663) lists Artuk Bey's sons as Ilghazi, Sokman, Behram, Abd al-Jabbar, and Alp-Yaruk.

The identity of Aminu'd-din becomes clearer through the titles conferred upon him by the Abbasid Caliph. It is recorded that the Abbasid Caliphs awarded Sokman b. Artuk the titles Abd al-Jabbar and Aminu'd-din in recognition of his significant victories against the Crusaders (Muhammed, 2015: 130).

In 1091, Artuk Bey's sons, Sokman and Ilghazi, were appointed Wali of Jerusalem. However, they managed this role through their deputies while continuing their activities in the Diyâr-ı Bekr and Mardin regions (Sevim, 2009: 392). Following the death of the Syrian Seljuk ruler Tutush I in 1095, and during the ensuing power struggle between his sons, Duqaq and Fakhr al-Mulk Ridwan, the Fatimids captured Jerusalem in 1098. As a result, Sokman and Ilghazi were compelled to sever their ties with Jerusalem (Sevim, 2000: 89).

Aminu'd-din, also known as Abd al-Jabbar or Jabbar, became dominant in the region of Mardin. After successfully completing the expedition to Azerbaijan and Armenia and returning to Mardin with the army, hostility began to develop between Aminu'd-din and his older brother, Najm al-Din Ilghazi (also known as İlgar) (Abdüsselam Efendi, 2007: 42-43).

İlgar (Najm al-Din Ilghazi), who had gone to Diyâr-ı Bekr after the death of their father, Artuk Bey, in 1091, found himself cornered by his brother, Malik Jabbar (Aminu'd-din Ilghazi). Malik Jabbar (Aminu'd-din) won the battle, but İlgar (Najm al-Din Ilghazi) survived and took refuge with his soldiers in the city of Diyâr-ı Bekr, which was under the rule of the Inalids. Despite besieging the city for six months, Malik Jabbar was unable to capture it. Eventually, he promised the people of Diyâr-ı Bekr that he would not harm them or interfere with the city in exchange for the surrender of his brother, İlgar Najm al-Din Ilghazi. However, İlgar secretly fled to Diyâr-ı Bekr and sought refuge in Mayyâfâriqîn (Silvan), which was under control of the Marwanids. Malik Jabbar and his army then marched to Mayyâfâriqîn (Silvan) and fought, but İlgar (Najm al-Din Ilghazi) emerged victorious (Abdüsselam Efendi, 2007: 43).

After the Crusaders captured Antioch and Jerusalem, Sokman and his nephew Belek Gazi participated in the Muslim campaigns, achieving great success. Initially, Suruç and its surrounding areas were granted to him. In 1101, during his campaigns, he inflicted significant losses on the Crusaders, although

he was unable to capture Urfa (Edessa) despite laying siege to it. During the same period, the Seljuk governor of Mosul, Kürboğa, besieged Diyâr-ı Bekr. However, Sokman, responding to the Inalids request for help, managed to save the city.

When Çökürmüş, the ruler of Cizre (Jazirat Ibn 'Umar), attacked the Mosul ruler Türkmen Musa, Sokman came to his aid, and in return, he was granted with Hısn-i Keyf. This marked the founding of the Hısn-i Keyf branch of the Artuqids in 1102. Due to his loyalty to the Syrian Seljuk Sultan Rıdvan and his military successes, Maarretun'numan was given to Sokman. Unfortunately, he died in Karyatayn, near Damascus, from diphtheria contracted during an expedition against the Crusaders in 1104 and was buried in Hısn-i Keyf (Sevim, 2009: 394).

Although the exact number of children of Abd al-Jabbar Aminu'd-din Ilghazi is not known, later records reveal the existence of two sons. The first reference occurs in 1124, following the death of Artuqid ruler Belek, when a power vacuum emerged. The people of Aleppo expressed concerns that Abd al-Jabbar 's son, Süleyman, would be insufficient to defend them (Turan, 1973: 154). The second reference involves the expansionist policies of Davud, the Artuqid ruler of Hısn-ı Keyf, which disturbed Hüsameddin Timurtaş, the Artuqid ruler of Mardin. In 1134, Timurtaş, in alliance with Zengi, the Atabeg of Mosul, launched a joint campaign against Davud. During this campaign, Abd al-Jabbar's son, Arslan, lost control of the regions of Cebel-i Cur and Tanza. This Arslan is the other known son of Abd al-Jabbar Aminu'd-din Ilghazi (Turan, 1973: 155).

The information found in sources about Najm al-Din Ilghazi sheds light on other aspects of the historical context. After the Fatimids and, subsequently, the Crusaders captured Jerusalem in 1098, Najm al-Din Ilghazi, along with his Turkmen forces, went to Baghdad and entered the service of Sultan Berkyaruk in 1099. He briefly served as the governor of Baghdad (Sevim, 2000: 89).

However, following the death of Sultan Berkyaruk in 1104, his brother, Muhammad Tapar, seized the throne and captured Baghdad in 1105. As a result, Najm al-Din Ilghazi was forced to retreat to the Diyâr-ı Bekr region. His brother, Sokman bin Artuk, the ruler of Hısn-ı Keyf, died in 1104. In his place, Najm al-Din Ilghazi took control of Hısn-ı Keyf and then moved to Mardin. In 1106, he took power in Mardin and established the Mardin branch of the Artuqids, known as "Tabakat-i İlğaziyye," under the suzerainty of the Great Seljuk Empire (Sevim, 2000: 89).

Once in Mardin, Najm al-Din Ilghazi began the construction of a masjid and a madrasa in his name, while also ordering the completion of the madrasa

that his brother, Malik Jabbar Aminu'd-din Ilghazi, had started but left unfinished (Sevim, 2000: 89).

In response to the Crusaders' attacks in the Aleppo region, Najm al-Din Ilghazi, along with his nephew Belek and his ally Atabeg Tuğtekin, laid siege to the Zerdena castle, which was under Crusader occupation, on the 16th of Ramadan, 516 AH / 1122 CE. During the campaign, Najm al-Din Ilghazi fell ill. He first went to Aleppo for treatment and then returned to Mardin. However, while traveling to Mayyāfāriqīn (Silvan), he passed away on the 17th of Ramadan, 516 AH / November 19, 1122 CE, and was temporarily buried in a place called Sindeli. Later, his body was exhumed and transferred to a tomb located to the north of Kubbetü's-Sultan in the Mescid-ül Emir. Following his death, the administration was passed to Najm al-Din Ilghazi's son Hüsameddin Timurtaş in Mardin and to his son Süleyman in Mayyāfāriqīn (Sevim, 2000: 90)

5. Waqf Deeds and Archival Records

There are some references in written sources regarding the state of the Aminu'd-din Complex after the Artuqid period. For instance, Kâtib Ferdi (2006), in his work *Mardin Mülük-i Artukiyye*, mentions that the maristan was in a ruined condition in 1537 and notes that its exact location was across from the Cami ül-Asfar, where Najm al-Din Ilghazi is buried. A. Süheyl Ünver (1940: 17) suggests that the maşjid, madrasa, and bath of the complex were still intact, while the darüşşifa (hospital) was built in the area currently occupied by the open prayer ground. However, there is no evidence to support this claim. Excavations in the prayer ground area could provide further insight. It has been noted that the term "maristan" in the sense of a health institution is not used in the original text of Kâtib Ferdi's work. This work was edited by Ali Emiri Efendi in 1875, who added marginal notes. The statement attributed to Kâtib Ferdi by Ünver, regarding the maristan being in ruins in 1537 and the other elements of the complex—such as the madrasa, maşjid, and bath—being in good condition, belongs to Ali Emiri Efendi's notes, not Kâtib Ferdi's original text. Therefore, it cannot be stated that the maristan was in ruins in the year of 1537.

Another source is Abdüsselam bin Ömer el-Mardini's (2007) *Ummu'l-Iber*. This work provides information about the Artuqid emirs. S. Ünver, referring to Abdüsselam Efendi, states that the construction of the complex, which included a maşjid, bath, madrasa, and hospital, was initiated by Aminu'd-din and completed by his brother after his death. However, it has been noted that Abdüsselam Efendi's Arabic work does not use the term "maristan" in the

sense of a health institution. The term “maristan” appears twice in the work: the first time referring to a healing water source near the complex, and the second time indicating that Aminu’d-din’s masjid is known by the name “maristan” (Yılmaz, 2013: 7).

G. Cantay (1992: 39-40), who claimed to find photographs documenting the original state of the complex in Prof. Dr. B. Şehsuvaroğlu’s private archive, suggests, based on projects approved by Aziz Tezcan, the Chief Construction Officer of Nafia Affairs in Mardin, and photographs of the site (Fig. 3), that the maristan (hospital) was likely located in the vacant area south of the bath. Additionally, it has been proposed that the maristan, which Kâtip Ferdi indicated was opposite Cami ül-Asfar, would have been built in the current vacant land across from the masjid. In this area, there is a shelter or stable for domestic animals and a coal depot (F. 26). However, no architectural remains or traces of the maristan have been found yet.

According to S. nver (1940: 18-19), the Aminu’d-din Maristan remained in active service until the 19th century, as confirmed by medical files in the State Archives of the Presidency of the Republic of Turkey. However, this contradicts the records of Kâtip Ferdi, who stated that the maristan had fallen into ruins by 1537. It is likely that the building underwent some repair or reconstruction after 1537, but unfortunately, there are no available records or data to shed light on this matter.

The documents in the State Archives of the Presidency of the Republic of Turkey provide additional details about the Aminu’d-din Complex. Notably, Tahrir registers, waqf documents, and lawcourt records have been explored in various studies. According to Sarper Yılmaz (2013), eleven out of the 19 lawcourt records were published as part of the “Mardin İhtisas Library” project. Although there are numerous records concerning appointments and assignments related to the Aminu’d-din Maristan, the number of medical appointments documented is quite limited (Yılmaz, 2013: 9).

The first Tahrir register of Mardin, located in the State Archives of the Presidency of the Republic of Turkey, dates to 1518 and is cataloged under the “Maliyeden Müdevver” section with the classification number MAD 100. On the 15th page of this register, the income from the Aminu’d-din Maristan endowment of Sheikh Aminu’d-din is listed as follows:

- Annual bath rental income: 10,000 akçe
- Rental income from 5 shops: 260 akçe

- Rental income from a garden: 240 akçe
- Income from lands in Amude village: 2,000 akçe
- Income from lands in Zevenc? village: 5,500 akçe

The total income amounts to approximately 18,000 akçe. Of this, 7,500 akçe (5,500 from Amude and Zevenc villages, and 2,000 from other lands) were allocated to the Qadi of Mardin (Yılmaz, 2013: 10-11).

The 1522 Tahrir register reveals that the income from the Mardin Timarhanesi Endowment was allocated to a teacher named Ahmed at Kasım Bey Medrese, who received 40 out of his 90 akçe salary (Kılıç, 2012:77). According to the 1523 Tahrir register, the Bimaristan endowment generated an annual income of 15,971 akçe from 1 bath, 7 shops, 2 gardens, and lands in 1 village. The daily expenses amounted to 41 akçe, distributed as follows:

- Tevliyet (Stewardship): 4 akçe
- Nezaret (Supervision): 1.5 akçe
- Kitabet (Clerical work): 1 akçe
- İmamet (Imam): 2 akçe
- Müezzin (Muezzin): 2 akçe
- Farraş (Janitor): 2.5 akçe
- Rakabe (Surveillance): 5 akçe
- Darüşşifa (Hospital): 5 akçe
- Eşribe-i bimari (Medical supplies): 20 akçe

This record clearly shows that a budget was specifically allocated for the treatment of patients (Yılmaz, 2013: 11-12).

The 1540 Tahrir register maintains the same expenditure budget as in 1523, with the expense item under 'darüşşifa' (hospital) still listed as 'hekim' (physician) and a daily payment of 5 akçe. The physician working at the bimaristan is noted as Vehib b. Hekim. The income list of the endowment indicates that the lands in Zevenc village were removed, and new shops and gardens were added in their place. As a result, the annual income of the endowment increased to 17,035 akçe, while the total annual expenditure rose to 14,260 akçe (Yılmaz, 2013: 13).

In the 1564 Tahrir register, the annual income of the endowment is recorded as 21,623 akçe, with total expenditures amounting to 15,300 akçe. The expenditure list shows the physician receiving 5 akçe, while the cost for 'eşribe-i bimari' (medicinal beverages) remains at 20 akçe. Additionally, it is

noted that a second physician was paid 2 akçe, and an architect was employed by the institution (Yılmaz, 2013: 13-14).

Two endowment registers from the 16th century, though not highly detailed, provide some information about the Aminu'd-din Bimaristan. The first register indicates that the institution had 11 staff members and a daily expenditure of 37 akçe (annually, 13,320 akçe). The second register lists a daily expenditure of 36.5 akçe, with a semi-annual total of 6,570 akçe (Yılmaz, 2013: 14).

In a 1679 petition, a physician named Seyyid Hüseyin requested to be appointed to the vacant position of physician following the death of Tabib Mehmed. An entry from the 1688' lawcourt records reveals that a physician named Ebubekir was holding this position at the time (Kılıç, 2012: 77).

A decree dated 1691 (1103 in the Islamic calendar) records Ebubekir's appointment as a scribe at the Bimaristan of Aminu'd-din. Another decree from 1695 (1106 in the Islamic calendar) indicates that Ebubekir had been appointed as the physician at the Bimaristan. A further document from 1712 (1123 in the Islamic calendar) shows that Ebubekir, who had been serving as both a physician and a supervisor at the Bimaristan, requested that the role of supervisor be passed on to his son due to his advanced age (Yılmaz, 2013: 16).

The 1692-3 Hurufat Defteri records the appointment of a sherebdar (a servant in charge of beverages), an architect, and an imam to the Bimaristan, with daily wages of 2 akçe for the first two and 1 akçe for the imam. The 18th-century Hurufat Defters contain numerous entries concerning appointments for positions that became vacant due to death, including those of trustee, cleaner, bell-ringer, supervisor, muezzin, copyist, doorman, and auxiliary health staff (Yılmaz, 2013: 16-17).

A 1792 document notes the appointment of Seyyid Mehmed to the roles of physician and supervisor following the death of Feyzullah Halife. Marginal notes indicate that Feyzullah Halife had been appointed physician in 1744, replacing Seyyid Mustafa, and supervisor in 1782, replacing el-Hac Hüseyin Efendi (Kılıç, 2012: 77).

The 1762 Şeriyye Sicils list the revenues of the Aminu'd-din Bimarhanesi. The annual income includes 90 kuruş from the rent of the hammam and 90 kuruş from the lands in Amude village, totaling 180 kuruş. The staff of the Bimaristan are divided into two categories. Under the *Veẓâifü'l-Usûl* (Primary Duties) title, the following positions are listed: müderris, nazır, imam, müezzın, türbedar, and ferraş. Under *Veẓâifü'l-Fürû' min rütbetü'l-sâniyye* (Secondary Non-Primary Duties), the staff includes the 1st and 2nd physicians, each earning 2 akçe daily,

with the second physician also responsible for collecting the waqf's revenues (Yılmaz, 2013: 18-19).

The waqf accounting ledgers contain records about the staff of the Bimarhanesi from 1155 to 1271 (1742-1854). Although some parts of the documents are illegible, the waqf staff are listed as mütevellî, kâtip, imam, müezzin, architect, and ferraş, but physicians are not included in the lists (Yılmaz, 2013: 19).

Following the establishment of the Evkaf Nezareti (Directorate of Wagfs) in 1826, the waqf of Aminu'd-din' Maristan was transferred to this institution. The exact date of the transfer, however, remains unknown. A record from 1270 (1854-5) shows that the waqf's income amounted to 1764 kuruş from the lands in the villages, plus 60 kuruş from the hammam rent, totaling 1824 kuruş (Yılmaz, 2013: 20).

The waqf's total expenditures were 626 kuruş. Personnel expenses included 15 kuruş for the inspector position (daily wage of 5 akçe), 12 kuruş for the tevliyet (trustee) position (daily wage of 4 akçe), 18 kuruş for the muallim-i sıbyan (children's teacher) position (daily wage of 6 akçe), 45 kuruş for the ders-i 'âm (general teaching) position (daily wage of 15 akçe), and 25.5 kuruş for the nezaret, hitabet, and imamet (supervision, rhetoric, and imamate) positions (daily wage of 8.5 akçe), totaling 115.5 kuruş. Notably, no physicians were listed, suggesting the darüşşifa was no longer operational (Yılmaz, 2013: 20-21). However, in 1275, Ahmed bin Şeyhmus is recorded as both a physician and a nazır (supervisor), with a daily wage of 7 akçe. In subsequent records, although Ahmed bin Şeyhmus continued to appear as a preacher and scribe, no one was appointed to the physician position. Later archival sources show no indication of health services. The final records from 1912 indicate that the waqf had neither income, expenditures, nor staff (Yılmaz, 2013: 21-23).

6. Conclusion

Around 1085, Mardin came under the rule of the Artuqids. Following the death of Artuq Bey in 1091, Mardin passed into the hands of Abd al-Jabbar or Aminu'd-din Bey, who would later assume the titles that Sokman Bey was to hold. In 1101-1102, after Sokman Bey conquered Hisn-ı Keyfa, he moved the capital to Hisn-ı Keyfa. However, during a campaign against the Crusaders in 1104, he became ill and died of diphtheria near Karyateyn, close to Damascus. At this time, Ilghazi, who had been serving as a "Wali" in Baghdad, arrived in Hisn-ı Keyfa after the political upheaval following the death of Sultan, Najm

al-Din of the Seljuk Sultanate of Iraq in 1104. Ilghazi succeeded Sokman Aminu'd-din Bey. In 1106, he moved to Mardin, took control from his brother's son and nephew, and established his own dynasty, "Tabakât-ı Ilghazîyah," while relocating the capital to Mardin.

The construction of the Aminu'd-din Complex, beginning after 1091, probably started after 1098, following the Crusaders' capture of Jerusalem, Antioch, and Urfa (Edessa). The complex was completed sometime after 1106, when Ilghazi Najm al-Din took control of Mardin. Ilghazi ruled Mardin until 1122, the complex reached completion around 1112-1113 rather than continuing until 1122. It is significant that in 1113, another medical institution, Maristan-ı Atik, was built in Konya (Kutlu, 2021:303). The massive casualties and injuries from the bloody Crusader battles, coupled with the rise of epidemics, led to an increased demand for medical institutions. In this historical context, it can be concluded that the maristan of Aminu'd-din in Mardin was the oldest Islamic medical institution in Anatolia, predating the Maristan-ı Atik in Konya.

The records from the waqf and historical archives indicate that although physicians were not always appointed to the Maristan of Aminu'd-din, it continued to function as a hospital until the last quarter of the 18th century. After this period, however, the hospital lost its medical function and its waqf became nonfunctional, both in terms of income and expenditure.

The Aminu'd-din Complex stands out as not only the oldest architectural ensemble of the Artuqids but also the earliest architectural complex, displaying unique characteristics. Situated on a sloping terrain, the complex features a series of independent buildings arranged within a courtyard, each designed for distinct functions. This layout exemplifies a pioneering approach in Anatolian Islamic Architecture. While Artuqid madrasas typically followed a courtyard-based design, the plan of the Artuqid mosques, influenced by the Umayyad Mosque in Damascus, reflects the region's deep roots in Islamic architecture, which can be traced back to the mid-7th century. Additionally, the cultural influence of Tur-Abdin, ancient land of the Syrians, is reflected in the architectural style and ornamentations.

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CHAPTER V

ANALYSIS OF HEALTH AND SPORTS ARTICLES IN TURK YURDU MAGAZINE (1911-1931)¹

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1. Introduction

According to Foucault (2000), modern power aims to develop the human body, normalize it and turn it into an apparatus of the production process. Unlike classical power, modern power tries to make human beings productive and discipline them. It follows, monitors and records him. It measures his productivity during working hours and evaluates him through exams. Power works not through violence but by provoking desire. It makes him/her part of the production process by making him/her desire various means of consumption. According to Foucault (2002), the birth of modern medicine gave a great impetus to the process of manufacturing a docile and obedient, yet efficient and productive human body. In this way, diseases were standardized, people were monitored and recorded, and the human body became a field of study for medicine. Medicine became increasingly normative, deciding who should be locked up, who should be punished, who should be monitored and marked. After the 19th century, medicine and political technology became intertwined. Medicine was made responsible for monitoring, surveillance and recording patients, hospitals were built and healthy people and patients were separated from each other. Hospitals were divided into departments and different diseases were treated in different departments (Erkan, 2022:310).

1. In some parts of this article, the paper titled “Analysis of Health Articles in Türk Yurdu Magazine” presented at the International Conference on Management and Social Sciences Congress held in Istanbul on November 17-19 was utilized.

Modern medicine has approached the human body like a machine and turned it into a physiological object of study. The treatments developed by medicine, especially by detecting bacteria and viruses that cause infectious diseases, prevented epidemics that threatened masses and caused the deaths of millions of people. In this way, human life expectancy was prolonged and diseases began to be treated with scientific treatment and surgical interventions in the hospitals opened. The prolonged duration of modern wars, the increase in trench warfare and the conscription of an entire nation through mobilization increased the importance of medicine. Both the treatment of the wounded on the front line and the fight against diseases and epidemics behind the front lines had a great impact on the fate of wars. For this reason, medical faculties have started to be opened for military or civilian purposes in almost all modernizing countries of the world. After the 18th century, medicine developed on a positive basis and based on experimental techniques, unlike medieval medicine.

It was through quarantine that Ottoman intellectuals first became acquainted with modern medical practices. Yirmisekiz Mehmet Çelebi, who was sent to France as an ambassador to follow the developments in Europe, arrived in the city of Toulon on November 21, 1720. As a foreigner coming from a distant and dangerous country, he was quarantined for 30-40 days before entering the city. This was done in order to determine whether the travelers, especially those coming from outside Europe, carried an infectious disease or not. Yirmisekiz Mehmet Çelebi stated that the reason for this was that “a disease broke out in Marseille and caused the death of 70 thousand people” (Rado, 2006: 17). For this reason, quarantine was made compulsory for foreigners at borders and entrances to the country. This also included diplomatic officials and was applied without discriminating anyone. It was stated that some officials who took this lightly were executed by the king. The quarantine practice, which the Ottoman Empire would begin to implement after the Tanzimat (Regulations), started much earlier at the borders of Europe, thus preventing many epidemics.

After the Treaty of Karlofça (1699), one of the most curious places for Ottoman ambassadors sent to European capitals on a mission to observe/get to know the West was hospitals. The organization of the hospital system in countries such as France, England and Austria, the experimental studies and practices carried out by the students, the paintings and wax sculptures representing the human body were reflected in the reports of the ambassadors. Seyyid Ali Efendi, the first permanent ambassador of the Ottoman Empire to France. He was very impressed by the organization of the hospitals in Paris. There were 4 doctors and 12 surgeons in the hospital. Every patient who came to the hospital was

registered, and the expenses of patients with poor financial conditions were covered by the donations of some rich people (Erkan, 2023: 81).

The first modern medical school in the Ottoman Empire was established in 1827 for military purposes. The first director of the school was Behçet Efendi, whose name has also entered the medical literature. During this period, some teachers brought from Europe and books translated from French were used to provide medical education. With the inadequacy of the Military Medical School, civilian medical schools began to be established in the 1870s. The Ottoman Empire started to make regulations in the field of health with some regulations. With these regulations, it was made obligatory to have a doctor in each province, and these doctors were ordered to follow epidemic diseases in their regions and report to the center when a disease broke out. Doctors trained at the medical school not only practiced medicine but also had a significant impact on the Ottoman political and intellectual world. For instance, it was a handful of young medical students who founded the *Türk Ocağı* (Turkish Quarry). Leading figures of Ottoman materialism such as Abdullah Cevdet were originally doctors. Names such as Dr. Nazım among the founders of the Committee of Union and Progress (*İttihat ve Terakki Fırkası*) and Dr. Akil Muhtar among its members draw attention. During the Turkish War of Independence, names such as Dr. Adnan Adıvar were doctors.

Within the environment of freedom provided by the Second Constitutional Monarchy, there was a significant increase in the number of associations, foundations, journals and newspapers representing different intellectual movements of the period. Modernization, Islamism, socialism, Turkish nationalism and Ottomanism were the most important intellectual movements of the period. In this period, the *Türk Yurdu* Magazine was established as one of the associations that started to bring the idea of Turkish nationalism to the agenda and saw the salvation of the Ottoman Empire in a national state based on the Turkish nation. *Türk Yurdu* Society started to publish a magazine. The name of this magazine was *Türk Yurdu* (November 30, 1911). The society was founded on August 31, 1911. Among the founders of the society were Mehmet Emin Yurdakul, Yusuf Akçura, Hüseyinzâde Ali, Ahmet Hikmet Müftüoğlu, Dr. Akil Muhtar and Ahmet Ağaoğlu (Tunaya, 1988: 415). The members of the Society joined the “*Türk Ocağı*” (Turkish Heart), which was officially founded on March 25, 1912. *Türk Yurdu* magazine and the *Türk Ocağı* were united at heart. *Türk Yurdu* magazine became a gathering point for the names carrying Turkish nationalism ideas of the period. In 1918, the magazine, whose existence was jeopardized by the occupation of Istanbul, suspended its publications, and

Hamdullah Suphi Tanrıöver, the owner of the magazine, went to Ankara upon Mustafa Kemal's invitation and joined the ranks of the national struggle. When the national struggle was won and the Turkish nation state was established, *Türk Yurdu* magazine resumed publication (1924). *Türk Yurdu* is the longest-running journal of the Turkic thought, which has been published for more than a hundred years at various intervals. In 1931, due to the extraordinary conditions of the period, it dissolved itself after Mustafa Kemal's decision to unite all civilian institutions around the Republican People's Party (Erkan, 2018). In place of *Türk Yurdu*, the Republican People's Party started to publish "Ülkü" Magazine.

The aim of this study is to analyze the health articles published in *Türk Yurdu* magazine between 1911 and 1931. After 1911, extraordinary conditions made it necessary for the magazine to pay attention to issues such as health, public health (hygiene) and preventive health, and various articles, especially by Dr. Akil Muhtar, were published on combating epidemics, cleanliness, personal care and hygiene. During this period, war conditions necessitated the participation of doctors and nurses as well as soldiers at the front. Turkish women also took care of wounded soldiers behind the front lines. After the establishment of the Republic of Turkey, the Turkish Heart, which assumed the function of the cultural branch of the Republican People's Party until 1931, made a significant contribution to the struggle of Anatolian people against diseases such as syphilis, malaria, cholera, measles and smallpox, and various health screening, treatment and preventive studies were mentioned in the journal.

Sports (training), one of the complementary components of health, was also a frequent theme in the magazine. While analyzing the articles of the period, the articles on sports as well as health were also analyzed. The aim of this study is to evaluate the coverage of health and sports policies and practices in *Türk Yurdu* magazine, one of the most important publications of the period after the Second Constitutional Monarchy and in the early Republican period, and the situation of the period in the field of health and sports.

2. Health Policies and Studies from Tanzimat to Second Constitutional Monarchy

The Ottoman Empire was first introduced to health practices in European cities. Unlike medieval medicine, the experimental and applied development of medical knowledge and medical faculties aiming to teach it attracted the attention of Ottoman intellectuals. Especially names such as Behçet Efendi, Hoca İshak Efendi, Abdullah Molla, Arif Efendi had contributed to the development of Ottoman medicine. Behçet Efendi was the most remarkable among them. Born in

1774 in Istanbul, Behçet Efendi was interested in medicine and natural sciences. Behçet Efendi, who was the elder brother of Abdülhak Molla, the physician and uncle of Abdülhak Hamid, was appointed as the palace physician after studying at the Süleymaniye Medical Madrasah. In 1827, he was also the director of the military medical school. He taught most of the courses here himself. He made important contributions to the field of health with his translations from French. In 1831, he wrote a book titled “Cholera Outbreak” about the epidemic in Istanbul. He was fluent in Persian, Arabic, English, German and French. He is one of those who contributed greatly to the development of Ottoman medicine (Erkan, 2023:110).

Like Behçet Efendi, Abdülhak Molla was also a physician. Hoca İshak Efendi was an expert mathematician. Şanizâde Ataullah Efendi made great contributions to the establishment of the Ottoman engineering school. The Chamber of Translation established in 1821 was also influential in the development of Ottoman medicine. The young Turkish children who were taken here to be educated learned a foreign language in addition to their diploma profession and followed the publications brought from Europe and thus gained knowledge in various fields.

In the Ottoman Empire, the institution responsible for the maintenance of health-related services was the chief physician’s office. The chief physician was responsible for the appointment, promotion and relocation of physicians, the fight against infectious diseases and the management of hospitals (Öztürk, 1999: 37-41). The first faculty to provide western-style military medical education was the “Tıphane-yi Amire” opened in 1827. The language of instruction was French. Until the textbooks were translated into Turkish, the language of instruction was French. This school was the second school to provide education in the Western sense after the Faculty of Engineering. This would be followed by the Teachers’ Schools established in 1848.

The Ottoman Empire took the first step in combating epidemics, which were recognized and prevented very early in Europe, by establishing the “Quarantine Organization” in 1840. Under the control of this organization, a quarantine system was established in the country and health services were organized under a single roof. Even in the late 19th century, epidemics continued to be a major threat to many countries. In 1892, a cholera epidemic broke out in Hamburg, a coastal and important port of Germany, and 8605 people died in this epidemic. Due to these losses, the German economy suffered a loss of 430 million Marks. In order to end the cholera epidemic, the city network was rehabilitated and 22 million Marks were spent for this purpose (Braun, 1944: 6).

In order to ensure that the profession of medicine was practiced only by specialists, the “Regulation on Municipal Enforcement of Medicine (Tababeti Belediye İcrasına Dair Nizamname) was published in 1861. With the Regulation, it was stated that those who did not have a doctor’s diploma could no longer practice medicine and those who violated this regulation would be punished. With the Regulation, it was made obligatory to have physicians in Istanbul and provinces (Ayдын, 2004: 190-192). Founded in 1827, only 400 people graduated from the Tıbbiye until 1870. The inadequacy of these numbers pushed the state to open civil medical schools. In the memorandum issued for the establishment of civilian medical schools, in summary, it was stated that a school would be established under the name Mektebi Tıbbiye-i Mülkiye (Faculty of Medicine) aiming to train physicians for the provinces, that this situation had been submitted to the ministry, that people had to go to foreign physicians due to the inadequacy of the military medical school, and that a new school was needed due to the need to have a physician in every province and district center due to the inadequacy of foreign physicians (Ergin, 1940: 364-365). In order to regulate the personal rights of physicians who would work in the provinces, the “General Regulation of Medical Administration” (İdareyi Umumiye-i Tıbbiye Nizamnamesi) was published in 1871. According to the regulation, physicians appointed to the provinces were tasked with “informing the local government authority and the necessary places about a disease spreading in the region immediately by telegraph, and in places where there is no telegraph, as quickly as possible...” (Ayдын, 2004: 197).

The Ottoman Empire was centralizing with the impact of modernization and wanted to be aware of everything that was happening within the borders of the country. Two important technological developments made this possible. The first was the invention of the telegraph and subsequently the telephone. Thanks to the telegraph lines, even the most remote provincial parts of the country could be monitored from Istanbul. The invention and introduction of the telephone led to a communication revolution. The second important factor was the railroad, which enabled immediate intervention in remote provinces such as the provinces. Thanks to the railroads, it was possible to connect the country to each other, trade and population mobility increased, and the state was able to intervene quickly in possible or actual riots, riots or other conflicts. The integration of railroads and ports brought the Ottoman state closer ties to distant markets and Europe. Of course, there were as many disadvantages as benefits. As one of these harms, ideas such as nationalism, freedom, autonomy, liberalism, positivism and

materialism from Europe started to reach the provinces. The increase in human mobility allowed for the free circulation of ideas. This situation increased the demands of ethnic minorities for independence from the Ottoman state.

3. Health Care Services after the Second Constitutional Monarchy and Türk Yurdu Magazine Articles

After the Second Constitutional Monarchy, a regulation was published to reorganize health services. According to the 1913 “Provincial Health Services Organization” (Vilayeti İdareyi Sıhhiye Nizamnamesi), the name of the provincial medical officer was changed to the government medical officer and it was decided to establish “Sanitary Councils” in districts and towns. Health directors were also responsible for the health services of workshops, factories and areas where people lived together. The supervision of the health compliance of buildings such as hospitals, hotels, schools, inns and baths to be constructed was also left to the responsibility of health directors (Aydm, 2004: 202).

The Second Constitutional Monarchy and the subsequent takeover of the country by the Committee of Union and Progress accelerated the modernization efforts in the country on the one hand, but on the other hand, the wars created a great destruction. While the Tripoli War (1911) took place in a relatively remote Mediterranean region of the Empire, the Balkan Wars (1912-1913) took place in the Balkan Mountains and plains near Istanbul. Millions of Muslim Turks living in countries such as Macedonia, Albania, Thessaloniki and Bulgaria were forced to leave their homes and homeland at the end of the war. Cities such as Istanbul, Edirne and Bursa were left alone with an influx of immigrants. The settlement of Turks fleeing from the Balkans in Anatolian lands led to an increase in the awareness of Turkishness among the Muslim population living in the Empire. These people, who were expelled from the Balkans because they were Turks, caused the center of gravity of the state to shift towards Turkishness.

The military wing of the Committee of Union and Progress, which came to power through a military coup d'état in 1913, and its Turkish figure Enver Pasha, took the state into the war on the side of Germany when the severe crisis caused by the Balkan Wars had not yet passed. Starting in 1914 and lasting until 1918, the war caused the Turkish nation to mobilize all of its wealth, human and animal power. War conditions increased the importance of health services both in civilian and military terms. Epidemic diseases that started during the war caused a great loss of soldiers at the front. According to the statistics of the Third Army in the First World War, between 1915 and 1918, 19,613 soldiers

contracted typhus and 7310 people were martyred due to this disease. In the same period, 20 thousand soldiers were martyred due to malaria. The number of soldiers martyred due to epidemics in a three-year period is 401,859. In the same period, the number of soldiers who died due to gunshot wounds was 59,462 (Çalık and Tepekaya, 2006: 2)

In the same years, the increasing population in cities such as Istanbul, Bursa and Edirne, inadequacies in infrastructure, lack of access to clean drinking water, disruptions in hospital and preventive health services led to an increase in new epidemics in the country and a decrease in the population due to diseases. The extraordinary atmosphere of the war conditions caused many Turkish women to be assigned to the front as nurses. The inadequacy of health services both at the front and behind the front led the state and intellectuals to work towards a more conscious approach to health.

As mentioned in the introduction, the ongoing war environment after 1911, the disappointment caused by the Balkan Wars, and the threat of extinction of the Turkish nation led to the strengthening of various intellectual movements. One of these was Turkish nationalism. Turkish nationalism, whose infrastructure was formed with the motto “unity in language, work and ideas” pioneered by İsmail Gaspıralı, who published the newspaper *Tercüman* in Crimea, turned into an idea defended by names such as Yusuf Akçura, Ahmet Ağaoğlu, Hüseyinzâde Ali, Sadri Maksudi and Zeki Velidi Togan. For this purpose, the *Türk Yurdu* Society was founded in 1911. One of the most important activities of the Society was to start publishing a magazine under the name *Türk Yurdu*. In the first issue, the main purpose of the magazine was stated as “the promotion of Turkishness in every field” (Anonymous, 1911a: 25). The magazine, which published its second edition in a short time, published a message of appreciation and thanked for the interest shown. “Thanks be to God, the interest and popularity shown to *Türk Yurdu* continues to increase: We receive letters of congratulation and encouragement from all parts of *Türk Yurdu*, and we wish we could reply to these letters separately and thank them, but our time is not enough; may our brothers and sisters who write forgive us and accept our sincere thanks, which we present to all of them at once.” (Anonymous, 1911b: 57). Ottoman Turks were represented in the magazine by names such as Mehmet Emin Yurdakul, Ziya Gökalp, Halide Edip, Ahmet Hikmet Müftüoğlu and Dr. Akil Muhtar. *Türk Yurdu*, an important intellectual journal of the period, included different opinions and topics in every field of interest to the Turkish nation. Among these, poetry, short stories, novels, book introductions, foreign Turks, history,

geography, politics, health, sports, culture, women, economics, education, etc. (See Erkan, 2018).

One of the issues that Türk Yurdu drew attention to was health and sports. The reason for the magazine's interest in this issue was expressed in the 7th issue as follows. "One of the topics that we attach the most importance to is public and private hygiene issues that will help protect the health of Turks. We are always ready to accept and publish articles on hygiene written in such a way that our readers can read, understand, and not only understand, but can actually benefit from their contents, when necessary, with many thanks." (Anonymous, 1912: 212). It was stated that informative articles on health would be included in the magazine and experts in this field were called upon. According to the magazine, we need articles on preventive health, health and sports, and epidemics as much as we need bread and water. Because this subject is very important for maintaining a healthy life (F., 1911: 87).

It can be seen that health is as important as politics, history, language, literature and economics. This issue should not be neglected, information should be provided and measures should be taken all over the country, especially in Istanbul and Anatolia, on disease prevention, healthy living, and dealing with epidemics. During this period, both the war and economic inadequacies, unhealthy nutrition, disruption of hospital and medical services led to a decrease in the population. Population is both a military force and the human capital of peacetime production, employment and development programs. Therefore, taking measures to increase the population has been one of the most important programs of almost every state.

The first article on health by Dr. Akil Muhtar, one of the magazine's authors, is included in 6 issues. Born in 1877 in Istanbul, Muhtar was a student at the Military Medical School when he went to Geneva and enrolled in the Faculty of Medicine. In 1902, he graduated from the Faculty of Medicine at the University of Geneva. He became an associate professor of pharmacology and after the Second Constitutional Monarchy, he returned to Istanbul and became the head of the School of Medicine. In his first article, Muhtar, a successful physician, included warning information about tuberculosis, the biggest scourge of the period. According to Muhtar, this disease wipes out the population in our country, regardless of young, old, rich or poor. Stating that 3 thousand people died of tuberculosis in Istanbul every year, Muhtar said that the real figures were even beyond this (Muhtar, 1912a: 167). According to him, some measures were needed to get rid of tuberculosis. The first of these is to prevent the disease germ

from entering the body. If this could not be prevented, the patient's immunity should be strengthened to reduce the effects of the disease. This requires good care and a healthy diet. According to Muhtar, the disease particularly affects people who live in stuffy, dark, damp rooms, eat an unhealthy diet, drink alcohol, smoke tobacco and have a depressed mood. For this reason, houses should be well ventilated, people should go out in the sun, and people with the disease should be isolated from others (Muhtar, 1912b:299). According to Muhtar, there are dispensaries and sanatoriums in developed countries to treat tuberculosis.

Tuberculosis, which Akil Muhtar Bey drew attention to, was one of the most common diseases in both Istanbul and Anatolia for a long time. Although the annual number of deaths due to tuberculosis in the Ottoman Empire seemed lower than in Europe, losses increased year by year. According to Özer (2020: 869), the first attempt to treat tuberculosis was made by Robert Koch in 1890, but it was not successful. Abdülhamit II sent Dr. Horasanlı, Dr. Feyzullah and Dr. Naim to Berlin to learn this treatment method. In 1900, a pediatric sanatorium was established in the "Hamideyi Etfal" Hospital, which was opened with the patronage of Abdülhamit II, and a commission was established in 1908 to determine the measures that could be taken to prevent the disease. In 1914, a decree issued in 1914 made it obligatory to notify the government of those who died of tuberculosis, and those suspected of having tuberculosis were required to be interrogated and their belongings disinfected.

An exhibition was organized at the Gülhane Hospital on the loss of human life caused by tuberculosis and the measures to be taken to prevent tuberculosis. It was stated that the aim of the exhibition was to raise awareness about tuberculosis and other newspapers and magazines were asked to give more space to this issue in their pages. "We wish and request our daily newspapers to tell the public about the importance of the tuberculosis exhibition and conferences and to make enough noise around this issue to be heard by the public." (Anonymous, 1914a: 79).

In a 1917 news article, it was reported that the İzmir branch of the Ottoman Red Crescent Society published a 24-page booklet to inform the public. It was stated that the booklet, written in plain language, should be distributed to those who could read and write, while illiterate people should be informed through conferences. In particular, district governors and district directors were asked to be sensitive in this regard, and it was stated that students should inform the public about epidemics in their own regions during summer vacations (Anonymous, 1917: 181).

According to the report of Ernst Von Döring, a doctor working in the Ottoman Empire between 1889 and 1902, the population of Anatolia decreased from 12 million to 7 million between 1844 and 1890. The most important reason for this was epidemics (Çalık and Tepekaya, 2006: 212). Similarly, between 1911 and 1918, both the war environment and poverty, malnutrition, lack of hygiene, insufficient sources of clean drinking water, difficulties in accessing cleaning materials such as soap and detergents, and the lack of adequate pharmaceutical support for treatment caused the Anatolian population to suffer great losses due to epidemics. For this reason, *Türk Yurdu* Magazine frequently published articles on the prevention, treatment and measures to be taken against infectious diseases, particularly tuberculosis, malaria, syphilis and cholera.

Yusuf Akçura, one of the magazine's writers of Tatar origin, wrote about the dangers of alcohol use in an article in 1915. During the war period, the use of alcohol was banned in many countries. According to the author, even Russia banned the consumption of alcohol until the end of the war. Similar initiatives were also seen in European countries. According to Akçura, who talked about the individual, social and economic harms of alcohol, a similar decision should be taken for Istanbul (Akçura, 1915: 163-164). The Ottoman Central Command heeded this call, and within a short period of time, the sale and use of alcohol was banned throughout the Ottoman borders for the duration of the war.

One of the complementary parts of health is training, that is, sports. The issue of sports was considered as a part of health by the Turkish nationalist writers of the period, and at the same time it was considered as a subject that showed the strength of the Turkish race and that it was not inferior to other nations in the world. Developments related to sports were announced in *Türk Yurdu* Magazine as follows. "For a few years now, Turkish youth has taken up racing and training with a serious curiosity. The most prominent qualities of Turks in the history of the world are strength, robustness, success in war and warfare, conquest and dominance. The wish to be strong, to win in the race has been ingrained in the Turkish psyche for who knows how many thousands of years, how many centuries. A little conscious activity can quickly revive a habit that has become natural." (Anonymous, 1914b: 266). It was also stated that some sports clubs and associations were established in order to show the strength and power of Turks. It was stated that clubs such as "Altın Ordu"(Golden Army), "Türk Gücü"(Turkish Power), "Bahriye Gücü"(Naval Force), "Gürbüzler Ocağı" (Healthy People's Quarry), "İdman Yurdu"(Training Residence) would prove the strength of the Turkish nation in sports to the world. It is also stated

that a strong society that attaches importance to sports is essential for the Turkish nation to exist. The football match between Turkey and Romania was also mentioned. It was also stated that the football team did not achieve the desired result against Romania because they did not train together for a long time (Anonymous, 1914c: 298). Galatasaray team played the second match against Romania and won the competition.

Turkish nationalists, mobilized for a healthy and strong society, established various associations to ensure this. The main purpose of these associations, called “Power Associations”, is to ensure that the Turkish race develops physically and physically and to give them a national spirit. To show the Turkish power to the world. One part of this is to stay healthy through sports, and the other part is to keep the strong Turkish nation ready for war at any time. It is to create a kind of paramilitary reserve force. It was stated that the Turkish Power was to ensure that young people were successful in every field, starting with national sports, and to reveal their inherent jihadism, strength and will (Tahsin, 1914d: 308-309).

The Ministry of War issued an order to support the spread of the Power Associations, which aimed to raise the Turkish nation physically, physically and spiritually, within the Ottoman borders. In this order, it was stated that all Turkish youth who wanted to save the homeland should join these associations and that these associations would help the development of physical training on the one hand and national ideas on the other (Anonymous, 1914e: 380).

One of the prominent activities in this regard was scouting. Minister of War Enver Pasha, who attended the swearing-in ceremony of Turkish scouts, watched the ceremony carefully. The scouting oath was translated into Turkish. The Turkish scout oath, which begins with the duty to “obey God and the Turkish king”, includes an oath to be an honest person who loves his homeland, fights for his country in wartime and fulfills his duties in peacetime. “I will worship God and obey the Turkish sovereign. I swear on my honor and dignity that I will always act as a brave man who recognizes his conscience and duty and respects the law, that I will love my homeland and serve it selflessly in times of peace and war, and that I will obey the scouting tradition.” (Anonymous, 1914f: 314).

In a news article stating that the director of education and about fifty people attended the demonstration march organized by the scouts of Eskişehir high school, it was stated that Turks had shown superior success in activities such as horseback riding, shooting and archery throughout history, and that our former strong race could become strong again only through sports and training (Anonymous, 1916: 298). In another news article, it was stated that Turkish

scouts prepared a show reenacting the battlefields, which was appreciated by the public with great applause. In addition, these scouts were also complimented by Sultan Mehmet Reşat.

To summarize, Türk Yurdu Magazine, which aimed for the rise of Turkishness in every field after the Second Constitutional Monarchy, paid special attention to health and sports. In particular, a serious effort was made to combat infectious diseases, which caused a great loss of human life for the Turkish nation in war and peace. The pamphlets prepared on this subject and news informing the public were included. It was not forgotten that a healthy life depends on being strong and fit, and Turkish youth were encouraged to do sports and scouting in order to strengthen the Turkish race and with the motto “a sound mind is found in a sound body”. Various sports clubs and power associations were established with the support of the government. The aim of the power associations was to create a healthy society as well as a society that was always ready for war and had high national and spiritual feelings.

4. Analysis of Health and Sports Articles in the Early Republican Period Türk Yurdu Magazine

On May 15, 1919, the occupation of Izmir by the Greeks accelerated the efforts to save the country. On May 19, 1919, the liberation movement initiated by Mustafa Kemal, who went to Samsun to unite the national forces, pushed the Turkish nation to a struggle for existence. On April 23, 1920, the Turkish Grand National Assembly was opened in Ankara, where the representatives of the nation gathered and all authority was vested in the assembly. The parliament dealt not only with the war of liberation to be waged but also with issues such as education, health and public order. On May 3, 1920, The Ministry of Health and Social Welfare was established. Dr. Adnan Adıvar became the first Minister of Health. In these difficult conditions, the health problems of the country were not ignored. The allocation of limited resources to the military and the frontline led to national health issues receiving the necessary attention and support only after the Republic. Firstly, the Law on the Fight against Syphilis, which was one of the common infectious diseases in Anatolia, was enacted in 1921, the Law on the Fight against Malaria and Trachoma in 1925 and the Law on General Hygiene in 1930 (Öztürk, 1999: 38).

In 1925, the First National Medical Congress was convened. The Congress focused on the fight against malaria. In 1927, the Second Medical Congress discussed a plan to combat trachoma, and in 1929, the Third Medical

Congress discussed a plan to combat syphilis, scarlet fever and cancer. In 1931, Prime Minister İsmet İnönü delivered the opening speech of the 4th Medical Congress. İnönü emphasized the importance of national health policies and stated that civilized life could only be possible through health (İnönü, 1939: 18). The Congress discussed the effects of healthy food supply especially on the development of children and young people. The point reached in the fight against epidemic diseases such as malaria, smallpox, tuberculosis, syphilis and scarlet fever was discussed, and it was noted that there was a decrease in some diseases such as malaria as a result of the struggle that started in 1925 (Asım, 1931: 256-257).

Reopened in 1924 and centered in Ankara, the Türk Ocağı worked as a cultural branch of the Republic in all corners of the country until 1931 when it was closed. The magazine Türk Yurdu was reopened in 1924 as the publication organ of the Turkish Quarry. In the first issue of the journal, Hamdullah Suphi, the President of the Türk Ocağı, stated the conditions under which the journal had begun to be published and stated that a new phase had begun and that the Turkish Hearth and the Türk Yurdu Magazine would be a part of the efforts for national unity, national integration and westernization (Suphi, 1924: 1). Türk Ocağı defined itself as an association that would cultivate the modern ideas and revolutionary ideals of the Turkish state throughout Anatolia. For this purpose, Türk Ocağı opened branches in every corner of the country and started to provide theater, art, film screenings, library establishment, Turkish lessons and public education activities. Although educational activities were more prominent, health issues were not neglected.

There were news items about the health screenings conducted by the members of the Türk Ocağı in Anatolia, the treatment and rehabilitation services they provided to prevent and treat epidemics, and their support for the public works and infrastructure initiated to provide clean drinking water to the people. For example, the efforts of Dr. Rıfat, a member of the Ankara Türk Ocağı, in the fight against malaria in the village of Solfasol, one hour away from Ankara, were mentioned. As the treatment proved to be successful, the villagers' interest in the activities increased, and the villagers, who had been devastated by malaria, were completely cured of malaria at the end of the treatment process (Anonymous, 1925a: 220). In another news article, the activities of the Bursa Türk Ocağı were mentioned. As a result of the control and treatment, 178 malaria, 34 stomach, 74 intestinal, 58 chest and 14 rheumatism patients were cured (Anonymous, 1912b: 221). Doctors from the Ayvalık branch of the Türk Ocağı traveled around the

villages, conducting health screenings and explaining to the villagers what to do against epidemics (Anonymous, 1925c: 95). The magazine reported that members of the Adana Türk Ocağı treated 900 patients and opened a dispensary in the village of Kürkçüler (Anonymous, 1925d: 307). It is possible to come across many similar news items in the magazine. January members provided information on disease screening, preventive health services, distribution of medicines to combat epidemics, construction of clean drinking water sources, hygiene and nutrition.

In the Early Republican period, Türk Ocağı, the state and other civilian institutions worked hand in hand to act jointly in all areas from health to education, from public works to development. The Republic of Turkey tried not to neglect the field of health with the scarce resources available. The number of hospitals with 86 beds in 1923 increased to 167 in 1925 and 182 in 1930. While the number of beds in hospitals was 6437 in 1923, this figure increased by nearly one hundred percent to 11,398 in 1930. Health services were provided free of charge (Yeginboy and Sayın, 2008: 4). Although the figures indicate a development, the number of doctors, nurses and midwives was very insufficient in the early Republican period. In 1928, the number of doctors in Turkey's population of 13 million was 1078. There were 130 nurses and 377 midwives. The number of pharmacies in the country was 673 (Yeginboy and Sayın, 2008: 7).

The text of a lecture given by Dr. Fahrettin Kerim Bey was published in the magazine in 1926. Dr. Kerim Bey drew attention to the relationship between physical and mental health. If physical health is good, mental health is also good. "It is impossible to find mental health in weak bodies" (Kerim, 1926: 253). According to him, the first condition for a healthy body and psychology is genetic soundness. One should also be careful during pregnancy and childbirth. For genetic obstacles, the author advised to avoid marriages between close relatives. He also mentioned the importance of sports for children. "Gentlemen! You are young, so be calm. Let despondency and despair be far away from you. Life and rest are in joy." (Kerim, 1926: 257).

The subject of sports mentioned by Fahrettin Bey was revisited in the post-Republican period. The subject of sports, which had been dealt with in the context of the Power Associations before the Republic, began to be organized by taking the Slavic Sokols as an example. Selim Sırrı Tarcan was one of the leading figures in this regard. According to Tarcan, the Sokol organization achieved great success in a short period of time and helped the youth to become healthy, vigorous and physically strong. Sokols made the youth productive,

energetic and disciplined. According to him, it was Miroslav Tyris who founded this organization. Tyris stated that the youth could only release their energy through sports and that individualism, hedonism and personal ambitions could be balanced by disciplined youth organizations (Tarcan, 1928: 131). These organizations, just like scouting, would provide the individual with a healthy life, self-discipline, harmony with nature, a common will and, most importantly, a national consciousness, and prevent him from pursuing personal fortune.

Mustafa Kemal Atatürk was one of the most prominent figures to draw attention to sports. As stated by the magazine writers, sport was seen as the basis of morality, discipline and national consciousness. Atatürk said the following about sports: "Sport is not only a superiority of physical strength. Perception, intelligence and morality also help in this work. Those who are strong with short intelligence and short perception cannot compete with those who are less strong with good intelligence and perception. I like athletes who are intelligent, agile and at the same time moral." (Atatürk, 1998: 342).

In another article, Selim Sırrı Tarcan, one of the magazine's writers and one of the most important names in sports of the period, talked about the importance given to physical education and sports courses by universities in Europe. According to Tarcan, there is a close relationship between physical development and scientific thought, and that sports academies have been established in universities in America, England, Scandinavian countries and Germany for two years, and in France this year (Tarcan, 1930: 47-48). Tarcan stated that he considered it necessary to introduce physical education courses in our universities and to allocate areas where students could do sports.

In the Early Republican period, efforts were made to give importance to the fields of health and sports to the extent possible. In the 1942 Regulation of Physical Education, physical education is defined as activities that increase the physical and moral abilities of citizens (1942). The aim of physical education was expressed as improving the health of the individual and providing him/her with strength, resistance and agility. It was stated that physical education would foster the habit of disciplined work, contribute to professional and scientific thinking and help build a self-confident national generation.

It can be seen that in the early Republican period, with the scarce means available, particular emphasis was placed on epidemics, improving the health infrastructure and increasing the number of health workers. Considering themselves as the cultural branch of the Turkish State, members of the Türk Ocağı also made efforts to combat epidemics in villages, towns and hamlets in

their regions, provided information on combating epidemics, and worked on the rehabilitation of streams, water wells and other transmission lines. These efforts contributed to the reduction of epidemics, which were very common in Anatolia. Sports were also seen not only as a sport, but also as a condition for a generation ready for war and for physical strength and robustness.

5. Conclusion

The development of modern Western medicine has made the population fitter, stronger and happier through the fight against epidemics, increased life expectancy and the motto of healthy living. Medical knowledge has provided both the treatment of the wounded on the front line and solutions to the health problems caused by the increasing population, especially in cities. Especially since the second half of the 20th century, with the increase in critical theories, some criticisms against the regulatory, controlling and supervisory side of medicine have also increased. Criticisms that medicine should take into account not only medical knowledge but also the sociocultural structure while treating diseases have increased.

As of the 19th century, the Ottoman Empire, which was going through a severe depression, started some initiatives called Westernization/ modernization in order to prolong the life span that Western states had assigned to it. For this purpose, it started to follow the developments in the West, sending students and regular ambassadors to the West. Later, he turned this into a program and tried to make an regulations starting from the infrastructure. Although it is difficult to say that these efforts achieved the desired results, the life of the state was prolonged, and young students from modern medical schools, military schools, engineering faculties and civil service faculties developed various ideas for the salvation of the homeland. Turkish nationalism, which saw the salvation of the Ottoman Empire in a nation state centered on Turkishness and aimed to build a great Turkish world with the ideal of Pan Turkism by strengthening its elbow contact with the Turkish world, found the opportunity it was looking for after the Second Constitutional Monarchy. Starting in 1909 with the Turkish Association and continuing with the Türk Yurdu Society in 1911 and Türk Ocağı in 1912, this development enabled the idea of Turkish nationalism to reach a wide audience. The Türk Yurdu Magazine, which started its publication life for these purposes, brought almost every issue concerning the Turkish nation to the agenda. One of these issues was health. The articles, news and information on health in the magazine were generally about the prevention of epidemics, which

caused the highest human loss of the period. The magazine writers also gave special importance to sports. Sports, would both provide Turkish youth with fitness and develop national sentiments.

Türk Yurdu Magazine, which resumed its publishing life after the proclamation of the Republic, saw itself as the cultural branch of the young Turkish state, and tried to carry out this task assigned to it by spreading the idea of Turkishness and the Turkish revolution to the provinces. In doing so, it focused on the problems of the region, and added health screening, combating epidemics, and opening hospitals to activities such as increasing literacy, teaching Turkish, and establishing libraries. These activities were frequently mentioned in the magazine. The struggles in this period also show how difficult the people of Anatolia were in terms of health services.

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CHAPTER VI

THE EFFECT OF THE PSYCHOEDUCATION PROGRAM APPLIED TO PRIMARY SCHOOL 2ND GRADE STUDENTS ON EMPATHY AND EMOTION REGULATION SKILLS

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1. Introduction

People have a wide range of emotions. It is not imaginable a world without emotions and emotions are with us every second of our lives. (Burak, 2019). Ginott says: Fish swim, birds fly and people feel so he points out that every human being has emotions and feelings. Emotions that have an important place in our lives -even in newborn babies- show themselves as disgust, cry, smile and fear. (Bayhan ve Artan, 2011, s. 218; Durmuşoğlu Saltalı, Deniz, Çeliköz ve Arı, 2009).

Our emotions have positive impacts on our lives. For example emotions help people for solving their daily problems. (Denollet, Nyklicek ve Vingerhoets, 2008). On the other hand, emotions can effect our lives negatively. Some studies have shown that problems can occur when emotions emerge at unwanted times and places and are experienced intensely (Gross and Thompson, 2007). People do not experience an emotion because they prefer it, but they can cope with

these situations by having the ability to recognize, correctly express and manage their emotions. Emotion regulation is the ability of an individual to control their emotions such as fear, sadness, happiness and anger and to give positive reactions to these emotions (Sağar, 2022).

Empathy makes communication between people more solid and healthy, and the person who is shown empathy has a better psychology, thinking that he/she is understood and valued. According to the results of scientific research examining the relationship between the high and low levels of empathy of people and their personality traits; it has been seen that people with high empathy levels have more positive characteristics compared to those with low levels. It has been concluded that individuals with high empathy skills are happy, tolerant and have high self-esteem (Kalliopuska, 1992). Individuals with empathy develop a more tolerant attitude towards other people. This tolerant approach contributes to the reduction of conflicts in interpersonal relationships. As a result, differences between people cease to be a cause of conflict and become a reason for enriching relationships (Özbek, 2005).

Communication is a need that children need just like adults. (Bozkurt, 2020). Establishing healthy relationships, increasing self-confidence, effective interpersonal relationships and studies on communication skills are important requirements for individuals to interact with their social environment in a healthy way (Erkan, 2011). Being able to establish healthy communication is directly proportional to the ability to be aware of one's own and the other person's emotions, and to manage the emotions that arise, -especially negative emotions- correctly. While people exaggerate their positive emotions and reflect them to the environment, they may suppress their negative emotions and try to adopt the emotion they think is appropriate for the social environment. Children's ability to express and regulate their emotions begins in childhood (Berk and Meyers, 2015). Therefore, these skills should be acquired during this period

Emotion regulation is people's efforts to effectively manage their emotions (Koole, 2009). It has been observed that individuals with emotion regulation skills have stronger social relationships, are physically healthier, and can more easily cope with the obstacles they encounter (Goleman, 1998).

These skills can be taught to children from a young age. In a study, it was observed that children, even at the age of three, realize that other children may have different feelings and thoughts, that they may react differently to the same situations as a result of these feelings, and that they try to help the other person (Ersoy and Köşger, 2016). This shows that children's emotional understanding

and empathy skills develop at an early age and that they have a desire to help others in social relationships.

It is known that children who have acquired emotion regulation skills can establish healthy social relationships, have high-level thinking skills, and are effective in organizing their daily lives with their ability to manage their emotions (Yağmurlu and Altan, 2010). Conversely, children who do not have emotion regulation skills or who have low emotion regulation skills have behavioral problems (Arı and Yaban, 2016). At the same time, these children may experience problems such as inability to cope with the problems they encounter, stress, depression, anxiety, attention deficit, memory, sleep, and eating problems (Karaş and Altun, 2022).

Today, one of the main ways to strengthen our relationships and protect our emotional health is to develop empathy and emotion regulation skills. These two important skills are vital for success and harmony in both our personal lives and in the business world. It is possible to overcome the negativities we experience by working on and developing empathy and emotion regulation skills. By developing empathy, we can better understand the emotional needs of others and establish deeper and more understanding relationships. By strengthening emotion regulation skills, we can manage negative emotions more effectively and have a calmer and more harmonious inner world.

Communication is a biological requirement for all living things. The most important feature that distinguishes humans from other living things in terms of communication is their ability to communicate effectively (Bandura, 1977). Communication is important for people to know what is going on around them and to understand each other, and to establish and strengthen relationships. In order to solve problems more easily, every person needs to know effective communication skills. One of the skills required for this is empathy. In order for a person to empathize, they must first put themselves in the other person's shoes, thus being aware of the person's feelings and thoughts.

According to the research results, the study conducted by Grazzani, Ornaghi, Conte, Pepe, and Caprin (2018) points to the importance of strengthening empathy skills in children. It reveals that the development of these skills helps children deal with social situations more skillfully, understand emotional obstacles more deeply, and cope effectively with such situations.

Raver (2002) examined the effectiveness of socioemotional learning programs developed to support preschool children's emotion regulation skills. The research determined that such programs increased children's ability to cope with emotional difficulties and positively affected the learning environment in the classroom.

Within the framework of these requirements, this study aimed to increase the empathy and emotion regulation skills of primary school 2nd grade students through a group psychoeducation program.

The Purpose of the Research

The aim of this study is to examine the effects of a group psychoeducation program applied to primary school 2nd grade students on their empathy and emotion regulation skills.

In line with the purpose of the research, the following hypotheses were tested:

1. The post-test average scores of the students in the experimental group who received the psychoeducation program, obtained from their empathy levels and emotion regulation levels and their sub-factors, are significantly higher than their pre-test average scores.

2. There is no difference between the pre-test and post-test average scores of the students in the control group on empathy and emotion regulation skills and their sub-factors.

3. The post-test average scores of the experimental group students who received the psychoeducation program from the empathy and emotion regulation and its sub-factors were significantly higher than the post-test average scores of the students in the control group.

Importance of the Research

Children, who are social beings, can be positive in their reactions to these feelings when they are aware of their own emotions and can understand their emotional states when they encounter a sad, worrying or happy situation. These characteristics are also behaviors seen in individuals with high emotional intelligence (Mayer, Salovey, & Caruso, 2000).

Empathy, which facilitates interpersonal communication and brings people closer together, is a skill that children can acquire at a young age and develop as they get older (Ersoy and Köşger, 2016). When people empathize with them, they feel better understood and thus valued. Being able to empathize is as important for a person as being the person they empathize with.

People need emotion regulation skills to adapt to life, maintain relationships with people in the best way possible, and express themselves correctly, which is a part of their emotional development (Kurbet, 2010). Failure to control emotions can cause emotions to emerge at undesirable times and intensities, and

failure to cope with negative emotions can cause the individual to experience physical discomfort, psychological trauma, and difficulties in social skills (Gross & Thompson, 2007).

A negative emotion can even become positive with successful emotion regulation. The higher the ability of children to recognize themselves and recognize their feelings and thoughts, the higher their ability to communicate with their peers (Gürleyik, 2018). Because people who can empathize are more sensitive to the feelings and needs of others and care about their feelings, they can establish more meaningful communication and are more likely to be loved.

When the literature in Türkiye was scanned, it was determined that there was no research on “empathy” and “emotion regulation” for 2nd grade primary school students. In addition, it was seen that a group psychoeducation program aimed at increasing empathy and emotion regulation skills was applied in a small number of studies. It is hoped that this study will make a useful contribution to the field by providing important information that can be used in psychological support and counseling services. In addition, it can guide what can be done to integrate these important life skills into educational curricula.

It is hoped that the information to be collected regarding the effect of the psychoeducation program implemented as a result of this study will shed light on the preparation and implementation of activities that can be useful in many areas such as improving students’ educational experiences, preventing psychological problems, increasing social tolerance and understanding. It is also expected that this study will contribute to the creation of programs to prevent negative situations such as relationship conflicts, social exclusion, anxiety, depression, and stress that may be seen in children with low emotion regulation and empathy skills. The development of some features in low-cost studies can pave the way for future research (Kumpfer, 1999). These skills can increase resilience in children and strengthen their capacity to cope with difficult situations.

In clinical practice, empathy awareness and the ability to effectively manage emotional reactions that will strengthen the interaction between the therapist and the client can significantly increase the success rate of psychotherapeutic interventions. Detailed examination of these skills in children can allow child therapists to meet the emotional needs of their clients and offer them more appropriate intervention methods, thus improving the quality of therapeutic processes and making significant contributions to the healing processes of children. The research can form a basis for the development of innovative approaches to empathy and emotional regulation for children in mental health

practices and can also enrich the studies conducted on this subject. It is hoped that the results obtained will contribute to the literature.

Psychoeducation programs are one of the effective ways to develop children's social and emotional skills. The psychoeducation program developed for primary school 2nd grade students within the scope of this research can also be useful in determining effective strategies for developing children's empathy and emotion regulation skills. Developing these skills in children at an early age is also important for their future success and life skills. In addition, this study can encourage more comprehensive experimental and mixed studies to increase children's empathy and emotion regulation skills.

Assumptions of the Research

1. The students who participated in the study answered the Empathy Scale for Children and the Emotion Regulation Scale sincerely and accurately.
2. Empathy and emotion regulation skills are present in students to a certain extent.
3. Observers scored independently of each other.

Limitations of the Research

1. This research is limited to students studying in public schools.
2. The data collected in the research is limited to the opinions of observer 1 and observer 2.
3. It is limited to volunteer participants who are determined to have no problem in receiving group education, who are allowed to participate in group education by their families, who are not receiving psychological treatment, who are not visually or hearing impaired, and who do not have any physical disabilities that prevent them from participating in group education activities.

2. Related literature

Theoretical Framework

Definition and Importance of Empathy

According to the definition made by Budak (2003), empathy is being aware of the feelings and thoughts of others and being able to make sense of these feelings and thoughts in the mind. Empathy is the individual putting himself in the shoes of the other person in order to understand their feelings and thoughts (Dökmen, 2013).

Historical Development of Empathy

Empathy has a deep-rooted history in the historical process, and its beginnings date back to very old times. Socrates' "*Know Thyself*" doctrine. Aristotle's discussions on the concept of "*Empatia*", which he named, can be given as an example (Guthrie. 2021).

The importance of empathy has increased from past to present, and it has been examined and discussed from different perspectives throughout history.

Components of Empathy

Empathy, which is a complex process that includes cognitive, affective and behavioral components, maintains its place in our lives. The most accepted and known components are affective, cognitive and behavioral (Lanotti, 1925; Öz, 1988).

Empathy Development in Children

Contrary to the idea that children cannot empathize, Eisenberg-Berg and Lennon (1980) revealed that children have empathy skills as a result of their studies.

According to a study conducted by Shapiro (1998), there is a stage in six-year-old children that is seen as the beginning of individual empathy. During this stage, children begin to develop the ability to see events from another person's perspective and to act appropriately in the situation. During this period, children's egocentrism decreases and they set their own feelings aside and begin to observe and understand the feelings and behaviors of others. Since their abstract thinking skills also begin to develop, when they see someone else crying, they try to think about and understand why they are crying. For example, they begin to understand their emotional state even when faced with situations that they have not seen in a place far from them, such as child famine in Africa.

The Effect of Parental Attitudes on the Development of Empathy in Children

There are different explanations for how empathy develops. Parental attitudes are one of the most effective factors in the development of empathy. A democratic attitude rather than an indifferent and authoritarian attitude by parents contributes more positively to the child's development of empathy (Çetin and Güngör Aytar, 2012). A tendency to empathize has also been observed in children of mothers who communicate positively by establishing empathy (Hasdemir and Köksal Akyol, 2012). The level of empathy seen in children of

mothers who understand their children's emotional needs, support them, and share their emotional experiences sensitively is higher than in neglectful mothers (Köyceğiz and Özbey, 2019).

Empathy Training

Empathy training aims to develop people's existing empathy skills. It aims to establish healthy relationships with individuals of different age groups. This training focuses on the development of emotional and cognitive abilities and includes empathic sensitivity. It also covers cognitive elements such as recognizing, evaluating and naming emotions, which are the basic stages of empathy. The training process aims to strengthen individuals' empathic abilities and enable them to establish more understanding and supportive relationships (Goleman, 1998).

Definition and Importance of Emotion Regulation

The concept of emotion regulation relates to factors such as making sense of and managing emotions.

Emotion regulation is not suppressing, eliminating or ignoring emotions. In regulating emotions, it is important to be able to respond appropriately not only to negative emotions but also to positive emotions. Kopp (1989) defines emotion regulation as the ability to cope with the intensity of positive emotions (such as joy and happiness) and negative emotions (such as anger and fear). According to Calkins and Bell (2010), emotion regulation is a skill that increases or decreases emotions that occur voluntarily or involuntarily.

It is important for every person to have the ability to regulate emotions, and this skill, which is established in early childhood, will help the child to have a psychologically healthier future life.

It has been observed that children who have this skill are psychologically stronger than those who do not (Demir and Gundogan, 2018) |

Development of Emotion Regulation in Children

Children's developmental stages and developmental periods cause differences in their emotional regulation skills (Uğur Ulusoy, 2018). Age and experience also play an active role in emotional regulation skills. As children get older, they gain experience in understanding emotions and responding appropriately to emotions, and thus, this skill also increases (Bronson, 2000).

Zimmerman and Iwamki (2014) stated that emotion regulation and development exist in every period of human life. Emotion regulation, which has

different developmental characteristics and needs in each period, is examined in four periods under the main headings of infancy, early childhood, late childhood and adolescence (Yurdakül. Ihan Ildız and Bütün Ayban, 2022).

Emotion Regulation Difficulty

Gross (1999) developed the “regulation model”, which focuses on regulation strategies and control of emotional responses, arguing that emotional dysregulation is a fundamental factor underlying many psychopathological conditions. This model consists of five steps and two sections. One of these sections, the primary focus of emotion regulation, covers controlling and controlling emotions before they occur. The reflexive focus of emotion regulation, on the other hand, covers efforts to change the intensity of emotion or the physiological responses that emotion creates after emotions occur. Gross’s model has contributed to the understanding of emotional dysregulation strategies and how the brain controls emotional responses.

Related Research

In this section, some studies conducted in Türkiye and abroad on empathy skills and emotion regulation skills in children are included.

Studies Conducted in Türkiye on Empathy Skills in Children

In the study conducted by Derman, Türen, and Buntürk (2020), the relationship between mothers’ parenting attitudes and children’s empathy levels was examined. 142 kindergarten students aged 5-6 and their mothers constituted the study group. In the study, a personal information form, a parenting attitude scale developed by Karabulut Demir and Şendil (2008), and an empathy section scale for children developed by Auyeung et al. (2009) were used. According to the results of this study, it was revealed that the effect of mothers’ parenting attitudes on children’s empathy skills is important. Mothers’ positive attitudes can positively affect children’s empathy levels.

Bunyak (2022) investigated the effects of puppet and story-based group work on the empathy and emotional expression of children aged 3-12. It was observed that after the group work, there was an increase in children’s empathy and emotional expression compared to before the study. It was concluded that puppet model and story-based group work can be a useful method for children to establish emotional connections, develop empathy and increase their emotional expression skills.

Research Conducted Abroad on Empathy Skills in Childhood

A study conducted by Simon and Nader Grosbois (2021) focused on the views of parents of preschool children on their children's empathy skills and personal characteristics that may be linked to empathy, such as children's age, gender, and personality. The findings of the study showed that parents evaluated their children's empathy skills as social behaviors in the form of being sensitive to what other individuals feel and supporting them. When the study results were examined, it was shown that girls' empathy skills were more advanced at the affective level, while boys' empathy skills were more advanced at the cognitive level.

In their study, Wee, Kim, Chung, and Kim (2022) aimed to increase the empathy and perspective-taking skills of five-year-old children through role-playing activities based on stories from books containing topics on bullying. These role-playing activities were applied to children for 6 weeks. At the end of the study, there was a decrease in children's bullying-based behaviors, while an increase in their empathy and perspective-taking skills was observed.

Research Conducted in Türkiye on Emotion Regulation Skills in Childhood

In the study conducted by Günakan (2023), the effect of an emotion regulation psychoeducation program designed for parents of children diagnosed with autism spectrum disorder (ASD) on improving the parents' emotion regulation skills and on their emotion regulation skills was examined. The personal information form created by the researcher, the Emotion Regulation Skills Scale developed by Berking T and Znoj (2008) and adapted to Turkish by Vatan and Oruçlular Kahya (2018), and the Emotion Regulation Difficulties Scale created by Gratz and Romer (2004) were the data collection tools of the study. This study was conducted with the families of 38 children diagnosed with autism spectrum disorder (ASD) in a vocational high school in Antalya during the 2021-2022 academic year. It was observed that the psychoeducation program implemented in the study strengthened the emotion regulation skills of the participating parents and reduced their levels of emotion regulation difficulties.

Research Conducted Abroad on Emotion Regulation Skills in Childhood

In the study conducted by Xu, Spinrad, Cookston, and Matsumoto (2020), the relationship between emotional regulation difficulties between young people aged 18 to 26 and their parents was examined. The study included 122 participants.

It was observed that there was a significant and positive relationship between the emotional regulation difficulties of young individuals and the emotional regulation problems experienced by their mothers. This relationship reflects a moderate and statistically significant correlation. According to the results of the study, the emotional regulation difficulties of mothers did not change according to their own age or the age of their children. Similarly, the emotional regulation difficulties observed in young individuals did not change as they got older.

3. Method

Model of the Research

In this research, an experimental study was conducted based on the pre-test post-test model with an experimental control group.

The purpose of this study is to measure the effect of the “Empathy and Emotion Regulation Group Psychoeducation Program for Children” prepared to develop the empathy and emotion regulation skills of primary school 2nd grade students; the independent variable of the study is the “Empathy and Emotion Regulation Group Psychoeducation Program for Children” applied only to the experimental group between the pre-test and post-test. The dependent variable of the study is the empathy and emotion regulation skill levels of the children.

A pre-test was applied to the groups and a post-test was applied after the group guidance activities. The first test of the “Empathy Scale for Children” and the “Emotion Regulation Scale” was applied to 208 students. In this context, the experimental (22 students) and control (16 students) groups were created identically with the unbiased assignment method as a result of the pre-test. “Group Guidance Activities” were applied and after the activities were completed, the “Empathy Scale for Children” and the “Emotion Regulation Scale” post-test were applied to the groups. As a result of the application, it was examined whether there was a difference in the empathy and emotion regulation skills of the experimental and control groups. The increase in the difference between the levels of harmony between the groups as a result of the group guidance activities applied to a group showed that these activities affected the empathy and emotion regulation skills of the students.

Population and Sample

In this study, the study group consists of 2nd grade students studying in a public primary school in Fatih district of Istanbul. Among these students, students whose empathy levels are between -3 and +3 standard deviations from

the average, i.e. between 6 and 12 points ($X=10.18$, $SD=3.10$), students whose emotion regulation subscale average scores are between -3 and +3 standard deviations, i.e. between 16 and 30 points ($X=23.19$, $SD=3.14$), and students whose negativity subscale average scores are between -3 and +3 standard deviations, i.e. between 18 and 48 points ($X=26.30$, $SD=5.01$) were selected for the study group through unbiased assignment.

Data Collection Tools

In the study, the demographic information form created by the researcher, the Empathy Scale for Children and the Emotion Regulation Scale were used as data collection tools.

Data Collection Process

The necessary permissions were obtained from the scale developers for the Empathy Scale for Children and the Emotion Regulation Scale. The necessary permissions were obtained from the parents with the Parent Permission Form for the students to whom the scales would be applied. The Empathy Scale for Children was applied to 38 students in the study. The Emotion Regulation Scale was answered by the class teacher and the English teacher (researcher) who knew the 38 students well.

Analysis of Data

This study is an experimental study and the collected data were analyzed in the computer environment using the SPSS package program. The scores obtained from the scales were calculated based on the data obtained from the “Empathy Scale for Children” and the “Emotion Regulation Scale”.

In order to obtain descriptive statistics; criteria such as number, percentage, mean and standard deviation were used. In order to determine the effect of the group psychoeducation program applied to the experimental group in the 2nd grade of primary school, the assumptions of parametric statistics techniques could not be met due to the small number of individuals forming the experimental and control groups of the research in order to make comparisons between groups and measurements. Therefore, non-parametric statistical techniques were used in the analysis of the data. Mann Whitney U test was used to test the significance of the difference between two independent groups (experimental and control), and Wilcoxon Signed Ranks test was used to test the significance of the difference between measurements. After the application of the 10-session Psychoeducation Program to the experimental group was completed, a post-test was applied to the experimental and control groups.

4. Findings and Comments

This section includes the quantitative findings resulting from the statistical analysis of the data obtained within the scope of the research. The findings are presented in the order of the hypotheses.

Measuring the Empathy and Emotion Regulation Skills of Students Participating in the Study

Under this heading, the quantitative findings obtained from the Children's Empathy Scale (CES) and the Emotion Regulation Scale (ERS), (*Çocuklar İçin Empati Ölçeği (ÇİEÖ) ve Duygu Düzenleme Ölçeği (DDÖ)*) which were used to test the differences between the experimental and control groups, were evaluated.

Hypothesis 1: The post-test mean scores of the empathy levels and emotion regulation levels and their sub-factors of the students in the experimental group who received the psychoeducation program are significantly higher than the pre-test average scores.

Before testing Hypothesis 1, the pre-test and post-test average scores and standard deviation values of the Emotion Regulation and Negativity sub-factors of the CES and ERS obtained from two observers for the children in the experimental and control groups are given in Tables 10, 11, 12, 13 and 14.

Table 1. Mean and Standard Deviation Values of the Empathy Scale for Children

Measurement Groups	Pre-test			Post-test		
	N	\bar{X}	S	N	\bar{X}	S
Experimental Group	22	9,27	3,33	22	15,32	2,53
Control Group	16	10,56	2,68	16	10,50	2,58
Total	38	9,82	3,10	38	13,29	3,49

As seen in Table 1, the average empathy skill score of the students in the experimental group was 9.27 before the "Psychoeducation Program", while this value became 15.32 after the "Psychoeducation Program". The average empathy score of the students in the control group was 10.56 before the "Psychoeducation Program", while this score was found to be 10.50 after the "Psychoeducation Program".

In this case, when the average scores are taken into consideration, it has been revealed that there was an increase in the empathy skills of the students who participated in the "Psychoeducational Program" compared to the experimental group.

Table 2. Observer 1 Emotion Regulation Sub-Factor
Average and Standard Deviation Values

Measurement Groups	Pre-test			Post-test		
	N	\bar{X}	S	N	\bar{X}	S
Experimental Group	22	22,32	3,20	22	27,63	2,90
Control Group	16	25,44	2,28	16	24,56	2,42
Total	38	23,63	3,22	38	26,34	3,09

As seen in Table 2, according to the data obtained from observer 1, the average score of the students in the experimental group on the emotion regulation sub-factor was 22.32 before the “Psychoeducational Program”, while this value became 27.63 after the “Psychoeducational Program”. The average score of the students in the control group on the EQS emotion regulation sub-factor was 25.44 before the “Psychoeducational Program”, while this score was found to be 24.56 after the “Psychoeducational Program”. In this case, when the average scores are taken into consideration, it is revealed that there is an increase in the emotion regulation sub-factor skills of the students who participated in the “Psychoeducational Program” compared to the experimental group.

Table 3. Observer 2 Emotion Regulation Sub-Factor
Average and Standard Deviation Values

Measurement Groups	Pre-test			Post-test		
	N	\bar{X}	S	N	\bar{X}	S
Experimental Group	22	20,73	1,98	22	26,36	2,84
Control Group	16	24,00	2,19	16	23,38	2,28
Total	38	22,11	2,62	38	25,11	2,99

As seen in Table 3, according to the data obtained from observer 2, the average score of the emotion regulation sub-factor of the students participating in the experimental group was 20.73 before the “Psychoeducational Program”, while this value became 26.36 after the “Psychoeducational Program”. The average score of the emotion regulation sub-factor of the students in the control group was 24.00 before the “Psychoeducational Program”, while this score was found to be 23.38 after the “Psychoeducational Program”. In this case, when the average scores are taken into consideration, it is revealed that an increase was observed in the EQS emotion regulation sub-factor skills of the students

in the experimental group participating in the “Psychoeducational Program” according to the data obtained from observer 2.

Table 4. Observer 1 Negativity Sub-Factor Average and Standard Deviation Values

Measurement Groups	Pre-test			Post-test		
	N	\bar{X}	S	N	\bar{X}	S
Experimental Group	22	25,18	5,15	22	16,27	2,73
Control Group	16	25,06	3,85	16	27,31	3,46
Total	38	25,13	4,59	38	20,92	6,29

As seen in Table 4, according to the data obtained from observer 1, the mean score of the ERS negativity sub-factor of the students participating in the experimental group before the “Psychoeducational Program” was 25.18, while this value became 16.27 after the “Psychoeducational Program”. The mean score of the ERS negativity sub-factor of the students in the control group before the “Psychoeducational Program” was 25.06, while this score was found to be 27.31 after the “Psychoeducational Program”. In this case, when the mean scores are taken into consideration, it is revealed that according to the data obtained from observer 1, a decrease in the ERS negativity sub-factor skills of the students in the experimental group participating in the “Psychoeducational Program” was observed.

Table 5. Observer 2 Negativity Sub-Factor Average and Standard Deviation Values

Measurement Groups	Pre-test			Post-test		
	N	\bar{X}	S	N	\bar{X}	S
Experimental Group	22	28,50	4,89	22	19,68	2,87
Control Group	16	27,06	3,97	16	29,56	3,78
Total	38	27,90	4,53	38	23,84	5,91

As seen in Table 5, according to the data obtained from observer 2, the mean score of the DDÖ negativity sub-factor of the students participating in the experimental group before the “Psychoeducational Program” was 25.50, while this value became 19.68 after the “Psychoeducational Program”. The mean score of the ERS negativity sub-factor of the students in the control group before the “Psychoeducational Program” was 27.06, while this score was found

to be 29.56 after the “Psychoeducational Program”. In this case, when the mean scores are taken into consideration, it is revealed that there is a decrease in the ERS negativity sub-factor skills of the students in the experimental group who participated in the “Psychoeducational Program” according to the data obtained from observer 2. In order to determine the significance of the test, the Wilcoxon Signed Rank Test was applied to the pre-test and post-test scores of the children in the experimental group and the results are given in Table 6.

Table 6. Wilcoxon Signed Test Results Regarding the Pre-test and Post-test Scores of the Experimental Group on the CES and Emotion Regulation and Negativity Sub-Factors

Measurement	Pre-test Post-test	n	Rank Average	Rank Sum	z	p
CES	Negative Rank	1	1	1	-3,91	.000
	Positive Rank	19	11	209		
	Equal	2	-	-		
ERS-ERSF 1.Observer	Negative Rank	1	1	1	-3,81	.000
	Positive Rank	18	10,50	189		
	Equal	3	-	-		
ERS-ERSF 2. Observer	Negative Rank	1	1,50	1,5	-4,07	.000
	Positive Rank	21	11,98	251,5		
	Equal	0	-	-		
ERS-NSF 1. Observer	Negative Rank	20	12,50	250	-4,02	.000
	Positive Rank	2	1,50	3		
	Equal	0	-	-		
ERS-NSF Observer	Negative Rank	19	13,00	247	-3,92	.000
	Positive Rank	3	2,00	6,00		
	Equal	0	-	-		

ERS-ERSF: Emotion Regulation Scale - Emotion Regulation Sub-Factor

ERS- NSF : Emotion Regulation Scale - Negativity Sub-Factors

The statistical analysis results in Table 15 show that there is a significant difference between the pre-experiment and post-experiment scores of the children in the experimental group. ($z_{CES} = -3,91$, $p < 0.05$; $z_{ERS-ERSF\ 1.O.} = -3,81$, $p < 0.05$; $z_{ERS-ERSF\ 2.O.} = -4,07$, $p < 0.05$; $z_{ERS-NSF\ 1.O.} = -4,02$, $p < 0.05$; $z_{ERS-NSF\ 2.O.} = -3,92$, $p < 0.05$). In this case, the hypothesis that “the post-test mean scores of the children in the EERPFC (Empathy and Emotion

Regulation Program for Children) experimental group from the CES, ERS-ERSF and ERS-NSF sub-factors are significantly higher than the pre-test mean scores” was supported. When the rank sums of the difference scores are not taken into account, it is seen that this difference observed is positive in terms of the CES and ERS-ERSF two-observer scores.

Hypothesis 2: There is no difference between the pre-test and post-test average scores of the students in the control group on empathy and emotion regulation skills and their sub-factors.

In order to test this hypothesis, the Wilcoxon Signed Rank Test was applied to the pre-test and post-test scores of the children in the control group and the results are given in Table 7.

Table 7. Wilcoxon Signed Rank Test Results Regarding Pre-Test and Post-Test Average Scores of the Control Group on the CES and ERS-NSF

Measurement	Pre-test Post-test	n	Average Rank	Rank Sum	z	p
CES	Negative Rank	5	6,60	33	-,58	,56
	Positive Rank	5	4,40	22		
	Equal	6				
ERS- ERSF 1.Observer	Negative Rank	6	5,25	31,50	-1,10	,27
	Positive Rank	3	4,50	13,50		
	Equal	7				
ERS-ERSF 2.Observer	Negative Rank	7	5,71	40	-1,39	,17
	Positive Rank	3	5	15		
	Equal	6				
ERS-NSF 1. Observer	Negative Rank	3	6,33	19	-1,30	,19
	Positive Rank	8	5,88	47		
	Equal	5				
ERS-NSF 2. Observer	Negative Rank	4	5	20	-,33	,74
	Positive Rank	5	5	25		
	Equal	7				

As seen in Table 7, there is no significant difference between the pre-test and post-test mean scores of the children in the control group. ($z_{CES} = -,575, p > 0.05$; $z_{ERS-ERSF\ 1.O.} = -1,095, p > 0.05$; $z_{ERS-ERSF\ 2.O.} = 1,387, p > 0.05$; $z_{ERS-NSF\ 1.O.} = -1,303, p > 0.05$; $z_{ERS-NSF\ 2.O.} = -,333, p > 0.05$). The hypothesis of the study that “there is no significant difference between the pre-

test and post-test mean scores of the children in the control group on the CES and ERS-NSF Emotion Regulation and Negativity Sub-Factors” was also supported.

Hypothesis 3: The post-test mean scores of the experimental group students who received the psychoeducation program on empathy and emotion regulation and their sub-factors were significantly higher than the post-test mean scores of the control group students.

In order to test this hypothesis, the Mann Whitney U test was applied to the post-test scores of the students in the experimental and control groups and the results are given in Table 8.

Table 8. Mann Whitney U Test Results Regarding the Post-Test Scores of the Experimental and Control Groups from the CES, ERS-ERSF and ERS-NSF Sub-Factors

Measurement	Group	n	Average Rank	Rank Sum	U	p
CES	Experiment	22	25,36	558,00	47,00	.00
	Control	16	11,44	183,00		
ERS- ERSF 1.Observer	Experiment	22	22,48	494,50	110,50	.05
	Control	16	15,41	246,50		
ERS-ERSF 2.Observer	Experiment	22	23,91	526,00	79,00	.00
	Control	16	13,44	215,00		
ERS-NSF 1. Observer	Experiment	22	12,27	270,00	17,00	.00
	Control	16	29,44	471,00		
ERS-NSF 2. Observer	Experiment	22	13,52	297,50	44,50	.00
	Control	16	27,72	443,50		

As seen in Table 8, there is a significant difference between the post-test scores of the experimental and control groups in favor of the experimental group. (I 47.00, $p < 0.05$; ERS-ERSF I.O. 110.50, $p < 0.05$; ERS-ERSF 2.O. 79.00, $p < 0.05$; ERS-NSF I.O. 17.00, $p < 0.05$; ERS-NSF 2.O. 44.50 $p < 0.05$). According to the results of this analysis, the hypothesis “The post-test mean scores of the children in the experimental group to which EERPFC was applied from CES and ERS-ERSF and ERS-NSF sub-factors are significantly higher than the post-test mean scores of the students in the control group who did not participate in this program” was supported. When the mean ranks are taken into consideration, it is understood that the empathy and emotion regulation levels of the students who participated in EERPFC were higher (according to both

observers) and their negativity levels were lower (according to both observers) than the students who did not participate in the program.

5. Results

The study examined the effects of the psychoeducation program applied to the 2nd grade primary school students on the empathy and emotion regulation skills of the students. As a result of the study, it was concluded that the psychoeducation program applied to the students with low empathy and emotion regulation skills was effective in increasing the empathy and emotion regulation skills of the students in the experimental group.

Three hypotheses were tested in this study. The first of these is “The post-test average scores of the empathy and emotion regulation skills and sub-factors of the students in the experimental group to whom the psychoeducational program was applied are significantly higher than the pre-test mean scores”, the second hypothesis of the study is “There is no difference between the pre-test mean scores of the empathy and emotion regulation skills and sub-factors of the students in the control group and the post-test mean scores”, and the third hypothesis of the study is “The post-test mean scores of the empathy and emotion regulation skills and sub-factors of the students in the experimental group to whom the psychoeducational program was applied are significantly higher than the post-test mean scores of the students in the control group”. At the end of the study, it was determined that the research hypotheses were confirmed as a result of the analysis of the pre-test and post-test scores of the experimental and control groups.

The findings reveal in detail the positive effects of the psychoeducation program applied in this study on students' empathy and emotion regulation skills. In addition, the research results provide opportunities for educators, child development specialists, social workers, child psychologists, child and adolescent psychiatrists, and guidance and psychological counseling specialists to draw conclusions and their professional practices.

It is seen that the number of studies on empathy and emotion regulation in our country is low, and studies are mostly conducted on adults. At the same time, the lack of programs for the development of empathy and emotion regulation skills may prevent the psychological help and support that can be provided to primary school students from being provided more effectively or may reduce the effectiveness of the studies. The development of these skills in the second childhood period may be effective in making children more prepared for the

social-emotional experiences they will encounter and in becoming better able to cope with emotional difficulties. In addition, the results of this study show that psychoeducation programs can be effective in the development of empathy and emotion regulation skills in primary school children.

These research findings show that the psychoeducation program can serve as a practical tool for professionals in developing empathy and emotion regulation skills. In addition, studies measuring the applicability and effectiveness of the program will provide important information that will shed light on future research. This study strengthens the existing literature emphasizing the importance of psychoeducation programs in supporting children's social and emotional skills, while also proving the practicality and effectiveness of integrating these interventions into daily educational practice.

As a result, it is understood that the psychoeducation program prepared within the scope of this research and applied to the 2nd grade of primary school is effective in increasing the empathy and emotion regulation skills of the children.

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CHAPTER VII

A SERVQUAL ANALYSIS OF THE EXPECTATIONS AND PERCEPTIONS OF THE SHIPOWNER COMPANIES REGARDING THE HULL AND MACHINERY INSURANCE SERVICES PROVIDED BY INSURANCE OR BROKERAGE FIRMS

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1. Introduction

Insurance is a form of security that has evolved and branched out from the depths of history to the present day, used to transfer risks that everyone will encounter at some point in their lives. The earliest examples of insurance in the world were utilized in maritime activities. Since ancient times, humankind has engaged in commercial activities via maritime routes. Over time, the concept of insurance emerged as the transported goods and the ships carrying them began to be insured. The first examples of marine insurance, as it is understood today, originated in a coffeehouse operated by Edward Lloyd in London. Today, when marine insurance is mentioned, the first market that comes to mind is Lloyd's. Approximately 90% of the world's cargo is transported via maritime routes. Without the ships carrying these goods, it would be impossible to speak of maritime transportation on a global scale. Shipowner companies face numerous risks during voyages or at ports with their most valuable assets—their ships—which are worth millions of U.S. dollars. For this reason, shipowner companies have felt the need to insure their ships against potential damage or losses. Today, there are two significant types of insurance associated with marine insurance: Protection and Indemnity (P&I) insurance and Hull and Machinery (H&M)

insurance. Hull and Machinery Insurance covers all physical elements of a vessel, such as its machinery, equipment, and fittings. The coverage criteria of the insurance depend on the item being integral to the ship's operations, directly associated with the vessel as indicated in its design plans, and essential for its operation and safety. Another principle of inclusion in the insurance coverage is the existence of an insurable interest on the part of the shipowner's company.

In other words, the insured entity must demonstrate that the insured vessel would cease to be a revenue-generating asset or significantly decrease in value if it were exposed to peril, leading to measurable financial loss for the shipowner.

Hull and Machinery Insurance is the oldest type of marine insurance and is structured on a "named peril" basis. That is, the specific circumstances or events for which the shipowner seeks protection are explicitly stated in the insurance policy. These risks and their insured conditions are listed under standardized clauses commonly referred to as "Institute Clauses."

The insurer determines the terms and provisions of the insurance based on these standardized clauses and their modifiable values. In maritime contexts, the definitions of "loss" and "damage" variables require examination. Losses are categorized as total or partial loss and are further subdivided into actual total loss, constructive total loss, general average, or particular average. In traditional maritime usage, the term "average" has long referred to "partial loss" (Golish, 2005:16).

2. SERVEQUAL Analysis

Numerous measurement methods can be evaluated within the framework of the quality-based assessment approach. Among these, SERVQUAL has garnered the most attention. SERVQUAL, a widely used scale for measuring service quality, was developed by Parasuraman, Zeithaml, and Berry through a series of studies conducted between 1985 and 2005 (1985,1988,1991,1993,1994,1996,1997,1998,2002,2004,2005) (Akbaba, 2007:320).

Research on service quality, which began in 1983, is based on three fundamental assumptions (Parasuraman, Zeithaml, and Berry, 1985):

1) Assessing service quality is more challenging for both marketers and consumers compared to evaluating product quality.

2) Customers evaluate service quality not only in terms of outcomes but also as a process.

3) The criteria that hold importance during the service delivery process are defined by the customer.

The study aims to answer the following questions:

- i. How do customers evaluate service quality?
- ii. Do they make a global assessment, or do they arrive at a general evaluation by considering different stages of the service?
- iii. What are the dimensions of service quality assessments?
- iv. What shapes and influences customers' expectations?

To address these questions, Parasuraman, Zeithaml, and Berry conducted focus group studies with customers from four different service sectors. To ensure the results could be generalized, they carefully designed the groups to include diverse compositions and services. In these groups, customers shared their expectations, priorities, experiences, and definitions of good and poor-quality service. Common perspectives across various services provided valuable insights into how customers evaluate services (Alakavuk, 2007:330).

Based on the initial research phase conducted by Parasuraman, Zeithaml, and Berry, a scale was developed to measure service quality, building on their definition and preliminary evaluation criteria/dimensions. A total of 97 items were created, representing various aspects of the ten identified dimensions.

Each item was expressed in two sentences: the first reflected general expectations regarding companies in the service sector, while the second measured the perceived level/performance of service quality in the company evaluated. Respondents assessed these sentences using a seven-point Likert scale ranging from "strongly agree" to "strongly disagree." The sentences measuring expectations comprised the first part of the survey, while those measuring perceived service formed the second. This initial 97-item scale underwent a two-stage data collection and evaluation process.

The goal was to refine the scale to items that could differentiate respondents with varying quality assessments and to analyze the validity and reliability of the service dimensions. Data for the first stage were collected from 200 respondents representing five different service categories, ranging from repair and maintenance services to banking and insurance.

Analysis began by calculating the 'perceived quality' value, which is the difference between expected and perceived service, using the following formula (Parasuraman et al., 1988):

Perceived Service Quality = Perceived Service (Performance) - Expected Service

Following factor analysis and the calculation of alpha coefficients, the scale was reduced to 34 items grouped into seven service dimensions by Parasuraman, Zeithaml, and Berry. In the second stage, 200 respondents from four different service sectors were selected. Data from each sector were separately analyzed (using alpha coefficients and factor analysis), leading to the final SERVQUAL scale consisting of 22 items across five dimensions. These five dimensions are defined as follows (Parasuraman et al., 1988):

- i. Tangibles: Appearance of buildings, facilities, equipment, personnel, and communication materials.
- ii. Reliability: Delivering the promised service dependably and accurately.
- iii. Responsiveness: Willingness to help customers and provide prompt service.
- iv. Assurance: Employees' knowledge and courtesy, instilling trust and confidence. This dimension combines aspects of competence, courtesy, credibility, security, and communication.
- v. Empathy: Providing personalized care and attention to customers, combining accessibility and understanding customer needs.

In 1991, Parasuraman, Zeithaml, and Berry revisited the SERVQUAL scale in their article titled "Refinement and Reassessment of the SERVQUAL (Service Quality) Scale," published in the *Journal of Retailing* (vol. 67, no. 4), making several changes to the survey questions. The SERVQUAL scale developed by Parasuraman, Zeithaml, and Berry has been adopted in various studies, such as Evangelos Tsoukatos et al.'s "Diagnosis and Improvement of Service Quality in the Insurance Industries of Greece and Kenya" and Varambally et al.'s "Development of Process Metrics for General Insurance Providers of the Leisure Industry."

These adaptations tailored the questions to evaluate service quality specifically in the insurance sector. However, despite the widespread use and numerous adaptations of the scale, the original SERVQUAL scale was employed in this study. Table 1 presents the SERVQUAL analysis questions posed to the shipowner companies in this study.

Table 1. SERVQUAL Scale Questions Used in the Survey Study.

B1. Excellent H&MICs* have modern-looking equipment.	B12. Employees of excellent H&MICs always strive to assist customers.
B2. The buildings and facilities of excellent H&MICs are visually appealing.	B13. Employees of excellent H&MICs are never too busy to respond to customer requests.
B3. Employees of excellent H&MICs have a neat appearance.	B14. The behavior of employees in excellent H&MICs instills a sense of trust in customers.
B4. Materials used by excellent H&MICs during service delivery (e.g., brochures, circulars, policies) are visually appealing.	B15. Customers of excellent H&MICs feel secure.
B5. Perfect H&MICs fulfill their promises on time.	B16. Employees of excellent H&MICs are always respectful towards customers.
B6. When customers have a problem, excellent H&MICs show sincere interest in resolving their issues.	B17. Employees of excellent H&MICs are knowledgeable enough to answer customers' questions.
B7. Excellent H&MICs provide the correct service for the first time.	B18. Excellent H&MICs provide individualized attention to each customer.
B8. Excellent H&MICs complete their services within the promised time.	B19. The working hours of excellent H&MICs are arranged to suit all customers.
B9. Excellent H&MICs ensure meticulous record-keeping.	B20. Employees of excellent H&MICs provide personalized attention to every customer.
B10. Employees of excellent H&MICs fully inform customers about when services will be delivered.	B21. Excellent H&MICs prioritize the interests of their customers.
B11. Employees of excellent H&MICs provide services on time.	B22. Employees of excellent H&MICs understand the unique needs of their customers.

* Hull and Machinery Insurance Company (H&MIC).

3. Regarding the Survey Study

This study evaluates the perceptions of Turkish shipowner companies regarding the services provided by Hull and Machinery Insurance Companies (H&MIC) within the scope of their current hull and machinery insurance coverage.

A SERVQUAL analysis was conducted to compare the services shipowners expect from H&MICs with the services they actually receive. Shipowner companies were asked to assess their perceived service quality from H&MICs across five dimensions: Tangibles, Reliability, Responsiveness, Assurance, and Empathy. The SERVQUAL data obtained through a survey were analyzed using its established methodology. A total of 48 relevant personnel from shipowner companies participated in the survey.

4. Reliability Test of the SERVQUAL Analysis

The dimensions used to calculate SERVQUAL scores, along with the survey items and their definitions, are presented in Table 2.

Table 2. The Five Key Dimensions of SERVQUAL Service Quality.

Dimensions	Items	Definitons
Physical attributes	1-4	Physical facilities, tools and equipment used to deliver the service, and the physical appearance of personnel.
Reliability	5-9	It involves the consistency of performance. It means that the company delivers the service correctly on the first attempt and fulfills its promises. It reflects the ability to provide the committed service flawlessly and reliably.
Responsiveness	10-13	It is related to the willingness of employees in delivering the service. It involves being enthusiastic and helpful towards customers, as well as providing the service promptly and efficiently.
Assurance	14-17	It means being free from doubt, risk, and danger. It involves employees being knowledgeable, courteous, and having the ability to instill a sense of trust in customers.
Empathy	18-22	It involves making an effort to understand the customer's needs. It includes learning about the specific needs of the customer and being aware of regular customers. It reflects the company's ability to show personal interest and sensitivity towards customers.

The reliability analysis results of the survey conducted to determine expectations and satisfaction with services related to hull and machinery insurance, based on the SERVQUAL scale, are presented in Table 3 below.

Table 3. Reliability Analyses of the SERVQUAL Scale.

Scales	Cronbach Alfa
Overall Expectation	0.846
Overall Satisfaction	0.962
Fm (Physical attributes satisfaction)	0.847
Fb (Physical attributes Expectation)	0.883
Rm (Reliability satisfaction)	0.937
Rb (Reliability Expectation)	0.337
Ym (Responsiveness Satisfaction)	0.906
Yb (Responsiveness Expectation)	0.545
Gm (Assurance Satisfaction)	0.886
Gb (Assurance Expectation)	0.857
Em (Empathy Satisfaction)	0.927
Eb (Empathy Expectation)	0.840

The Cronbach alpha values calculated for the expectations and satisfaction of the SERVQUAL scale, which were evaluated separately, are 0.846 and 0.962, respectively. According to these values, it is said that the SERVQUAL scale also has high reliability (see table 3).

5. Analysis of the Study

The evaluation of the Marine and Machinery Insurance companies (H&MIC) by Turkish shipowner enterprises within the scope of the Marine and Machinery Insurance services they currently receive. A comparison is made between the services expected from the H&MICs and the services actually received (SERVQUAL analysis is conducted).

Table 1 provides details of the 22 SERVQUAL questions whose analyses are given in Table 4.

Table 4. Distribution of Satisfaction and Expectations.

Statement	SATISFACTION					EXPECTATION				
	N	Min.	Maks.	Avg.	Std. Dev.	N	Min.	Max.	Avg.	Std. Dev.
1	48	3	7	5.81	0.96	48	3	7	5.94	1.23
2	48	3	7	5.38	1.12	48	1	7	5.13	1.51
3	48	4	7	5.83	0.88	48	3	7	5.81	1.07
4	48	1	7	5.50	1.15	48	1	7	5.54	1.25
5	48	2	7	6.06	1.28	48	5	7	6.83	0.43
6	48	2	7	6.06	1.28	48	6	7	6.88	0.33
7	48	1	7	5.67	1.73	48	1	7	6.33	1.49
8	48	2	7	5.88	1.35	48	6	7	6.79	0.41
9	48	2	7	6.10	1.08	48	6	7	6.90	0.31
10	48	1	7	5.96	1.15	48	6	7	6.63	0.49
11	48	1	7	5.98	1.19	48	6	7	6.77	0.42
12	48	1	7	6.13	1.20	48	5	7	6.71	0.54
13	48	1	7	5.79	1.37	48	1	7	6.19	1.16
14	48	2	7	5.94	1.16	48	5	7	6.69	0.59
15	48	2	7	5.98	1.19	48	5	7	6.65	0.56
16	48	4	7	6.38	0.70	48	5	7	6.63	0.57
17	48	4	7	6.27	0.84	48	5	7	6.81	0.45
18	48	2	7	6.21	0.97	48	4	7	6.54	0.68
19	48	2	7	5.98	1.12	48	1	7	6.02	1.25
20	48	2	7	6.23	1.02	48	4	7	6.38	0.79
21	48	2	7	5.94	1.10	48	3	7	6.46	0.90
22	48	2	7	5.83	1.12	48	3	7	6.42	0.85

The highest expectation level of customers regarding marine and machinery insurance services is related to the “reliability” quality dimension, specifically the statement in question 9 (“Excellent H&MICs ensure meticulous record-keeping”). The lowest expectation level is related to the “tangibles” quality dimension, specifically the statement in question 2 (“The buildings and facilities of excellent H&MICs are visually appealing”) (see Table 2). Similarly, the highest level of customer satisfaction with the services provided by marine and machinery insurance is associated with the “assurance” quality dimension, specifically the statement in question 16 (“The employees of my insurer/broker are always respectful towards us”). Conversely, the lowest level of customer

satisfaction is linked to the “tangibles” quality dimension, specifically the statement in question 2 (“The buildings and facilities of my insurer/broker are visually appealing”).

5.1. SERVQUAL Scores

In the study, the SERVQUAL scale was structured using a seven-point Likert scale, where 1 indicates “Strongly Disagree” and 7 indicates “Strongly Agree.” The SERVQUAL score is calculated as:

$$\text{SERVQUAL Score} = \text{Perception Score} - \text{Expectation Score}$$

As a result, SERVQUAL scores range between -6 and +6.

A positive SERVQUAL score indicates that customer expectations have been exceeded, signifying a high perception of quality regarding marine and machinery insurance services (Parasuraman et al., 1991).

A negative SERVQUAL score indicates that customer expectations have not been met, reflecting a low-quality perception.

A SERVQUAL score of zero means that customer expectations have been met, implying that the quality of marine and machinery insurance services is “satisfactory.”

The data obtained from the section where respondents scored the predicted dimensions were used to determine the level of importance customers assigned to each quality dimension. These findings are presented in Table 5.

Table 5. The weighting of Quality Dimensions According to Their Importance (%).

Dimensions	Min.	Max.	Average (%)	Std. Dev.
Physical Attributes	0	20	10.78	5.83
Reliability	10	90	34.69	17.52
Responsiveness	5	40	23.83	8.33
Assurance	3	30	17.48	5.82
Empathy	0	30	13.22	8.02

The shipping companies participating in the study identified “reliability” as the most important quality dimension, with an average score of 34.69. On the other hand, the “physical attributes” dimension was considered the least important, with an average score of 10.78. Below is the ranking of service dimensions expected by shipping companies for H&MIC:

- i. Reliability
- ii. Responsiveness
- iii. Assurance
- iv. Empathy
- v. Physical Attributes/Tangibles

The perceived service quality levels in terms of the dimensions of physical attributes, reliability, responsiveness, assurance, and empathy, as well as the equally weighted and weighted SERVQUAL scores, are denoted as SQ1, SQ2, SQ3, SQ4, SQ5, SQE, and SQA, respectively (see Table 6).

Table 6. SERVQUAL Scores for Hull and Machinery Insurance Service.

	N	Min.	Max.	Average	Std Dev.
SQ1	48	-2.25	3.5	0.03	1.17
SQ2	48	-4.8	0.4	-0.79	1.08
SQ3	48	-5.75	0.5	-0.61	1.11
SQ4	48	-3.75	1.5	-0.55	0.93
SQ5	48	-3.8	1.8	-0.33	0.94
SQB	48	-4.02	0.59	-0.45	0.84
SQA	48	-4.315	0.3575	-0.57	0.91

Based on the calculated SERVQUAL scores, the average of SQ1 for the “physical attributes” dimension was found to be 0.03. Since this value is very close to zero, it can be concluded that customers are satisfied with the physical attributes of the service providers. However, SERVQUAL scores calculated for all other dimensions were negative, indicating that customers have high expectations from the service providers and that these expectations are not being met. To determine whether there is a difference between customers’ expectations and satisfaction levels for the quality dimensions, a t-test was conducted. The hypotheses established for the test are as follows:

HA:

H0: There is no difference between customers’ expectations and satisfaction levels in terms of the “physical attributes” dimension.

H1: There is a difference between customers’ expectations and satisfaction levels in terms of the “physical attributes” dimension.

HB:

H0: There is no difference between customers’ expectations and satisfaction levels in terms of the “reliability” dimension.

H1: There is a difference between customers’ expectations and satisfaction levels in terms of the “reliability” dimension.

HC:

H0: There is no difference between customers’ expectations and satisfaction levels in terms of the “responsiveness” dimension.

H1: There is a difference between customers’ expectations and satisfaction levels in terms of the “responsiveness” dimension.

HD:

H0: There is no difference between customers’ expectations and satisfaction levels in terms of the “assurance” dimension.

H1: There is a difference between customers’ expectations and satisfaction levels in terms of the “assurance” dimension.

HE:

H0: There is no difference between customers’ expectations and satisfaction levels in terms of the “empathy” dimension.

H1: There is a difference between customers’ expectations and satisfaction levels in terms of the “empathy” dimension.

Table 7. t-test.

	Average	Std.Dev.	t	(p)*
Difference Physical attributes	-0.03	1.173	-0.15	0.878
Difference Reliability	0.79	1.079	5.08	0.000
Difference Responsiveness	0.61	1.113	3.79	0.000
Difference Assurance	0.55	0.925	4.13	0.000
Difference Empathy	0.32	0.938	2.40	0.020

In the t-test conducted to determine whether there is a significant difference between the averages of customer expectations and satisfaction, the p-values

for all dimensions except “physical attributes” (reliability, responsiveness, assurance, and empathy) were found to be smaller than the 0.05 significance level.

Therefore, the H0 hypothesis was rejected, and it was concluded that there is a significant difference between the averages of customer expectations and satisfaction for these dimensions (see Table 7). Accordingly, the expected service is greater than the perceived service. When the expected service exceeds the perceived service, the quality level is low, indicating that the expectations of shipping companies from H&MIC are not adequately met. For the “physical attributes” dimension, the p-value from the paired t-test was 0.878, which is greater than the 0.05 significance level.

Hence, the H0 hypothesis cannot be rejected, indicating no significant difference between the expected service quality and the perceived service quality. Shipping companies are satisfied with the quality of services provided by H&MIC in terms of physical attributes.

5.2. Cross Tables

When evaluating the criteria considered by shipping companies in selecting a provider for hull and machinery insurance services (Question 16 in the survey), differences were observed only in the criteria of financial strength and corporate relationships between companies with and without a risk manager. These findings are detailed below. For all other criteria, no differences were found between respondents from companies with or without a risk manager.

Hypotheses for Financial Strength Criterion:

H0: The importance of the financial strength of the hull and machinery insurer for shipping companies does not differ based on whether the company employs a risk manager.

H1: The importance of the financial strength of the hull and machinery insurer for shipping companies differs based on whether the company employs a risk manager.

Table 8. Risk Manager in Shipowner Operations –
Financial Power of H&MICs.

		Financial strength is important to us.			Total
		Partially Agree	Agree	Strongly Agree	Partially Agree
Is there a Risk Manager?	Yes	1	2	18	21
	No	4	9	13	26
Total		5	11	31	47

Chi-Square Results

	Value	Degrees of Freedom	Significance Level (Two-Tailed)
Pearson Chi-Square	6.604(a)	2	.037
Likelihood Ratio	7.023	2	.030
Linear-by-Linear Association	5.308	1	.021
N	47		

a 3 cells (50.0%) have expected count less than 5. The minimum expected count is 2.23.

As a result of the analysis, since the expected values of 3 cells are less than 5, the M2 test, which is more robust for this situation, should be used instead of the Pearson Chi-Square test. Since the p-value (0.021) obtained from the M2 test (linear by linear association) is smaller than the 5% significance level, the null hypothesis (H_0) has been rejected. According to this result, when selecting the company for hull and machinery insurance services, the financial strength of the hull and machinery insurer is important for shipping companies, and this importance varies depending on whether or not the business has a risk manager (see Table 8).

H_0 : When selecting the company for hull and machinery insurance services, the importance of the hull and machinery insurer's corporate relationships for the business does not vary depending on whether or not the business has a risk manager.

H_1 : When selecting the company for hull and machinery insurance services, the importance of the hull and machinery insurer's corporate relationships for the business varies depending on whether or not the business has a risk manager.

Table 9. Risk Manager in Shipping Companies –
The Corporate Relationships of H&M Insurers

		Corporate relations are important to us.				Toplam
		Disagree	Partially Agree	Agree	Strongly Agree	Disagree
Is there a Risk Manager?	Yes	0	0	8	13	21
	No	1	6	13	6	26
Total		1	6	21	19	47

Chi-Square Results

	Value	Degrees of Freedom	Significance Level (Two-Tailed)
Pearson Ki-Kare	10.355(a)	3	.016
Likelihood Ratio	13.014	3	.005
Linear-by-Linear Association	8.128	1	.004
N	47		

a 4 cells (50.0%) have expected count less than 5. The minimum expected count is .45.

The analysis revealed that the expected values for four cells were less than 5. Therefore, instead of the Pearson Chi-Square test, the M2 test (linear by linear association), which is more robust in such cases, was used. Since the p-value obtained from the M2 test (0.04) is smaller than the 5% significance level, the H0 hypothesis was rejected. This indicates that the importance of the corporate relationships of the hull and machinery insurer for shipping companies differs depending on whether the company employs a risk manager (see Table 9).

6. Conclusion

As a result of this analysis, it is observed that the highest level of customer satisfaction regarding the services provided by hull and machinery insurers or brokers pertains to the 16th question statement under the “trust” dimension (The employees of my insurer/broker are always respectful toward us). Conversely, the lowest level of customer satisfaction pertains to the second question statement under the “physical attributes” quality dimension (The buildings and facilities of my insurer/broker are visually appealing).

The services expected by ship-owning companies from their H&M insurers exceed the perceived services. When the expected service is greater than the perceived service, it indicates a low level of quality and implies that customers' expectations are not adequately met. The importance of the financial strength of the hull and machinery insurer when selecting a service provider varies depending on whether the ship-owning company employs a risk manager. Similarly, the importance of the corporate relations of the hull and machinery insurer to the company also varies depending on whether the ship-owning company employs a risk manager.

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CHAPTER VIII

ASSESSING THE EFFICIENCY OF ONLINE BANKING SERVICES: A CUSTOMER SATISFACTION PERSPECTIVE

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1. Introduction

Online banking services have gained significant popularity in recent years, providing customers convenient access to financial transactions and services. As the usage of online banking continues to grow, it becomes important for banks to consider the efficiency of their online platforms from a customer satisfaction perspective. By understanding the factors contributing to customer satisfaction, banks can advance their online banking systems, enhance client understanding, and strengthen their competitive advantage. Banking industry is one of the most crucial economic sectors that enables all financial transactions and adds stability in the economy. For the first time, the website of banking services was launched in 1994 by Stanford Credit Union. That is when digital banking started; since then, more private customers started to use digital services and the spread of Internet banking was unstoppable (UBS Women's wealth, 2022).

Experts has announced that the use of online banking systems is estimated to be increased little by little, mostly within the 20th century. The Asia region is considered to be the largest market where by 2024, China is expected to have over 805 million online banking users, with that number expected to rise to about one billion. Asia was ranked as the biggest marketplace in 2020, and South Korea

as the 6th with a penetration rate of 74 percent (Statista, 2021). Digital banking's increasing in demand knowledge from millennials and Genzers is renovating how many banking industries operate; customers want to use online platforms to obtain financial products and services, which is growing and this has resulted into the invention of new banking technologies. Digitalization and advancement in banking technology is exchanging the way people cooperate and run their business daily. Financial services around the world will continue to be influenced by the advancement of banking technology to facilitate customers' developing desire to have access to these services through digital platforms (Phaneuf, 2022).

Online banking, generally referred to as web banking, is the process of doing financial transactions by means of the medium of the internet. It provides services such as deposits, transfers, and online bill payments with the help of a computer, tablet, smartphone app, or any other internet-connected device. With internet based services, customers may do fundamental financial transactions whenever and wherever they want like at work or home, by eliminating the need of going to a branch of the bank (Frankenfield, 2023). Online banking is easily designed to be convenient to save your time from going to the local bank branch only at times when they are open to allow you to do it by yourself. The only advantage the traditional banks have over online is the ability to withdraw cash using an Automated Teller Machine (ATM); you can open different types of accounts online, including checking and savings without the hassle of printing or physical signing lather with electronic signature and this process mostly requires you less than 10 minutes. All you need is internet connection, device, your bank account number and personal information to identify your identity (Pritchard, 2022).

Online banking is a way of managing your bank accounts with a computer or mobile device including transferring funds, paying bills electronically and depositing checks whereby you will not meet any banker face to face through your device. Online banks have pros, including lower fees whereby you will be charged low or no fees and some do not charge overdraft fees either; better interest rates: deposits accounts normally have a high annual percentage yield of around 0.45% compared to that of 0.40% of the national average saving rate; ATM access whereby you can withdraw cash from a non-network machine; Easy accessibility: you can access your bank anywhere and anytime you have the internet. Online banking also has cons including no branches: you are limited to in person help and cash is hard to be deposited; you must go to an ATM or visit a local traditional bank and transfer it to your account (Murakami-Fester, 2021).

There are countries that dominate others in using Internet banking, whereby Nordics dominates in Online banking take up in Europe with a percentage of

95% for 2020; Norway is on the top of the list whereby 95% of adults using online bank services Iceland follow it with 94%, Denmark with 91%, and finally Finland with 91%. The main factors which contribute to high take-up online banking includes economic, social and geographic factors in the Nordic countries due to the rich ecosystems found in these countries. Companies like Klarina has a strong developed payment mode and this is moving away all traditional financial services of using cash in hand where customers are advanced to cashless modes (Flinders, 2021). Technology has been increased as a key whereby in late 1990s, short message service (SMS) and wireless application protocol (WAP) has launched mobile phones (Alrefai, 2019). It was also noted that the improvement of smart advice in the Bank of Kuwait started to launch online banking services to the market in 2012. Since that time, it became more client life comfort, ease and, most importantly speedy which played a great important role in the provision of different financial transactions online at any place and anytime a customer willing to do it in any location.

What is the problem that is try to be solved and its importance, background, difficulties, deficiencies and gaps in the literature to be filled and must be clearly presented? The nature of the problem being addressed in this research is the assessment of the efficiency of online banking services from a customer satisfaction perspective. With the increasing popularity and adoption of online banking platforms, it is crucial for banks to understand the factors that contribute to customer satisfaction and identify areas for improvement in their online banking systems. The content of the problem encompasses various aspects related to online banking efficiency and customer satisfaction. It involves evaluating the effectiveness and performance of online banking services in meeting customer needs and expectations.

Factors, such as website navigation, transaction speed, security measures, customer support, and user interface design, are among the key components that contribute to the efficiency and overall customer satisfaction with online banking platforms. The limits of the problem revolve around the specific focus on customer satisfaction in relation to online banking services. This research will primarily investigate the factors influencing customer satisfaction and how it impacts their overall banking experience and loyalty. However, this study may not delve into broader aspects of banking, such as the impact of online banking on financial inclusion or the regulatory environment surrounding online banking systems. This research will also be limited to a specific sample of bank customers who actively use online banking services, potentially limiting the generalizability of the findings to a broader population.

Overall, this research aims to provide insights into the efficiency of online banking services from a customer satisfaction perspective, with a specific focus on identifying factors that can enhance customer experience and loyalty. This research aims to investigate and evaluate the efficiency of online banking services and its impact on customer satisfaction. This study will investigate the key factors contributing to online banking service efficiency, examine the influence of customer satisfaction on overall banking experience and loyalty, and identify potential areas for improvement in online banking systems to enhance efficiency and customer satisfaction.

Therefore, this research aims to assess the efficiency of online banking services: A customer satisfaction perspective. To achieve the aim of this study, the following objectives were adopted: To assess the efficiency of online banking services from a customer satisfaction perspective. To identify the key factors that contribute to the efficiency of online banking services. To explore the influence of customer satisfaction with online banking services on their overall banking experience and loyalty. And also to identify potential areas for improvement in online banking systems to enhance efficiency and customer satisfaction.

2. Literature review

2.1 Historical development of online banking services

Take a quick look at the history of online banking and follow its development from early automation to the incorporation of new technologies like block chain and the Internet of Things (IoT). Online banking is the provision of financial services with the help of online platforms such as the internet, mobile phones, and automated teller machines (ATMs). It is also referred to as electronic banking or internet banking at some points. Even though it has developed in popularity recently, online banking has been around for several decades. The first demonstrations of internet banking appeared in the 1960^s, when banks began using mainframe computing devices to automate conventional banking operations like processing checks and monitoring customer accounts. In the 1980^s, banks started offering dial-up services so that customers could access their bank account's information on their own homes' computers.

Bank of America invented the first automated teller machine (ATM) in the 1960s, allowing customers to withdraw cash from their accounts without a bank teller's guidance. In addition, Citibank introduced the first Internet banking system in the 1980^s, allowing customers to view account details and perform

basic dial-up financial transactions. A major driving force for the creation of online banking platforms was the increase in access to the internet in the 1990^s and 2000^s. Financial institutions started creating internet-based websites so that consumers could check account balances, make transfers, and pay bills from the convenience of their own residences. Due to its simplicity, online banking quickly became the favored option for numerous individuals. For instance, Stanford Federal Credit Union was the first financial institution to provide online banking to its members in 1994, and Wells Fargo was the first bank to do the same for its customers in 1996 (Lishomwa & Phiri, 2020).

A contributing factor for the growth of banking via mobile devices is the increasing use of smartphones in the late 2000^s and early 2010^s. In order to enable customers to connect to their financial accounts, check balances, transfer funds, and pay bills while being anywhere, banks began to offer applications for mobile devices. These days, a key element of the internet banking environment is the use of mobile devices. In 2007, the Federal Savings Bank became the first financial institution to offer mobile banking through its smartphone applications. Nowadays, practically every major bank has an application for mobile banking that allows customers to accomplish a variety of tasks, including monitoring balances in their accounts and depositing payments (Chavan, 2013).

The first banks in the banking industry to use online banking services were private banks in India. Due to their late entry into the market, private banks realized how challenging it is to create a network in isolated areas of the nation. They could clearly see that using internet applications is the only method to stay in touch with clients at all times and locations. They surrounded the large buildings like State Bank of India and Indian Bank using internet applications as a weapon of competitive advantage. In India, private banks are pioneering innovators when it comes to utilizing internet applications' adaptability for client service delivery (Ahmadi & Narci, 2022).

All over the world, banks are realizing that in order to maintain their competitive edge in the coming years, they have to adopt technological advancements in the area of products and services. Actually, one of the biggest users of information technology worldwide is the commercial banking industry. The banks believe that the financial services sector will rely more and more on electronic delivery methods in the future, and they are aiming at introducing banking directly into the homes of their clients. When it comes to the way the banking sector conducts transactions and handles other internal systems and procedures, information technology is one of the key enablers of these modifications.

Over time, there has been a significant evolution in the technical platforms utilized by banks for their daily operations, reporting practices, and the ways in which transactions between banks and clearances are impacted. In the past several years, the banking industry has seen a notable advancement in information technology (IT). Technology advancements have made banking transactions more user friendly and straightforward. In order to play a crucial and advantageous role, banks offer a wide range of services that combine technological advancements and electronic devices, such as computerization and networking, core banking, ATMs, plastic money (such as credit, debit, and smart cards), telephone banking, cell phone banking, e-banking, and net banking, among others. The most popular method for providing financial services to consumers worldwide is now through ATMs (Siddiq, 2015).

The internet has transformed business practices across many industries. Customers have always received financial services through traditional channels during set business hours, however the internet has since changed the global banking landscape. Since they have made it convenient for consumers to manage their money at home rather than physically visit banks for funding transactions and to conduct banking whenever they like, internet banks have been growing in popularity over the past few years. Early through the 1990^s, internet banking was introduced across the nations as a result of the initiative of multinational establishments. In the meantime, surrounding commercial banks started using e-banking services including debit cards, ATMs, and credit cards. Through the use of e-commerce technologies, banks across the countries are frequently able to reduce expenses, draw in new business and keep hold of current clients by giving them the ability to monitor their accounts seven days a week, twenty-four hours a day. The majority of banks across the countries have developed their own websites, which enable clients to access 24/7 services, products, and current information about the institution's operations (Javed, Rashidin, & Li, 2018).

2.2. Overview of online banking services in Turkey

Banking is an essential component of Turkey's financial system and its dynamic economy. Most money and capital market transactions and activity are handled by banks. As of 2020, 91% of Turkey's financial sector assets were held by commercial banks, which comprise most of the country's financial sector. The first Ottoman bank was founded in the 19th century by Galata bankers, marking the birth of the banking industry. The banking industry in Turkey has assets worth about \$800 billion in total. Using net banking to access all of your online banking services is simple, quick, and safe. Since many banks have embraced

digitalization, you can now do all of your banking from the convenience of your own home with online banking. You can save time and energy by using online banking instead of going to the bank in person. You can manage your accounts, pay bills, transfer money, and do a lot more using net banking, all from the comfort of your computer or mobile device (AlHaliq & AlMuhirat, 2016).

Online banking allows customers to conduct financial transactions over the medium of the internet. Online banking is also known as web banking or Internet banking. Customers can now use Internet banking to access almost all of the services that were previously only available through local branches. These services include online bill payments, transfers, and deposits. Customer can have access to the online banking through a computer or application at almost every financial institution. In order to access online banking, customers need a computer, tablet, smartphone, or other device, an internet connection, a bank account, or a debit card.

To utilize the bank's online banking service, customers have to create an account and choose a password. When that is done, you can use the service's interface in order to complete the requested banking services (Şanlı & Hobikoğlu, 2015). Each corporation provides various types of online banking services. Generally speaking, most banks offer common services like transfers and bill payment. A number of financial institutions also allow customers to apply for credit cards and open new accounts by means of online banking services. Other tasks include ordering checks, suspending check payments, and reporting address modifications (Aithal & Varambally, 2015).

The needs of contemporary customers have led to an evolution of online banking services. They have significantly changed how people handle their finances by providing various functions, from sophisticated investing options to simple account management. Online banking services will probably become even more integrated into our daily lives as technology develops, offering increased convenience and security in the financial industry. Online banking is a useful tool for people and businesses looking to simplify their financial processes and maintain a close relationship with their finances in the digital age due to its flexibility and simplicity of use (Chavan, 2013).

3. Materials and methods

The sample frame of this research was Ankara Yildirim Beyazit University (AYBU) students who used or who adopted to use online banking systems. A sample size of 150 students responded to the questionnaires distributed to them. Researcher used a link demographic study about the respondents with profile

such as age, gender, marital status, and educational qualification. Primary data were collected through the use questionnaires, where formulated questions were asked and some other opinions relating to factors of online banking customer satisfaction. Secondary data were used in this research from the previous documents, such as journals, published and nonpublished research papers and books, websites, project reports, etc. The findings drawn amongst the data obtained from the Ankara Yildirim Beyazit University who use online banking services were surveyed and recorded in the form of frequencies and percentage distribution, and were presented using tables which has been produced with the help of Statistical Package for the Social Sciences (SPSS). The descriptive statistical tool used focused on the analysis of the obtained results using the mean rankings and standard deviation analysis.

4. Results and discussion

4.1. Demography of the surveyed respondents

This section of the study was elaborated to provide a brief overview of the identifications of the surveyed respondents, as they were classified into several categories which mainly focused and included the following age, gender, education level, and marital status as shown in the Table 1.

Table 1. Demography of the surveyed respondents

Category	Subsections	Frequency	Percentage (%)	Cumulative Percentage (%)
Age	Under 20	25	16.7	16.7
	21 - 25	69	46.0	62.7
	26 - 30	37	24.7	87.3
	Above 31	19	12.7	100.0
	Total	150	100.0	
Gender	Male	67	44.7	44.7
	Female	83	55.3	100.0
	Total	150	100.0	
Education level	Undergraduate	122	81.3	81.3
	Masters	24	16.0	97.3
	PhD	4	2.7	100.0
	Total	150	100.0	
Marital status	Single	133	88.7	88.7
	Married	17	11.3	100.0
	Total	150	100.0	

Table 1 presents surveyed respondents' identifications according to their perspective categories. According to the age category, amongst 150 respondents surveyed under this study, the results obtained and presented in Table 1 show that 25 respondents, equivalent to 16.7%, were under 20 years old, 69 respondents, equivalent to 46.0%, were between 21 and 25 years old, 37 respondents, equivalent to 24.7%, were between 26 and 30 years old, while 19 respondents, equivalent to 12.7%, were above 31 years old. For the gender category, the results obtained and presented in Table 1 show that 67 respondents, equivalent to 44.7%, were male, while 83 equivalents to 55.37% were female. For the education level category, the results obtained and presented in Table 1 show that 122 respondents, equivalent to 81.3%, were at undergraduate level, 24 respondents, equivalent to 16.0%, were at master's level, while four respondents, equivalent to 2.7%, were at PhD level. Furthermore, for the marital status category, the results obtained and presented in Table 1 show that 133 respondents, equivalent to 88.7%, were single, while 17 respondents, equivalent to 11.3%, were married.

4.2. Findings and analysis

This section of the study was developed to describe and interpret the obtained findings and the results that were processed and analyzed from the previous data collected among the respondents. This study focused on the assessment of the efficiency of online banking services: A customer satisfaction perspective and the findings were presented in the form of the frequencies with corresponding percentages using tables and figures. Moreover, the descriptive statistics of the mean ranking and standard deviation were incorporated. There are several common online services issued by different banks. For the case of this study, this section rates the involvement within the common online banking services amongst the respondents within their perspective banks.

Table 2. Mean ranking and standard deviation of the rate of involvement within the online banking services

Rate of involvement within the online banking services	Valid n (Sample size)	Mean	Std. Deviation	Ranking
To check the account balance	150	3.56	.629	1 st
To transfer funds	150	3.43	.670	2 nd
To pay bills	150	3.34	.889	3 rd
To buy internet data/ airtime	150	3.11	1.072	4 th
To check account statement	150	2.98	1.020	5 th
To update account profile	150	2.57	1.120	6 th
To request a loan	150	2.13	1.283	7 th

The descriptive statistics about the mean ranking and standard deviation in Table 2 was determined to rank the rate of involvement within the common online banking services amongst the respondents. The study found that the 1st ranking shows that most of the respondents involved in online banking services to check the account balance (3.56), 2nd to transfer funds (3.43), 3rd to pay bills (3.34), 4th to buy internet data or airtime (3.11), 5th to check account statement (2.98), 6th to update account profile (2.57), while 7th to request a loan (2.13).

Banks have adapted the structure and provision of financial services in response to the Internet's fast expansion. Due to its many benefits, Internet banking has gradually substituted traditional counter-form banking. These benefits include: increased payment and financial service efficiency; reduced wait times in banking halls and on the part of banks; potential for improvement in the development of strong customer relationships; and the ability for banks to expand without having to physically open new branches. As shown in Table 2, the majority of banks have implemented online banking services, such as electronic fund transfers, statement and account balance inquiries, automated payroll deposits, bill payments, airtime purchases, confirmation of checks, salary advances, loan and investment requests, standing orders, foreign exchange transactions, and customer feedback (Jo & Mo, 2018).

The efficiency of online banking services is understood in in several meanings. This section of the study is all about presenting the obtained results from the surveyed respondents about the efficiency of online banking services from a customer satisfaction perspective.

Table 3. Mean ranking and standard deviation of the efficiency of online banking services from a customer satisfaction perspective

Efficiency of online banking services from a customer satisfaction perspective	Valid n (Sample size)	Mean	Std. Deviation	Ranking
It is the 24/7 availability and accessibility of online banking services	150	4.48	.800	1 st
It is the use of the platform easily and perform tasks without unnecessary complexity or confusion	150	4.31	.845	2 nd
It is the ability to adapt to technological advancements in bank's services	150	4.31	.948	2 nd
It is the implementation of standards and measures that ensures the security and legality of financial transactions	150	4.21	.952	4 th
It is financial management tool that enhances convenience for the users	150	4.21	.950	4 th

The descriptive statistics about the mean ranking and standard deviation in Table 3 was determined to rank the efficiency of online banking services from a customer satisfaction perspective. This study found that the 1st ranking showed that most of the respondents said, the efficiency of online banking services from a customer satisfaction perspective was the 24/7 availability and accessibility of online banking services (4.48), 2nd was the use of the platform easily and performing tasks without unnecessary complexity or confusion (4.31), 2nd was the ability to adapt to technological advancements in bank's services (4.31), 4th was the implementation of standards and measures that ensures the security and legality of financial transactions (4.21), and the 4th was financial management tool that enhances convenience for the users (4.21).

With the vast amount of people using Internet banking these days, it is essential to prioritize the satisfaction of customers. The way customers feel about a service after utilizing it is known as customer satisfaction. In addition to evaluating online services, the investigation of Internet banking clients' service

quality dimension also examines the connections between customer happiness, customer loyalty, and customer trust. The benefits of providing excellent customer service to customers are involved. Customers can prepare for a more flexible alternative with Internet banking, which saves time and effort and allows personal financial management (Asad, Mohajerani & Noursresh, 2016) as shown in Table 3.

This study identified key factors that contributed to the efficiency of online banking services.

Table 4. Mean ranking and standard deviation of the factors that contribute to the efficiency of online banking services

Factors that contribute to the efficiency of online banking services	Valid n (Sample size)	Mean	Std. Deviation	Ranking
Fast processing times for transactions, including transfers, bill payments, and account inquiries	150	4.43	.847	1 st
Real-time updates on transactions, account balances, and notifications regarding security measures or changes in policies	150	4.37	.839	2 nd
Security measures that protect user data and transactions	150	4.35	.949	3 rd
Clear and comprehensive details regarding fees, charges, policies, and transaction histories	150	4.33	.864	4 th
A well-designed and user-friendly interface that is intuitive and easy to navigate	150	4.33	.932	4 th
Compatibility across various devices and a well-functioning mobile app	150	4.29	.992	6 th

The descriptive statistics about the mean ranking and standard deviation in Table 4 was determined to rank the existing factors that contribute to the efficiency of online banking services. Therefore, the study found that the 1st ranking showed that most of the respondents considered fast processing times

for transactions, including transfers, bill payments, and account inquiries highly as the highest factor that contribute to the efficiency of online banking services (4.43), the 2nd was the real-time updates on transactions, account balances, and notifications regarding security measures or changes in policies (4.37), the 3rd was the security measures that protect user data and transactions (4.35), the 4th was the clear and comprehensive details regarding fees, charges, policies, and transaction histories (4.33), the 4th was a well-designed and user-friendly interface that was intuitive and easy to navigate (4.33), while the 6th was the compatibility across various devices and a well-functioning mobile app (4.29).

The impact of user experiences on the relationship amongst factors and customer satisfaction can be assessed. Many factors, including speed, ease of use, security, design, information content, and customer support service, are presented and contribute to customer satisfaction. Security is primarily concerned with obtaining the necessary authorization and is often considered the most important aspect of trust when it comes to transactions conducted over an open network that could include substantial financial values (Table 4). Because online electronic banking involves money transfers, users will exercise greater care when setting up accounts and implementing them (Asad, Mohajerani & Nourseresh, 2016).

The following section of this study describes the obtained results amongst the respondents about the influence of customer satisfaction with online banking services on their overall banking experience and loyalty.

Table 5. Mean ranking and standard deviation of the influence of customer satisfaction with online banking services on their overall banking experience and loyalty

Influence of customer satisfaction with online banking services on their overall banking experience and loyalty	Valid n (Sample size)	Mean	Std. Deviation	Ranking
Satisfied customers tend to share positive experiences with friends and family, influencing others' decisions to use the same bank and strengthen its reputation	150	4.29	.916	1 st
A positive experience with online banking often translates into an improved overall perception of the bank	150	4.24	.932	2 nd
Satisfied customers are more engaged to use a wider range of services provided by the bank, leading to increased usage, higher transaction volumes, and potentially more revenue for the institution	150	4.22	.933	3 rd
High satisfaction level controls the likelihood of customers seeking alternatives	150	4.08	1.084	4 th
The bank loyalty extends beyond just online interactions and influences their decision to use other products and services offered	150	4.01	1.065	5 th

In this study, the descriptive statistics about the mean ranking and standard deviation in Table 5 was determined to rank the identified influence of customer satisfaction with online banking services on their overall banking experience and loyalty. Therefore, this study found that the 1st ranking showed that most of the respondents had identified that satisfied customers tend to share positive experiences with friends and family, influencing others' decisions to use the same bank and strengthen its reputation (4.29), the 2nd was that a positive experience

with online banking often translates into an improved overall perception of the bank (4.24), the 3rd was that the satisfied customers were more engaged in using a wider range of services provided by the bank, leading to increased usage, higher transaction volumes, and potentially more revenue for the institution (4.22), the 4th was that the high satisfaction level controls the likelihood of customers seeking alternatives (4.08), while the 5th was that the bank loyalty extended beyond just online interactions and influenced their decision to use other products and services offered (4.01).

This study was conducted to focus on the assessment of the efficiency of online banking services: A customer satisfaction perspective. Several online banking services established by the banks to allow easy access to the services provision to the clients of the institution. Customers derive satisfaction from the services provided successfully as well as desired. Therefore, this section was introduced to generate the results about the potential areas for improvement in the online banking systems to enhance efficiency and customer satisfaction.

Table 6. Mean ranking and standard deviation of the potential areas for improvement in the online banking systems to enhance efficiency and customer satisfaction

Potential areas for improvement in the online banking systems to enhance efficiency and customer satisfaction	Valid n (Sample size)	Mean	Std. Deviation	Ranking
Inclusivity and ensuring accessibility features for users with disabilities and providing multiple support to accommodate different language preferences	150	4.46	.902	1 st
Offer multiple channels for customer support, such as phone number or email, with shorter response time of resolving issues quickly	150	4.42	.907	2 nd
Clearly communicate fees, charges, and policies changes to avoid misunderstandings, helping users feel more confident and informed about their financial interactions	150	4.40	.843	3 rd
Continuously upgrade security protocols to protect against evolving cyber threats	150	4.33	1.000	4 th
Implement systems to gather regular feedback from users, allowing for continuous improvements based on direct user insights	150	4.33	.871	4 th
Minimize delays and technical problems that could slow down efficient of online banking services	150	4.32	.978	6 th
Offer tutorials and educational resources within the platform to assist users in navigating new features and maximizing the benefits of online banking	150	4.25	1.024	7 th

The descriptive statistics about the mean ranking and standard deviation was determined to rank the identified potential areas for improvement in the online banking systems to enhance efficiency and customer satisfaction (Table 6). The findings showed as follows. The 1st ranking indicated that most of the respondents identified that there was a need to focus on adopting inclusivity and ensuring accessibility features for users with disabilities and providing multiple support to accommodate different language preferences (4.46). The 2nd was about to offer multiple channels for customer support, such as phone number or email, with shorter response time of resolving issues quickly (4.42). The 3rd was about to clearly communicate fees, charges, and policies changes to avoid misunderstandings, helping users feel more confident and informed about their financial interactions (4.40). The 4th was about to continuously upgrade security protocols to protect against evolving cyber threats (4.33). The 4th was about to implement systems to gather regular feedback from users, allowing for continuous improvements based on direct user insights (4.33). The 6th was about to minimize delays and technical problems that could slow down efficient of online banking services (4.32). Moreover, the 7th was about to offer tutorials and educational resources within the platform to assist users in navigating new features and maximizing the benefits of online banking (4.25).

Customers can complete a variety of transactions with the use of Internet banking. Internet banking was first utilized as a means of delivering information. Considering that banks made their information available on their websites. Customers can so access and obtain a wealth of information. Banks are increasingly using online banking as a transaction and informational channel due to the growth of the internet and information technology. Additionally, Internet banking enables users to do standard banking operations including writing checks, paying bills, transferring money, printing statement, and checking account balance (Table 6). Simplicity and convenience of doing financial transactions online, including cash withdrawals, money transfers, payments for goods and services, and utility bill payments, is provided by the internet (Ajanthan, 2018).

5. Conclusion

This section elaborates on the obtained conclusion and recommendations in relation to the processed and analyzed results of this study. The study concluded that the highest determined customer satisfaction perspective about the efficiency of online banking services was that it was the 24/7 availability

and accessibility of online banking services, followed by that, it was the use of platform easily and perform tasks without unnecessary complexity or confusion, it was the ability to adapt to technological advancements in bank's services, and the lowest was that it was the implementation of standards and measures that ensured the security and legality of financial transactions, followed that, it was financial management tool that enhances convenience for the users. There are several factors that contribute to the efficiency of online banking services, the study concluded that the highest factor considered was the fast processing times for transactions, including transfers, bill payments, and account inquiries, followed by real-time updates on transactions, account balances, and notifications regarding security measures or changes in policies, followed by the security measures that protect user data and transactions, followed by the clear and comprehensive details regarding fees, charges, policies, and transaction histories, and the lowest was a well-designed and user-friendly interface that was intuitive and easy to navigate, followed by the compatibility across various devices and a well-functioning mobile app. Amongst the explored influences, this study concluded that the highest was that satisfied customers tend to share positive experiences with friends and family, influencing others' decisions to use the same bank and strengthen its reputation, followed by a positive experience with online banking often translates into an improved overall perception of the bank, followed by that the satisfied customers are more engaged to use a broader range of services provided by the bank, leading to increased usage, higher transaction volumes, and potentially more revenue for the institution, while the lowest was that the high satisfaction level controls the likelihood of customers seeking alternatives, followed by that the bank loyalty extends beyond just online interactions and influences their decision to use other products and services offered. The study concluded that the highest identified was that there was a need to focus on adopting inclusivity and ensuring accessibility features for users with disabilities and providing multiple support to accommodate different language preferences, followed by to offer multiple channels for customer support, such as phone number or email, with shorter response time of resolving issues quickly, followed by to clearly communicate fees, charges, and policies changes to avoid misunderstandings, helping users feel more confident and informed about their financial interactions, followed by to continuously upgrade security protocols to protect against evolving cyber threats, followed by about to implement systems to gather regular feedback from users, allowing for continuous improvements based on direct user insights, while the lowest is about

to minimize delays and technical problems that could slow down efficient of online banking services, followed by to offer tutorials and educational resources within the platform to assist users in navigating new features and maximizing the benefits of online banking. The study recommends that the banks, as the financial institutions dealing in the provision of online banking services should design easier and more friendly platforms or online systems which provide feedback and responses to the inquiry very fast to ensure that the customers' satisfaction is duly provided and enjoyed to the saturated extent.

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CHAPTER IX

SEXUAL IDENTITY DEVELOPMENT

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1. Introduction

Although the exact prevalence of GID is unknown, behaviors associated with the opposite sex have been studied in children. Such behaviors are more frequently reported in girls than boys; however, clinical references show a higher prevalence in males, highlighting the importance of social factors. Contrary to common belief, interests and behaviors associated with the opposite sex are not rare. There has been intense debate about whether GID is a psychiatric disorder, as defining psychiatric illness is often complex and challenging. This study includes discussions on sexual identity, sexual identity development, psychosocial factors in sexual identity development, psychodynamic determinants of sexual identity development, and biological determinants of gender identity.

2. Sexual Identity

Gender identity, the identity is an important part of understanding the characteristics of the individual's biological sex and their sexuality, gender identity forms the basis of healthy.

Sexual identity refers to an individual's self-identification as male or female according to culturally specific gender norms. Sexual orientation is an individual in sexual feelings, desires, and behaviors of a specific gender, or the withdrawal of the object can be defined as. Gender identity disorder (GID) or transsexuals are; if you see yourself as the opposite sex, biological gender are associated with features that make it extremely uncomfortable, having primary and secondary sex characteristics of the opposite sex and try to hide them is a request for it to be. In the opposite sex role behaviors in adolescence and begins to adopt the personality becomes the property of 3-5 years old.

3. Sexual Identity Development

Sexual identity development encompasses three main components:

a. Gender Identity

Gender identity refers to an individual's internal sense of being male, female, or another gender. It is the core component of one's overall sexual identity. Developing a stable gender identity involves accepting one's biological sex and feeling a sense of belonging to that gender. This is shaped by both innate and sociocultural factors.

b. Gender-Role Behavior

Gender-role behavior refers to the outward expression of one's gender identity through interests, activities, appearance, and social interactions. It involves adopting behaviors and characteristics deemed appropriate for one's identified gender based on cultural norms and expectations (Zucker, 2005, as cited in Özsungur, 2010).

c. Sexual Orientation

Sexual orientation describes an individual's enduring romantic, emotional, and/or sexual attraction to others of the same gender (homosexual), the other gender (heterosexual), or both genders (bisexual). Sexual orientation is considered a core, immutable aspect of one's identity. (Zucker, 2005, as cited in Özsungur, 2010).

Stoller (1964), a child belonging to any gender, sexual identity of the basic beliefs of the core (core gender identity) is defined as. Kohlberg (1966) and

the men and women of child sexual identity is defined as the ability to identify accurately (Zucker , 2005, Ruble et al. In 2007, as cited in. Ozsungur, 2010). Ultimately, the acquisition of a child's sexual identity is not only a stage of cognitive development, but it also includes an emotional awareness.

Sexual dysphoria term, very happy with the biological condition and non-patients who undergo sex reassignment surgery or hormone therapy, specifically was used to identify adult patients. However, children with their biological sex-related negative effects. Formation of sexual identity begins in the first year of life. Basic gender identity are said to have started in the first two years of childhood, although the emergence of sexual identity 3 - is close to age. Gender identity is very difficult to change even after this age it is impossible that you have shown. Early studies suggest that children, on average, 30 months old when he was beginning to understand the gender has shown. However, recent research in infants and children gender identity and gender-specific definitions has shown that they are too young to understand.

Quinn et al. (2002), have found that babies of women prefer on their faces. Babies already in 3 - months old when he was it can be seen that one can distinguish between male and female. When he was six months old faces and voices and faces to distinguish by gender may establish a connection between their voices. 10. for months the baby's gender-specific objects (e.g. scarves, Hammers male and female) with faces showing how they relate. Naturalistic studies of children in gender-based definitions (eg. girls, boys, women, men, women, boys, men and women), and this situation has not been reflected off the bounce free games (where Zosuls et al. 2009). Children from 9 months old kept a journal about parents. In this study, was assessed once a week for videos and children's logs is observed. As a result, the 17-month-old and a 21 month old children gender-specific uses definitions that can be understood. The average of children in everyday conversation when he was 19 months old gender-specific definitions were determined. This early learning children gender definitions and uses, according to users subsequently, gender-specific games (baby, truck), it makes sense to play more. It is considered that provides a regulatory framework for gender information such subsequent sexual development (Zosuls et al. 2009).

These findings, children around 18 months self-awareness is developed and then shows that they're looking for information about how to act. The concept of gender constancy complex and controversial issue. We have gained in the consistency of children's gender, so they understand that they are male or female, and that hasn't changed when they are interested in gender norms and norms, it

is said that they are more willing to learn. It is said that passes through certain stages of sexual identity development of children. In the first stage, children of their own sex, and others gender identity/marking) learn to identify. In the second stage, that gender has changed over time (stability) and in the third stage, gender has changed with changes in appearance or superficial actions that learn (Slaby and Frey 1975, as a cited in Güner, 2016). A recent survey beliefs affect what gender the gender of consistency between the ages of 3 to 7 to 9 children are explored. As a result, significantly increased the knowledge of gender role behavior in children between the ages of 3-5, it is very important to know how to assess the gender of a person and it is revealed that their faith is solid. By the age of 5, these rigid beliefs becomes more flexible (Ruble et al. 2007). Gender-role behaviors, children themselves as a boy or girl or wants to know, after getting develops. Gender role behavior, gender role, and begin to develop at the age of 2 on average at the age of 3 basic behavior occurs. Pre-school age in both sexes, are raised in different cultures since in different activities will be found (Martin and Ruble, 2009). However, your sexual orientation, it is quite unclear at what age began. This is usually a manifestation of erotic fantasies in early adolescence was also the age of puberty, there is also research that shows they are interested in you are telling children at erotic (Canat 2008). Prospective studies on the stability of the interest and activity preferences in children are reviewed. Recently a study was conducted on large sample 2.700 2.700 girl and men. Assessed in the first 2.5 years followed for up to 8 years children, were. Children's gender-related interests and activities does not change over time, it has been observed that increased as the children grow older of interests and activities (Golombok et al. In 2008, as cited in Ozsungur, 2010).

4. Sexual Development In Children

There are certain stages in the development of children's sexual identity. First of all, children learn to identify their own and others ' gender (gender identity), then gender does not change over time (stability), and finally changes in appearance such as shortness or length of the hair (with consistency) gender does not change. 5 the individual's self-concept and identity, which is one of the basic structures of gender identity, begins to develop in early childhood. The essence of sexual identity, the first occurs in 1.5 to 2 years of his childhood. At this age a child is a boy or a girl knows that. A sense of gender identity and gender identity in the first four years of life occurs. To change gender identity after this age is almost impossible can be said to be.

Age 0-1: first sexual feelings and in the first year after the child's birth in the bathroom during a diaper change will occur. Around seven months of the men, the girls, they can touch sexual organs around nine months. 1 Genital exposure is usually accidental behaviors and sometimes also genital yeast infection or urinary tract infection can be caused by environmental conditions such as medical or fitting diapers. During this period, erection in males and in females was found to have an increase in vaginal discharge, although this has nothing to do with sexual arousal. Babies this behavior is completely normal, natural and healthy. To the threat of his emotional development of the child's anger will hurt.

2-6 ages: children usually they begin to examine and explore their bodies from the age of two. Toilet implemented between 18 months and 2.5 years, the child directs the attention of the sexual organs and the mother again. 15 kids accidentally by touching the genitals may feel a choice and therefore can repeat more often. The children are more curious about if you try to prevent this behavior from the child, on the other hand, may feel guilty for child restraint. In fact, the child and the child's body touches any part of this behavior is natural. A two year old child, such as by using the tips clothing and hair styles with respect to the image, one can distinguish between male and female. He is like his mother or father can say that. The children can separate them by gender. "I'm not a girl" or "I'm not a man" not of the opposite sex may indicate that by using phrases like (Yavuzer, 2000). According to Freud, sexual identity, and therefore the foundations of a healthy personality is thrown 3-6. phallic period known as the year of life and during adolescence matures. So far, unisex , you must choose a gender identity and gender identity must be a child. Now "living as male or female" is being created here the basics (Gander, 2001). Psychoanalytic theory and the fear of being castrated important issue in the autumn period of two Oedipal conflict. Therefore, during this period, mainly families with children is protected by physical distance if the kids sleep in another room, the kids she should be walking around naked, kissing kids on the lips, should not call. Mr.' / my love, and a child "I want to marry you to say," it is important to respond in a helpful way. Not taken into account in cases of this conflict Oedipal defined as the period to extend the period of causes (Lawrence, 2006). Three-year-olds know that they are a boy or a girl. However, they have no idea what it means to be male or female children. For example, a three-year-old boy when I grow up, Mom, me in a dress one can say that a girl can be. However, sexual development is accelerated significantly after the third year of life. At this age children should

be able to understand clearly that it is a boy or a girl. 18-year-old will start to exhibit appropriate social behaviors for boys and girls. During the same period, sexual curiosity increases significantly. Adult sex organs may show excessive interest in, and mom, dad or their brother's genitals to see it can work. In the style of the doctor to show their genitals with their peers that contains games you can play. That's just how you were born, "how babies emerge from the mother's womb" can understand. The differences between girls and boys and can clearly understand the difference in the role. 1, 19, on the other hand, usually around the ages of three games guys body recognition in sexualize and is being abused by older children. This abuse, it is especially more common among both sexes. Therefore, to share with children, where the child lived some physical changes, these changes explain to the child, and above all, its own changes it detects a child from the child's age, you need to develop a sense of privacy. Therefore, in terms of the development of emotion next to the child, naked, go naked to the bathroom, dress and undress, and the child enter the room as it is important to pay attention to your behavior patterns. If parents don't pay attention to it, the child didn't know what to put such a limit with others, and have difficulty in understanding the concept of privacy. Respect to the body of a child, can be achieved by developing a sense of privacy. The child no, good/bad, right don't touch that belongs to the body itself, can't touch anyone without permission and that he should go to a trusted adult's body should be taught. Four to five year old children, body differences between boys and girls understands. This period, which are common features of curiosity, and the desire to learn the different request from the constant questioning of gender identity begins to focus on. During this time, his body and the child finds pleasure points. The opposite sex himself, and even begins to question the physical differences between their parents (Faith, 2007). The concept of privacy in society and you begin to understand the patterns of behavior that can be done and cannot be done. The sense of shame occurs, it starts to make a gender distinction in games. Children between the ages of 5-7 sexuality-related information from their social environment, they begin to pick up. Take a bath, dress up, etc. In these cases, gender differences, and privacy-related issues in their interest increases. Oedipal extreme intimacy with opposite sex parent move away from the settlement of the conflict, and the same-sex parent enters into a closer relationship with. Increasingly common in this age group of children you can continue to masturbate and asks the question. This is normal child, but the room can be done in the correct way should be explained in (Bozdemir, 2011). Asking too many questions about sexuality, curiosity and

interest in sexual matters may disturb their parents who have kids. However, children around the age of three as in all matters, it is normal for children to ask questions about sexuality and because of this term, often curious, eager to learn and is a period of questioning everything. Child begin to ask questions about sexuality, sexual education, indicating the need to start. Questions to the child's own body and with the body of the opposite sex do a short and clear way, without interruption must be answered. The curiosity of the child does not have to answer these questions, or ignore. Not necessarily a child will learn from a lot of these threads, and these sources may not always be reliable. In answering the child's questions to be appropriate and relevant to the age group should not be more detailed. The child confuses a lot of detail. What the kids want, so best to give as much information as you want to know. A child who receives enough the answer the same questions again and it does not need to ask questions that have found answers to this kid's shows. (Cirhinlioglu, 2001)

5. Psychodynamic and Psychosocial Factors in The Development of Sexual Identity

Özsungur, 2010 in a survey of formation of sexual identity, biological, individual, familial, and environmental factors as well as cognitive and spiritual development is a complex process that have revealed that occur under the influence. The first studies on the effects of psychosocial factors on the formation of sexual identity instead of their biological children, sex, gender identity that corresponds to their gender assigned by their parents after birth has shown that developed. The parent-child relationship, and some of the family dynamics, especially in the first 3 years of life in children , to Geo to cause are said to have played a very important role. Gender identity formation of parent-child relationships, childhood learning, and relationships will be affected by identifying first (Öztürk, 2001). Role of parents in the formation of gender identity and gender gender, preferences, family upbringing, cultural factors and traditions that are important, it is believed. The parents ' attitudes towards children varies according to gender. Traditional newborn at birth are exposed to cultural differences. These attitudes will occur in the preschool years. Choosing gender- appropriate toys for their children provides parents with insights into gender-specific behavior and supports their interests. Psychoanalytic writings define transsexuals, narcissistic disorder, sexual perversion, or a defense against separation anxiety. According to the psychoanalysts, gender identity, the relationship between parent and child develops as a result of messages that

occur during the course of children's interpretation of that belief. Child interprets messages from parents implied or direct, he felt safe and loved, I believe him rather than the opposite sex (Möller et al. In 2009, as cited in Ozsungur, 2010). Gender nonconforming behaviors of children diagnosed with the gender dysphoria are often neither discouraged nor fully supported by their families. Parents often expect their children to continue endorsing behaviors toward the opposite sex, even when demonstrating tolerance or unfamiliarity. Such attitudes are commonly perceived within families as transient. Notably, there exists a belief among men that conforming to conventional attractiveness standards or the absence of female attention is essential for parental approval (Cohen Kettenis and Gooren, 1999). It has been suggested that mothers may actively discourage or reinforce behaviors that defy traditional gender roles in their sons and daughters.. Men, especially, their mother's for the Prevention of aggressive behavior are common. Mothers who have had negative experiences with men, their children, their sons can prevent rough worry too much about the game. In other words, mixing aggression with aggression of their children as a result of real moms fantasy is claimed to cause the opposite to develop gender identity (Zucker 2002). Sensitivity to compensate for feelings of loss or vulnerability, often evidenced by behaviors such as isolation, unusual facial expressions, heightened sensitivity, and temperament traits such as engaging in rough play with male children, is purported to improve social relational behavior. Children diagnosed with Gender Dysphoria (GD) have been reported to exhibit cases of insecure attachment (Michaud and Bolvin, 2009, as cited in Ozsungur, 2010). As a result, insecure attachment, emotional regulation, and self-esteem negative effects. Modeling and identification of psychosocial factors in the formation of sexual identity is one of the most important. The child reduce anxiety and makes the identification of safer and more valuable with the opposite sex. The lack of identification or quality models, parental psychopathology, parental relationship problems (aggression against each other, apathy), domestic violence, neglect and sexual abuse, women for sex scribble, that they don't like your father's daughter, and his daughter severely hampers identification of threats or probably a son of reasons such as neglect (Öztürk, 2001).

6. Psychosocial Determinants of Sexual Identity Development

In case reports, parents of children with developmental disabilities often struggle to consistently provide supportive role models for their children. The familial dynamics, influenced by parental fear and aggression, significantly

impact the parent-child relationship. Studies indicate a high prevalence of mental health issues, such as depression or personality disorders, among mothers of children with developmental disabilities (Marantz & Coates, 1991). Furthermore, research has shown that the symbiotic relationship between mothers and their children with developmental disabilities can hinder the children's autonomy and prevent the development of a healthy gender identity (Marantz & Coates, 1991). On the other hand, fathers are often perceived as distant or even offensive, which can also impact the child's psychosocial development and desire to belong to the opposite sex.

Research in our country has revealed that the education of children with developmental disabilities, separation anxiety, and experienced difficulty in recognition, has been a challenge (Erdem et al., 1997; Tamar, 2008). Being biologically male or female with normal sexual organs and proper hormonal secretion is not enough to develop a healthy gender identity. Numerous external and biological factors play a very important role in determining gender identity.

The most important psychosocial factors influencing the formation of sexual identity are early life experiences and the availability of appropriate role models and their education. Other contributing factors include problems in relationships with parents, siblings, abandonment, childhood neglect and abuse, domestic violence, and living separately (Zucker, 2005, as cited in Özsungur, 2010). Childhood trauma, such as sexual abuse, can lead to identity conflicts and potentially impact sexual and gender identity development. Understanding these psychosocial determinants is crucial for providing appropriate support and interventions.

One of the most important factors in the development of a healthy gender identity is the presence of appropriate role models. From the perspective of developing a healthy gender identity, it is essential for a boy to identify with a man who adequately replaces his father, and for a girl to embrace a woman who adequately replaces her mother as if she were her own child. In cases where there is a lack of suitable role models within the family or where caregivers fail to establish relationships that could serve as examples of identification for the child, this can be due to a lack of love and respect in parental relationships, deficiencies in affection and violence within the family, sexual abuse of children, negative labeling of daughters by mothers/women (such as slander, humiliation, or belittlement), and fathers being unable to form positive relationships with their children (such as showing affection to daughters, being overly authoritative

towards sons, or neglecting them). These circumstances can adversely affect identification processes (Özşungur, 2010).”

6.1. Attitudes About Sexuality

Certain attitudes towards sexual issues in the family and society can affect identity formation. Parental and environmental attitudes (such as excessive interest in the child’s genitals, excessive blame and, as a result, severe guilt, excessive control and fear of being caught), lack of privacy before and after puberty, misinformation about sexuality for reasons such as mental problems (masturbation), illness leads to sexual fears and shy behavior. As a result, the individual develops a sexual identity that includes fear and shyness (Akça, 2009).

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6.2. Expectations and Education

The notion that “Like a boy, like a girl; You can raise a girl like a boy” suggests that girls may adopt male behaviors and eventually identify with males (Akça, 2009). Furthermore, mothers who have experienced negative interactions with men, particularly instances of violence or rudeness, may distance their sons or restrict them from engaging in challenging and aggressive activities (Zucker, 2002). Research indicates that a mother’s preference for a daughter can influence or reinforce cross-gender behavior in a son. It is also argued that families may not discourage opposite-sex behavior in children diagnosed with GID, but instead support its continuation based on their beliefs or perceived support, even if not explicitly endorsed. Particularly among parents, there is a perception that boys are attractive while girls are not (Cohen, 2009).

Childhood instances of cross-gender behavior are reportedly more prevalent among girls, yet clinical diagnoses are more frequent among boys. This disparity is attributed to the observation that girls’ adoption of masculine behaviors typically arises without internal or social conflict, whereas boys’ behavior often stems from such conflict. Consequently, it is generally proposed that girls tend to reaffirm their own gender identity during adolescence, while boys may continue to enact roles associated with the opposite sex during this developmental stage (Keskim, 2005).

Studies have found that mothers of children diagnosed with GID often exhibit high levels of psychopathology. Additionally, fathers are frequently noted to be indifferent, distant, or aggressive. One study identified that mothers

of sons diagnosed with GID often experience depression or S-level personality disorder. Ermi and colleagues conducted research on 12 cases, revealing that children diagnosed with GID face challenges such as parenting errors, separation anxiety, or difficulty in recognition.” (Erermiş, 1997).

7. Gender Identity Disorder

Gender identity disorder is a specific condition often manifesting in early childhood (and always before adolescence), characterized by a persistent and intense discomfort with one’s assigned gender and a longing to be the opposite sex (or insistence of being the opposite sex). Symptoms include persistent engagement with clothing and activities of the opposite sex and rejection of one’s own gender. It is important to note that these disorders are considered relatively rare and should not be confused with nonconformity to more commonly observed gender role behaviors. Diagnosis of childhood gender identity disorder requires a significant departure from typical male or female characteristics; mild “tomboyish” behavior in girls or “effeminate” behavior in boys is insufficient (ICD-10).

When examining the etiology of gender disorder, it has been suggested that parental relationships during childhood play a significant role, while adolescence may bring about identity crisis and gender identity issues among those experiencing homosexual tendencies (as cited in Akça, Ö.). However, it is important to note that in some individuals presenting at psychiatric services during adolescence, confusion in sexual life areas may occur within the scope of identity disorder rather than a preference for homosexuality.

8. Classification

In DSM-IV, ‘Childhood Gender Identity Disorder’ and ‘Transsexualism’ were merged into a single diagnosis termed ‘Gender Identity Disorder’. DSM-IV also established separate diagnostic criteria reflecting developmental variations across children, adolescents, and adults in relation to age (APA, 2001). In ICD-10, apart from ‘Childhood Gender Identity Disorder’, Gender Identity Disorder in adolescents and adults is categorized under two main headings: ‘Transsexualism’ and ‘Dual-role Transvestism’.

Research by Coolidge et al. (2002) revealed a prevalence rate of 2.3% for Gender Identity Disorder among 314 twins aged between 4 and 17 years. The Children’s Behavior Assessment Scale has been widely used in studies to identify cross-gender behaviors in children, assessing items such as “acts like

the opposite sex” and “wants to be the opposite sex”. Research by Zucker et al. found prevalence rates among parents of 3.8% for boys and 8.3% for girls in the 4-11 age group, with 1% of boys and 2.5% of girls indicating a desire to be the opposite sex (Zucker et al., 2007, as cited in Özsungur, 2010).

In conclusion, 3.2% of boys aged 7 and 5.2% of girls exhibit or desire cross-gender behaviors. By age 10, these rates decrease to 2% for boys and 3.3% for girls. It has been observed that intersex behavior is more common in monozygotic twins compared to dizygotic twins. Additionally, both internalizing and externalizing problems are associated with higher rates in both sexes (Özsungur, 2010).

9. Case Study

Özsungur (2010) presented a case study of a 17-year-old male high school student named S who sought treatment at the Ankara University Faculty of Medicine, Department of Child Psychiatry, for his homosexual orientation. The study described S's background, symptoms, and treatment process.

S was born in Ankara and lived there with his mother and two older sisters until age 10. His father worked on a boat in a coastal Aegean town and visited in the winters. When S was 4-5 years old, he was raped once by a 16-year-old male neighbor, an incident he still struggles to recall clearly.

During elementary school, S had difficulty adjusting socially and began spending more time with girls, adopting feminine mannerisms. He also started sleeping in the same bed as his mother more often, which became constant in the last two years.

S rarely drank alcohol, smoked, or used drugs. Mental state examination revealed he had above-normal intelligence, feminine qualities in speech and behavior, anxiety about his homosexual feelings, and guilt. No other mental health issues were identified.

The case study highlights the potential impact of childhood sexual abuse on sexual orientation and gender identity development. It emphasizes the importance of providing supportive, non-judgmental counseling for adolescents exploring their sexuality.

It was revealed that S may want to experience the same trauma over and over again to cope with the traumatic impact of the homosexual relationships he experienced, the sexual abuse he suffered as a child; his father's not caring for any woman and seeing her only as a sexual object influenced S's thinking about men too much, with the boys at his school excluding him, he may have

the idea that the way to communicate with men can only happen through sensual contact. In order to reduce S's homosexual life, the romantic relationships he had with the opposite sex in later periods were supported, and he had no difficulty complying with the suggestion that he and his mother should separate beds. For the continuity of treatment, S was told by S that he moved to Ankara to live with his sister, started a high school in Ankara, at the end of 1 year of treatment, S's interest in men disappeared, he had girlfriends, his sexual fantasies were only related to the opposite sex. During the treatment process, it was observed that there was a significant decrease in the feminine state and movements of S. During the conversation with her sister, she said that the similarity of movement and speech of her mother, whom S took as a role model, had changed, and S had now started to form her own style. Causes of gender identity disorder and homosexual symptoms include sexual abuse in childhood, mental and physical absence of the father Decently, and excessive closeness to the mother. People who have been sexually abused in childhood may experience homosexual behavior during adolescence. This may be due to the fact that childhood sexual abuse is really recognized, the adolescent experiences the trauma late, and the attempt to cope with the consequences of trauma that repeats the traumatic experience. The patient in the case experienced sexual abuse at the age of 5. Repeated same-sex relationships can be seen as an attempt to cope with the effects of trauma by experiencing repeated sexual harassment. In addition, it is a traumatic situation for S to see women who are emotionally distant from his father as sexual objects and to see his extramarital affairs in the eyes of all family members, and this is seen as situations that can lead to homosexual symptoms S identified the abuser as his father and thus acted with the feeling that all men are abusers. For this reason, while directing his anger at the abuser towards his father, while harming himself, he developed revenge fantasies against both his father and the abuser at the same time. The following statement that S heard during the clinical observation process supports this situation: "Actually, I think I'm punishing my father by behaving like this. He hurt people close to me, so I wanted someone he loved to be upset by hurting me." In our case, we also had a very close relationship with our mother and very frequent skin-to-skin contact. This is another reason why S feels the need to suppress his sexual urges towards the opposite sex. It was thought that the gender identity of our case was not fully settled and that there was a general identity confusion with homosexual symptoms.

One of the methods used in the treatment of GID is psychodynamic psychotherapy. Using this method, it is recommended to focus on the patient's

relationship with his father, to try to develop a different vision of masculinity and men, to help him get rid of his mother and live as a separate individual, to participate in and establish activities related to masculinity. During the therapeutic process, the patient was given the opportunity to feel good about himself, to form his identity in a warm and tolerant relationship. Since he could not fully internalize his male identity, because there was no suitable male model around him before, it was tried to adopt the therapist as a male model and create his identity in the therapist's mirror. S's efforts to participate in masculinity-related activities and establish positive friendships with male peers, separate from his mother and become an individual were supported. The focus was on being able to make one's own decisions and limit others' own decisions if necessary. He spoke about the impact of his past experiences on his own life. He was supported in making plans for the future. (Ozsungur, 2010)

10. Result

It is crucial to recognize that the DSM includes the diagnosis of "identity problem," which is pertinent in discussions of various clinically significant issues, particularly in cases of homosexuality during adolescence. Rather than conveying the message that "homosexuality is incurable" to teenagers exhibiting homosexual behaviors, a more accurate approach involves understanding and addressing underlying causes such as PTSD and sexual identity confusion. As illustrated in our case study, a therapeutic process focused on sexual identity exploration, differentiation, personal growth, and acknowledging that individuals are not accountable for past experiences, can be instrumental in resolving confusion surrounding sexual orientation. This approach emphasizes the importance of individualized care tailored to each person's unique circumstances and needs.

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CHAPTER X

THE EFFECTS OF GENDER INEQUALITY ON WOMEN'S HEALTH

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1. Introduction

1.1. Gender and Gender Roles

Gender refers to the genetic, biological, and physiological characteristics inherent in being male or female (Akın & Demirel, 2003). In contrast, the concept of gender roles pertains to an individual's perception of themselves as male or female. Although gender is a biological construct, differences between males and females in terms of self-perception, motivations, and roles are socially constructed through societal norms (Yaşar, 2011). The culture of the society in which an individual resides shapes expectations regarding the behaviors, thoughts, and actions of men and women, thereby

socially constructing their roles (Akın & Demirel, 2003; Powell & Greenhouse, 2010; Üner, 2008; Zeyneloğlu, 2008).

Individuals adopt roles within society based on the values and judgments presented by the societal structure (Arslan, 2003; Demirbilek, 2007; Eren, 2005; Hablemitoğlu, 2005; Kitiş & Bilgici, 2007; Sever, 2005). The concept of gender goes beyond biological differences and is instead a socially constructed, evolving notion that cannot be confined to static or universal patterns (Dedeoğlu, 2000). Gender is influenced by numerous factors and varies across societies, cultures, and even families, affecting individuals' lives over time (Terzioğlu & Taşkın, 2008).

Historically, the belief in inherent differences between men and women has been present in nearly every culture. Physiological differences between the sexes are often exaggerated through gender myths, resulting in rigid distinctions. While a newborn's biological sex is evident, they do not yet possess a socially assigned gender. However, as children grow, they are shaped by social rules and behavioral patterns influenced by family, friends, the social environment, school, and media (Sezgin, 2015).

1.2. Gender Equality

Gender equality refers to the equitable access to opportunities, resources, and services without discrimination based on gender. According to the World Health Organization (WHO, 2011), gender equality ensures that women and men of all ages and characteristics benefit equally from social opportunities, resources, rewards, and rights, regardless of their sexual orientation or identity. Gender equity, on the other hand, emphasizes ethical and moral dimensions, advocating for a fair distribution of responsibilities and benefits between men and women. The primary objective is to identify differences between the sexes and establish a balance by addressing these disparities. This approach also involves recognizing and accepting the varying needs and strengths of men and women (Eroğlu, 2012).

Gender-based discrimination begins within families and extends through cultural influences, shaping boys and girls into adults who accept gender inequality. Women, burdened by socially prescribed roles and expectations, face barriers in making and implementing decisions regarding critical aspects of their lives, such as education, marriage, and work (Arslan, 2003; Demirbilek, 2007; Eren, 2005; Hablemitoğlu, 2005; Sever, 2005).

Roles, expectations, and discrimination arising from gender inequality result in adverse outcomes (Sezgin, 2015). Women, particularly those in

disadvantaged social positions, face greater challenges than men in accessing opportunities, resources, and services, leading to lower social status and poor outcomes. There is an invisible link between gender and health (Sezgin, 2015), with gender inequality being most evident in the health domain (Akin, 2007). Discrimination in women's health is particularly prevalent in reproductive health services. Globally, women subjected to violence face restrictions in accessing healthcare due to societal and family pressures, preventing them from freely seeking health services or reaching healthcare institutions (Coşkun & Özdilek, 2012).

Research indicates that although women generally live longer than men, they experience lower quality of life and higher rates of illness throughout their lives (Coşkun & Özdilek, 2012). Chronic conditions such as diabetes, arthritis, hypertension, osteoporosis, ischemic heart disease, stroke, dementia, Alzheimer's disease, and disabilities are reported to be more prevalent among women (Coşkun & Özdilek, 2012). These disparities between men and women are linked to gender inequalities. Social structures that organize and support individuals' lives based on gender significantly influence these disparities (Sen & Ostlin, 2008).

The World Health Organization (WHO, 2011) emphasizes that health systems must be designed to promote gender equity, highlighting countries' international responsibilities related to children's, human, and women's rights. For instance, studies conducted in the United States reveal that women experience 25% more health problems and spend 35 more days in bed annually due to acute conditions than men (Akin, 2007; Demirgöz Bal, 2014).

1.3. The Impact of Gender Inequality on Women's Health

Gender inequality between men and women exacerbates the health burden for women caused by rape, physical, and psychological violence. It also results in numerous injuries, sexually transmitted infections, pelvic inflammatory diseases, unintended pregnancies, depression, anxiety disorders, post-traumatic stress disorder, and suicidal tendencies, imposing a significant burden on public health (Yount et al., 2011; Türmen, 2003).

Women face more risk factors throughout their lives compared to men. Examples of adverse conditions associated with gender discrimination include the termination of pregnancies due to the undesirability of female offspring, genital mutilation still practiced in some African and Arab countries, virginity checks, adolescent marriages, pregnancy and childbirth complications, patriarchal traditions and customs, societal pressures, gender-based violence,

femicides, neglect during menopause and postmenopausal periods, and women's generally lower societal status (Başar, 2017). Barriers to accessing healthcare include restrictions that require women to be accompanied by their husbands or family members to visit hospitals, the refusal to provide services if healthcare personnel are male, and a lack of gender sensitivity among healthcare providers (Önaçan Uzun, 2020).

In Turkey, research conducted in the eastern and southeastern regions reveals that women are often unable to visit hospitals without their husband's permission, are prohibited from being examined by male doctors, and do not sufficiently benefit from family planning and other health services (Kitiş & Bilgici, 2007).

From a gender perspective, life expectancy at birth is generally longer for women than men, although this varies across societies (Pollard & Hyatt, 1999). While women tend to live longer, the quality of that extended lifespan is critical from a health perspective. Despite being perceived as the weaker sex, women are biologically more resilient than men at all ages. Male fetuses are more likely to face miscarriage or stillbirth, and women retain biological advantages until menopause (Sezgin, 2015).

The concept of women's health encompasses not only the use of healthcare services such as prenatal care, access to and use of contraceptive methods, and childbirth assistance by healthcare professionals but also factors such as educational attainment and workforce participation (WHO, 2016).

The Global Gender Gap Index 2020 report, published by the World Economic Forum (WEF), highlights gender inequality in terms of economic participation, education, health, and political representation. The report reveals a 31% gender gap across 153 countries, with an estimated 99.5 years required to close these disparities. Iceland ranks as the country with the least gender inequality, followed by Norway, Finland, Sweden, Nicaragua, New Zealand, Ireland, Spain, Rwanda, and Germany. Turkey ranks 130th among 153 countries (WEF, 2020). Similarly, the United Nations Development Programme's (UNDP) 2019 Human Development Index ranks Turkey 66th out of 162 countries on the Gender Inequality Index, exposing the significant gender gap in the country (UNDP, 2019; Karacan & Gökçe, 2020).

1.4. Violence Against Women

While various factors contribute to the prevalence and recurrence of violence against women, the root cause lies in gender inequality and the

asymmetric power dynamics inherent in patriarchal societies (Dölen, 2008). Violence against women sustains patriarchal systems and perpetuates this imbalance of power. Violence constitutes a fundamental violation of human rights, and the normalization of violent acts further exacerbates their prevalence. This normalization poses the greatest challenge to addressing violence, making it difficult to foster a societal understanding of equality and a violence-free approach (Bükecik, 2018).

According to the 2014 report on Domestic Violence Against Women in Turkey, 44% of women experience emotional violence, 36% physical violence, 30% economic violence, and 12% sexual violence (Domestic Violence Research in Turkey, 2014).

Violence against women, or gender-based violence, is a profound violation of women's human rights and has severe impacts on their health and lives. Although information on this issue was previously limited, recent data from various regions globally demonstrate an increase in violence against women, particularly by intimate partners. Global population studies indicate that over 10-50% of women have experienced physical abuse by an intimate partner during their lifetime (Ellsberg et al., 2001).

Pallitto et al. (2013) conducted a multi-center cohort study involving 17,518 women across 10 countries and 15 sites to examine the relationship between intimate partner violence and unintended pregnancies and abortions, particularly in low- and middle-income countries. The study revealed that women who experienced partner violence had significantly higher odds of unintended pregnancies in 8 out of 14 sites and miscarriages in 12 out of 15 sites. Adjusted estimates, accounting for confounding factors, confirmed increased probabilities of unintended pregnancies and miscarriages. According to population-attributable risk estimates, reducing intimate partner violence by 50% could decrease unintended pregnancies by 2-18% and abortions by 4.5-40% (Pallitto et al., 2013).

1.5. Participation in the Workforce

Gender roles imposed by society deprive women of fundamental rights. Many women are denied access to education solely because of their gender, which consequently limits their ability to participate in the workforce (Özvarış, 2011). Women, who have fewer educational opportunities compared to men, often remain excluded from the workforce and engage in unpaid family labor. In Turkey, 78% of unpaid agricultural laborers in 2016 were women, while only

22% were men. The primary factor hindering women's workforce participation is the gender-based division of labor, where women are expected to handle household chores and caregiving responsibilities (TÜSIAD-KAGİDER, 2017).

Women's inability to progress in their careers or their withdrawal from the workforce is primarily due to the dual burden imposed by gender roles, requiring them to manage both professional and domestic responsibilities (T.C. Ministry of Family and Social Policies, 2017). Globally and in Turkey, women's health is adversely affected not only by biological factors but also by socio-economic conditions. Women with limited financial resources face higher health risks and are unable to contribute effectively to the economy. Breaking the cyclical relationship between economic status and health is essential (Kocabacak, 2014).

Akarçay et al. (2015) conducted a qualitative study using a phenomenological approach with 30 health science students in Konya to explore perceptions of the impact of gender on health. Participants identified disparities in access to healthcare services between genders, emphasizing that women face greater restrictions due to financial constraints. All participants agreed that societal attitudes toward women negatively affect their mental and physical health. They highlighted health issues among women, including Post-Traumatic Stress Disorder (PTSD), depression, anxiety disorders, burnout, reproductive health problems, and physical injuries (Akarçay et al., 2015).

Similarly, Hinton and Earnest (2010) conducted a qualitative study in Papua New Guinea involving 70 women across three age groups: 33 young women (18-24 years), 27 adult women (25-44 years), and 10 older women (44 years and above). The study investigated determinants of poor health and the level of access to appropriate healthcare services. Three major barriers to health were identified: 1) violence, 2) heavy workloads and lack of economic resources, and 3) limited access to healthcare services. The findings revealed that familial roles, socio-economic status, and productive responsibilities intertwined to pose significant threats to women's health rights (Hinton & Earnest, 2010).

In a 2014 cross-sectional study conducted in Eskişehir with 229 participants, Şavran used a data form, the MOS 36-Item Short-Form Health Survey, and the General Health Questionnaire. The results showed that, even at comparable income and education levels, women's health outcomes were poorer than men's. Furthermore, rural women's health outcomes were worse than those of urban women. The findings indicated that overlapping inequalities related to education, economic status, and regional development exacerbate health disparities (Şavran, 2014).

1.6. Women's Status in Society

Women's status encompasses their education, income levels, employment, health, fertility, and roles within the family and society (Kılınç et al., 2012). Women's health and societal status are closely interconnected, necessitating consideration of gender-related constructs that negatively impact health when designing interventions to improve women's health (Akın & Mihçioğur, 2003). High maternal mortality rates are more prevalent in societies with lower women's status, underscoring the critical influence of status on health outcomes. However, socio-cultural factors contributing to these outcomes are often overlooked in hospital records (Akın & Mihçioğur, 2003).

Güven et al. (2015) conducted a cross-sectional study with 600 young girls and 600 women in the Kars, Ardahan, and Iğdır regions to examine the impact of gender discrimination on health. The study found that higher women's status was associated with improved attitudes toward gender equality, reduced rates of pregnancy, live births, and miscarriages, increased access to prenatal care and skilled assistance during childbirth, and improved quality of life. The findings emphasized the need to improve educational levels to enhance women's physical health outcomes (Güven et al., 2015).

In a 2019 cross-sectional study conducted in Isparta with 905 participants aged 15-49 years, Uskun et al. identified adolescent marriages as a critical issue in the region, occurring at higher rates than the national average. They stressed the importance of initiatives to prevent early marriages and pregnancies. Educational attainment and employment status were found to directly and indirectly affect women's overall and reproductive health. In societies with lower women's status, high fertility rates and risky pregnancies often lead to undesirable health outcomes, including mortality (Uskun et al., 2019).

1.7. Education and Gender Equality

Education plays a pivotal role in reducing gender inequality and fostering individual and societal transformation. It is essential for ensuring equality, development, and societal peace (Özaydınlık, 2014).

In Turkey, a significant issue remains the education of women. As of 2016, 5.4% of the population aged 25 and above was illiterate, with this rate being 1.8% among men and 9% among women. While 19.5% of individuals aged 25 and above had completed high school, the rates were 23.5% for men and 15.6% for women. Similarly, 15.5% of the population held a university degree or higher, with this figure being 17.9% for men and 13.1% for women (TÜİK, 2016).

Over the years in Turkey, the literacy rate among women has increased. Despite this progress, 82.9% of the illiterate population in the country is still composed of women. Women with lower educational levels are less likely to access healthcare services, as they are unable to make independent decisions, face barriers in seeking healthcare, and are more likely to experience fear in the process (Akın & Mıhçıokur, 2003).

Şahiner and Akyüz (2010) conducted a cross-sectional study in Ankara in 2010, collecting data from 250 married women aged 15-49 years to examine the relationship between gender and women's reproductive health. The study found a statistically significant difference between the education levels of women and their husbands. Women had lower educational levels compared to their husbands. The study revealed that women with higher educational levels, those who worked, and those who had a say in family decisions were more likely to receive prenatal care in their last pregnancy. They were also more likely to deliver their babies in a healthcare facility with a health professional present and sought healthcare more readily when experiencing gynecological issues. Moreover, they were less likely to require permission from their husbands to visit healthcare facilities. As a result, it was concluded that gender discrimination leads to challenges in reproductive health and restricts women's access to healthcare services (Şahiner & Akyüz, 2010).

Raj et al. (2016) conducted a randomized controlled trial in India in 2016, with 1,081 couples, where couples received counseling on gender equality and family planning. In the group that received education, the reporting rates for sexual violence and the use of modern contraceptives were lower at the 9 and 18-month follow-ups. The rate of reporting unintended pregnancies was also lower in the educated group (Raj et al., 2016). This study highlights the importance of education in improving women's health.

Austrian et al. (2020) conducted a randomized controlled trial in Zambia in 2020 with 3,515 girls in the intervention group and 1,146 girls in the control group. The "Adolescent Girls Empowerment Program" was designed to address social, health, and economic challenges in the short term and improve sexual behaviors, early marriages, pregnancies, and education in the long term. The results showed positive outcomes in sexual health, reproductive health knowledge, economic matters, self-efficacy, and gender equality two and four years after the intervention (Austrian et al., 2020).

1.8. Commonly Prevalent Diseases

While breast cancer remains one of the most feared diseases by women, the mortality rate for all types of cancer, including breast cancer, among women

is 22% (Centers for Disease Control and Prevention, 2017). However, globally, the leading cause of death among women across all age groups is Coronary Artery Disease (CAD), a form of heart disease (Wenger, 2004). The death rate from CAD in women has been reported at 38%, which exceeds the mortality rate from all cancers combined (İlçioğlu et al., 2017).

Malmusi et al. (2012) conducted a cross-sectional study in Spain in 2012 with 29,139 individuals aged 15 and above. In equal numbers of reported disease conditions, women reported worse health outcomes compared to men. Women reported more chronic diseases and poorer overall health. Most of these conditions were related to musculoskeletal disorders, mental health issues, and other disorders. These findings were consistent across different age groups, social classes, and countries of origin. The study concluded that the poorer health status of women is primarily due to their higher disease burden. A healthcare system that addresses gender inequalities should prioritize solutions for musculoskeletal, mental, and other pain-related disorders, rather than focusing disproportionately on conditions that have a higher impact on mortality (Malmusi et al., 2012).

Gallo et al. (2012) conducted a multi-center, prospective cohort study in 2012 across Norway, Sweden, Denmark, the Netherlands, the UK, Germany, France, Italy, Spain, and Greece with 520,000 participants. The study found that social inequalities were statistically significant across all causes of death, particularly for lung cancer in men. In women, social inequalities were less significant, except for cancer-related mortality. The study demonstrated significant social inequalities in mortality rates between European men and women, especially in cardiovascular disease deaths for men and cancer-related deaths for women (Gallo et al., 2012).

1.9. Women's Reproductive Health

Gender inequality most significantly impacts reproductive health (Türmen, 2003). The main effects include violence against women, virginity checks, honor killings, gender-based selection or neglect, unintended or adolescent pregnancies, unsafe abortions, sexually transmitted diseases, delayed diagnosis of illnesses, and limited access to reproductive health services. Consequently, women suffer from higher disease burdens, resulting in disability or death (Şimşek, 2011).

Violence during pregnancy can lead to various complications, including premature birth, miscarriage, early placental detachment, antepartum hemorrhage, and premature rupture of membranes in women. For the baby, such

violence can result in low birth weight, bone fractures, soft tissue damage, lung or spleen rupture, and fetal asphyxia, all of which may reduce the likelihood of survival (Güler, 2010; Günay et al., 2006).

The unethical use of technology in countries like India, where gender identification during pregnancy leads to the termination of female pregnancies, is a form of violence against women (Yanikkerem, 2002). In Turkey, this issue manifests in the form of the rejection of female children after birth, leading to malnutrition, growth retardation, and diseases, as well as accidents and deaths (Şimşek, 2011).

In Turkey, the concept of “family honor” being linked to women results in honor killings, virginity checks, adolescent or unwanted pregnancies, unsafe abortions, and restricted access to healthcare services. Honor killings in Turkey include cases where unmarried women are murdered for engaging in pre-marital relationships or where married women are killed for infidelity. Between 2003 and 2007, 378 of the 1,148 honor-related killings were categorized as honor killings. It is believed that at least half of the deaths caused by forbidden relationships, sexual harassment, and rape are classified as honor killings (Prime Ministry Human Rights Presidency, 2010).

Women’s sexuality is often monitored through virginity tests, which strips women of control over their own bodies. This practice leads to physical and psychological problems, sometimes resulting in suicides or honor killings. Studies show that 54.5-85% of university students consider virginity important when getting married (Dilbaz et al., 1992; Özan et al., 2004). The societal emphasis on virginity is prevalent and plays a significant role in women’s lives. One study highlighted the intense pressure on women by stressing that the concept of losing virginity was seen as “unlivable,” revealing the immense destruction such societal pressures cause (Hacettepe University Public Health Department, 2004).

1.10. Women’s Sexual Health and Gender Inequality

Women’s sexuality is often associated with marriage, and therefore, unmarried women are at risk regarding their reproductive health. Most unmarried women experience sexual health issues, particularly during adolescence. For adolescent or unmarried women, reproductive health risks include high-risk sexual behaviors, lack of knowledge, and barriers to accessing healthcare services. As a result, Sexually Transmitted Diseases (STDs), unintended pregnancies, and unsafe abortions occur. Unintended pregnancies and voluntary

abortions occurring outside of marriage have more severe consequences. Due to factors such as lack of knowledge, shame, legal issues, and the attitudes and practices of healthcare professionals, unmarried women have lower rates of effective family planning methods (Giray, 2004).

Giving birth at a young age presents high risks for both the mother and the child. Adolescent pregnancies lead to conditions such as preeclampsia, anemia, infections, insufficient weight gain, and premature rupture of membranes. For the baby, this can result in congenital malformations, preterm birth, and low birth weight (Giray, 2004).

1.11. Sexually Transmitted Diseases (STDs)

One of the most significant health issues women face during adulthood (ages 15-49), a period of intense reproductive function, is Sexually Transmitted Diseases (STDs) (Akin & Demirel, 2003). Gender inequality also negatively impacts the spread of STDs. While female sex workers and unmarried women are at higher risk, married women are also vulnerable. For example, the spread of HIV, the virus that causes AIDS, is heavily influenced by gender inequality. In heterosexual relationships, women are more likely than men to contract HIV. In Turkey, the primary mode of transmission for STDs and HIV is unprotected heterosexual intercourse. In terms of gender inequality, undocumented female sex workers are the most at risk, as they are deprived of healthcare services and unable to insist on condom use. Similarly, wives of married men who engage with sex workers are also at risk of infection. Another at-risk group includes women who are forced into sexual intercourse, leading to micro-lesions and a higher risk of HIV transmission. The failure to take preventive measures against STDs or the neglect of this issue leads to conditions such as ectopic pregnancy, cervical cancer, chronic pelvic pain, infertility, pelvic adhesions, neonatal pneumonia, eye and central nervous system infections, and neonatal death (Şimşek, 2011). Women with HIV often cannot access treatment and may die prematurely (Burgos-Soto et al., 2014; Uddin et al., 2014).

According to the World Health Organization (WHO, 2012), 35.3 million people worldwide are infected with HIV, nearly half of whom (17.7 million) are women and girls. The “feminization” of the HIV epidemic is particularly pronounced in sub-Saharan Africa, where 60% of HIV-positive individuals are women or girls. In this region, 75% of the population aged 15-24 is made up of HIV-positive women and girls. In Turkey, women constitute one-third of the total 6,802 HIV cases (Demirgöz Bal, 2014).

Globally, 30-60% of infertility cases are due to STDs. The lack of sufficient knowledge about sexuality and the increasing danger related to HIV and STDs continues to rise. According to WHO, one in every 20 young people contracts an STD each year. Every year, 2.4 million new HIV infections occur, most of which are seen in the 15-24 age group, particularly among young women. For instance, in countries like Uganda, 1 in 10 pregnant women is HIV-positive, which is six times more than men in the same age group. These differences are linked to young women engaging in relationships with older men and the increased vulnerability of underdeveloped organs to infection. Given that the average incubation period for HIV is 10 years, it can be inferred that many individuals aged 20-29 with AIDS contracted the infection during adolescence (Giray & Kılıç, 2004).

2. Discussion and Conclusion

The concept of health is shaped by various factors, not merely physical well-being. To define individuals as healthy, one must consider complete physical, mental, and social well-being, and these health needs vary by gender. Due to societal perspectives, women face difficulties in accessing healthcare services. The health of the maternal body and the unborn child is crucial at a macro level, as it impacts both societal health and future public health outcomes. Women's health is an important public health issue that needs focused attention, both in terms of content and scope (Karacan & Gökçe, 2020).

Traditionally, women's health services have been dominated by an approach that emphasizes the "reproductive period," rather than a holistic perspective. This approach is particularly applicable to regions where maternal and child health problems are prevalent and maternal-infant mortality rates are high. Specifically, adolescents and women in the post-menopausal phase are often overlooked groups. Moreover, information, education, communication, and clinical services regarding family planning are not directed towards men (Bahar-Özvarış, 2007). However, contrary to this traditional view, health should not be solely associated with reproduction and fertility; it is much broader than that (Sezgin, 2015).

The issue of "gender equality in health" involves addressing health from a gender perspective and incorporating it into research, policies, and programs in this area. Today, it holds strategic importance for the development of both women's and men's health (Türmen, 2003). Beyond the fight against diseases, preventing illness requires a new health understanding that cannot be separated from gender roles and the reproduction of these roles (Şahin Kaya, 2011).

Focusing on sexual differences is essential for identifying the specific needs of young girls and women based on their biological structures. However, “biological and biomedical models do not sufficiently explain why the distribution of diseases in populations is so closely related to a society’s social and economic structure, living standards, and the degree of social inequalities, which in turn follow power dynamics” (Krieger & Zieler, 1995, in Greaves, 2000, p. 3). As Lesley Doyal stated, an unequal “health opportunity” between women and men is evident (Türmen T., 2003).

The frequency, severity, risk factors, and access to knowledge, services, education, and technologies regarding diseases caused by gender inequality between women and men must be evaluated individually. With urbanization and industrialization, new health problems arise, and factors such as age, gender, and class influence these health issues (Manderson, 1999).

To better understand the impact of gender on women’s health and to develop other social policies related to health improvements, it is essential to examine how social policies can create and exacerbate health disparities between women and men. For example, inequalities in access to health insurance or other resources are a prime example of how gender inequality is manifest (Türmen T., 2003).

All health-related research must include a gender dimension. Studies should explore the specific interactions created by gender and identify ways to address and eliminate these inequalities. The first step is to integrate the understanding of gender into training programs for healthcare professionals at all levels. By recognizing the connection between gender-based violence and women’s health, healthcare providers can diagnose and treat health problems more effectively by considering gender-related factors (Türmen T., 2003).

The ultimate goal in preventing gender inequality and eliminating its current effects should be to achieve a societal structure where no one is disadvantaged and everyone is equal. In addition to ensuring that all individuals have access to free education, healthcare, and social security, there is also a need to enhance the societal status of women, legally safeguard women’s rights, and protect these rights (Şimşek, 2011).

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CHAPTER XI

ECONOMIC IMPACT OF HEALTH TOURISM AND TURKEY'S POSITION IN THE GLOBAL HEALTH TOURISM

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1. Introduction

The tourism sector is diversifying in a globalizing world with the development of new technologies that facilitate communication and transportation, gaining prominence with many alternative tourism types beyond the conventionally known sea-sand-sun tourism. Health tourism is a rapidly growing sector that encompasses individuals traveling to improve, protect, or enhance their health status and receive medical and alternative health services. In this context, various areas such as thermal tourism, spa and wellness, and medical tourism have emerged. This type of tourism, in addition to its existence throughout history, has come to the forefront especially in the last decade with its developing structure and increasing economic impact. Health tourism is becoming more diverse and growing day by day, thanks to the opportunities offered by modern medicine, advanced transportation, and communication systems. Health tourism trips, which are mostly made to underdeveloped and developing countries, not only improve the health and quality of life of individuals but also have numerous direct and indirect effects, particularly economic, on the relevant destinations. This study will examine the conceptual structure and development of health tourism, evaluate its economic effects, and analyze Turkey's position in the global health tourism market.

2. The Conceptual Structure and Development of Health Tourism

People have traveled for health reasons for centuries. In ancient times, journeys were made to regions with thermal waters to benefit from healing baths and to sacred places to seek remedies for diseases. In addition to the tradition of utilizing healing waters, among the most interesting health journeys of the period are the visits to the temple in Tell Brak, Syria, believed to be good for eye diseases (Ataman et al., 2017), and to Stonehenge Monument in Wiltshire, England, believed to increase fertility (Guerra, 2014). In the Middle Ages, the reasons for health-related travel of the period's travelers included seeking remedies for gout, gallbladder, and various skin and liver ailments (Badulescu and Badulescu, 2014).

Health tourism is a type of tourism in which individuals participate to improve or enhance their health status (Connell, 2006). This type of tourism, considered an umbrella term by Quintela et al. (2016), has diversified over time. The primary motivation of tourists participating in health tourism is to gain, maintain, or improve their mental or physical health. As is known, the demand for health services can arise from natural processes such as birth and death, the need for curative and preventive health services, or aesthetic concerns (Gül, 2020). Today, health tourism, which is divided into two main branches, continues to develop as wellness-healthy life tourism and medical tourism. These terms, which are often confused with each other, differ in terms of the services received and the purpose. Wellness tourism is carried out with the effort to make the existing situation more well-being and better, enriched with complementary recreation and entertainment services, where natural resources are intensively used. Thermal tourism and SPAs fall into this category. In medical tourism, rather than natural resources, there is a condition of benefiting from health institutions, physicians, and health professionals in the destination visited, participating in rehabilitation, diagnosis, treatment, and various operations, and engaging in tourist activities at the same time. This type of tourism mostly includes aesthetic and surgical operations, oncological and dental treatments, organ transplants, and specific medical procedures such as heart, liver, and kidney diseases (Büyük and Akkuş, 2022a; Büyük, 2023).

As the scope of health tourism expands, sub-branches such as wellness tourism, spa tourism, and thermal tourism are also gaining importance. This diversity increases the scope of health tourism by appealing to tourists with different needs and expectations (Büyük and Akkuş, 2022b). The growth of interest in health tourism has revealed some economic consequences, among

other results. Accordingly, the global health economy reached a volume of 6.3 trillion dollars as of 2023, and this figure is expected to reach 9 trillion dollars by 2028. Within health tourism, wellness tourism has a significant place as much as medical tourism, and each is seen as an important component of the health economy. Accordingly, wellness tourism has become one of the largest sectors of the health economy with a market volume of 830.2 billion dollars in 2023. SPAs reached a market size of 136.8 billion dollars and thermals reached 62.7 billion dollars within health and well-being travel, which showed an impressive growth rate of 30.3% in the 2022-2023 period (GWI, 2024). On the other hand, the medical tourism market, which is estimated to be worth 39.57 billion US dollars in 2023, is predicted to reach 48.26 billion US dollars in 2024 and rise to 243.74 billion US dollars by 2032 (MRFR, 2024).

3. Economic Impacts of Health Tourism

Due to advancements in information and communication technologies, the increase in those who produce and consume these services, and the development of the private sector, health services and providers are increasing day by day and becoming a subject of trade. The tourism sector, which is accepted as the driving force of economic and social development, contributes to the development of countries both in terms of quality and quantity with its increasing demand. Therefore, countries that want to increase their economic performance invest in this sector and take strategic steps with the goal of increasing demand to raise their competitiveness levels (Pourkhaghan et al., 2013).

The tourism sector, which is one of the most important actors of economic growth, has direct effects on the creation of sustainable employment and the reduction of poverty. The awareness and empowerment of consumers with the globalization of information has resulted in individuals starting to make rational decisions regarding their health needs (Sharma et al., 2015).

The expansion of the health tourism market varies depending on the cost and time-saving advantages of destination countries, the quality of health services, the differences and attractiveness of the destinations, the appeal of the packages offered compared to competitors, and the support of public authorities in this regard. Since health tourism encompasses other sectors such as security, advertising, education, research, logistics, etc., in addition to health, travel, accommodation, and food and beverage, it leads to positive and significant changes in the macroeconomic indicators of countries (Khoa and Nhu, 2021).

Health tourism is an important source of income for destinations with the cost advantages it offers. It also supports economic growth through technological investments and employment creation opportunities. This type of tourism contributes to closing the current account deficit by providing foreign currency inflow to the country. This contribution is realized thanks to the cost advantages and tourism revenues offered for health tourists. When deciding on the country they will choose for health tourism, individuals attach importance to the high level of quality, cost, and safety. Health tourism encourages economic growth by providing financial contributions to the country, increases GDP by generating foreign exchange inflow, and contributes to the development of health and innovation infrastructure. In addition, the progress of this sector improves the infrastructure, and thanks to the developed infrastructure, highly skilled jobs are created (Johnston et al., 2010).

To attract foreign direct investment to health services, some destinations are supported by tax reductions and exemptions for hospital construction and the purchase of medical equipment. However, the increasing number of tourists also contributes to the country by increasing the demand for food and beverage, travel, and accommodation facilities (Beladi et al., 2019). Health tourism has recently become a rapidly growing sector. Countries that want to achieve macroeconomic advantages focus on this sector (Pourkhaghan, 2013).

Health tourism has a multiplier effect and can generate both direct and indirect income, which is then redistributed to finance and develop other economic activities. Health tourism revenues lead to an increase in exports by creating a foreign exchange increasing effect for the host countries. In addition, the expenditures made by the accompanying persons who come with the individuals coming to the host countries for this purpose, for food and beverage, travel expenses, accommodation costs, and local tourism activities, also provide income to the country (Lautier, 2008; Ramanauskas, 2023).

4. Turkey in the Global Health Tourism Market

Health tourism is a rapidly growing sector worldwide, making significant contributions to the economies of countries. Turkey stands out as a country with high potential for health tourism. The economic impacts of health tourism manifest themselves both directly and indirectly in various areas. Direct effects include expenditures in areas such as health services, accommodation, transportation, food and beverage, and shopping, while indirect effects emerge in areas such as job creation, infrastructure investments, regional development, country image, and technology transfer.

Turkey has advantages in terms of health tourism, such as its geographical location, developed health infrastructure, cost-effective services, and experienced healthcare personnel. These advantages enable Turkey to be a key player in the health tourism market. The number of tourists coming to Turkey for health tourism purposes and health tourism revenues have been steadily increasing in recent years. This situation makes significant contributions to the Turkish economy.

Table 1: Number of Visitors Who Have Come to Turkey for Health Tourism (2012-2024)

Year	Total	Health and Medical Reasons
2012	36.463.921	265.048
2013	39.226.226	346.183
2014	41.415.070	508.623
2015	41.617.530	428.894
2016	31.365.330	418.944
2017	38.620.346	491.055
2018	45.628.673	656.320
2019	51.860.042	756.926
2020 ¹	15.826.266	435.691
2021	29.357.463	729.592
2022	51.369.026	1.381.807
2023	57.077.440	1.538.643
2024 ²	25.107.974	801.723

Source: (TUIK, 2024)

Table 1 presents the total number of people visiting Turkey within 2021-2024 and the number of individuals whose reason for coming is health tourism. Turkey, particularly in recent times, has shown development in terms of health tourism. Within the last decade, the number of people coming to Turkey for health tourism exceeded 1.5 million in 2023. As can be understood from Table 1, the share of health tourism within general tourism is increasing every year. Major cities in Turkey, especially Istanbul, have developed in this regard, particularly centers with large hospitals that have JCI accreditation. Primarily due to its geographical advantage in terms of treatments such as

1. Data covers the 1st, 3rd, and 4th quarters of 2020.
2. 2024 is the total for the first two quarters

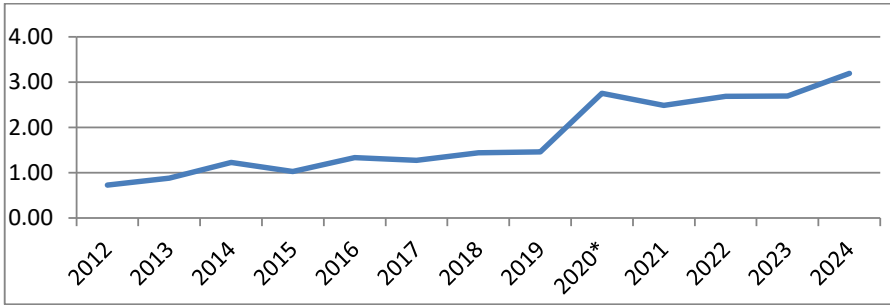
aesthetic surgery, IVF centers, dental applications, heart surgery, urology, etc., Germany, Azerbaijan, the United Kingdom, Bulgaria, France, Iraq, and Georgia rank among the prominent countries, especially from neighboring countries. In addition to this number, it is necessary to include Turks living in foreign countries and holding dual citizenship as the group that exhibits the greatest intensity (Büyük, 2024). On the other hand, health tourism is not limited to medical applications but also encompasses a much wider field of application due to its inclusion of alternative medicine practices such as thermal tourism, SPA, balneotherapy applied with mineral waters, thalassotherapy using sea-sourced sand, algae, etc., climatotherapy where climatic factors come to the fore, peloidotherapy performed with medicinal mud, speleotherapy carried out in caves, hydrotherapy done with the use of water in liquid, solid, or vapor form, and wellness tourism, which improves the state of being healthy (Büyük and Akkuş, 2022b).

Table 2: Number of Visitors Who Have Come to Turkey for Medical Tourism Years | Number of People

Year	Number of People
2018	594.851
2019	701.046
2020	407.423
2021	670.730
2022	1.258.382

Source: (TUIK, 2023)

The data in Table 2 shows that a significant portion of health tourists coming to Turkey come for medical tourism purposes. Especially in 2022, there was a remarkable increase in the number of medical tourists. When Table 1 and Table 2 are examined together, it is seen that there is a general upward trend in the number of visitors coming to Turkey for health tourism purposes. Although the pandemic in 2020 caused a decrease in the total number of visitors, health tourism was relatively less affected by this decline.



Graph 1: The Ratio of Those Who Have Come for Health Tourism Among Those Who Have Visited Turkey (2012-2024)

Source: (TUIK, 2024)

The share of health tourism revenues in total tourism revenues, shown in Graph 1, has shown significant fluctuations over the years. This situation indicates that health tourism revenues are affected by external factors (economic crises, political events, pandemics, etc.) and internal factors (health tourism policies, promotional activities, etc.). On the other hand, in general, there is an increasing trend in the share of health tourism revenues. This increase has become more pronounced, especially since 2019. This indicates that Turkey is generating more and more income in the field of health tourism and that the importance of this sector for the Turkish economy is increasing. The increase in the rates of those who come to Turkey for health tourism is listed as the advantages that Turkey has due to its geopolitical position, as well as the health system and world-renowned physicians, having a developed transportation and airway network, offering cost advantages, cultural proximity as well as quality tourism services together with health services (Büyük, 2024). The state also has an effective role in the increase in health tourism. Especially the Statutory Decree No. 663 (2018), which includes articles on this subject, contains important regulations aimed at increasing the quality of health tourism services in Turkey. The impact of these regulations is observed in the positive developments in health tourism data. Turkey is quite successful in increasing the quality of services offered in terms of health tourism, and this is clearly seen in the data. Increasing its market share every year, Turkey has managed to become an indispensable center of attraction in terms of health tourism.

Table 3: Total Tourism and Health Tourism Revenues (2012-2024)³

Year	Health Tourism Revenues	Total Tourism Revenues
2012	779.194	35.717.337
2013	1.028.289	40.186.327
2014	963.433	41.316.834
2015	745.916	37.700.923
2016	811.721	26.539.007
2017	910.088	31.253.835
2018	1.007.239	35.920.910
2019	1.459.132	42.851.778
2020	1.371.189	15.169.371
2021	2.016.262	30.309.722
2022	2.206.750	49.857.030
2023	3.006.092	55.874.176
2024*	1.621.922	23.660.318

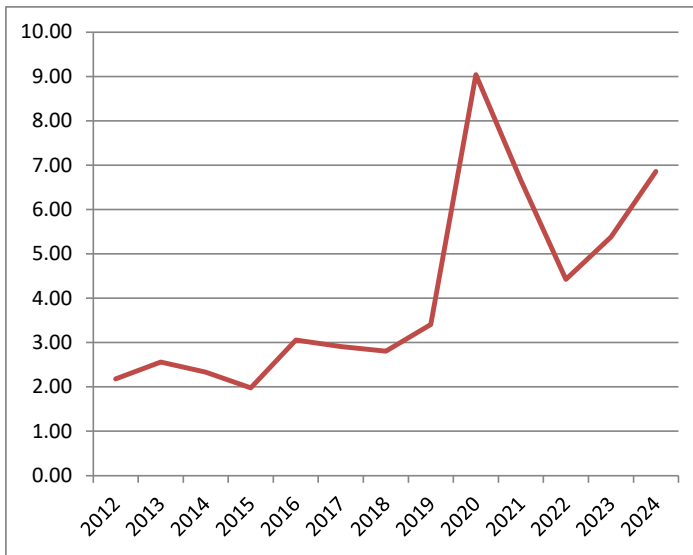
Source: (TUIK, 2024)

Table 3 presents Turkey's total tourism revenues and health tourism revenues. Although the share of health tourism revenues in total tourism revenues has fluctuated over the years, it has generally been on an upward trend. Accordingly, health tourism revenues have a very significant share in total tourism revenues, and this share is increasing every year. Turkey is quite developed in terms of health infrastructure, and this situation is also reflected in the data. While Turkey's total revenue approached 56 billion dollars in 2023, health tourism revenues exceeded 3 billion dollars. The increase in revenues progresses in direct proportion to the number of people coming to Turkey for health tourism (Table 1). On the other hand, the COVID-19 pandemic in 2020 negatively affected the tourism sector on a global scale and caused a serious decline in Turkey's total tourism revenues. Although there was a decrease in health tourism revenues during this period, this decrease is less compared to total tourism revenues. This situation shows that health tourism was more resilient than general tourism during the pandemic period and provided significant support to the Turkish economy.

The data show that there is a steady increase in Turkey's health tourism revenues, and health tourism is becoming increasingly important for the Turkish

3. (Thousand \$)

economy and plays a strategic role in the diversification of the tourism sector. This situation can be interpreted as Turkey being able to obtain more economic benefits from this sector and contribute more to its economy by further developing its health tourism potential and effectively utilizing its advantages in the field of health tourism.



Graph 2: The Share of Health Tourism Revenues in Total Tourism Revenues (2012-2024)

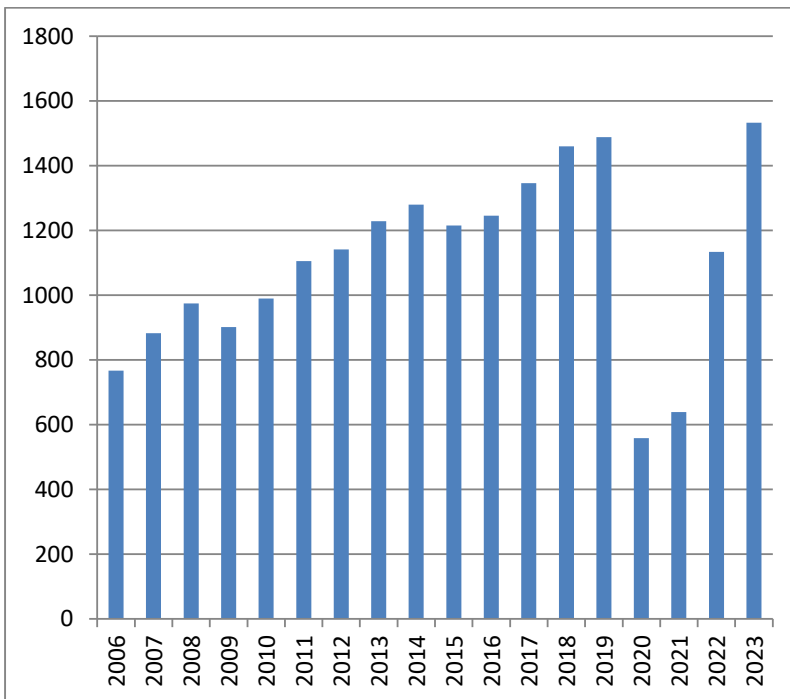
Source: (TUIK, 2024).

Graph 2 shows the share of health tourism revenues in total tourism revenues. It is seen that the share of health tourism revenues is highest in 2020, when the pandemic occurred. This situation shows that compared to many countries whose health systems were in a difficult situation during the pandemic process, Turkey was less affected by the relevant situation compared to other countries, that the quality of its health system is high, that its tourism is more resilient than general tourism, and that it provides significant support to the Turkish economy.

In a globalizing world, the fluctuations in health tourism revenue shares are influenced by various factors. On the other hand, there were declines in the share of health tourism revenues between 2014-2016. The reasons for these declines may include the economic and political developments of that period. For

example, the coup attempt and terrorist incidents in 2016 may have negatively affected the tourism sector.

Although Turkey experienced a decrease in total tourism revenues during the pandemic process, the rate of health tourism revenues increased significantly in 2020. This situation suggests that Turkey was perceived as a reliable destination in health services during the pandemic process and continued to be an attractive option for health tourism. However, there was a decrease in this rate in 2021. The increase seen in the rate of health tourism revenues in 2022 can be associated with the increase in the total number of tourists coming to Turkey after the pandemic. The increase in the rate of health tourism revenues was slower compared to the increase in total tourism revenues; this situation suggests that the general tourism demand increased faster than the health tourism demand in the post-pandemic period.



Graph 3: World Tourism Revenues

Source: (Statista, 2024).

Graph 3 shows world tourism revenues. Accordingly, it shows that there is an increasing trend in world tourism revenues in general. This situation indicates

that the importance of the tourism sector in the global economy is increasing and that people's tendency to travel is strengthening. The share of health tourism in tourism revenues worldwide is also increasing every year. With the increasing demand in this regard, a race has begun between countries for health tourism as well. Turkey has been seeing an increase in demand, especially in recent years, due to the quality service it has provided regarding health tourism and the cost advantages it offers compared to other countries (Büyük, 2024). On the other hand, ups and downs are observed with the economic and social crises experienced in the last decade and the impact of the pandemic. For example, the global economic crisis in 2009 and the COVID-19 pandemic in 2020 caused significant declines in tourism revenues. This situation shows that the tourism sector is sensitive to external shocks such as economic and health crises. A rapid recovery in tourism revenues is observed in the periods after the 2009 crisis and the 2020 pandemic. This situation shows the resilient structure of the tourism sector and its ability to adapt to crises. 2023 stands out as a year in which there was a significant increase in tourism revenues. This increase can be interpreted as the revival of tourism demand due to the lifting of travel restrictions in the post-pandemic period.

On the other hand, the global medical tourism market size approached 100 billion dollars in 2022. This market is expected to reach 274 billion dollars by 2032. While the number of patients benefiting from medical tourism in 2022 was 21,110.54 thousand, this number is predicted to reach 71,174.94 million ten years later. Developments in the field of technology and the globalization of health services facilitate patients' access to health centers around the world. Patients have more information about treatment options, service quality, and costs in medical tourism destinations (Medical Tourism Market Report, 2023-2032).

5. Conclusion and Recommendations

In a globalizing world, the tourism sector is diversifying with the ease of communication and transportation and the development of new technologies and is coming to the fore with alternative tourism types beyond the classic sea-sand-sun tourism. Health tourism is also rapidly growing as one of these alternative tourism types. Health tourism, which includes individuals traveling to improve, protect, or develop their health status and receiving medical or alternative health services, encompasses different areas such as thermal tourism, SPA & wellness, and medical tourism.

Although health tourism has existed throughout history, it has come to the forefront especially in the last decade with its developing structure and increasing economic impact. Thanks to modern medicine, advanced transportation, and communication systems, health tourism is becoming more diverse and growing day by day. Health tourism trips, which are mostly made to underdeveloped and developing countries, not only increase the health and quality of life of individuals but also make many direct and indirect contributions, especially economic ones, to the relevant destinations.

This study examines the economic impacts of health tourism by addressing its conceptual framework and historical development and evaluates Turkey's role in the global health tourism market. The findings obtained from the tables and graphs presented within the scope of the study show that health tourism makes significant contributions to the Turkish economy, and this contribution is increasing.

The economic impacts of health tourism manifest themselves in various areas, both directly and indirectly. Direct effects include expenditures in areas such as health services, accommodation, transportation, food and beverage, and shopping, while indirect effects emerge in areas such as job creation, infrastructure investments, regional development, country image, and technology transfer.

The benefits of health tourism to the Turkish economy are as follows:

- It helps to close the current account deficit by providing foreign currency inflow.
- It increases the Gross Domestic Product (GDP).
- It contributes to the development of health and innovation infrastructure.
- It creates new employment opportunities.

In addition, the development of health tourism may allow low-income countries to enter the tourism market. Medical tourists coming to Turkey spend between 1,500 and 100,000 dollars, excluding travel, food, beverage, and shopping expenses, only for their treatment (SATURK, 2020).

Turkey has advantages in terms of health tourism, such as its geographical location, developed health infrastructure, cost-effective services, and experienced healthcare personnel. These advantages ensure that Turkey is in a competitive position in the health tourism market. The number of tourists coming to Turkey for health tourism purposes and health tourism revenues have been steadily increasing in recent years. This situation has significant contributions to the Turkish economy.

By further developing its health tourism potential, Turkey can attract more health tourists worldwide and contribute more to its economy. In this direction, the following recommendations can be made:

- **Strengthening Health Tourism Infrastructure:** The quality of facilities and services for health tourism should be increased, and new health facilities and infrastructure investments should be made.
- **Training of Healthcare Personnel:** Healthcare personnel specialized in the field of health tourism should be trained, and the training of existing personnel should be supported.
- **Increasing Promotional Activities:** Turkey's health tourism potential should be effectively promoted on international platforms.
- **Diversification of Health Tourism Destinations:** Destinations for different types of health tourism (thermal tourism, spa & wellness, medical tourism, etc.) should be developed and diversified.
- **Sustainability:** Environmental, social, and economic factors should be considered for the long-term and sustainable development of health tourism, and sustainable tourism practices should be adopted.
- **Digitalization:** Offering health tourism services through digital platforms and expanding online appointment and consultancy services will increase the accessibility of health tourism.

The implementation of these recommendations will help Turkey increase its competitiveness in the field of health tourism and contribute to its economic development.

By increasing the share of health tourism in tourism revenues, qualified labor in this field can be attracted to destinations that have developed in this regard. With the development of health tourism, the increasing foreign capital in economies can be used as a resource in both the health sector and different sectors to create new employment areas. In addition, promoting this tourism also ensures the efficient use of resources (Pagan and Horsfall, 2020).

The share of health tourism revenues in total tourism revenues has shown significant fluctuations over the years. This situation indicates that health tourism revenues are affected by external factors (economic crises, political events, pandemics, etc.) and internal factors (health tourism policies, promotional activities, etc.). On the other hand, in general, there is an increasing trend in the share of health tourism revenues. This increase has become more pronounced,

especially since 2019. This indicates that Turkey is generating more and more income in the field of health tourism and that the importance of this sector for the Turkish economy is increasing.

The data show that there is a steady increase in Turkey's health tourism revenues, and health tourism is becoming increasingly important for the Turkish economy and plays a strategic role in the diversification of the tourism sector. This situation can be interpreted as Turkey being able to obtain more economic benefits from this sector and contribute more to its economy by further developing its health tourism potential and effectively utilizing its advantages in the field of health tourism.

In conclusion, health tourism is a sector with significant growth potential for the Turkish economy. It is possible for Turkey to increase its competitiveness in the field of health tourism and contribute to its economic development by evaluating this potential.

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CHAPTER XII

STRATEGIC IMPORTANCE OF URBAN LAND USE IN TÜRKİYE IN THE FACE OF CLIMATE CHANGE

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1. Introduction

Climate change has become one of the biggest environmental problems faced globally today. Human activities, mainly burning fossil fuels, deforestation, and industrial processes, lead to the emission of large amounts of greenhouse gases into the atmosphere, triggering global warming. This situation results in noticeable changes in the climate system, causing effects such as temperature increases, changes in precipitation patterns, rising sea levels, and increased frequency of extreme weather events. In this context, urban land use is both a cause and a consequence of climate change. Urbanization processes replace the natural land cover with buildings, roads, and other urban elements, which affects local climate conditions. Factors such as the urban heat island effect, the increase in impervious surfaces that prevent the natural absorption of rainwater, and the reduction of green spaces increase the vulnerability of urban areas to climate change. Moreover, the energy consumption and emissions of urban areas are known to be significant

causes of global greenhouse gas accumulation. According to the United Nations Environment Programme (UNEP), the built environment is responsible for 40% of global energy consumption, 30% of greenhouse gas emissions, and 20% of water use (UNEP, 2014).

Mainly as a result of mechanization following the Industrial Revolution, it has been observed that the population has moved away from agriculture and related jobs, concentrating in and around urban areas. As a result, as of 2008, it is known that more than half of the world's population lives in urban centers (UN DESA, 2013). It is also known that a significant portion of the Gross Domestic Product (GDP) is produced by urban and surrounding areas, with new investments mainly concentrated in these regions (IPCC, 2014). The presence of industrial, commercial, service, and technology sectors in urban centers makes these regions critically important for economic growth and development. As places where economic activities are concentrated, cities form the driving force of national economies. New job sectors and investments typically emerge in these economic centers, leading to more job opportunities and economic activity in urban areas. This, in turn, affects urban land use decisions due to the concentrated population.

The acceleration of the urbanization process and the increase in population density require critical decisions in planning and managing cities. Urban areas' sustainable development necessitates land use decisions be based on careful and long-term strategies. Decisions such as the preservation of green spaces, the planning of residential areas, the development of transportation networks, and the direction of infrastructure investments directly affect cities' livability and environmental sustainability. In this context, urban planning and land use policies must be approached carefully to meet current needs and adapt to future population and environmental changes.

Urban planning and land use policies are critical in combating climate change. Creating sustainable cities is necessary to reduce greenhouse gas emissions and increase resilience against climate change's negative impacts. Measures such as preserving and enhancing green spaces, promoting energy efficiency, integrating renewable energy sources, and water management strategies help make urban areas more sustainable.

This study aims to examine the relationship between climate change and urban land use in Türkiye, reveal various aspects and consequences of this relationship, and evaluate sustainable urban development strategies. Thus, it aims to demonstrate how urban planning can be an effective tool in combating climate change.

2. Background

2.1. *The Effects of Urban Land Use on Climate Change*

Urban land use has significant impacts on climate change. The expansion of cities results in natural ecosystems and green spaces being replaced by impervious surfaces such as concrete and asphalt, which affects both local and global climate systems. Understanding the effects of urban areas on climate change is critical for developing sustainable urban planning and environmental policies.

One of the most noticeable effects of urban land use on climate change is the urban heat island (UHI) effect. Urban areas have higher temperatures than their surrounding rural areas (Theophilou & Serghides, 2015). This phenomenon occurs due to the absorption and storage of heat by buildings, roads, and other structures. The UHI effect leads to variations in daily temperature values, with the impact being more pronounced at night (Tsoka, 2011; Mathew et al., 2016). The UHI effect exacerbates the intensity of heat waves, particularly during the summer, adversely affecting human health and increasing energy demand (Oke, 1982; EPA, 2022).

Climate change is a global phenomenon affecting cities' livability, infrastructure security, and public health. By covering surfaces with concrete and asphalt, urbanization leads to increased urban temperatures. This is known as the "urban heat island" effect, contributing to climate change by increasing energy consumption (Emilsson, 2021). Additionally, climate change increases the frequency of extreme weather events such as floods, droughts, and storms, damaging urban infrastructure. These events cause significant economic losses and disrupt services in cities (Goldhill & Fitzgibbon, 2021). Climate change also adversely affects public health by degrading air quality and increasing health issues due to extreme temperatures. These impacts affect vulnerable groups, including older people, children, and low-income populations (Cianconi et al., 2023). Therefore, urbanization processes need to be reconsidered in line with sustainability principles.

Urban land use contributes to climate change both directly and indirectly. Covering surfaces with asphalt and concrete during urbanization increases urban temperatures, enhancing the urban heat island effect and increasing energy consumption and carbon emissions (Katzfey et al., 2020). Reducing green spaces in urban areas decreases carbon sequestration capacity and increases the vulnerability of cities to climate change. Preserving green spaces is crucial for urban adaptation to climate change (Lee, 2021). Changes in population

density significantly affect carbon emissions in cities. While population growth in large cities increases emissions, changes in population density significantly impact emissions (Ribeiro et al., 2019). Therefore, sustainable urban planning approaches should be adopted, and strategies should be developed to conserve natural resources.

Cities account for significant global energy consumption, leading to substantial greenhouse gas emissions. Greenhouse gases include water vapor (H₂O), carbon dioxide (CO₂), and various other gases in the atmosphere in varying amounts. Approximately 80% of total greenhouse gases consist of CO₂, which is considered the most significant anthropogenic greenhouse gas (Oral & Uğuz, 2020). The increase in CO₂ levels in the atmosphere, which has a high heat retention capacity, leads to a rise in atmospheric temperature, or global warming (Özmen, 2009). The heating, cooling, lighting, and other energy requirements of buildings result in the emission of large amounts of CO₂ and other greenhouse gases into the atmosphere by burning fossil fuels (IEA, 2021). In 2023, global energy-related CO₂ emissions increased by 1.1%, reaching a record high of 37.4 billion tons (Gt). Although the rate of increase in CO₂ emissions has slowed compared to 2022, over 65% of the emission increase is attributable to fossil fuel sources (IEA, 2024). Human-made built environments are significant contributors to CO₂ emissions in the atmosphere. The transportation sector, a built environment component, is also a considerable emission source in cities. The construction of asphalt or concrete roads during urban development is another primary source of greenhouse gas emissions (Demirtürk, 2021). Additionally, the increase in vehicle traffic due to the development of the transportation sector contributes to air pollution and greenhouse gas emissions (Ewing et al., 2008).

The urbanization process leads to a decrease in natural ecosystems and green spaces. The primary reason for this is undoubtedly the expansion of cities, which replaces forests, wetlands, and other natural habitats with buildings, roads, and infrastructure projects. Natural areas in cities function as carbon sinks, helping to regulate atmospheric CO₂ levels. The loss of forests, wetlands, and other natural habitats reduces the capacity of these carbon sinks, thereby accelerating climate change (Seto et al., 2012). Furthermore, the loss of green spaces leads to declining biodiversity and degrading ecosystem services.

Urbanization also significantly impacts the natural water cycle. The increase in impervious surfaces prevents rainwater from naturally infiltrating the soil, raising the risk of flooding and negatively affecting water quality.

Additionally, the rise in urban water demand places pressure on water resources. The fundamental principles of reducing impermeability include preserving natural landscapes and minimizing impervious surfaces to promote water infiltration into the soil (Arnold & Gibbons, 1996).

2.2. Land Use and Climate Change in Türkiye

Urbanization in Türkiye has recently emerged as a rapidly increasing phenomenon. Migration from rural areas to city centers and preeminent metropolitan areas has increased population density and urban sprawl. The industrial boom experienced in Türkiye, particularly from the 1950s onwards, has been a significant driver of this urbanization. Compared to the global urban population, the proportion of the urban population within the total population in Türkiye has shown a substantial increase over the years. Notably, there was a sharp rise in the urban population during the 1980s. As of 2023, Türkiye still has a metropolitan population ratio that exceeds the global average (Figure 2.1).

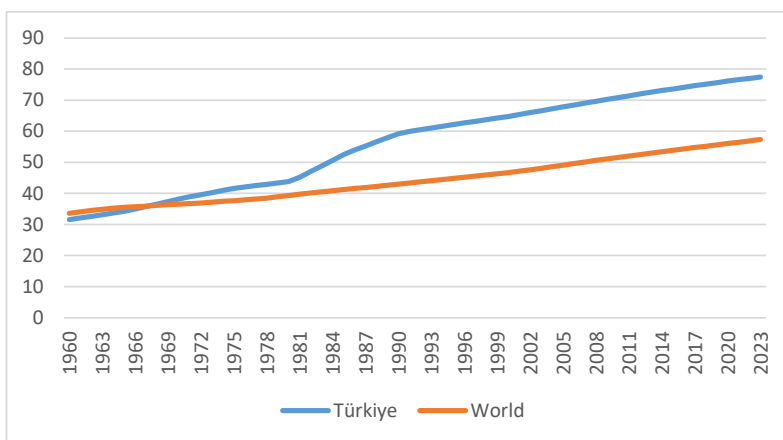


Figure 2.1. Urban population in Türkiye and World (Worldbank, 2024)

According to the data published by the Turkish Statistical Institute (TurkStat) in 2022, approximately 67.9% of Türkiye's population resides in densely classified urban areas. 14.8% of the population lives in moderately dense urban areas, while only 17.3% reside in rural regions (TurkStat, 2023). This indicates a significant urbanization trend in Türkiye. The most densely populated cities in Türkiye are Istanbul, Ankara, and Izmir. In these cities, the majority of the population also resides in densely classified urban areas (Figure 2.2). This situation increases the

demand for essential services such as infrastructure, housing, and transportation in urban areas, posing various challenges in urban planning.

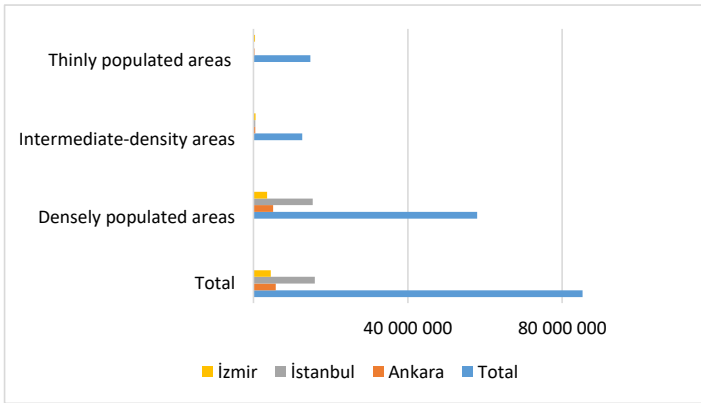


Figure 2.2. Most populated provinces in Türkiye (TurkStat, 2023)

Urbanization also raises environmental concerns due to converting natural areas and agricultural lands into built-up areas. In major cities like İstanbul, Ankara, and İzmir, issues such as diminishing green spaces, loss of natural habitats, air pollution, and depletion of water resources have become more pronounced (Balaban, 2012). Despite efforts in Türkiye to implement policies to reduce greenhouse gas emissions, per capita emissions remain a significant issue. Compared to global trends showing a decrease in per capita greenhouse gas emissions, Türkiye continues to experience an upward trend in emissions (Figure 2.3).

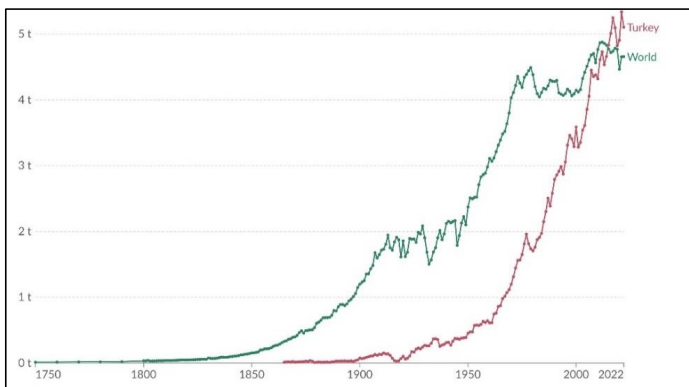


Figure 2.3. Greenhouse gas emissions statistics in Türkiye and World (Global Carbon Budget, 2023)

When considering factors such as urbanization and greenhouse gas emissions together, developing and implementing sustainable urbanization policies are critical for Türkiye in achieving environmentally and socially balanced growth (Alkan, 2013). The relationship between land use and climate change in Türkiye emerges as a significant issue for the country's environmental and economic sustainability. Rapid urbanization in Türkiye, accompanied by increased migration from rural to urban areas, replaces natural habitats and agricultural lands with urban development projects. This trend leads to a decline in biodiversity, disruption of ecosystem services, and an increase in greenhouse gas emissions (Türkeş, 2012). Natural ecosystems in Türkiye, such as agricultural lands, forests, and wetlands, act as carbon sinks, mitigating the impacts of climate change. However, their destruction through urban transformation projects diminishes Türkiye's carbon sink capacity and increases its vulnerability to climate change (Atmış et al., 2007). Developing sustainable land use and planning policies is crucial in Türkiye's efforts to combat climate change (Türkeş et al., 2013).

3. Research Design and Methodology

The research adopts a mixed-methods approach, combining quantitative and qualitative methods to comprehensively evaluate urban development's contributions to climate change and its impacts on urban areas in Türkiye. The data collection and analysis processes include greenhouse gas emissions analysis, urban heat island effect analysis, and policy alignment analysis (Figure 3.1).

The research has examined existing datasets on sectoral, monthly, and annual land changes, factors contributing to temperature increases, and variations over the years. These datasets are sourced from national and international institutions such as the Turkish Statistical Institute (TurkStat), the Organisation for Economic Co-operation and Development (OECD), and the Intergovernmental Panel on Climate Change (IPCC).

Carbon emission data from sources like TurkStat and IPCC have been used to analyze greenhouse gas emissions and evaluated through statistical and trend analyses. Urban heat island effect analysis aims to determine city temperature increases and their impacts on climate change. Temperature data is used to examine temperature differences between urban and rural areas.

Policy alignment analysis assesses the compatibility of current urban land use with climate change policies. This analysis examines OECD indicators and Türkiye's current urban land use policies using policy documents, reports,

and academic literature to evaluate effectiveness and alignment. Demographic and socioeconomic data are employed to assess the resilience of urban areas in Türkiye to climate change and the vulnerability levels of residents in these areas.

These methods and data sources provide a comprehensive framework to understand and analyze the relationship between urban land use and climate change in Türkiye. The research aims to provide concrete policy and implementation recommendations to foster more resilient and sustainable cities.

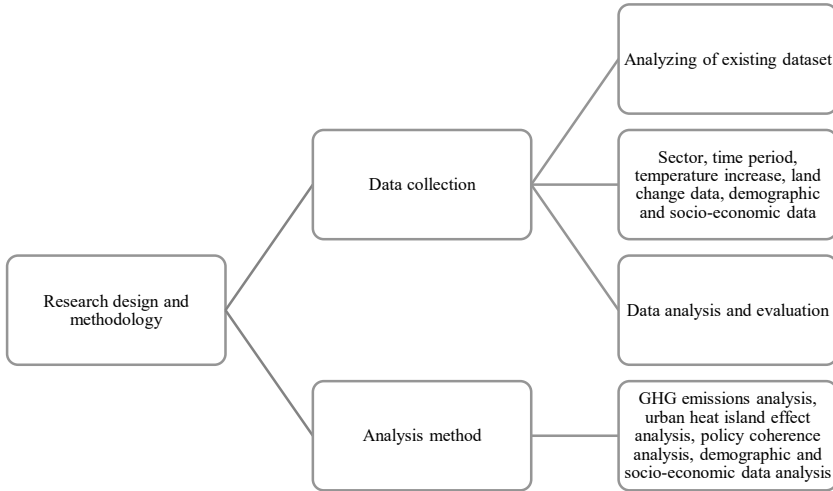


Figure 3.1. Flowchart of the study

3.1. Data Collection Methods

Within the scope of this study, the impact of urban land on climate change resilience in the context of resilient cities has been thoroughly examined. Greenhouse gas emissions have been detailedly analyzed across urban and rural areas and by sectors to assess cities' impacts on climate change. Urban populations' size and demographic distribution have been analyzed to determine cities' sensitivity and resilience to climate change.

Furthermore, data on urban and peri-urban land use intensity have been examined to identify trends in urban expansion and land use. Average temperature data over the years and future temperature trend expectations based on global warming scenarios have been analyzed to determine how cities should prepare for future climate change impacts. Changes in land use over the years in Türkiye have been studied, aiding our understanding of transformations in urban and rural areas. Population density data in urban and rural areas have been

analyzed to emphasize the importance of population density in determining cities' infrastructure and resource needs.

Additionally, Türkiye's GDP growth rates have been used to assess the environmental impacts of economic activities, and the relationship between economic growth, energy consumption, and greenhouse gas emissions has been examined. Internal migration numbers in Türkiye have also been analyzed to understand how migration patterns assist in understanding the distribution of urban populations and pressures on urban areas.

3.2. Greenhouse Gas Emissions Analysis

Within the scope of this study, greenhouse gas emissions from different settlement densities (urban centers, dense and semi-dense clusters, suburbs and peri-rural areas, rural clusters, low-density rural, very low-density rural, and other areas) in the years 1970, 1990, 2005, and 2015 have been examined (Figure 3.2). The sectoral distribution of emissions, influenced by urbanization through the agricultural, residential, and transportation sectors, has been analyzed. The analysis aims to identify emission trends in different settlement areas and sectors over the years and discuss potential reasons for these trends in the context of creating climate-resilient cities.

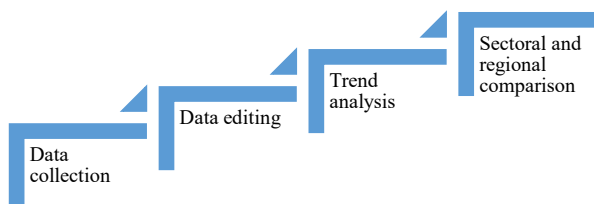


Figure 3.2. Analysis methodology for greenhouse gas emissions in Türkiye

The data in the table represents greenhouse gas emissions across various settlement densities and sectors over different years (Table 3.1). The analysis process involved several steps. Greenhouse gas emission data was initially collected for specific years, categorized by settlement density and sector. The data was then organized into categories based on settlement density and sector, making them comparable across years. Subsequently, changes over time were examined for each category, and the reasons behind these changes were discussed. Lastly, differences in emissions across various settlement densities and sectors were identified, and the underlying factors for these differences were analyzed.

Table 3.1. Sectoral Distribution of CO₂ Emissions in Urban and Rural Areas of Türkiye (1970-2015)

Sector	years	urban centers	dense and semi-dense cluster	suburban peri-urban	rural cluster	low density rural	very low density rural	rest
Total	1970	20.52	20.22	5.2	17.3	19.91	9.43	7.43
	1990	24.58	21.2	6.16	20.29	18.52	7.15	2.1
	2005	32.13	23.13	6.81	15.01	18	3.78	1.15
	2015	34.4	23.14	7.7	12.47	17.36	4.27	0.66
Agriculture	1970	1.33	8.87	1.18	22.35	35.14	11.73	19.4
	1990	2.51	8.96	1.77	26.57	39.77	10.91	9.51
	2005	2.98	8.42	2.61	24.68	42.89	12.85	5.58
	2015	3.59	7.67	3.12	22.14	44.6	15.3	3.58
Residential	1970	33.24	26.39	4.19	22.95	11.65	1.58	0
	1990	22.6	18.76	6.07	31.33	18.87	2.36	0
	2005	32.67	16.72	6.94	24.04	17.27	2.35	0
	2015	48.04	14.08	6.65	16.11	13.13	1.96	0.03
Transport	1970	7.76	11.24	3.2	19.78	28.89	10.01	19.11
	1990	14.31	13.6	4.28	21.98	29.68	8.38	7.77
	2005	18.39	12.87	4.88	19.45	30.29	8.61	5.52
	2015	19.56	11.51	5.17	18.69	32.8	9.91	2.37

Total Emissions: Between 1970 and 2015, total emissions in urban centers have increased from 20.52 units to 34.4 units. This increase can be attributed to the growth in economic and industrial activities in urban areas. Emissions in dense and semi-dense clusters have shown a slight increase, rising from 20.22 units to 23.14 units. In suburban and peri-urban areas, emissions have increased from 5.2 units to 7.7 units, while in rural clusters, they have decreased from 17.3 units to 12.47 units. Emissions in low-density rural areas have shown a slight decrease (from 19.91 units to 17.36 units). In contrast, a significant reduction has been observed in very low-density rural areas (from 9.43 units to 4.27 units). These data indicate an overall increase in emissions in urban areas and a decrease in rural areas.

Agricultural Sector: Agricultural emissions in urban centers have increased from 1.33 units to 3.59 units. This increase may reflect the expansion

of urban agricultural activities. Emissions in dense and semi-dense clusters have decreased from 8.87 units to 7.67 units. While agricultural emissions in rural clusters have decreased slightly (from 22.35 units to 22.14 units), a significant increase has been observed in low-density rural areas (35.14 units to 44.6 units). This trend could be associated with expanding agricultural areas or intensifying agricultural practices. Increasing agricultural activities in urban areas with an approach that supports sustainable and local food production could play a crucial role in creating climate-resilient cities.

Housing Sector: Emissions from housing in urban centers have increased from 33.24 units to 48.04 units. This increase is attributed to urbanization and population growth. A significant decrease in emissions has been observed in dense and semi-dense clusters, decreasing from 26.39 units to 14.08 units. In suburban and peri-urban areas, emissions have slightly increased (from 4.19 units to 6.65 units), while rural clusters have experienced a decrease (from 22.95 units to 16.11 units). These changes in the housing sector could contribute to developing more environmentally friendly cities by adopting sustainable building materials and energy efficiency policies.

Transport Sector: Emissions from transportation in urban centers have increased from 7.76 units to 19.56 units. This increase can be attributed to the rise in vehicles and traffic density in urban areas. Emissions in dense and semi-dense clusters have remained relatively stable (from 11.24 units to 11.51 units). There has been a slight increase in emissions in suburban and peri-urban areas (from 3.2 units to 5.17 units), while rural clusters have experienced a decrease (from 19.78 units to 18.69 units). These trends in the transportation sector underscore the necessity of improving public transportation systems and promoting sustainable transportation solutions.

From 1970 to 2015, total emissions have increased in urban centers and suburbs. Emissions in the agricultural sector have risen notably in low-density rural areas. In the housing sector, while emissions have increased in urban centers, there has been a decrease in dense and semi-dense clusters. In the transportation sector, emissions have increased dramatically in urban centers while decreasing in rural areas.

These data indicate that increasing population and economic activities in urban areas have led to higher greenhouse gas emissions. In contrast, agricultural activities in rural areas need to be reviewed for sustainability. Adopting sustainable and eco-friendly policies, particularly in the transportation and housing sectors, is crucial for reducing greenhouse gas emissions and creating

climate-resilient cities. Promoting urban agriculture, high-energy-efficiency housing projects, and sustainable transportation solutions will be pivotal in this process.

3.3. Urban Heat Island Effect Analysis

Climate change leads to global temperature increases, with this effect being particularly pronounced in urbanized areas. UHI phenomenon causes cities to have higher temperatures compared to rural areas. In this section, the role of UHI in creating climate-resilient cities in Türkiye will be examined in light of trends in average temperatures over the years and scenarios projected by the IPCC, along with discussing practical recommendations.

There is a broad literature on the UHI phenomenon and resilience to climate change. Particularly in recent years, various studies have been conducted on the effects of this phenomenon on cities in Türkiye. These studies have investigated how urban form factors, surface materials, and land use changes shape the UHI effect (Erdem et al., 2020). Comparative analyses with examples outside Türkiye have also been examined (Miles & Esau, 2020).

The Urban Heat Island effect analysis aims to determine the temperature increases in cities and their impacts on climate change. Using land and temperature data, differences in temperatures between urban and rural areas have been studied. According to data from the Turkish State Meteorological Service, maximum average temperature values in Türkiye have consistently increased. Between 1970 and 2023, maximum temperature averages have risen by approximately 2°C, reaching 20.4°C with a 10% increase (Table 3.2).

Table 3.2. Maximum average temperatures in Türkiye between 1970 and 2023 (Turkish State Meteorological Service, 2024)

Period	Maximum mean temperature (°C)	Change (%)	Change (°C)
1970-1979	18.6	-	-
1980-1990	18.5	-0.54	-0.1
1991-2001	19.0	2.7	0.5
2002-2012	19.5	2.63	0.5
2013-2023	20.4	4.62	0.9

Under the RCP8.5 scenario, average temperatures in Türkiye are projected to increase significantly over time. In recent years, average temperatures have

been around 16.8°C, but this value could rise to 19.9°C in the long term. This increase underscores the potential seriousness of climate change impacts on Türkiye and emphasizes the importance of adaptation strategies (Table 3.3).

Table 3.3. Average temperature trend in Türkiye and estimated average temperature increase according to 1.5 °C global warming scenario (IPCC, 2024)

Period	Scenario	Median	P25/P75	P10/P90	P5/P95
Near Term (2021-2040)	RCP8.5	16.8	16.3/17.4	15.8/17.8	15.3/17.9
Medium Term (2041-2060)	RCP8.5	17.7	17.2/18.3	16.5/18.7	16.1/18.8
Long Term (2081-2100)	RCP8.5	19.9	19.1/20.5	18.5/21.3	18.1/21.4

UHI effect arises from cities absorbing more solar energy with materials like concrete and asphalt, which then release heat slowly at night. Consequently, urban areas experience temperatures several degrees higher than rural areas. The UHI effect increases energy consumption, contributes to health issues, and lowers overall quality of life (Bozdoğan Sert et al., 2021).

In Türkiye, the urban heat island plays a significant role in creating climate-resilient cities. Strategies such as increasing green spaces, using reflective materials, preserving wetlands, and enhancing energy efficiency will help cities adapt to and become resilient against climate change. Adopting these strategies for future planning is key to building sustainable and livable cities. Future research should investigate the UHI effect using interdisciplinary approaches and broader datasets. Based on these findings, policymakers should implement measures to enhance climate resilience in urban planning.

Changes in land use in Türkiye are critical in making urban areas more resilient to climate change (Figure 3.3). The rapid increase in built-up areas over the past three decades illustrates accelerated urbanization and the incorporation of rural areas into urban development processes.

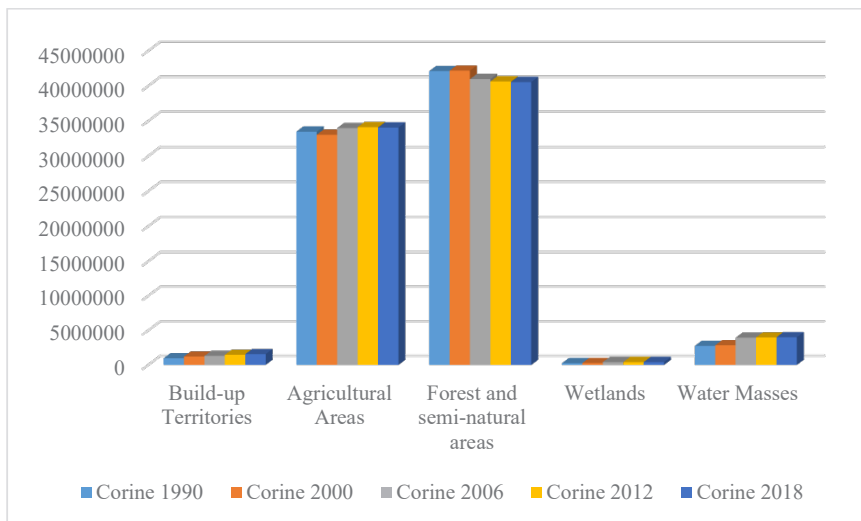


Figure 3.3. Changes in land use in Türkiye between 1990-2018 (Republic of Turkish Ministry of Agriculture and Forestry, 2024)

Since the 1990s, urbanized areas in Türkiye have shown significant growth. Starting with a notable increase of 26.82% between 1990 and 2000, this trend continued with slightly reduced rates in subsequent periods (6.52% between 2000 and 2006 and 7.46% between 2012 and 2018), demonstrating a consistent growth pattern. This indicates accelerated urbanization and the gradual inclusion of rural areas into the urbanization process. Managing intensive urbanization in harmony with nature should be fundamental to sustainable urban planning.

During the period under study, agricultural areas fluctuated. There was a 2.87% increase from 2000 to 2006, followed by relative stability in subsequent years, indicating significant preservation of agricultural lands despite urbanization pressures. Sustainable management of agricultural areas is crucial for food security and reducing carbon emissions.

Forest and semi-natural areas experienced a general decline, except for a minor increase of 0.17% between 1990 and 2000. The most pronounced decrease occurred from 2000 to 2006 (2.85%), with a slower rate of decline in later years. Forests serve as carbon sinks and are vital in combating climate change. Protecting these areas and implementing reforestation projects are crucial to building resilience against climate change. Decreasing forest cover can lead to biodiversity loss and reduced ecosystem services.

Wetlands and water bodies saw a general increase during the period studied. Particularly noteworthy increases were observed in wetlands (47.27%)

and water bodies (38.32%) from 2000 to 2006, attributed to dam constructions and water management projects. However, a slight decrease in wetlands (1.21%) from 2006 to 2012 suggests the need for careful water resource management.

Since the 1990s, Türkiye has experienced a significant increase in urbanized areas. This trend began with a notable rise of 26.82% between 1990 and 2000, followed by slightly reduced rates in subsequent periods (6.52% between 2000 and 2006, and 7.46% between 2012 and 2018), indicating a consistent growth trajectory. This reflects accelerated urbanization and the gradual integration of rural areas into the urban fabric. Effective management of intensive urbanization in harmony with natural ecosystems is essential for preserving ecosystem services and biodiversity (Erdem et al., 2020; Yang et al., 2020; Bozdoğan Sert et al., 2021; Koç et al., 2021). Land use changes in Türkiye present significant opportunities for creating climate-resilient cities. In this context:

- Increasing and preserving green spaces play a critical role in reducing the urban heat island effect and supporting biodiversity.
- Sustainable agricultural practices contribute to both food security and carbon sequestration.
- Conservation and expansion of forests and natural areas are essential for enhancing carbon sinks.
- Effective management of water resources is crucial for both ecosystem conservation and climate adaptation.

Land use changes in Türkiye reflect the country's rapid urbanization process and the accompanying environmental challenges. Future efforts should focus on managing these changes more sustainably through comprehensive and adaptable policies tailored to Türkiye's unique geographical and socio-economic conditions. This approach will be key to fostering climate-resilient and sustainable urban development.

Climate change poses one of the greatest global challenges of the 21st century. Cities, where a significant portion of the world's population resides, are not only the areas most severely affected by climate change but also pivotal players in combating its impacts. Urbanization accelerates climate change while simultaneously rendering cities vulnerable to its adverse effects.

The concept of 'climate-resilient city' emerged in the early 2000s to denote urban areas' capacity to adapt to and mitigate the impacts of climate change (Leichenko, 2011). OECD has further developed this concept by mainstreaming climate resilience in urban policies and planning.

OECD's approach to climate-resilient cities offers a comprehensive framework integrating sustainable urban development, green growth, and climate change mitigation strategies (OECD, 2018). This approach prioritizes efficient use of urban land, increased green spaces, optimized transportation systems, and enhanced energy efficiency.

Recent studies increasingly emphasize the impact of urban land use on climate resilience. For instance, compact city models contribute to reducing greenhouse gas emissions by limiting urban sprawl, while increasing green spaces mitigates the urban heat island effect and supports carbon sinks (Jabareen, 2013).

OECD (2024) has identified a set of indicators for climate-resilient cities. These indicators are used to assess and monitor urban climate resilience:

- Population density: High population density promotes more efficient resource use and reduces per capita carbon footprint.
- Accessibility level to green spaces: Green spaces mitigate the urban heat island effect, support biodiversity, and create carbon sinks.
- Percentage of urbanized area: Controlling urbanized areas limits urban sprawl and preserves natural habitats.
- Percentage of brownfield areas: Redeveloping these areas is crucial for urban renewal and sustainable land use.
- Percentage of population living near open spaces: Access to open spaces enhances quality of life and encourages active transportation.
- Percentage of new development areas near public transport locations: This indicator supports the development of sustainable transportation systems.

Data from TurkStat (2022) highlights urban-rural density and population distribution in Türkiye (Table 3.4). These data indicate that a significant portion of Türkiye's population is concentrated in a small urbanized area, which offers resource efficiency advantages but also increases the risk of intensified impacts from climate change in urban areas.

Table 3.4. Urban-rural density and population, 2022 (TurkStat, 2022)

Parameter	Share (%)	Population (%)
Built-up area	1.6	67.9
Semi-density area	4.9	14.8
Rural Area	93.5	17.3

Effective and sustainable use of urban land plays a critical role in creating climate-resilient cities. The compact city model emerges as a significant tool (Bibri et al., 2020). Based on high population density, this model reduces transportation needs, enhances infrastructure efficiency, and contributes to the preservation of natural areas. For instance, a study indicated that a 1% increase in population density leads to a 0.17% reduction in per capita CO₂ emissions (Gudipudi et al., 2019). However, successfully implementing the compact city model necessitates careful consideration and balancing issues brought about by excessive density, particularly the need for green spaces (Lehmann, 2019).

Green spaces and open areas hold critical importance in enhancing climate resilience. These areas mitigate the urban heat island effect, support biodiversity, reduce flood risks, and function as carbon sinks (Kabisch et al., 2021). Research has demonstrated that green spaces in urban centers can lower surface temperatures by 1-3°C (Zölch et al., 2016). Furthermore, these spaces enhance the quality of life for residents, promote active transportation, and positively contribute to public health. The World Health Organization recommends a minimum of 9 m² of green space per capita, yet many European cities exceed 18 m² (Badiu et al., 2016). In Türkiye, this ratio is calculated at 12.63 m² (Anadolu Agency, 2024).

Limits to urban sprawl and effective infrastructure utilization underscore the importance of redeveloping brownfield sites. Transforming these areas into green spaces or sustainable housing projects can enhance urban climate resilience (Artmann et al., 2019). For example, redevelopment of over 550,000 brownfield sites by 2022 in the United States generated more than 2.3 million jobs and over \$17.5 billion in tax revenue (EPA, 2022).

Transit-oriented development reduces greenhouse gas emissions by minimizing private vehicle use and enhancing accessibility, thereby supporting social equity (Jiang et al., 2020). A study indicated that transit-oriented development could reduce per capita vehicle travel distances by 20-40% (Ewing et al., 2017). Creating climate-resilient cities should also include increasing energy efficiency and promoting renewable energy use. Enhancing the efficiency of urban energy systems and utilizing renewable energy sources are crucial factors in bolstering climate resilience (Sharifi, 2021). According to the International Renewable Energy Agency, increasing renewable energy use in cities could reduce global CO₂ emissions by 70% by 2050 (IRENA, 2021).

Sustainable water management and green infrastructure practices enhance cities' resilience to water stress and flood risks. Practices such as rainwater

harvesting and permeable surfaces contribute to more effective water resource management (Dong et al., 2022). Research has shown that green infrastructure practices can reduce urban flood risk by 20-40% (Liu et al., 2021). Implementing efficient waste management and circular economy principles enhances urban resource efficiency while reducing environmental impacts (Paiho et al., 2020). According to estimates by the European Commission, circular economy practices could increase the Gross Domestic Product (GDP) of the European Union (EU) by 0.5% by 2030 and create 700,000 new jobs (European Commission, 2020). These data and literature findings underscore the necessity of a multidimensional and integrated approach to creating climate-resilient cities. Future policies and practices should embrace this holistic approach and develop data-driven strategies tailored to local conditions (Hölscher & Frantzeskaki, 2021).

3.4. Policy Analysis

3.4.1. Policies Implemented in Türkiye to Combat Climate Change

The Kyoto Protocol is one of the most significant steps globally to combat climate change. Signatory countries of the Protocol committed to reducing carbon dioxide emissions and five other greenhouse gases through emission reduction targets or by increasing their rights through carbon trading. The Protocol, which came into effect in 2005, was ratified in Türkiye in 2009. The Paris Agreement is another pivotal agreement in Türkiye's efforts to combat climate change. Türkiye signed the Paris Agreement in 2015 and ratified it in the Turkish Grand National Assembly (TBMM) in 2021. Türkiye has engaged in several international agreements to mitigate the effects of climate change (Figure 3.4).

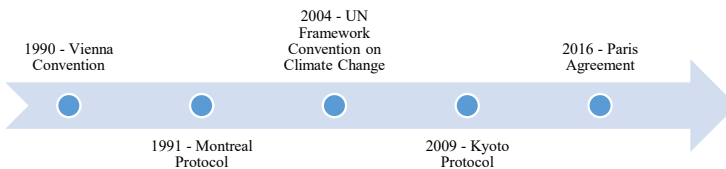


Figure 3.4. International conventions to which Türkiye is a party (Güneş vd. 2023)

Under the Paris Agreement, Türkiye has committed to limiting global temperature rise to 1.5°C and reducing greenhouse gas emissions. Within

the framework of the Paris Agreement, Türkiye submitted its Nationally Determined Contribution (NDC), which outlines its emission reduction targets tailored to its national circumstances. Following this, Türkiye has developed the ‘Climate Change Mitigation Strategy and Action Plan (2024-2030)’ prepared by the Ministry of Environment, Urbanization, and Climate Change, aiming to reduce greenhouse gas emissions by 41% by 2030, based on the NDC submitted in 2023. Türkiye’s 12th Development Plan (2024-2028) and Medium-Term Program (OVP) 2024-2026 include strategies under the ‘Green Transformation’ theme to support greenhouse gas emission reduction and enhance climate change adaptation capacity. These strategies encompass widespread promotion of energy efficiency, dissemination of sustainability reports, protection of carbon sinks, waste prevention, dissemination of clean technologies, and implementation of incentives for greenhouse gas reduction (MoEUCC, 2023).

Türkiye has implemented mechanisms such as Renewable Energy Resources Support Mechanism (YEKDEM) to promote the use of renewable energy sources, providing support for renewable energy projects including solar, wind, hydroelectric, and biomass. Various laws and action plans have been enacted to enhance energy efficiency, promoting energy efficiency projects in industries, buildings, transportation, and agriculture sectors, thereby achieving energy savings.

The EU Water Framework Directive provides a framework of objectives and approaches for the integrated management of water resources at the basin level. Development plans in Türkiye, which highlight economic and social development processes, include principles for basin-based water management (Mumlu, 2023).

3.4.2. Strategies to Increase the Resilience of Cities in Türkiye

Due to its location and climate, Türkiye is susceptible to various natural disasters and environmental challenges. Earthquakes, floods, landslides, and climate change threaten the resilience of cities. According to the Global Risk Index developed to assess and rank the risks of humanitarian crises and disasters, Türkiye ranks 45th among 191 countries with a score of 5.0, placing it in the ‘high risk’ category (AFAD, 2018). Being situated on fault lines, Türkiye has experienced numerous earthquakes of varying magnitudes throughout its history. The most recent significant earthquake occurred in 2023, centered in Kahramanmaraş Province. Following this event, many lives were lost, numerous buildings were damaged, and people were left homeless.

Earthquakes result in loss of life and property and impact the national economy. Studies indicate that the 2023 Kahramanmaraş earthquake led to a 10% decrease in Türkiye's gross domestic product (TEPAV, 2023). The aftermath of the Kahramanmaraş earthquake underscores the critical importance of enhancing urban resilience. Urban resilience is defined as the ability of urban systems and stakeholders to cope with and adapt to all stresses and shocks they encounter while maintaining the sustainability of services (UN-Habitat, 2024). Resilient cities also possess rapid recovery and transformation capacity during such events. Critical infrastructure components, which may already struggle to meet urban demands even before disasters, often become inoperable following earthquakes. Disruptions in transportation and communication systems post-disaster contribute to further casualties (İrdem & Mert, 2023). Therefore, ensuring urban resilience involves pre-disaster risk management approaches and effective implementation of emergency response plans and logistics centers capable of generating rapid solutions. Additionally, the presence of well-trained personnel and competent management bodies post-disaster is crucial for addressing immediate challenges. These integrated components collectively enhance cities' ability to withstand stresses and shocks (İrdem & Mert, 2023).

To enhance the resilience of cities in Türkiye, several strategies need to be implemented, particularly before disasters occur. Analysis of natural disasters in Türkiye between 1990 and 2017 reveals that earthquakes have caused the highest number of casualties and property losses (AFAD, 2018). Therefore, earthquake-resistant cities are crucial to minimizing potential loss of life and property due to earthquakes. This entails initiatives such as retrofitting existing buildings, adhering to earthquake regulations in new constructions, and implementing rigorous inspections to ensure compliance with high-rise building standards. Following the Kahramanmaraş earthquake, the Ministry of Environment, Urbanization, and Climate Change identified 105,794 buildings requiring urgent demolition due to severe damage, collapse, or structural instability.

Additionally, 24,464 buildings were classified as moderately damaged, while 205,086 were categorized as lightly damaged (MOEUCCB, 2023). This underscores the importance of preparedness before disasters strike. Since the enactment of Law No. 4708 in 2001, Türkiye has established regulatory bodies responsible for building inspections, ensuring compliance with earthquake regulations. However, effective implementation of these

regulations necessitates a robust inspection mechanism. There is a critical need to intensify efforts to strengthen this inspection framework. Widening the adoption of early warning systems and emergency preparedness plans within the context of disaster management is also pivotal in building resilient cities in Türkiye. Effective disaster management requires coordination among public institutions, municipalities, private sector entities, universities, and media organizations, with emergency plans being tested and their feasibility confirmed (Karaman, 2018). Successful disaster management hinges on voluntary participation from the public, highlighting the essential role of community engagement.

Another crucial aspect to consider when creating resilient cities in Türkiye is the increase of green areas. Enhancing green spaces is essential for improving air quality and mitigating the urban heat island effect, particularly in rural-urban regions where temperature differentials must be balanced. Urban planning should prioritize the multifaceted impacts of urban density, emphasizing the augmentation of greenery in outdoor settings (Canan, 2017). Sustainable material selection during building design phases (Yıldız & Şengül Güneş, 2024), promoting porous asphalt and concrete to facilitate rainwater absorption into the soil, and maintaining reasonable proportions of green corridor areas amidst built-up spaces (Orhan, 2021) are strategies that can mitigate the formation of heat islands.

Another fundamental factor in building resilient cities in Türkiye is ensuring urban areas' social and economic resilience. This involves supporting small and medium-sized enterprises to strengthen the local economy, combating unemployment, diversifying the local economy, and developing social projects and programs that foster community solidarity. Macroeconomic resilience comprises two components: immediate and dynamic resilience. Immediate resilience refers to the ability to promptly limit the magnitude of production losses in case of asset losses. Dynamic resilience, conversely, pertains to the capability for reconstruction and recovery (Hallegatte, 2014). Microeconomic resilience hinges on household savings and their sustainability before and after disasters. Therefore, countries achieve economic resilience to cope with the adverse consequences of shocks through macroeconomic stability, microeconomic market efficiency, good governance, and social development (Briguglio et al., 2006). Examining Türkiye's GDP growth highlights its vulnerability to various macroeconomic factors. Thus, stabilizing GDP is crucial in disaster management and creating resilient cities (Figure 3.5).

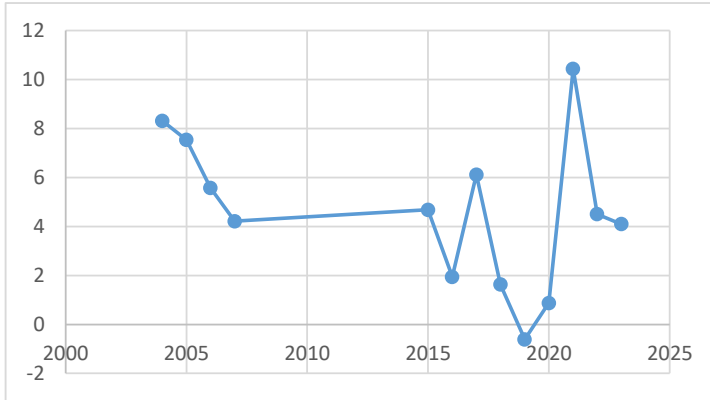


Figure 3.5. GDP growth by years in Türkiye (Worldbank, 2024)

The concept of social resilience is defined as the capacity of a social group or community to respond positively to adversity (Almedom, 2005). Social resilience evaluates people’s responses regarding resistance, recovery, and productivity (Kimhi & Shamai, 2004). Valid indicators need to be identified to clearly delineate social resilience (Maguire & Hagan, 2007). One of the best indicators used to assess social vulnerability is migration data. According to studies conducted in Türkiye, following the earthquake in Kahramanmaraş on February 6, 2024, residents affected by the earthquake migrated to various provinces across Türkiye. Among the provinces hosting the highest number of earthquake survivors, Ankara stands out with 205,454 individuals and Antalya with 154,086 individuals. Additionally, Mersin, Kayseri, and Muğla received over 40,000 migrants each (Figure 3.6). This underscores the critical importance of enhancing social resilience.



Figure 3.6. Migration numbers after Kahramanmaraş Eartquake in Türkiye (Sağıroğlu vd. 2023)

Another crucial factor to consider in enhancing urban resilience is technology. Encouraging the adoption of smart city technologies in areas such as traffic management, energy usage, and public services is paramount. Particularly during disasters, ensuring communication relies heavily on the effective use of technological resources. Collecting and analyzing digital data related to the city facilitates decision-making processes. Among other essential strategies are promoting public participation in urban planning processes, enhancing governance quality, and ensuring that local governments operate according to principles of transparency and accountability.

4. Conclusion and Future Studies

This research has thoroughly examined the relationship between urban land use and climate change in Türkiye, aiming to develop strategies for creating more resilient cities. Our study has analyzed the contribution of urban growth and development to climate change, revealing the roles and vulnerabilities of cities in addressing this global issue. Mainly, it evaluated impacts on environmental factors such as greenhouse gas emissions and the urban heat island effect, thus highlighting the multifaceted influence of urban development on climate change in Türkiye.

Additionally, our research has investigated the extent to which current urban land use practices in Türkiye align with climate change policies. In this context, the involvement and significance of various stakeholders in policy-making processes were addressed, focusing on the development of sustainable urban planning and management models. This approach offers a comprehensive perspective to enhance the resilience of metropolitan areas in Türkiye against climate change.

One of the significant outputs of our study is the concrete policy and application recommendations offered to mitigate the effects of climate change in urban areas of Türkiye. These recommendations aim to contribute to constructing more resilient and sustainable cities by being shared with community members, decision-makers, local governments, and other stakeholders. Thus, an important step has been taken towards a better understanding of how urban land use contributes to climate change and the translation of this knowledge into practice.

This research has examined the relationship between urban land use and climate change in Türkiye, aiming to develop strategies for creating more resilient cities. The conclusions drawn from the findings and their practical implications can be summarized as follows:

Contribution and effects of urban areas on climate change: The analysis indicates a rapid expansion of the metropolitan regions in Türkiye from 1990 to 2018, significantly increasing greenhouse gas emissions and strengthening the urban heat island effect. This finding underscores the urgent need to review urban planning policies and improve green spaces.

Effects of land use changes: The overall decrease in forests and semi-natural areas leads to loss of carbon sinks and biodiversity decline, posing challenges for climate change mitigation and ecosystem conservation. Therefore, there is a need to reevaluate urban expansion policies and implement stricter measures for preserving natural areas.

Climate resilience and urban planning: The research demonstrates the effectiveness of compact city models and increasing green spaces in enhancing climate resilience. It has been found that increasing population density reduces per capita CO₂ emissions and mitigates the urban heat island effect. These findings can be utilized in developing sustainable urban planning strategies.

Policy coherence and implementation: Türkiye's commitment to international agreements on climate change and the development of national-level policies are positive steps. However, challenges remain in implementing these policies at the local level and integrating them into urban planning processes. Therefore, stronger coherence between national and regional policies is necessary.

Disaster risk and urban resilience: Türkiye's high disaster risk emphasizes the urgency of enhancing urban resilience. Analyses following the 2023 Kahramanmaraş earthquake underscored the need to improve urban infrastructure and building resilience. This finding highlights the necessity of more effectively integrating disaster risk management into urban planning processes.

Limitations and potential impacts of the study:

1. Data limitations: The need for more current and detailed data in some areas has restricted the depth and scope of analyses, particularly regarding the urban heat island effect and local-level emission data. More detailed studies are needed in these areas.

2. Geographic diversity: Türkiye's vast geographic diversity indicates that a one-size-fits-all solution may not apply to all regions. This necessitates more specific studies at regional and local levels.

3. Economic factors: The study needed to examine the balance between economic development and environmental sustainability deeply, as this could affect the feasibility of policy recommendations.

4. Social dimension: More research is needed on the social impacts of urban transformation and climate change policies, particularly understanding their effects on disadvantaged groups.

5. Technological developments: The role of rapidly evolving technologies in urban planning and climate change mitigation needs further detailed examination.

These limitations can guide future research directions and improvements in existing policies. In conclusion, this study provides valuable insights into building climate-resilient cities in Türkiye, emphasizing the need for more comprehensive and interdisciplinary research. Future studies should focus on developing more holistic and actionable strategies while considering these limitations.

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