ASSESSING PHYSICAL ACCESSIBILITY OF PUBLIC SPACES IN THE CITY OF ALMATY, KAZAKHSTAN

by

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A thesis submitted in partial fulfillment of the requirements for the degree of

Master of Arts

in

Human Geography

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Abstract

This thesis aims to develop a grounded understanding of the everyday experiences of disabled people in Almaty, Kazakhstan. The voices and needs of disabled people have been a long-ignored by state authorities as well as academics. This thesis intends to address this gap. I ask -- what are experiences of disabled people with regards to access in the built environment? I ask this question to raise awareness among key actors such as the state of Kazakhstan and policy planners to the real problems of disabled people. Additionally, I ask what the actions of the state municipality have taken to improve access provision for disabled people in Almaty. Using the grounded theory approach, I show that disabled people's voices and needs have not been considered during the planning and development processes. The significance of this study is that it provides a theoretical understanding of disability within the Kazakhstani urban context.

Preface

This thesis is an original work by Dinara Yespolova. The research project, of which this thesis is a part, received research ethics approval from the University of Alberta Research Ethics Board, Project Name “Assessing physical accessibility of public spaces in the city of Almaty, Kazakhstan”, Pro00091394, Renewed Pro00091394_REN1, 14/09/2020.

Acknowledgment

First of all, I would like to thank the Bolashak international scholarship of the first president of the Republic of Kazakhstan for funding my education at the University of Alberta for two years. This research would not have been possible without this scholarship.

My special gratitude goes to my academic supervisor Dr. Sandeep Agrawal for his patience, motivation, support, and immense knowledge. I could not have imagined having a better supervisor for my graduate study. Also, I would like to express my deepest appreciation to my co-supervisor, Dr. Joshua Evans, for always being kind, supportive, and patient with my learning process. I would also like to thank Dr. Herbert C Northcott for introducing me to Sociology in a friendly and supportive environment and kindly accepting the invitation to be a member of the committee.

I would like to thank the organizations of disabled communities in Almaty, such as the City of Almaty's Community of disabled people, "ERZI" the Center of Health and socio-physical rehabilitation of disabled people, and Public Foundation of "Erkele" of disabled people with different ages and categories for their collaboration. Special gratitude to the director of the Kazakhstan Union of Disabled people, Mr Ali Amanbayev, who guided me during my fieldwork, and invited to special monitoring and assessment of central streets of Almaty which was published in one of the news portals.

Last but not least, I would like to thank my family, friends in Kazakhstan and Edmonton for their love and support throughout my study.

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Chapter One

Introduction

According to a United Nations' report (2018), 55 percent of the world's population live in cities, 15 percent of whom are individuals with disabilities (United Nations Department of Economic and Social Affairs, 2016). Cities offer a great variety of opportunities, such as employment, education as well as public facilities, including medicine, entertainment, social and recreational services. At the same time, these social and economic services are not equally accessible to citizens (Ignatova, 2017). Thus, urban citizens who identify themselves as having visual, hearing, and mobility impairments are being spatially, economically, and socially segregated and discriminated against. The essence of being engaged in urban life is severely constrained by the lack of accessible infrastructure, transportation, and services (Imrie, 2000).

More than half of the citizens (57,8% to be precise) of Kazakhstan currently live in urban areas (Statistics, 2019). The share of people with disabilities among them comprises 3.7 – 4% (unofficially 11-12%) (Rudenko, 2013). Given the fact that the population of Kazakhstan is nearly more than 18 million, people with disabilities amount to about 660,000 (Kabatova, 2014). A significant number of them (49,511) live in the former capital and biggest city – Almaty (Statistics, 2019). Such a high percentage of disabled people concentrated in urban areas places tremendous responsibility on urban planners, developers and particularly Almaty city's municipality.

Inspired by Jan Gehl's (2010) statement about the significance of people-centered urban planning, this thesis focuses on the daily life experiences of disabled people within the urban context. My study aims to explore and document the diverse experiences of disabled people in the city of Almaty, Kazakhstan. It also analyzes the actions taken by Almaty city municipality, if

any, to ensure, protect, and promote the rights of disabled people to the accessible built environment.

Thesis Structure and Organization

This thesis is organized into five chapters. The first chapter introduces the general overview and contextual information related to my research topic. In this chapter, the research problem, objectives, and questions will be discussed in detail. Chapter two defines disability and reviews literature on the evolution of disability studies in Kazakhstan. This chapter also elaborates on a theoretical framework of disability-related planning and disabling environments, mostly rooted in Western literature. In the third chapter, I will explain how grounded theory was applied to understand the disability phenomena within the urban framework. The chapter also provides detail on participant recruitment as well as data collection and analysis.

Chapter four presents the research findings, where four themes emanated from the data: 1) physical barriers in the built environment: public buildings, streets, roads, and sidewalks, as well as transportation; 2) the Soviet impact on the physical layout of the city of Almaty; 3) the municipal responses to the needs of disabled persons; and 4) the political involvement of disabled people. The fifth, and last chapter, concludes and summarizes all the research findings and suggests some recommendations for advancing the access and inclusivity of disabled persons in socio-economic aspects of life. The findings suggest that the historical past of Kazakhstan, as well as the current inaccessible city environment spatially segregate, immobilize, frustrate, and deprive disabled people of political, social, and economic opportunities.

Research Problem and Questions

The existing literature indicates that disabled people are marginalized and segregated due to the organization of urban space. The city's physical and spatial arrangements fail to address the needs of disabled persons (Imrie & Kumar, 1998). Insufficiently developed urban infrastructure—including roads, sidewalks, transit systems, ramps, and coloured and tactile surfaces—prevent disabled people from participating in essential daily practices, such as going to work, hospitals, socializing with friends, and participating in socio-cultural events. This means, disabled people do not have the same level of access to public places as non-disabled people (Baris & Uslu, 2009). Thus, disabled people are disadvantaged in attempting to realize their socio-economic and political potentials, and they struggle to overcome physical barriers in the built environment.

Until the 1990s, the voices and real-life problems of disabled people were barely addressed by academics and government authorities (Golledge, 1993; Barnes, C., & Mercer, G., 2003). The lack of awareness has resulted in the misconception of disability and inaccurate or absent provision of physical access. On top of that, it has also weakened the regulatory controls (Imrie & Kumar, 1998). Many disability activists, advocates, and disabled people themselves report that accessibility and disability-related state programs and legislations do not meet its targets (Watch, 2013). Any government authorities' attempt to improve the physical access to the built environment without considering disabled people's opinions may result in misunderstanding of their needs and, therefore, the flawed implementation of access provision (Imrie & Kumar, 1998; Naberushkina & Sorokina, 2012; Glesson, 1999).

In Kazakhstan, the government fails to research, monitor, or update the information about disability as well as the rights and needs of disabled people in cities. Little research exists on

disability, and even less or none on the accessibility of urban built environments. Moreover, disability in Kazakhstan is perceived as a medical issue—for example, a defect in the human body and/or mental disorder—but not as a social and environmental problem that physically disables them (Kabatova, 2014). As a result of this medicalized approach in the Kazakh society and government, disabled people are considered to be a "burden" who have to be segregated and treated in specialized institutions (Bernstein, 2014, p.42). Moreover, the hostile and discriminative environment left disabled people with no choice but to stay at home or individually overcome the existing barriers and challenges that the built environment imposes (Imrie, R., & Kumar, M., 1998).

This thesis attempts to analyze the potential disconnection between the everyday experience of disabled people and governmental regulations aimed to create barrier-free environments. I ask the following research questions:

- What are the everyday challenges faced by disabled people with physical impairments[1] in the city of Almaty?
- What measures and actions have been taken by the Almaty municipal government to address the accessibility needs and requirements of disabled people?

Significance of research

This study is valuable for several reasons. First, the research contributes to the understanding of disability as social and environmental restrictions rather than the individual's medical conditions. Second, it provides some insights into the issues of the widening gap

[1] The physical impairments in this study includes visual, hearing and mobility impairments.

between governmental regulations/promises and the lived experience of disabled people in Kazakhstan.

Additionally, this research will enrich the theoretical and critical discussions of the history of Kazakhstani disability, contemporary disability issues, the practices of local authorities as well as the level of physical access to public places in Kazakhstan. Finally, this research will challenge the current limited understanding of disabled people as "wheelchair-bounded" by addressing the diverse needs of disabled people with different impairments such as visual, hearing, and mobility.

Chapter Two

Literature review

Introduction

This chapter is divided into three sections. The first section defines how disability is conceived in socio-spatial disciplines such as geography and urban planning, where the most widely accepted models are medicalized and social. In this thesis, I emphasize the social model, one that should be constitutionally accepted to define the disability in Kazakhstan.

The second section reviews the literature available on the evolution of disability concepts in the Soviet Union, which directly connects to the history of disability in Kazakhstan. While the third section introduces contemporary studies and scholarly works on disability in Kazakhstan, it reviews the extant literature on disability among Western scholars.

Definition of disability

Disability is an important, and sometimes controversial, concept in disability studies as well as in socio-spatial disciplines such as urban planning, human geography, and architecture. Although there was insufficient attention from scholars (Oliver, 1990), fundamental works by Imrie (2000), Gleeson (1999), Golledge (1993), Oliver (1990), as well as the works of Naberushkina and Iarskaia-Smirnova & Rassel (2014) in Russian disability studies covered the topic. Nevertheless, such a prolonged academic gap had consequences on how the current environment, society, and politics are shaped (Gleeson, 1999).

The conception of disability has been viewed in several different ways. The most popular perspectives are the Social and Medical models of disability (Gleeson, 1999; Barnes & Mercer, 2003; Golledge; Brisenden, 2007). These two models are radically different in how they define the notions of disability and impairment, and how disability is socially and spatially conceived.

The medical model equates disability with an individual's physiological or psychological condition. From this perspective, some people meet the "normal" standards of body and mind, whereas those that do not meet this standard are seen as "abnormal" and are labelled impaired or disabled (Brisenden, 1986, p. 175). As a result, these people are treated in specialized medical and rehabilitation institutions so they could be rehabilitated and can return to "normal" life (Goffman in Barnes & Mercer, 2003). However, this model overlooks the physical and social environment, which hinders the life activities and causes social exclusion of disabled people (Parr & Butler, 1999).

This medicalized concept can be found in the definition of disability in Kazakhstan's law. According to Article 1 of the Law "On Social Protection of the People with Disabilities," disabled people are:

> "*invalid* is a person who has a health disorder with persistent dysfunction of the body due to diseases, injuries and injuries' consequences and defects that leads to disability and the need for social protection" (Ministry of Justice of the Republic of Kazakhstan Institute of Legislation and Legal Information, 2005).

The word "invalids" used to define disabled people has negative meaning (Kabatova, 2014, p.26). The terminology appeared in the Russian Empire at the end of the seventeenth century and meant retired military personnel with the inability to continue military service due to health reasons (Muravieva, 2012). Further, Muravieva (2012) contends that this term was extended to all categories of disabled people in association with the disruption in health. It divided society into "normal" with "abled-body" individuals and invalids characterized by "deviations in body and mind" by referring to their inability to work. The outdated terminology has been accepted

and institutionally practised to define persons with impairments in Kazakhstan even after the independence in 1991 (OECD, n.d.).

In contrast, Shakespeare and Watson (2002) argue for the social model which was developed in the 1970s and argued that the spatial and material arrangement of the urban and social environment creates oppressive and discriminatory experiences for disabled people (Shakespeare, 2010; Imrie and Kumar, 1998). At the same time, the social model does not deny the presence of impairment but emphasizes that the built environment may also limit and restrict disabled people from full social participation, socio-economic, cultural, and political opportunities (Owens, 2015). As an example, the United Nations Convention on the Rights of Persons with Disabilities defines disabled persons by drawing attention away from the individual's physical and mental impairment:

> "Persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others" (United Nations , 2006).

Compared to the abovementioned Law of Kazakhstan, this definition intends to highlight the negative impact of the disablist environment and protect the rights and basic freedoms of all disabled people (United Nations, 2006). The later part of the theoretical discussion in this thesis is based on the social model, which explains the state's inadequate understanding of disabled people as having a right to be equally treated as non-disabled citizens.

In this thesis, the term "disabled people" is used instead of the term "people with disabilities." Barnes & Mercer (2003, p.18) contribute to this idea that using "disabled people" instead of "people with disabilities" stresses the impediments that social barriers may impose on

disabled people. Likewise, I believe that environmental and socio-spatial configuration plays a vital role in shaping the everyday reality of disabled people. In addition, Abberley (1991a, 1991b in Gleeson, 1999, p.20) maintains that this term, “people with disabilities” depoliticise the social barriers that disabled people face.

Disability in Soviet Kazakhstan

The long history of Kazakhstan within the Russian Tsarist Empire, pre-Soviet, and the Soviet eras exists (Olcott, 1995). However, I do not intend to analyze the entire history from the eighteenth to the twentieth centuries in a single work. Instead, this chapter will focus only on the period from 1920-1991 when Kazakhstan became part of the Soviet Union (Olcott, 1995, pp. 137-156) and will examine current practices and social attitudes in Kazakhstan towards disabled people during this period.

Soviet time was unique in terms of disability history. First of all, it was similar to the history of disability in Western countries; however, the Soviet approach to disability differed in radical ways (McCagg & Siegelbaum, 1989). Even though both regions developed the institutionalized approach of social control (Barnes & Mercer, 2003, p.28), Shaw (2015, p. 60) made a notable comment that while Western countries eliminated institutions in the 1960s, the "inhumane" approach, along with discriminative practices, continued in the Soviet society. For example, by 1986, the total beds for the mentally ill reached 335 200 in the Soviet Union, while the United States decreased from 558 900 to 307 900 in 1971 (Joravsky, 1989). Second of all, "very little is known" about disability history as any topic about it were barely propagandized all over the Soviet territories (McCagg & Siegelbaum, 1989, p. 4). As a result, the "hidden" status of disabled people, as well as the ban on discussion and publicity of the problem of disability in

social discourse, led to the institutionalization and segregation of disabled people (Phillips, 2009). Finally, disabled people did not fit under the Soviet ideology that aimed to create a "New Soviet Person": a "Stalinist" masculine and communist worker in good health (Shaw, 2017, p. 5). Shaw (2017, p. 4) states that pursuing this ideal, the Soviet state was not sure "what to do with individuals seen as physically flawed. Could a disabled or 'defective' body embody the Soviet ideal?" Through institutions, reorganization of social space and rational labour use the state aimed to overcome the ideological "fraught" caused by the Soviet disabled people; (each approach presented in separate sub-sections below). Although there have been discussions of marginalization, exclusion, and segregation of disabled people (Michael Rasell and Elena Iarskaia-Smirnova as in Shaw, 2017), Shaw (2017) claims that the Soviet-system provided economic stability which trumped the spatial segregation that disabled people endured.

Labour centered approach

Shaw (2017, p. 4) describes the revolutionary ideology of the Soviet state that "Soviet individuals were expected to work to remake themselves in the mold of these Soviet heroes." The significance of the labour force in the Soviet era is palpable in the literature (Madison, 1989; Iarskaia-Smirnova & Romanov, 2014; and Zaviršek, 2011). According to Krasheninnikova (2017), the sacred meaning of "labour" came from a "labour-centred" approach of the Soviet ideology. However, when disabled people could not be "molded" into such a utopian image of labour class (Shaw, 2017), the labour-centered approach was formed primarily as a rational tool to assign types of job for people that suit their health conditions and "remaining ability to work" (Zavirsek, 2014; Collier, 2011). According to this labour-centered system, disabled people who do not have the ability to work still had to return to work-life (Iarskaia-Smirnova & Romanov,

2014). As one of the manuals for medical workers reads: "the task of examination of temporary loss to work is to preserve personnel and increase labour productivity by properly placing workers with pathological body disorders according to their state of health" (Gladshtein et al., 1935:9, as cited in Krasheninnikova, 2017). Indeed, Madison (1989) points out that the special medical-labour expert commissions were assigned for responsibilities to define the condition and type of job where disabled people could work and help them to “re-establish workability.”

Based on this concept of labour use, a comprehensive medical expertise system was developed to divide disabled people into three categories based on their working abilities. People in group I were those who completely lost the ability to work and could not live independently; group II encompassed "invalid" persons who could not be employed in any professional work but did not require assistantship in everyday life; and group III were those not capable of systematic work in their profession in the usual conditions but retaining residual working capacity sufficient to be engaged in: a) irregular work, b) reduced working hours, and c) in other work occupation with significant falling-off in the qualification (Nagornova & Makarova, 2014; Madison, 1989, p.171). Bauman (2002. P. 89– 103, in Iarskaia-Smirnova & Romanov, 2014) acknowledges that labor resources that did not find the application at this particular moment were kept as the active workforce of tomorrow. They were the "reserve army of labor" - their position was defined not by what they were in that particular time, but by what they were ready to become when their time came.

Madison (1989) underlines that the Soviet leadership justified the importance to work for disabled people in three ways: "social – work" that increases the financial status of the disabled; "moral – work" helps to eliminate the feelings of estrangement and uselessness; "economic – work" contribute to reducing the labour shortage.

Socio-spatial segregation

By imposing the idea that disability is a personal tragedy, the Soviet state denied the adaptation of the built environment to the needs of disabled people. Besides, the state independently determined the social isolation of disabled people in a space separate from a "healthy" society and decided the most acceptable condition for their life (Shek, 2005). Moreover, Shaw (2017, p. 9) cites Maria Galmarini-Kabala, who indicates that disabled people were “always perceived as abnormal” and lacked “any chance at integration.” Separate health, education, and labour institutions, as well as spatially designated neighbourhoods for disabled people, were the core of disability politics in the Soviet Union. Shaw (2015) documents the Soviet phenomenon of "Deaf spaces" within cities. Standardized Soviet economy, politics, and the centralization of power had a distinctive impact on the socio-spatial structure of all Soviet-era cities across the Union (Burneika, 2008). Such separate spaces for disabled people are common to other Soviet cities. For instance, the physical layout of Almaty was also similar to other Soviet cities. Thus, the distinguished “deaf towns,” as pointed by Shaw (2015), were the same as "blind" neighbourhoods formed in Almaty.

However, Shaw (2015) argues that the formation of a "separate spaces" for deaf and hard of hearing citizens within the city was based on the idea of emancipation of the disabled communities from marginalization and disenfranchisement. Shaw (2015) believes that the Soviet state aimed to empower disabled people through the production of a separate community, industrial, working, and living spaces. Within such spaces, the success of institutional organizations was in provisioning disabled communities with work, education, necessary labour skills, and housing.

However, opposed to Shaw's view, Shek (2005) pointed out that the creation of special spaces apart from non-disabled citizens highlighted the interest of the state in using the "residual labour resource" of disabled people.

Institutionalization

Institutionalization was a result of the "fetishization" of the healthy and working person. As noted above, those who did not fit into this ideology of body and mind perfection were segregated in institutions, such as special boarding schools, health centres (Iarskaia-Smirnova & Rasell, 2014). Even though such institutional care centers were a crucial violation of human rights (Sumskiene & Orlova, 2014), the concept of institutionalization was popularized and maintained as one of the leading disability policies (Collier, 2011). The Soviet state believed that disabled people were helpless and could not live independently. (Sumskiene & Orlova, 2014). Thus, Iarskaia-Smirnova & Rasell (2014) point out that the state perceived health care and welfare institutions as the most suitable place to support disabled people. According to Iarskaia-Smirnova and Rasell's (2014), 7.400 care institutions were inhabited by 1.3 million people in Europe and Central Asia during the Soviet period.

The Soviet system

Soviet ideology can be understood as both denying and supporting disabled people. For instance, Phillips (2009) illustrates that the Soviet ideology pursued the politics of denial of the existence of disabled people inside and outside of the Soviet Union. However, at the same time, the state supported all aspects of disabled people's social life. Firsov (2005) and Shek (2005) explain that this support was represented by a model of state paternalism towards disabled

people. Shek (2005) illustrates that the paternalistic type of social policy, along with social support, was based on guaranteed satisfaction of the basic needs of disabled people. The Soviet state believed in the idea that citizens' needs have to be "efficiently and effectively met" (Nove, 1980). Thus, disabled people were no exception and were provided with social and economic benefits. For example, Nove (1993) notes that disabled people, along with other soldiers' families, and rural residents were exempt from paying for "foodstuff, postal and transport services, housing and communal servises, etc" (p. 58).

While denying, hiding, and segregating disabled people within institutions, special neighborhoods, schools, workplaces, among others, the Soviet state provided them with social benefits, cultural and social activities, work, and education (Shaw, 2017). On the one hand, improving "self-sufficiency" (Shaw, 2017) and the satisfaction of the basic needs made disabled people accept their position. In fact, the satisfaction put disabled people in a dependent position, contributing to the development of obedience and lack of initiative among them. On the other hand, the totalitarian regime suppressed any form of public grievance (Shek, 2005). Interestingly, a more positive attitude towards the Soviet system was discovered from this research participants and is presented later in the findings section.

Disability in Kazakhstan in the Contemporary Context

After the dissolution of the USSR, Kazakhstan gained its independence in 1991 (Olcott, Martha Brill, 2010). Since that time, in their first years of independence, the governments of Post-Soviet states established economic and political development as fundamental, paying less attention to the social welfare improvement (Mazecaite-Vaitilaviciene & Owens, 2018). Although minor modifications took place in terms of the social welfare system, institutions,

rehabilitation centres, boarding schools, and residential homes established under the Soviet system remained unchanged (Sumskiene & Orlova, 2014).

Despite a political and economic change in Kazakhstan, including the transformation from a centrally planned economy toward a democratized free-market system, little progress has been made in decreasing social exclusion and discrimination of disabled people (Katsui, 2014). A new form of segregation took place: the process of privatization transformed the purpose of special Soviet institutions for disabled people, such as education centers, health care sanatoriums as well as the whole designated neighbourhoods. As a result, the voices and needs of disabled people were not addressed; in fact, their needs were dismissed as seen in the inaccessible and hostile urban design till 2005.

In 2005, the government of Kazakhstan enacted the Law "On Social Protection of Persons with Disabilities." This law is the first and only legislation of its type in Kazakhstan aimed to promote, protect, and ensure equal rights of disabled people in Kazakhstan (Becker & Seitenova, 2008). Even though this legislation mostly regulates and promotes disabled people's human rights, it attempts to guarantee inclusive environmental design too. This law mandates the local executive bodies to remove environmental barriers in the design and renovation of buildings:

- “when designing and building, forming residential areas, improving newly developed and reconstructed territories and other settlements following national standards, disabled people should have access to residential, public and industrial buildings, structures and premises”;
- “individuals engaged in entrepreneurial activities and legal entities following state standards are obliged to create conditions for people with disabilities for unhindered

> access to vehicles of general use, residential, public and industrial buildings, structures and premises" (Chapter 3, Paragraph 25, (Ministry of Justice of the Republic of Kazakhstan Institute of Legislation and Legal Information, 2005)

In 2014, the government proclaimed the program "Future without barriers", just before ratifying the UN Convention on the Rights of Persons with Disability in 2015. This promising action has demonstrated an initiative towards long-term development of policies that sought to create equal access to all public, private and non-profit sectors, transportation and services for disabled people (Temirzhanovich, n.d.). However, little has been documented on the effectiveness of the above-mentioned right-specific and accessibility planning legislations. Besides, there is limited literature on physical access to public places and services for disabled people within Kazakhstani academics. A few existing scholarly pieces of research are significant to note.

First, the seminal work done by Becker and Seitenova (2008) with the support of the World Bank is among the rare publications that address the history of disability determination in Kazakhstan. Becker and Seitenova (2008) focus specifically on the historical patterns of disability and explain that disabled people have earned legal status since the country "joined the Soviet Union" at the beginning of the twentieth century. Their research aimed to track the disability incidence and prevalence in Kazakhstan that occurs across the country.

However, Becker and Seitenova's (2008) research could be criticized for its methodology and a narrow focus. The study mainly utilized census data on disabled persons, thereby ignoring the social and political aspects of disability. The study employs traditional biomedical models of disability, and medicalized data on disabled people were merely quantified into statistical graphs, disability, and death rate and classified by social factors, such as age, gender, and employment.

Other valuable research is the UNDP Report 2009 in Kazakhstan, titled “From Exclusion to Equality: Realization of the Rights of Persons with Disabilities,” the report is a comprehensive analysis on how to improve the living experience of disabled people based on international standards (United Nations, 2009; Kabatova, 2014). The significant role of the UNDP in the protection of the rights of disabled people in Kazakhstan is also reinforced by the Ministry of Labor and Social Protection's Official Website (n.d.), which insists that cooperation with the UN helped to develop a methodology to allocate an inventory of accessibility of buildings, facilities, and services for a different type of disability.

Third, the most recent work on disability in Kazakhstan is Kabatova’s (2014) thesis about the bio-politics of disability in Kazakhstan. Kabatova aimed to understand the perception of non-disabled people towards people with disabilities. By doing so, the author explores how this perception towards disabled people impacts the state policies on disability in Kazakhstan (p.2). Her thesis involves critical discourse analysis of the Law of the Republic of Kazakhstan "On Social Protection of Persons with Disabilities," which contributes to understanding the concepts of disability and accessibility in administrative law. Kabatova examined the infrastructure of the city of Almaty through evidence-based observation, which involves documenting the researcher’s experience in the wheelchair. She concluded that individualizing discourses of disability among decision-making authorities has led to inadequate access provision.

Theoretical Framework

My understanding of the exclusive design of urban spaces is informed by critical urban design theories and humanistic geography based on Western scholarly works.

Research on disability and accessibility have been widely studied since 1970 by North American scholars. Since then, the concept of disability has been shifted fundamentally from the medical model, i.e., an individual's health problem to social and environmental models. A significant amount of research among Western scholars has been conducted in the area of inclusive design, barrier-free, universal design, and others that raise awareness of the importance of eliminating barriers in urban planning, architecture, and geography (Gleeson, 1999). However, it is unfeasible to mention all of them in one thesis section; thus, works by Rob Imrie (Imrie & Kumar, 1998; Imrie, 1997; Imrie, 2012; Imrie & Hall, 1999) and Goffman (2006) are presented below.

Scholarly works in architecture such as that of Imrie (2000) explore connections between architecture's values in designing the built environment and exclusion of disabled people from these processes. Imrie contends that most contemporary urban buildings are designed with no regard for disabled people's needs, resulting from the "dominant imperialistic society." The segregated schools for disabled people and the absence of restrooms are the various examples of imperialists' values (Imrie & Kumar, 1998).

Hall and Imrie (1998) also evaluate architects' understanding of disability and attitudes towards disabled people's needs. Authors found that planners, architects and society more generally have a limited idea of who disabled people are. They tend to accept the idea of people with disabilities as mobility impaired and/or "wheelchair-bound." This divergence might be caused by a lack of consultative and/or participatory processes among architects, design teams, and disabled people. Likewise, my research provides support for what Imrie claims that it is mostly "able-bodied" individuals that develop and implement access policies, which reflects the

broader social isolation of disabled people from channels of power and influence (Imrie R., 2012).

One of the widely cited scholarly works within disability studies is Ervin Goffman's Stigma (Abrams, 2014). Social stigma is at the center of the Soviet disability studies. Stigma, inaccessible urban environment, and medicalized approach are the most common experiences that disabled people encountered in their life (Iarskaia-Smirnova & Romanov, 2014).

In his study, Goffman (2006) sought to define the concept of stigma and experiences that stigmatized individual encounters. Goffman notes that stigma originated from the Greek word used to describe the "unusual and bad status of the signifier". He claims that society tends to read from the person's appearance, enabling us to anticipate his/her "social identity." From that anticipation, individuals indicate a difference and compare to others. If such attributes identified an individual's mind, the person in front of him would be downgraded from a "whole, and usual person to a tainted discounted one" (p. 3). Thus, Goffman describes such an attribute as a stigma.

One of the examples of the Soviet stigma is pointed to by Shaw (2017) in her seminal work on deafness identity within the Soviet body politic. Shaw claims that even though deaf people through self-alteration are turned into valuable members of society, they were always compared with the utopian image of “Stalinist masculinity” and their “innate physical and conceptual difference was never denied”.

Further, in his research, Goffman (1963, pp. 140-147) studies what is known as deviations and deviators, meaning "any individual member who does not adhere to the norms" known as a deviator, and "his peculiarity as a deviation." For instance, individuals who are involved in some "abnormal" activities against cultural norms, such as prostitutes, gypsies, and city poor among others are deviant communities. Likewise, disabled people in the Soviet state

were politically and socially stigmatized due to the perception of disability as “body and mind deviation.”

However, not only the person can be subjected to stigmatization but action or place that are not incompatible with our idea of a "good and normal" place. For example, the Soviet period psychiatry therapy is associated with "mental illness" and "nervousness" and thus, relates to stigma—even the process of visiting such psychiatry places and mental health doctors associated with stigma too. During the Soviet period, the mentally ill carriers often experienced socio-cultural stigmatization for attending mental health services (Agita & Daiga, 2014).

Chapter Three

Methodology

Introduction

A qualitative grounded theory approach was adopted for this thesis. With this approach, a researcher derives a theory from qualitative data that represents people's lived experiences (Urquhart, 2013). This approach is well-suited to this research for two reasons. First, in a context of a significant lack of existing accessibility/disability theories within the Kazakh framework (Becker & Seitenova, 2008; Katsui, 2014; Kabatova, 2011), the grounded theory method allows a researcher to build a theory from the raw data rather than testing an existing theory (Khan, 2014). Second, based upon the research objectives of this study which centralize the voices of disabled people the grounded theory approach enables one to develop a theory rooted "in the views of participants" (Khan, 2014). The grounded theory was developed by Barney Glaser and Anselm Strauss (Strauss & Corbin, 2008). They defined their approach as "the discovery of theory from data – systematically obtained and analyzed in social research" (Glaser and Strauss 1967 as stated in Urquhart, 2013, p. 4). The research approach enables one to build a substantive theory and "offers insight, enhance understanding, and provide a meaningful guide to action" (Strauss & Corbin, 1998, p. 12 as stated in Torres, Reiser, LePeau, Davis, & Ruder, 2006).

Selection of the Study site

The field research for this thesis was conducted between June 2019 and August 2019 in the city of Almaty, Kazakhstan. The city of Almaty was chosen for several reasons, but the following three are the most important. First, Almaty is the biggest city in Kazakhstan, with a population of more than 2 million people (Statistics.kz). As was noted in the introduction, the majority of disabled people (49,511) live in Almaty (Statistics, 2019). Unlike the modern capital

city Nur-Sultan, which was built almost from scratch in 1997, Almaty is a city with established infrastructure, physical form, and city-style that is decades in the making (Alexander, 2007). Secondly, Almaty is my hometown, and I know its history, administrative organization, streets, and buildings and this knowledge helped me contact local disabled communities and municipal officials. Finally, the city has the most advanced economy, infrastructure, and strong social and political organization compared to other cities in Kazakhstan. Thus, the city presumably has reasonably the best practices of access provision in the country.

Participant recruitment

First of all, based on the research objectives and questions a purposive sampling technique was adopted (Anney, 2014) to identify potential participants. Participants had to be able to give informed consent and fit the profile of "first-hand experienced" in terms of disability. The World Health Organization (n.d., p. 4) reports that there are diverse types of disability such as psychological, vision, physical, as well as "visible or invisible; the temporary or long term". Inclusion of all disability types was not feasible, therefore, only three forms of physical impairments - mobility, vision, and hearing - were included. According to the Human Rights Report on Barriers in Russia (2013), people with mental and emotional disabilities may face different experiences regarding the built environment, such as forced obligations to institutions and problems to gain disability status that was recognized by the state. However, disabled people with mental, invisible, emotional or psychological disorders were not included in the research. Finally, to overcome the slow recruitment process by including minors and reaching their parents for obtaining parental permission, disabled people under 18 years old were not included.

Second of all, to answer the second research question as well as avoid representation of only one-side perspectives, the research included perspectives from municipality staff as well. For this analysis, I attempted to reach municipality authorities who work in departments related to disability and accessibility issues. Ultimately, interviews with 3 government workers from local municipalities were conducted after the collection of data with disabled people.

Based on this initial analysis, twenty-eight participants who identified themselves as visual, hearing, or mobility impaired were recruited for this study. The term identified is important to note, as Watson (2010) contends that some persons do not identify themselves as "disabled". Among all interviewed disabled people, twelve are people who are wheelchair-bound, thirteen are visually impaired, and three have a hearing problem. Among municipality workers, one participant was a representer of Turksib district Akimat, a second was from the Department of Comfortable Urban Environment, and a third was from Zetisu district Akimat. I was referred to them as "competent" in issues related to disabled people and access provision.

According to Guest et al. (2006), a sample size of twelve can result in saturation if the participant's group is homogenous. The term "saturation" (Glaser & Strauss, 1967) refers to the stage in the data analysis when the analysis shows no new information and instead reveals repetitive information. However, waiting to come to saturation during the fieldwork is not always feasible where fieldwork is time-limited. Therefore, as Guest et al. (2006) suggest, the number of participants was defined at the beginning of the study. Further, Guest et al. (2006) recommend conducting more interviews when heterogeneous participants are needed in research. As the focus of this thesis is to interview disabled persons with three different types of impairments, such as visual, hearing, and mobility, a sample size of twenty-five to thirty participants was targeted.

Data collection

Semi-structured, face-to-face individual interviews were used to collect data with disabled people in Almaty. This data collection method allows the researcher to be flexible with follow-up questions while having a prepared set of questions. Besides, this method gives space for participants' "individual verbal expressions" (Kallio, Pietilla, Johnson, & Kangasniemi, 2016, p. 2955). The questions for participants with impairments covered a variety of themes such as experiences accessing public places, transportation, travel behavior, and overall perspectives on city infrastructure and governmental actions towards a barrier-free environment. Also, interview questions collected information on a variety of subcategories starting with participants' age, educational background, and occupation. The second category included the question of whether they were satisfied with Almaty's built environment, asking them to describe their negative and/or positive experiences while traveling in the city. For example, questions such as "What places in Almaty brings you joy and happiness" and "What places do you consider as physically accessible" were asked. Finally, the conclusion questions were about their political involvement and knowledge about national policies and their constitutive rights.

The set of questions for participants from the city municipality begin with questions about their role, followed by issues they addressed regarding disability and accessibility. And finally, questions how they respond to the needs and what has been done so far by the municipality to improve the access provision for disabled people in Almaty. The recruitment of participants representing municipalities was conducted via phone calls; thus, it was challenging to reaching the municipality as the departments within city administration do not accept or answers calls from non-governmental organizations, journalists, or research students. I spent much time being

referred from one department to another, from one worker to another. Finally, three participants were recruited for this study.

Consent forms were given to each participant to confirm that they recognized the risks and benefits before agreeing to participate in this study. To overcome the language barrier the informed consent form was documented in three languages Kazakh, Russian, and English. To compensate the participants' time and effort to come for an interview, incentives in a form of cash of CAD 10 (approx. 2872 tenge) was given to each of them. The consent form for participants with visual impairment was read out loud by the director/head of the organization where they were recruited. For an interview with participants with hearing impairment, the sign language translator from the same organization assessed the translation. Interviews were conducted in Russian and Kazakh languages as the majority of the population do not speak in English. Thus, I was an interviewer as well as the translator of my data due to my ability to speak, write, and read in Kazakh, Russian, and English. The interviews were digitally recorded and saved in the designated folder on my laptop.

Data analysis

First, the recorded responses were transcribed, followed by a translation into the English language. After this step was done, data analysis was undertaken using NVivo computer software. This vital process of deriving the meaning from the data in qualitative research is called the "meaning-making process" (Creswell & Poth, 2018). NVivo is a "computer-assisted qualitative data analysis software" (NVIVO, 2020). It is simple and can be used to manage the transcript by breaking it into workable pieces of data (Welsh, 2002). There is myriad qualitative data analysis software such as Nudist, Atlas/ti, NVivo, and others. The choice of software

depends on several factors. For example, Welsh (2002) consents that peers' recommendations and the opportunity to have access to "short courses" are essential in decision making. Likewise, in my research, I chose NVivo over other software because it was the most usable and peer-reviewed software in the Urban Environment Observatory, and it has an easy interface with short video-tutoring.

NVivo program helped to inductively develop more than thirty nodes, and themes such as physical barriers to facilities, transportation infrastructure, services, housing, schools and workplaces; social attitudes; the impact of the barriers on travel behavior; state failure to ensure the disabled's rights and among others. After reducing them into five-six main themes, I began developing an explanation of the researched phenomenon. The main themes further appeared in the analysis/discussion section of this thesis.

Rigour

There is more than one strategy to conduct qualitative analysis and the rigour of the outcomes may depend on researchers' skills, logic, and manner of investigation (Elo & Kyngas, 2007). Nevertheless, the four most widely used criteria to evaluate rigour were developed by Lincoln and Guba (1985) and aimed to support the idea that the research findings are "worth paying attention to" (Lincoln &Guba, 1985 as stated in Elo, et al., 2014). These criteria - credibility, dependability, conformability, and transferability - were pursued in this study to maximize trustworthiness of study findings.

Credibility of the findings was enhanced through the 1) prolonged engagement with participants which helped to establish trust between researcher and participants (Anney, 2014). During two months of the field trip to Almaty, I spent most of my time staying with participants in their public organizations where they socialized every day. This, indeed, helped to be engaged

with them informally and understand the insights of their experiences. Moreover, 2) "triangulation" using different sources such as official state and policy documents, and 3) "peer debriefing" with my supervisor, co-supervisor, and peers allowed to obtain different perceptions and recognise my own biases (Shenton, 2004).

At the same time, the language barrier proved to be a major limitation in ensuring credibility through the "member checks" procedure (Shenton, 2004). The "member checks" involves the researcher presenting the data interpretation back to the research participants (Anney, 2014). However, the thematic analysis had to be translated back to Russian and Kazakh languages for participants to assess the researcher's interpretation. It takes a considerable amount of time for the context to be thoroughly translated and not to lose the meaning since the translation back and forth might reduce the validity (Nes, Abma, Jonsson, & Deeg, 2010). In addition, the data analysis was completed in Canada.

The concept of confirmability refers to the ability of the researcher to present participant's voices rather than the researcher's views and preferences (Shenton, 2004) which in this research was achieved through rich and vivid participants' quotes. Transferability refers to the "thick description" and purposive sampling of informants. This criterion was ensured by the provision of detailed and sufficient information about participants which allows the reader to evaluate whether the context can be transferred (Anney, 2014).

Dependability is the criterion to ensure that the other researcher will be able to repeat the study (Shenton, 2004). The detailed report of the method: participant recruitment, data collection, and data analysis ensured dependability. In addition, the use of mechanically recorded data, verbatim transcription and NVivo software also enhanced the dependability of the findings.

Chapter Four

Analysis and Findings

Introduction

This chapter is divided into four sections. The first section documents and discusses the physical barriers embedded in the built environment that disabled people with physical, visual and hearing impairment experience in Almaty. This section is divided into subsections that detail physical barriers in relation to public buildings, public spaces such as streets and sidewalks, and the public transportation system. Moreover, each section that outline the barriers are divided into three sub-sections, each describing the needs and requirements of people with three distinct impairments – vision impairments, hearing impairments and movement impairments. The fourth sub-section is devoted to the social transport service Invataxi. This service is presented in a stand-alone section because it is an accessible and relatively new mode of transportation among disabled people.

The second section documents participant's perception of the impact of the Soviet system on Almaty's built environment and reflects the main points of literature review about the Soviet disability politics. The third section illustrates the persistent failure of the state policies that aimed to ensure equal rights, eliminate discrimination, and provide full accessibility to the built environment. It identifies the gap that exists between promised accessibility improvements for disabled people and the practices of planners and developers.

Finally, the fourth section analyzes the level of political involvement of disabled people. It assesses the knowledge of disabled people about existing laws, legislations and state programs.

Barriers in the built environment

One of the main themes that emerged from the respondents pertained to physical barriers in the urban built environment. Physical barriers—ranging from steep ramps and uneven roads to the absence of visual signs—can be defined as obstacles disabled people encounter within the built environment. Such barriers may create a disadvantage to disabled people with physical, vision, and hearing impairments, and deprive their rights to have access to the places that able-bodied people have. For instance, even if a disabled person may get a job or be accepted at a university, he/she may face a barrier to even come out of their own homes, travel to and enter buildings to work, study, or socialize.

The following sections identify barriers to accessing types of physical structures: public buildings; public streets, roads and sidewalks; and public transportation.

Public buildings

This section discusses the public places that participants with visual and mobility impairments regarded as physically inaccessible. In addition, respondents were also asked to detail what kind of barriers they experienced when they name a place as physically inaccessible. The analysis suggests that barriers, such as the absence of a ramp or its steep inclination, are the most common barrier for disabled persons with a physical impairment and who use wheelchairs. The absence of the Braille writing system and audio access devices are the main obstacles for disabled persons with visual impairment. All the respondents with hearing impairment identified no barriers to access to public buildings. Although they did indicate the challenges in receiving services and communicating with service providers such as drivers, health, and municipality workers among others. It requires separate research on communication and information barriers

to receiving services for disabled persons. Thus, this section does not include a sub-section with participants with hearing impairment.

Analysis reveals that the above-mentioned barriers result in disabled persons' dependency on relatives/friends for accessing necessities of life, changes in travel behaviour, and severe restrictions on how far and which places they can travel.

When asked to name accessible places that they enjoy visiting in the city, most study participants struggled to remember and could not name a single one immediately. An overwhelming majority of the participants (25 out of 28) agreed that there are almost no barrier-free places in the city of Almaty. After further prodding, two participants pointed out that they can "count on fingers" the places that they consider as fully and/or partially accessible. The following quotes capture these sentiments:

Participant W1[2]: To be honest, here, almost all of the institutions are uncomfortable. There are stairs and steps everywhere.

Participant V1: I do not know. I do not see such a place for myself in the city. Well, I have not found such a place that is really fully accessible in all respects.

Moreover, when participants were asked to name places that they recognize as physically inaccessible, they paid more attention and time to detail the physical barriers that they faced. The participants explained that almost all buildings are physically inaccessible for them, and naming all of them had no point. Thus, a majority of time was spent on defining the barriers rather than places.

[2] The quotes of participants with visual impairment are indicates as Participant Vn (where n – number from 1-13), participant in wheelchairs as Participant Wn (n – number from 1-12), and participants with hearing impairments Participant Hn (n – number from 1-3).

At the same time, few participants indicated places that they describe as physically accessible. However, based on the named places, all places are random and have no common characteristics. The places that they named as accessible vary among participants and will be presented in the separate sections below.

Participants with mobility impairment

Findings show that private sector provides better access compared to government institutions. Participants in wheelchairs named the shopping malls and some private universities as physically accessible. The private university of "AlmaU" Almaty Management University was named as accessible by two participants in wheelchair and two participants with visual impairment. For wheelchair users, the university provided accessible ramps, handrails, and adapted washrooms. Other state universities such as Al'-Farabi Kazakh National University failed to provide any of the aforementioned facilities.

One of the famous shopping streets Arbat Market also received the most significant number of comments. Most of the participants noted the boulevard as a "pedestrian-friendly and accessible for disabled people". Another participant indicated the main airport as "more accessible" compared to the one in the capital Nur-Sultan city; the main airport in Almaty is owned by a private Turkish company.

Among public buildings, the central city municipality was the "only accessible" place. For instance, more than one participant (3 wheelchair users and one visually impaired) named the principal city administration building which is "very accessible".

Participants who use wheelchairs identified facilities and buildings as "physically inaccessible" based mostly on availability and/or safety of ramps. Examples of physical barriers

that participants who use a wheelchair also included the absence of restrooms and elevator for wheelchair users, sliding doors, and stairs. Several participants who use a wheelchair for their mobility made a significant point about ramps. Almost all thirteen disabled participants who are wheelchair users noted the steep and dangerous ramps to the buildings around the city. Ramps were identified as the most fundamental barrier that impedes their access to public places.

Participant W2: Regarding ramps, there are not accessible ramps everywhere, unfortunately. And, even if there are, they are too raised, almost 100 degrees [means steep slope], to be honest…

Participant W3: …If only not the ramps that are 90 degrees [steep slope]. You can try, as they say, twist your neck.

Few participants commented on the level of risk when they use these steep ramps. They noted that accidents happened if the person who cares the wheelchair could not handle and the wheelchair with a person fell will result in serious injuries or even death.

Participant W4: Imagine: he/she will push, firstly, there is a load on the back because it is the top. And, secondly, the wheels, oh, the wheelchairs are not light now. And imagine, if now with all the weight, God forbid, he/she won't hold the wheelchair, that's it! And that is the end for both the wheelchair and the person, in this sense that he/she will be injured 100%.

Additionally, some participants noted that when entering the facilities, barriers inside of buildings hinder their movement. For instance, no adapted washrooms for wheelchair users and narrow elevators left them frustrated. Participants pointed out that basic needs, such as adapted washrooms for wheelchair users, are fundamental. The unavailability of accessible washrooms

forces disabled persons in wheelchairs to ask for help which might cause stress and embracement.

Participant W3: ...because people also go where it is more accessible, where he/she can use the toilet calmly, where he/she will be served and, where it is more accessible to park cars, and everything.

Participant W7: My little brother was not alone in the washroom, and the other guy was helping him when a passing stranger called them "gay"! How could he say that when my brother was in a wheelchair?

Further, the importance of available elevators is significant to note. It is because disabled individuals in wheelchairs noted that they purposely do not go to places where the events are not on the first floor, and the elevator does not adapt for them.

Participant W8: I am a member of the public council of the health department, state health, yes. And they always have meetings on the second floor. And I have not attended a single meeting.

The absence of sliding doors was identified as a barrier to entering the facility as well. The participants indicated the difficulties to open the doors. Additionally, participants pointed out that some doors are heavy and require considerable strength to open, and sometimes able-bodied people "struggle to open these doors". To open the door for disabled persons in wheelchairs is impossible without external help. The open push buttons can overcome some of these problems, but they are not widely used in Kazakhstan, probably because of its high price or limited availability. Additionally, the lack of research on accessibility modifications among state

workers, NGOs, and developers may result in the existence of such barriers that the Western countries have already eliminated.

Further questions about physical barriers brought an interesting finding. When participants were asked to name places and buildings that they think inaccessible and why, about all participants decided to talk about the implications of those barriers on their travel behaviour, emotional well-being, and socio-economic status rather than just naming them.

According to the findings, the frequency and purpose of their travel directly depended on the level of access to public places that they wanted to visit. For example, many wheelchair users stressed that they could not enjoy outdoor entertainment such as cafes, bars, and karaoke places because of the steep ramps or its absence. They explained their frustration by saying that they also need to socialize and hang out with friends rather than always closed at home:

> *Participant W5: In many places where you can just hang out with friends - no, there is no comfort for wheelchairs, for disabled people, there are only steps. Honestly, it's inconvenient for us in many of our institutions.*

Another interviewee also pointed out that places for leisure and entertainment are not accessible. This is important to note because socializing and self-care is necessary for the well-being and social inclusivity.

> *Participant W7: There is no such place, you know. It is not like everything enrages me, but in particular, we have many places where I can't go such as karaoke and good bars.*

Importantly, the level of access also impacts on the travel behaviour of disabled people. Based on the findings, many of them prefer to stay at home or delay a visit until their friends and/or relatives go and check if the place is accessible or not. When asked why they do it, participants explained that they do not want to spend time and effort reaching the places which

may turn out to be physically inaccessible. Such experiences stress them and discourage going outside frequently. As a result, the less place is available, the more they prefer to stay at home, explained a few participants.

> *Participant W10: Personally, I know which places are accessible for disabled people, and I go only to those places. I have my dots [she means places] …for example, my little sister goes to those places first (laughs), she checks the place, and only after that I go. I do not go straight to those places myself…Once she went to check if the theatre has a ramp, and then we went.*

The experiences of disabled people with visiting only the places they have access recall what Golledge calls a "world of disability": disabled people are getting attached to the places they are used to going, due to the fear to face new inaccessible places (Gleeson, 1996). Indeed, two wheelchair users highlighted the importance of visiting the places that they know are accessible and familiar. However, this self-segregation is not of their own will as they are, in fact, marginalized and disabled by the urban environment.

> *Participant W1: Sometimes new places open. I want to go there, but, you know, it's not always accessible and convenient…but sometimes you want some diversity. However, it turns out that it is inaccessible, and you won't be able to go there…*

Interestingly, the barriers that disabled persons encounter impact on disabled people's independence as well. All agreed that their activities require external help because of the barriers they encounter in their everyday life. For instance, basic activities that abled-body people will take for granted such as to enter/exit, open the door, use the washroom, go upstairs/downstairs, and walk inside the buildings, for disabled people in a wheelchair would be difficult to do without external help.

Help, on the turn, was a crucial point. Almost fifty percent of participants in wheelchairs expressed no shame and willingness to ask for help. Moreover, they noted that the "people kind and fair are everywhere" (the Russian proverb).

Participant W5: …Waiters or guys who are sitting there in cafes, or my friends. I'm kind of light... However, of course, the availability of ramps is desirable...

Participant W11: We wanted to hang out somewhere with my friends, in karaoke for example, and they say, "it might be inaccessible for you", and the boys say, "we will help you", but in my heart, it's still uncomfortable. I don't want to be helped and all of that.

Participant W9: I went to the hairdresser. There is a ramp, but it is too high and broken. And so, for me to go up to the hairdresser, I had to ask a stranger to hold me from the back, because God forbid, I will fall off the wheelchair.

Participants with visual impairment

For persons with visual impairment stairs, the absence of colored stairs, tactile surface, and the Braille writing system impede their way to enter buildings and receive services they need.

Of particular interest was a comment about the Braille system. Research participants mentioned that the Braille writing system helps them to access the services independently. The absence of written guidance in Braille makes the person with visual impairment dependent on someone who will read the sign and direct them in the right direction. Thus, making them rely on external help and losing independence in mobility.

Participant V4: I mean, we are now talking about why there are no braille signs in front of the rooms, that is, with the names of the rooms, let's say, doctors, teachers, I don't know, restrooms, others…Why do we have to sit and wait until someone comes up and tells us where there is the room 10, room 3, room 14 when we can find it by ourselves, right?

Fewer participants pointed out the significance of sliding doors. Based on their responses, when the doors do not automatically open participants with visual impairment bump into the doors. Two participants with moderate visual impairment noted that the colored stairs are very helpful for them. They suggested that when stairs are colored in bright color and/or its edges are highlighted with visually contrasting permanent edges, they feel safe and confident when using the stairs. Also, they described that when colored in one color, mainly white, they have difficulties to walk down the stairs as they cannot see the edges of the stairs.

One of the participants with visual impairment noted that there is a professional escort service being provided for them. However, this service is available only during workdays and time, e.g. Monday to Friday from 8 am to 5 pm. When asked about leisure time, three participants who are visually impaired commented that when they want to go to some places such as shopping malls and/or cinemas after 5 pm but the escort services are not available:

Participant V5: I will never go alone. Because taking risks and walking alone? And when do people usually go to shops or cinemas? In the evenings, right? But it turns out that this service no longer works for us. And it means at this time - we are limited. It turns out that I can't walk alone. Because you want to go and look alone, but this is no longer possible.

Unlike participants with physical impairments in wheelchairs, shopping malls were identified as the most physically inaccessible places they have visited. The absence of tactile surfaces and plates with information about stores in the Braille system makes them confused and afraid to be lost. Concerning essential public services and places such as education centers, hospitals, and government assets no participant mentioned as accessible, except the main city municipality in Almaty. The private university of "AlmaU" Almaty Management University was also noted as "physically accessible". As one of the participants commented that the university is one of the "socially responsible" and disabled-friendly:

Participant V2: Well, more or less favorable for all categories of people with disabilities. It is real because the building is new.

The hostile urban environment made disabled persons adapt to those conditions and find ways to socialize and entertain. About half of the participants described their way to overcome the barriers. While some send their friends/relatives to check the physical accessibility of places others "choose a route in advance". This comes to be right opposite to what John Gehl stated about spontaneous social outdoor activities. Disabled persons have no choice but to plan, check, and choose the places that are physically accessible and have no barriers in receiving services they need.

Public streets, roads and sidewalks

The barriers that disabled people experience on sidewalks and roads included streetlights, curbs, pitted sidewalk surfaces, and road constructions. As it was noted above, when participants were asked to describe the barriers that they experience within the city environment, most participants with visual impairment, about five out of thirteen, reported the barriers on sidewalks.

They noted that barriers such as the absence of tactile surfaces, audio signals at the intersections, and pitted sidewalk surfaces create obstacles and hinder their movement rather than barriers at the entrances of buildings and facilities. This is a significant finding from this research. At the same time, participants in wheelchairs indicated the same pitted sidewalk surfaces as well as road constructions and curbs as an obstacle for their mobility. When participants with hearing impairment were asked to describe what barriers they had experienced, all three participants agreed on streetlights with no time indicator.

Participants with physical impairment

Based on findings, an inattentive planning design in combination with natural environment conditions, even more, impair the travel experience of disabled people in a wheelchair. For instance, the city of Almaty has a unique geographical location due to its location on the foothill of the mountain Zailiskii Alatau. The natural slope of the city streets worsens the mobility of disabled people, especially wheelchair users, around the city. Some of them remembered to get injured because of steep and slippery sidewalks.

> *Participant W7: ...Not a ramp. The road is high, too. I fell, I rolled over…when you walk on the sidewalk, there are also ramps, but they are high. Unfortunately, not always a person can raise himself. Because, firstly, there are no gears for the wheels to cling. The tile is there. And imagine, if it rains, how can a person ride? No way. Well, there was not a ramp on that road, but that... not the tile…the road. It was too high. I was riding, did not consider, and fell.*

However, not only the natural environment but the built environment plays a vital role in the movement of disabled people around the city. For instance, barriers such as road constructions

almost always obstacle disabled people's way. As one participant commented: "This restriction is only when they start to do these road repairs. That is, you cannot drive normally, and nobody helps you at this moment."

Moreover, my personal observation may, in fact, also contribute to this research. I have noticed that the city municipality started paving with a Sett of sidewalks, which is also called a "Belgian block". Despite its aesthetic beauty, these blocks are very much debated on their usefulness as many disabled persons commented on its disadvantages. However, it seems that the city municipality did not bother themselves asking the opinion of the disabled community and involving them in the planning process as the city's sidewalks are full of those Belgian blocks. The participant who uses the wheelchair expressed the frustration about these sett pavements:

> *Participant W12: When you ride on the paving stones, you ride like on a powder keg. Seriously, you shake. And no wonder if they say: drive along the sidewalk, free massage for your butts. I apologize for the expression. But it's true. If they did everything smoothly, another thing. But I am telling you, you shake. I don't know who gets high from this, but I personally do not.*

While other participants who use an electric wheelchair noted that their wheelchair shakes when they drive on it and thus, their spinal cord might get injured.

When I asked about barriers within the street, the majority of participants in wheelchairs reported that the curbs impede their way. Two participants noted that the absence of curb cuts force them to use the driveways despite the anger of car drivers.

For participants in a wheelchair, streetlights were the issue of mobility too. For example, two participants noted that they need more time to cross the intersections, and the given time is not enough. Participants indicated that the wider the crossroad, the more time they need to cross.

However, this point was made by only participants who use a manual wheelchair. The participants on the electric wheelchair did not report the problem with crossing intersections.

Participants with visual impairment

Participants with visual impairment expressed their confusion detailing that they do not know how to get to those institutions to/from bus stops and any other point of departure. This also includes the barriers while using public transport and is presented later in section "Barriers to public transportation". When asked if they find public buildings physically accessible, participants explained that there is no point for the building to be physically accessible if they cannot find a way there.

> *Participant V3: ...Even if in the park itself everything is physically accessible, fine, but I can't get to the park. Accessibility should be complex.*

> *Participant V8: A vast bus stop complex is available, but no one is interested in how a disabled person would reach there.*

The finding indicates that the city municipality uses the alibi of forcing the private businesses and public institutions to provide access for disabled people to evade its responsibility. For instance, when commenting on the responsible factors for the above-mentioned barriers, participants noted that there is a misunderstanding between the key city actors such as municipality and developers. Participants indicate the municipality institutions as responsible for the implementation of access legislation on streets. However, according to the participants, the city municipality of Almaty, put some businesses and public institutions in charge to facilitate and maintain the accessibility of roads and streets to improve accessibility for

disabled persons. Thus, for instance, both private and public education and healthcare institutions such as schools and hospitals are responsible for ensuring the accessibility of its territory. However, when these institutions provide physical accessibility such as tactile surface and/or ramps only within its territory, the issue of reaching these places arise among disabled people.

Participant V5: …For example, education institutions make infrastructure accessibility like this: they make tactile navigation from its entrance to the door of the fence. I mean, from the inside of the gate there is a tactile path to the door of the school…But how do I get TO that gate? No one cares at all.

Participant V7: … They [means municipality] force schools, hospitals, kindergartens and other institutions and businesses to provide accessibility. But the public area, as you say, is not adapted.

Most of the participants with visual impairment commented on inaccessible streetlights. On the one hand, participants noted that the audio signals for the streetlights partially implemented. For example, many of them highlighted the value of already installed audio signals and said that it helps them not only to cross the road but also to orientate in the city space. For example, a participant said:

Participant V2: I'm more used to the old-fashioned way, as they say, of navigating without tactile navigation—more by hearing. Well, you see, also, if there is a beacon in the traffic lights, it is in the right direction from North to South. When it picks, it means that you are crossing from the North to South. This is how it works.

On the other hand, this audio system imposes a time restriction. That is to say, after specified by the city municipality time; the system is off. Although this regulation illustrates an

attempt of the government to restrict the mobility of the disabled people, this might be a necessary measure as non-disabled people may complain about the sound. The next participant clearly explained how this time limit restricts his mobility:

> *Participant V7: …Well, of course, others may stay at home. But I do not want to sit at home. For example, I do not like staying at home after 9 pm. I like to walk. And why should I stay at home? This is a violation of my rights to go outside whenever I want.*

When asked why they think the city municipality decided to turn off the sound beacon after 9 pm, the participant suggested that the municipality refers to the fact that local residents complain that those sounds bother them during nighttime. As a result, participants indicated that unavailability of a sound beacon after a particular time leaves no choice but to stay at home. Such restrictions segregate visually disabled people from socio-cultural life that might take place in the evenings and limit their access to the places and services they want to receive at any time of day.

Similar opinions about the paved sidewalks were made by five participants with visual impairment. According to participants, they "do not like it" and their sticks shakes on this type of surface. As one participant with visual impairment noted:

> *Participant V6: … in recent years, paving stones have become a trend. And we do not like it. Everybody does not like it, to be honest, except for Baybek [Baybek was a head of the city municipality of Almaty from 2015-2019]. In winter times it is slippery for everyone and us especially. I use a cane. For example, I'm uncomfortable when my cane is continually getting stuck. It is not like on a smooth asphalt…*

Moreover, as participants in wheelchairs noted that these stone pavements are not smooth, disabled people with visual impairments have a higher risk to trip over and get injured.

Participants with hearing impairments

For participants with hearing impairment the streetlight was equally crucial in their mobility too. Of course, the audio signal's function that helps for disabled people with visual impairment was not the case, but the visual time indicator. As a sign language translator said:

> *Participant H1: Well, what … now they started adding digital indicators to the streetlights. This is already a huge pro. As they [hearing impaired] may just not hear the sounds, a disabled person does not know if he/she should go or not. The only sound signal is provided sometimes, which is not available for them.*

These digital indicators are the example of the successful implementation of the universal design. As Naberushkina (n.d.) highlights, the facilities, services, and environment constructed following the principles of universal design make the environment more comfortable to use for everyone by being harmoniously integrated into the design of the facility. Here, in the same manner, the digital indicators of streetlights are publicly available as well, as it effectively helps people with hearing impairment to move within the city space quickly.

Public transportation system

The scarcity of accessible public transport creates a mobility barrier that restricts disabled people from reaching and gaining access to necessary facilities and services such as health care, education, and employment. Almost all participants named the public transport system in Almaty as inaccessible. For example, for persons in a wheelchair, the absence of ramps, kneeling front entrances in buses, and drivers' negative attitudes toward them were among the main reasons for their socio-economic exclusion. For people with visual impairment, the absence of a voice

announcement system in public transport and the lack of textual announcements for hearing impaired persons are the barriers they encounter in their everyday trip on public transport.

People with vision impairments

Among all thirteen participants who identified themselves as visually impaired, ten raised concerns about Almaty's inaccessible transportation system. The other three were more or less satisfied with the level of access.

Almaty is the biggest and the only city in Kazakhstan that has an underground metro system (since 2016). It has nine stations and has become a very convenient transport mode for all citizens (Official website of metro Almaty, 2020). Some participants described the efforts of the city municipality to improve transportation access for disabled people. When asked to detail places they find accessible, the majority of participants reported that the metro infrastructure has tactile navigation that helps them orient inside the station. They highlighted tactile surfaces' effectiveness in a subway station, which helps them not get lost. A few mentioned doors saying that sliding doors help them to ease the use of the metro.

Another participant who works for “Zhiger - Youth organization of people with disabilities” reported the efficiency of the same navigations for sensory impaired and also noted the convenience of escort service that the metro provides. The Zhiger organization and the participant himself organized the training courses for metro staff on how to escort a person with visual impairment. He claims that it is significant for any service provider to know how to approach the disabled person and know how to ask if he/she needs help.

Others commented on helpful voice announcements that are available on trains.

While just a couple of interviewees recognized the accessible level of adaptation of the metro systems for disabled persons, other persons with visual impairments seem to be more concerned with the ground transportation modes such as busses and minibuses. Thus, the voice announcement system that is available in metro trains is not available on buses. While citizens can hear the stop announcement in three languages in the metro, the buses have none.

The problem of unavailability of stops announcement on buses is the significant barrier that disabled persons with visual impairment experience. When asked what they feel and how they manage to ride the bus and to find the right bus stop, they reported the cases when they had experienced missing or mistakenly getting off the busses as there are no audio announcements.

> *Participant V2: Indeed, for the last five years, we have been fighting for voice acting in buses. If they voiced a stop for you, you would not have passed by, right? Why do we sometimes have a problem in space orientation? Because sometimes the bus stops in the wrong place. It can open the door before the traffic light. This sometimes confuses a person with a visual impairment. And that is when the voice acting needs. To navigate a visually impaired person: "This is my stop." And this helps not only people with disabilities but also older people. Right?*

For people with visual impairment it is difficult and might be impossible to navigate themselves in moving transport. The stop indication system is vital for them to know where to exit and navigate in the space.

> *Participant V9: How do I know where to get off, for example? And it is difficult to approach the driver and ask him. And this driver should usually announce it, right? But for some reason, no one notices how difficult it is for these people with impairments, how difficult it is for them to get in and off.*

The stop announcements, as well as above mentioned digital streetlight timers, may be beneficial not only for disabled citizens but, for instance, for elderly and city guests. When they were asked how they ask a request from drivers to turn the voice announcement on, few participants reported that drivers' attitudes toward disabled persons are sometimes negative, which might be the reason for the unavailability of the voice system:

Participant V5: ...Some buses, even if they have voice acting, they do not turn it on, because it makes them, the drivers, nervous. It kind of makes them nervous to listen to it all day long. It is better for them to turn on the radio. Although they violate our rights, right?

Participant V2: Sometimes, they [the bus drivers] get crazy. Sometimes it happens when you say to him: "Turn on the voice acting", they say it is not working. They make something up. Some kind of obligations, penalties are needed to be introduced…

A small number of participants reported that it became difficult for them to ask help from other passengers. Participants noted that other passengers might nervously react as they are coming from the long workday. Participants also noticed that passengers are usually less friendly and helpful in public transport than on the streets. The following quote captures the example of such a situation with one of the research participants:

Participant V2: Because people are all busy, in the past, at least their ears were free; now everyone has their ears blocked by headphones…And when you start explaining to him, he turns to you so nervously. And he might not understand that it is a person with

visual impairment. While looking at me, you will not say that I am a person who has problems with eyesight, if I am wearing glasses…But the reaction is nervous.

Here the invisibility of a person's impairment plays an inevitable role as passengers do not know about that and react irritably. Thus, it, in turn, may result in a disabled person's perception of abled bodied as intolerant and rude. Moreover, a disabled person may not seek help in the future. As one participant explained that "it is better to use mobile navigation in this hostile environment." In this situation, Human Rights Watch suggests (Watch, 2013) that increasing awareness among the population about disabled person's right to have equal access to services may help in strengthening the degree of comfort among disabled persons to ask for help.

Participants also explained that the bus numbers are designed without the needs and requirements of disabled persons with visual impairment. One participant reported that he has a second group of visual impairment (according to the three-tier category of disability where group II encompassed persons who cannot be employed in any professional work but do not require assistantship in everyday life). However, even participants with the second group of disability has a problem seeing the small public transport's number. Furthermore, the voice system that announces the bus numbers at the bus stops has not been introduced at all:

Participant V8: Then, when I catch a bus, I do not know which bus it is. I go up to the bus and simply shout to the salon: "What bus is this?" And they answer me, yes. In fact, it is idiotic somehow.

In this hostile environment, technological devices such as a mobile phone with audio-GPS play a vital role in getting to the place. Many types of research (Oliver, 1990; Gordon, 19823: 235; Scherer, 1993: 84) expressed their support in developing technologies that can help to overcome spatial and socio-economic berries. Moreover, in Gleeson's call for a "geography

for disabled people," he invites geographers to develop and pay attention to the development of spatial information that will improve the mobility of disabled persons (Gleeson, 1996). As a sensory impaired interviewee noted:

> *Participant V8: I use a navigator on my phone. It will be very difficult for me if I stay without my cell phone. This is important to me.*

People with physical impairments

Public transportation, such as buses are rarely used among participants in wheelchairs. Based on findings, approximately four persons out of 12 wheelchair users use public transport—the barriers imposed by inaccessible transportation limits spatial mobility for wheelchair users. However, public transport is vital in commuting to the services and places that the disabled persons may need. If such service is not accessible, disabled people will be divorced and isolated in one geographical space.

When asked about their views on public transport services, participants in wheelchairs experienced negative attitudes from drivers. Three participants reported that they faced a frustrating situation when bus drivers did not stop when they were at the bus stop alone. However, when stopped, participants say that the bus drivers do not kneel the entrance door, open the ramp, or the buses are not equipped with ramps and handrails, which challenges disabled persons to board. Few participants suggested that the bus drivers' attitudes towards disabled people may explain this experience.

> *Participant W1: …And again, this is all divided into classes of people. There is a class of people who understand, they lower everything. That is, roughly speaking, they support*

the law. There are those who do not care. Climb in, fly-in, whatever you like, I drive off. That's it.

As a result, more than half of the participants in wheelchairs noted that they opt for using private cars or the social taxi service Invataxi rather than public transport. For example, one participant pointed out that she would rather spend more money on private taxi service than she "stresses" herself and ride the local public transit.

Participant W4: As for how I travel, you probably know that we have, well, not only we but in general, there is always the opportunity to call a taxi for the disabled. But unfortunately, I do not use it, because we have a few of the available cars, and in general, there is a big problem with them…regarding buses, I do not want to stress myself, I know they are inaccessible for us.

At the same time, two participants highlighted the level of access to metro services. The findings from participants with visual and mobility impairments suggest that new subway systems provide improved access for disabled people instead of ground public transit such as buses, trolleybuses, and minibuses. Regarding the service provided in metro stations, participants noted the metro staff escorts disable persons to and from train doors. Also, participants noted that all stations were equipped with elevators and ramps for disabled persons in a wheelchair.

Ten out of twelve participants in wheelchairs use the public taxi service Invataxi, one the private taxi services and/or family transport; two had their private cars. Regarding the parking spaces for disabled persons, participants noted that the lots used to be occupied by non-disabled. However, the introduction of fine enforcement by the government radically decreased the number of car owners who occupied the space and have no mobility impairment.

Access to public transit is essential for disabled persons to get the places and services they need. Therefore, it is significant to ensure accessible and safe public transportation, as one of the participants stated:

Participant W13: Why does someone need to build 100 plants if we cannot get there? Therefore, this is the main issue: creating accessible social infrastructure.

People with hearing impairments

People with hearing impairment report that the absence of sign/textual signs of stops limits their travel. When asked about the experiences when they use public transport, participants noted that buses provide inadequate services for people with hearing impairment. As one participant said to the interpreter that buses are "the only global problem" for people with hearing impairment.

All three participants agreed that the main barrier is the lack of sign and visual indicators so they can read and figure out the location of the bus on transits. For example, the participant noted the need to know the location when the transit is vast and crowded on the bus stops.

Participant H1: And on the bus stops, for example, we have one bus stop, there is a table, and it is written: "The coming bus №98". That would also be very good. It is because, for example, some bus is coming ... Because at the stops we have, if you look closely, there are such small pieces of paper, and it says the bus number 22 and its route. However, it is not apparent to the person where the bus is, where it parked, which way the bus is going, this is not clear. That one paper is not enough.

Participants indicated that people around and drivers themselves could not help and answer their questions since not many non-disabled people know how to speak a sign language.

When commenting upon the importance of the sign language, participants reported that writing on the paper could not help communicating because the bus drivers are usually busy and have no time and chance to read their questions and write them back the answer.

> *Participant H2: They cannot ask. They can only write. But it is clear that the bus driver will not sit and talk to them for a long time. The bus needs to leave the stop quickly on time. And there is no attention to this situation.*

Thus, participants stated that training transit employees at least with a basic knowledge of sign language might significantly improve disabled persons' experiences.

> *Participant H1: Also, let's say if some employees on the bus, such as the controller and the driver, would have known at least some basics of the sign language itself. It would have been much simpler because a person can come in and ask: "I need such an address. Will I get there or not?" You do not need to know the whole sign language directly, but literally, an alphabet so that they can explain yes or no, we are going, and we are not going.*

However, the society, and especially the state, fails to respond to the requirements of people with hearing impairment, as Shaw (2015) noted that the understanding among hearing-abled people that deaf persons need particular adaptations and telecommunication devices increased an unwillingness to help. When asked about digital devices that help communicate, the participants reported that it takes time to contact the translator. As was noted above, the bus drivers are pretty busy during their shifts. Participants insisted that only raising the public awareness and knowledge of essential words in sign language may increase their travel mobility. Barnes (1991) and Imrie (1996) contend that precisely because of the sign language illiteracy

among the hearing population exclude the deaf and hearing-impaired community from a variety of social places.

INVATAXI

Invataxi is a unique social service that provides a free taxi service for disabled persons in Kazakhstan. This unique transport service helps hundreds of disabled people in Almaty commute to their workplaces and schools. Without these specially adapted cars, disabled people can be separated from the socio-economic life.

Even though this service is named to be as an example of the state's progress in implementing the disability policy (Koi Shibayev, Nechayeva, & Kapitsyn, 2019), the authors overlooked the fact that initially, the transport service was introduced by the charity organization "Sabi" in 2009 (Antonov, 2015). Antonov (2015) states that only since 2011, the INVATAXI service has started receiving governmental funding. As one participant noted:

> *Participant W5: But, again, this is not what the city administration invented. The city administration supports this, but the other person came up with it.*

Almost all research participants confirmed that they use this service daily. This form of transportation is very convenient for them to get to the workplace and back home. At the same time, few participants commented on the number of problems associated with this social service. First, according to the participants, the process to apply for use this service seems overwhelming, and the employee's attitudes appear to be "rude":

> *Participant W3: ...operators sit there and talk very rudely. "Where, why" they do not even say "Hello," and I do not want to mess with this at all. I think any person does not want when people talk to them rudely. In particular, we suffer because of this.*

Participant W 5: They require so many documents to submit like a certificate of disability, information on income, etc.…

However, based on interviews, there is a high demand for this service despite all these comments. As Antonov (2015) noted, only about 120 people can be transported in a day. However, about 1500 disabled persons need this service daily. Thus, participants reported a variety of limitations that this service imposes on their customers. For example, as stated in the literature review, there are three groups of disability, and the social taxi is not provided to those who have been identified as having second and third groups of disability.

Participant W11: And I should go there on crutches. Because for us, the disabled of the second group, even INVATAXI, is not allowed to get to the hospital! Only for the first group…But the second group is not allowed...

The exclusion of the second group of disability from the service might explain the limited availability of cars. At the same time, the service promised to increase the number of cars every year, but participants reported that they had not seen any differences and improvements.

Participant W3: … "We are improving, the number of cars is more," but no, nothing has improved. Everything is the same. You need to call in advance in 2-3 hours. And they start at 9:00 in the morning. If you call at 9:00, that is it, there are no free cars, and you need to call tomorrow.

Participant W7: For example, Invataxi, ten years ago, there was such a system. Now, it is also the same system. That is, in 2-3 days, you need to call and say the time when you need…It must be ordered in advance.

The high demand for the service may also result in the creation of "request times." According to participants, the service accepts requests only during designated hours. All participants expressed frustration toward limited request time, saying that they may not receive the service if they do not call in two-three days in advance.

Second, the service is not available for sub-urban towns of the city. According to Almaty's official master plan, many suburbs around the city are not included within the administrative territory of Almaty. These suburbs are located about ten-fifteen kilometers from the city center. Many people commute from those suburbs to work or study to downtown. However, these places are not officially the city. Therefore, disabled visitors and travellers to the city of Almaty cannot request to use this service as it serves only citizens of Almaty who have a "propiska" – resident permit ("inscription" - the Soviet system of controlling the internal migration).

Another limitation that this service imposes is the number of places where disabled people could go. For example, participants pointed out that the service could be used only twice a day, in the morning and evening. When asked if they can use the service during the day when some unexpected plans occurred, most participants confirmed that the service is not provided more than two times a day and only to "essential places" such as hospitals, workplaces, and/or education and no cars provided for the other places than those.

Although the service is very convenient for persons who work and study, the policies that restrict the destination choice violate the fundamental rights of disabled persons to have equal access to any places they want to visit and at any time.

Participant V6: …and now they only carry to the hospital and to work. That is, they do not carry us to another place, for example: to go out. They say you cannot go out…they say, "only to very necessary places."

By restricting the use of the service for "non-essential" purposes such as leisure and entertainment, the service controls and restricts the spatial mobility and freedom of choice to go to any place, they want to visit at any time. Since the state owns this service from 2011, as mentioned above, the state imposes the idea of "essential" and "non-essential" places for disabled persons, thereby creating a social exclusion of disabled people from the rest of society. As a result, disabled people have no choice but to use the service only to go to the "approved by the state" places. Consequently, it contributed to a lack of participation in the socio-cultural life and exclusion of disabled persons from the rest of society.

This political ideology to choose what is essential and unnecessary for disabled people reflects the Soviet political system's paternalistic character and its treatment of disabled people (Shek, 2005). Shek (2005) highlights that the central concept of Soviet ideology was to take care of its citizens. Here, the disabled persons were classified as a particular group of the population who needs special care and treatment. As a result, the ability to choose a behavioral pattern for disabled people was limited.

In their seminal work, Naberushkina and Sorokina (Naberushkina & Sorokina, 2012) comment on the same type of social service for mobility in Russia. They state that the social taxi for disabled people is a useful service that has become a "leverage" of restrictions due to excessive bureaucratization of the process to use a service. They raised a concern that the electronic maps that show the accessible places and roads may become an attempt to "shrug off" the reality by creating a visualized "imaginary" accessibility.

Similarly, the Kazakhstani government imposes and restricts the travel behaviour of disabled people through this service. Even though the reason that they might use it as an excuse is the scarcity of the available cars, the ideology of "essential" places plays a huge role in shaping disability in Kazakhstan. With the restriction of free choice, this situation establishes the mentality among the disabled that if they want to go out and visit "unessential" places state and the services do not provide any support and conditions for that. The only one who can help them in their "individual" needs is their family, friends, and themselves.

The Soviet impact to the physical layout

As previously stated in the literature above, the Soviet system influenced much of the current public disability policies, socio-attitudinal perception, and disability politics in Kazakhstan. A majority of the respondents on their own noted how the Soviet history of Kazakhstan shaped the country's politics, planning, and design. Despite criticism among the scholars about the Soviet system being "inhumane" (Shaw, 2015), the research discovered that most participants with visual impairment reported positive opinions. They viewed Soviet segregation as a "two-sided coin" where, on the one hand, the system segregated the disabled in the special districts and, on the other hand, included them as potentially productive citizens who contribute back to society by working and studying as their abled-bodied communist comrades.

When I asked participants to describe the places they could identify as physically accessible, I noticed that participants with visual impairment tend to compare the contemporary built environment of the city of Almaty with the past when Almaty and Kazakhstan used to be the Soviet Union. They emphasized that it was convenient for them when accessible

infrastructure was "all in one place" as it was in the Soviet Union, thus, favoring segregation in special designated areas:

Participant V3: ...In fact, everything was normal inside the country…All houses, the library, the enterprises, a clinic of the eye institute, something else, this is a special area of compact residence for visually impaired people. So, the Soviet government segregated, but people lived comfortably there.

When I noted that the Soviet disability policy segregated disabled people into institutions and special designated urban districts, one participant with visual impairment commented:

Participant V3: But, on the other hand, people had houses, people had work, people had education, people had money, people had a pension, plus a salary. They could travel all over the Union and rest somewhere, I do not know, in a sanatorium. They went to competitions in various sports: chess, checkers. To Georgia, to Lithuania, to Russia, wherever you want in the Soviet Union. Many people just remember those times with a warm feeling. Because they did not have problems like now: "Where will I work? Where to live? And how will I rent it? And how will I get to this or that place?". Everything was nearby. Well, these are two sides of the coin, you see.

Participants indicated that the creation of separate areas for disabled people had a positive socio-economic impact on disabled people's lives.

Participant V7: ... moreover, there were more opportunities for people to fulfill themselves. That is, they could ...Yes, in limited areas. But the person no longer had a headache on where he will work, and where he will live, what he will teach, what he will eat, and so on. He had it all, in principle, as a person. A person experienced prosperity…

The findings suggest that despite being spatially segregated, disabled persons with visual impairment find the spatial arrangement of facilities and opportunities in one special district is beneficial and effective in accessibility planning. It is worth noting that disabled persons showed empathy towards the Soviet segregation policy, which brought "happiness and economic stability" because the compared current accessibility environment is poor. Their claim might be the result of the hostile contemporary environment that exists in Kazakhstan today. The inadequate amount of accessible services for disabled individuals in the city resulted in the justification of the past – as Shaw (2015) describes it as "inhumane" and discriminatory practices by the Soviet state.

> *Participant V10: In Soviet times, it was not bad either, when they created such enterprises where people with disabilities worked. Of course, there may be segregation in something. I myself went through this stage of a laborer.*

During the Soviet period, designated neighborhoods were designed for disabled people. Those neighborhoods included essential public services and workplaces for disabled individuals. Few participants reported that some physically accessible public places such as a library, houses, and some neighborhoods were built in the Soviet period. The following quote capture the level of accessibility of those neighborhoods:

> *Participant V1: You know, the same library for the blind is very accessible in the sense that there are signs, and beacons, and traffic lights. Well, this, in principle, has remained since Soviet times. Then it was added a little. I am often here. Here is a very good example…*

Other participants with visual impairment agreed that the remnants of the Soviet politics are useful these days: "I like the district of Zhetysu because it used to be the 'blind district' [in the Soviet Union]. It is very convenient for me to navigate there".

It is important to note that the Soviet institutionalization and segregation policies may explain the existence of "special districts" for disabled people in Almaty today. Even though, if searched, no map will identify those areas, the remaining names for those districts and places such as "blind district" and "library for visually impaired" are being used among society, as stated above. As Shaw (2015) suggests, the development of such designated spaces explained the concept of confirming the disabled people's places in the Soviet socio-spatial practices.

Government response to the needs of disabled people in Kazakhstan

This section presents the analysis of the interviews held with the key informants from the City of Almaty. However, I also compare and contrast the opinions of participants with impairments with what municipal officials said. This section is divided into four major themes: the structure of the municipality, the lack of participation of disabled citizens in project approval processes, lack of knowledge among the municipality staff, and complaints from disabled citizens.

Municipal structure of Akimats

Here the city municipality is Akimats - the main governmental actor in enforcing and administering the provision of Almaty's legislation and city plan. According to the official website of the city municipality (Akimat, 2020), Akim is the head of the local government of the city of Almaty. There are five Vice-Akims and eight Akims of eight central districts in Almaty,

such as Almaly, Auezov, Bostandyk, Zhetysu, Medeu, Turksib, Nauryzbay, and Alatau. Thirteen departments within the main Akimat focus on different purposes such as the Department of protocol, registration, and registration of regulatory legal acts; Financial and Economic Department; Department for Mobilization Training and Civil Protection; Department of a social and cultural sphere; Department of Enterprise Development and Social Infrastructure; Department of Territorial Development; Department of Economic Analysis; Department of Social Development; Transport Infrastructure among others.

Despite so many departments that exist, most of their work remains outside of accessibility and disability issues. For instance, the departments such as the Department of a Comfortable Urban Environment of Almaty and the Department of architecture and urban planning, despite its departmental name, do not address the disability/accessibility-related issues in the city environment and architecture/planning respectively. The latest one turned out to be focused on dealing with dilapidated residential buildings (district, addresses) under the program "Decreased Housing" 2016-2020, subject to demolition for the construction of new residential buildings.

The lack of participation of disabled citizens in project approval processes

Despite the government's attempts to create accessibility for disabled people and address physical barriers, the problem of accessibility has not been solved. Unfortunately, at the mention of the "accessible environment," most state authorities do not understand what it is about. Moreover, disabled people sometimes have opposing views on accessibility, which indicates a lack of integration between disabled communities and government workers on the topics about

access provision. Thus, the inclusion of disabled people in the planning processes is essential for eradication of physical barriers.

According to the municipal staff from the Department of Comfortable Urban Environment, there is a state examination committee that controls the compliance with accessibility legislation and does not allow any project to pass the planning approval on the early stages. Besides, any project developer "always includes the disability-related measures," according to the municipality worker. Thus, the state examination committee is one of the leading figures that accept or/and declines the developer's project plan. The municipality participant claimed that the state expertise would not allow passing any project that does not provide access according to access legislation to disabled people.

> *Participant 1[3]: Regarding the expertise, there are experts in the examination committee who, without requirements, that must comply with building codes and rules, do not accept the project. That project will not pass the examination.*

However, the municipal staff's comment does not correspond with the documented experiences of research participants with impairments. When I explained that disabled communities reported accessibility issues, the municipality participant claimed that those buildings "are most likely old," and some reconstruction work is being done. The participant himself is sure that the disabled persons' needs are always considered. Moreover, the participant noted that "sometimes disabled people overreact" and "they are always unhappy" with any provided access.

[3] There were three government workers participated in this research. They are indicated as Participant 1,2,3.

This discrepancy illustrates that the municipality workers are not aware of the real needs of disabled people and brings the importance to question whether disabled people participate in the abovementioned "examination committee."

The research revealed that disabled people are not members of the examination committee. However, the municipality worker from Zhetysu Akimat – city municipality in one of the eight central districts in Almaty, claims that disabled persons did participate as a committee member in accessibility planning. Further, for some unknown reason, disabled people were discharged from that position, and currently, there is only an "expert committee" who has no personal experience with access/disability issues.

> *Participant 2: Look, earlier, there was a person with an impairment in the acceptance committee or an organization who put a signature. It used to be like that. But then this norm was removed.*

Based on the research findings, the role of disabled people downgraded from the committee member to an adviser. The same participant reported that disabled people are currently not committee members, but their involvement back to the state committee was suggested, and the Akimats are waiting for its response from the Ministry of Labor and Social Protection of population. However, today, disabled people's voices remain to be "consultative."

The role of disabled persons as an adviser but not a committee reflects the loss of legitimacy of their voices. As a participant with mobility impairment, who works as an advisor in one of the districts Akimats, reported that he "cannot point out the municipality worker's faults and demand to change [plan, policy, etc.]"

Participant W5: I cannot tell the head of the department what to do. I can report to the Akim and develop [plan] with him. And he gives instructions to the head of the departments or Akimat employees. I can give them only comments on accessibility…

A great example of the lack of involvement of disabled people in the development processes is the new reconstruction of one of Almaty's main and central streets. The physical layout of the Timiryazev street was changed entirely because the city municipality decided to build BRT (Bus rapid transit) there (tengrinews.kz). From the beginning of the development, disabled people's needs, and opinions were not considered; therefore, more than half of visually impaired persons (six out of thirteen) reported dissatisfaction and frustration with the street's design and said that the reconstructed street is inaccessible for them.

Participant V7: Well, look at the news the Akim was telling about the Timiryazev street. They are going to build the BRT there…but it is generally inaccessible to people with visual impairment.

Participant W9: I am telling you, we still need to grow and grow to the level that is in other countries, where disabled people's opinion has been taken into account because they are being asked. But they do not ask us here; they do not hear us.

The research shows that disabled people have a weak position in building control decisions and development processes. This, then, results in the development of inaccessible and inattentive public spaces such as main sidewalks paved with setts or construction of inaccessible BRT, as noted above. Moreover, the abandonment of disabled people's opinions leads to the further exclusion of their social participation and marginalization. Thus, the research findings indicate that despite such "expert" committees, it cannot substitute the presence of disabled

communities in these processes. One of the key informants noted that the committee composed of representatives of disabled people with different impairments "needs to be created at the state level" to influence the implementation of access legislation, planning, and building decisions. In fact, the first-hand experience regarding access needs to be recognized in the first place.

The Lack of knowledge among the municipality staff

About five research participants with visual and mobility impairments noted that the authorities do not know what disabled people's real needs and concerns regarding access in the built environment. There was a noteworthy observation that most workers I was over and over referred to were overwhelmed and surprised by the questions I started asking regarding the accessibility planning legislation and disability issues. It seemed that the persons I tried to interview do not work in the disability-related department. As one municipality staff from the Department of Comfortable Urban Environment said:

> *Participant 2: Regarding your questions that you sent, frankly say, about 80 % of questions are not our departments' responsibility. You better call other offices, they kind of…regulate the moments…erm…well, they address these kinds of topics.*

The lack of knowledge within the municipality staff of any departments or districts represents the weak collaboration within the departments on disability and access-related issues. Moreover, few participants with impairments noticed that municipality staff and planners, following Imrie (2000), tend to scale down the disability to a wheelchair user. Imrie (2000) explains it as a failure of authorities to recognize body diversity and mind differences (p. 200). Likewise, participants noted that the civil servants "do not quite understand what accessibility is at all." They are convinced that municipality workers and developers define accessibility only as

access for wheelchairs and assume that the absence of physical barriers for wheelchair users is the only access provision.

> *Participant V10: And, third, developers themselves sometimes may not understand how they need to adapt an object. Everyone knows only the ramp. "We will make a ramp; we'll make an elevator there; we will make a toilet room." What kind of room should be there? They will make any size. And anyway, a man in a wheelchair enters, and he cannot access. Why?*

When there is no single systematic understanding of the accessibility norms and lack of inclusion of disabled people in planning and design processes, implemented measures will have low efficiency (Naberushkina & Sorokina, 2012). Similarly, the participant continued that the accessibility requirements were implemented just for the "tick." The participant claims that the access standards are not necessary for the developers but the formal implementation of the access requirements. In turn, this has not led to the substantive results in barrier eradication but the total waste of the resources.

> *Participant V10: ...for example, a map is drawn up in the same Ministry of Social Protection? Is there a ramp? There is. They put a tick, and that's it, for example. They do not look, what kind of ramp is there, steep or not…*
>
> *But when disabled people start complaining, the akimats already sent the report to the ministry that the place is accessible. And then they [ministry] force to redo. But until new funding arrives, the budget will be recounted, and the place will be redone, another one, two or three years will pass. And so, forever-taking.*

At the same time, the participant with visual impairment made another point on the civil servants' level of knowledge. The participant expressed satisfaction with the eagerness to work

on access improvements among a younger and new generation of municipality authorities. Participants noticed that new generations of municipality workers are well-informed and more competitive than workers ten years ago.

> *Participant V10: About ten years ago, we met specialists and workers who could not answer simple questions, but now they are at the same level as we are. They can disagree with us, argue, prove, show. And good presentations. That is, a high-quality level of training for civil servants, or at least I will say it better, more and more qualified and competent young people have begun working in the civil service, who can already carry out their duties professionally without any of these...*

The participant's emphasis on the level of knowledge and eagerness of the new young officials also indicates what Alexander (2007) states about the dichotomy between Soviet and current administrations. The data suggests that despite the presence of several knowledgeable workers in Akimats, the solution of access/disability issues are often random and mostly depends on the level of competence and willingness of the specialist who undertook the project development. Thus, as the participant noted above, there still are officials who have a weak understanding of disability. Alexander's research points out that some senior officials who used to work under the Soviet centralized authority after independence lost the habitual "methods and goals" to carry out their jobs. As it was clarified in the literature review, the Soviets authorities marginalized and segregated disabled people as "second-class citizens" (Imrie, 2000). This might explain why the new generation of Akimat officials seemed effective in addressing access legislation and disability rights compared to older colleagues.

The results of complaints from disabled citizens

One of the interview questions was devoted to the effectiveness of the government actions towards access provision. Participants were asked if they complained to the authorities about inaccessibility and disabled people's rights violation and the response from Akimats. About twenty participants with visual, hearing, and mobility impairments out of 28 reported the access and disabled people's right violation to the Akimats, but there was no response and consideration of their request. As one of the participants stated:

> *Participant H1: It makes no sense… We have written - zero attention at all. We sent everything and nothing. They did not do anything at all.*

Some participants believe that the access provision for disabled persons "is not profitable for the city municipality." As a result, disabled people feel estranged and hopeless. Participants argue that they feel like their voices are not valuable despite proclaimed Laws and right-specific legislations. One of the sentiments is reflected in the following quote:

> *Participant W10: … it is really offensive when they do not pay attention to you. Are we worse than those walking people? In what way? We are only limited in walking. We are the same people. We also hear, breathe the same air, walk on the same earth. But the role we play is a little different.*
>
> *Participant H1: Here, not only people decide, but the last remains after those that are sitting above. And until someone there wants to change something, disabled people will knock the closed door.*

Meanwhile, another responder pointed out that this "disbelief" resulted in reluctance and infrequency among disabled people to submit an oral or written complaint to the municipality

because "they do not believe that their complaints will be resolved and, Akimats will make any effort."

Another participant noted that Akimat once tried to introduce some improvements in a feedback control system by creating an online portal, "Open Almaty." This online platform's innovative idea is to provide a variety of information "for solving life situations" for all citizens of Almaty. On its official website (Open Almaty, 2020), the tab with the name "Invalids" also can be found. According to the interview respondent, this service allows citizens to take photos online, write, and send applications. All inquiries will be sent to the head Akim of the city. Despite the new method of getting inquiries and complaints online, this service is also supposed to improve the exchange information, implementation speed, and feedback receipt. The state worker of the Turksib district claims that after all inquiries are submitted, it will be distributed between the central thirteen Departments and eight district Akimats.

However, the participant in the wheelchair noted that the municipal hierarchy slows down this progress. Besides, the bureaucratic system complicates the exchange of information between Akimats and the impact of on-time efficiency. While the complaints from one Akimat of the district will reach the top Akimat of Almaty, it might "take a year," but the community is waiting for its access improvement.

> *Participant W1: They are distributed by management and then work it off. Let's say the street is not paved. And even people send a picture online, it will be worked out somewhere for a month until finances are allocated for it. Then while they work on the design and estimate documentation, it will approximately last a year.*

Alongside the bureaucracy, problems of quite frequent management rotation hinder the progress towards barrier-free programs.

Participant V8: They would have done it [access provision] faster if akims did not change so often…

The staff changing creates a further complication with compliance with legislation. In particular, a participant noted that this changing leadership phenomenon brings more significant problems of access improving for disabled people as their inquiries are not entirely addressed by one municipal manager. Whenever the new management comes to power, they tend to overlook the projects their previous colleagues had been working on.

Participant W5: …I did refer to Kulagin [ex-Akim of Turksib Akimat] a year ago. Kulagin started to solve it [access/disability issues], but now the other Akim came, and my inquiries have not been resolved and still remained unsolved on the shelf…

Moreover, a bigger scale of issues arises when the new management comes with a new vision of city development. For example, the municipal development plan tends to be changed with new leadership. One participant reported that the former Akim of the city made bicycle tracks from one side of sidewalks. However, the current Akim came to power and removed it. Here, the absence of the long-term municipality plan results in total waste of allocated state funds and unfinished projects.

Moreover, the cunning system of funds allocation is another issue in hindering the access provision processes. According to the participant with visual impairment, the funding allocated to improving accessibility usually is not reported by local Akimats.

Participant V11: They do not show us the government documents where you can see how much budget for this and for what is allocated.

However, the participant also noted that the Akims and other authorities claimed that a certain amount had been allocated when he participated in the press briefings. When he returned to his local rang municipality, they tend to claim that the funding is not received:

Participant V11: ...but when you come to the small district Akimats, they say: "No, no one allocated anything."

Unfortunately, the data does not allow us to conclude why there is such inconsistency between officials' reports. Indeed, there is no official information made by authorities on where and how the resources were distributed and allocated. This might indicate a reluctance of officials to provide transparent reports to its citizens since the corrupt regime issues may occur. According to Olcott (2010, p. 106), the corrupt regime developed, and in 1998-1999 many authorities and civil servants were removed and accused of bribery and dishonesty.

Politically active and knowledgeable disabled individuals

Shek (2005) noted that in the Soviet period, disabled people, despite the difficult situation, rarely complained to the authorities as they were afraid to be persecuted, not aware of their rights, and have internalized mainly the stereotypes that exist against them and their stigma. Therefore, this section sought to cover the current knowledge of disabled people about their constitutional rights on equal access to all services of socio-economic and political life.

All participants with visual, hearing, and mobility impairment were asked about the Law on Social Protection of Persons with Disabilities, state program Future without Barriers, and other planning and human right-related legislations. Surprisingly, about half of the participants (14 out of 28) have heard or/and know about the state initiatives. The other half reported a lack of knowledge. However, it is significant to note that several participants expressed biased

attitudes and frustration towards the effectiveness of these programs. When asked about government programs and legislations, the participants argued about its credibility:

> *Participant W12: Ah! That is all garbage. I heard about it. Sorry for the expression. It is all bullshit. All it is, firstly, on the papers—secondly, words. As a result, nothing is done.*

It is also important to note that few participants were politically active and tried to participate in social and political meetings with the heads of Akimats and Departments. Disabled people, as Imrie (1999) notes, are mostly incapable of influencing the political processes; however, it is vital to recognize their ability to fight and carry some weight. However, based on research interviews, the number of wheelchair users who are actively participating as advisers and experts for municipalities outnumber other disability forms such visually and hearing impaired. Participants noted that the number of people in wheelchairs, in general, is much higher than other people with other categories of disabilities. They claim that people with disorders of the musculoskeletal system are more united in defending their rights. As well, one participant with visual impairment commented that disabled persons with visual impairment tend first to start the disability movement. However, as their number turn out to be less than those in wheelchairs, the disabled persons with vision impairment "are left behind." Thus, participants argue that "it usually is allocated to the ramps, to the elevator, to the handrails, to the restroom" when it comes to funding allocation. However, elements such as sound beacons, Braille tablets, tactile navigation, painted steps in a certain colour are rarely being taken into account. The significant number of disabled persons in a wheelchair may result, as noted above in the previous section, in narrow perception of disability as "person in a wheelchair" among state authorities, planners, and architects (Imrie, 1999).

The government participant reported significantly less political involvement of disabled persons with mental and hearing impairment:

Participant 3: There are monitoring groups in each district of the city. These groups mostly include people who use wheelchairs and individuals with visual impairment, but, so far, people with mental disorders and hearing impairment almost do not participate.

Government authority also explained why disabled persons with hearing impairment are less active. Government workers reported that access policies mainly focused on the needs of those who are mobility and visually impaired. However, the disabled people with hearing impairment "are not so active," and thus, no access provision has been developed. When I asked if she meant that there are no planning standards and norms to adapt to the public place for people with hearing impairment, the government worker explained that disabled persons with hearing impairment are "kinda…in their own space…" At the same time, she argued that access is not only about infrastructure, but the information needs to be accessible for persons with hearing impairments as well.

Likewise, two participants noted that the source of knowledge they acquire is not the state efforts but the disabled communities who convey the information between and to communities:

Participant W12: I have not read. I found out from people…You see, we have such a tendency in Almaty. If you are disabled, no one will tell you about your rights. Unfortunately, no one. Until you find out until you read. For example, I found out a lot. I found out that I can require an apartment…electric wheelchair, which I received…special shoes. In short, I have many chances that I did not know about.

Participants explained that they do not understand whether the authorities "intentionally" do not address inaccessible information or "are illiterate." Besides, participants noted that strangers could provide more information about the disabled's rights than civil servants.

Participant W7: Not all of them, but partially we know something because there is no information. Moreover, we need to make such small meetings or something for the legal entity to give some kind of knowledge or something to report what is being created for the disabled people, what contradicts, and what is necessary. We know, but not everything, usually from rumours. As they say, "the earth is full of "rumors.

While most participants get to know about their rights and state laws from "others," currently, the state has failed to provide accessible information for disabled persons.

A few participants also pointed out the significance of information access. They believe that accessible information may impact on the level of involvement in politics among disabled persons. Although access to information is a critical issue that should be addressed on a state level, it needs careful and detailed study in independent research.

Participant V11: When we come to the polls, posters are hanging everywhere, some stands too. I do not mean posters about the candidates, but in general, about the conditions, about the rules of conduct at the polling station, and the voting rules. Why this is not done for the visually impaired persons. We have precisely the same right to vote, like everyone else!

The findings allow us to conclude that disabled persons in Almaty gather knowledge from their communities and fellows. Here, the state municipality has failed to ensure the accessibility of information, which resulted in a knowledge gap among disabled people. About

half of the research participants are not aware of their constitutional rights and state supports that available for them.

Another finding suggests that political activism among disabled people vary. Thus, disabled people with hearing and mental impairments are less actively involved in planning legislation processes than people with visual and mobility impairments.

Chapter Five

Conclusion and recommendations

The purpose of the study was to document disabled people's experience of the level of access to public facilities and assess the effectiveness of government policies and practices. The qualitative grounded method was adopted to achieve the research objectives. The research questions to be answered were:

- What are the everyday mobility challenges faced by people with physical disabilities in the city of Almaty?
- What measures and actions have been taken by the municipal government in the city of Almaty to address the accessibility needs and requirements of disabled people?

To achieve the above-mentioned research objectives, the qualitative semi-structured interviews were conducted with 28 disabled people and three government workers. The online-based written resources complemented the research findings.

The key findings

In this section, the key findings are summarized into the four major themes that emerged from the data: physical barriers in the built environment; soviet impact on the physical layout of Almaty; municipal-level responses to the needs of the disabled person; and politically active and knowledgeable disabled people

First, the research found that experiences of disabled people and the nature of physical barriers vary depending on the type of disability and require different access provisions. Research findings indicate that disabled people are segregated by socio-spatial barriers and deprived of their fundamental rights to have equal access to all aspects of daily life. Participants

with mobility impairment experienced barriers to enter/exit, while data showed that the participants with vision impairment encounter challenges to find and reach the places. The barriers, such as doors, steep ramps, or absence of adapted washrooms and elevators, were indicated among participants in wheelchairs. Participants with visual impairment reported the frustration to enter when there is no tactile that leads to the building, making them confused to find the right place. Additionally, the absence of Braille writing systems in the information desks, as well as sliding doors, and colored stairs hinder the entrance and challenge the use of services.

Besides, findings also revealed that disabled people developed coping mechanisms to overcome physical barriers such as:

1. checking the physical access and plan the places they would visit,
2. asking the help of their relatives/friends to send them to "see" if the place has physical access to the basic needs such as entrance space, washrooms, and elevators to get upstairs if needed, and
3. they usually visit the places that they know they will be able to access.

Thus, the physical barriers that disabled people encounter within the built environment change their travel behaviour and frequency. Moreover, it is hard for disabled people to be individualistic while traveling in the city.

The transportation barriers were found to be one of the most challenging physical barriers to cope with. Inaccessible buses for all three types of disability received the majority of criticism from research participants. For disabled people with mobility impairment, it does not provide transport with ramps and kneeling front entrances; for passengers with vision and hearing impairments, there are no next stop announcement systems, neither voice nor display,

respectively. The lack of understanding of disabled people's needs with hearing impairment creates a significant barrier in their mobility. The state overlooked the importance of the sign indicators and the sign language in provision of equal access to disabled people with hearing impairment.

Section Invataxi explained the social service created by a charity organization and is currently owned by the state. Considering the high demand for this service, the state has not taken any action to improve cars' quality and quantity. Instead, the service introduced restrictions to regulate the customer's number, such as:

1. customers can be only the city of Almaty's residences;
2. the purpose of travel and the number of requests; and
3. the specific categories of disability, e.g., only the first group, based on a three-tire disability.

However, at the same time, this service is the only of its kind in Kazakhstan that provides free cars to schools, work, and hospitals.

The second section revealed that these research participants shared positive opinions about Soviet politics. Despite the negative and "inhumane practices" of the Soviet state towards disabled persons, as indicated in the literature review, the research participants did not recognize their position as discriminatory. The importance of being employed, educated, self-sufficient, and being provided with a free housing trumped the spatial segregation that the disabled endured. However, disabled people do not have the same social and economic benefits today. Thus, their intention to compare the Soviet and current social welfare is reasonable.

The third theme indicated the municipal-level responses to the needs of disabled people in Almaty. The chapter concludes that the "consultative" position of disabled people severely

restricts their influence in the planning processes. Moreover, the access-related laws and policies do not address the needs of disabled persons. In fact, the city municipality has much more to work on improving, adapting, promoting, and ensuring the accessible urban environment for disabled people. In addition, this section indicated that the city municipality consistently ignores the written complaints about access issues. There was a lack of hope among participants that the municipality able to improve the situation.

These and other findings, such as the weak regulatory control, e.g., ineffective penalties, poorly performed certification of facilities by expert groups, and vague financial resource allocation, indicates the failure of the government to address the issues related with inclusivity, full integration, and provision of equal accessibility of physical environment, public transport and services. The absence of strong access regulations, human rights legislation, and projects by state authorities hinder the process of overcoming the social exclusion of disabled people.

The last chapter demonstrated the knowledge and political involvement of disabled persons. Most of the interviewed participants reacted critically and skeptically about the state policies and programs. Interestingly, half of the participants do not know or hear anything about the most popular state program “Future without Barriers”. This ambitious strategic plan on access improvement, which is often mentioned by authorities in the press conferences, is surprisingly unrecognized among the research participants.

Recommendations

- The comprehensive policy needs to be prepared to ensure non-discrimination for disabled people in accessing public facilities, infrastructure, and services.
- The policy should introduce innovative accessibility measures, such as handicap door push buttons, and audible and visual stop announcements in public transportation.
- The state should support social services such as Invataxi and fund the purchase of more cars to meet the demand.
- Privately owned businesses or properties should be monitored to determine whether the provision of access has been violated.
- Surveys should be conducted to understand how disabled people perceive the quality of provisions for accessibility in their neighbourhoods.
- Programs and supports for mental health issues of disabled people should be organized because hostile and inaccessible built environment affects the mental health, well-being, and rights of persons with disabilities.
- Municipal-level surveys should be completed to identify the needs and requirements of people with different types of disabilities, ranging from visual impairment to mobility impairments.
- Examination and monitoring of the accessibility to public facilities, infrastructure, and services should be conducted with disabled people.
- Disabled people should be integrated and included in the policy development process and expert groups

Limitations

Certain limitations were identified in this research, such as the limited perspectives of the state municipality workers on access and disability situations in Almaty. Additionally, a short time in Kazakhstan during the data collection limited the time to find and contact developers and business owners to create diversity of perspectives on access/disability related topics.

Many interview participants developed unrelated themes which resulted in collecting irrelevant data. This took a while to sift through to ensure I select the most relevant pieces of information. Translation from English to Kazakh and then from Kazakh to English took much of your time. Moreover, I needed more time to transcribe, transcribing was time challenging. And finally, translating was unnecessary as I was the one who coded all of the interviews, and I could develop themes in Russian too.

Future research

Yet the literature and researches on assessing the accessibility of the built environment have the most significant amount focused on larger cities of Kazakhstan such as capital city Nur-Sultan and the most significant financial and cultural former capital city Almaty; it is essential to shedding lights on the research lacuna on planning practices in the mid-size and small cities of Kazakhstan.

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