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Role of Environmental Dimensions on well-being: Qualitative Approach

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ABSTRACT: Environmental dimensions can be used as indicators of urban quality of life due to their potential contribution to subjective well-being. The environment is constituted by the interacting systems of physical, biological, and social elements interrelated in various ways, individually and collectively. This study aims to uncover qualitatively whether these two environmental elements, namely social and physical factors, are indeed predictors of subjective well-being and reliable indicators of quality of life in cities. The study presents and tests a model that examines a matrix of cross-effects between social and physical indicators with subjective well-being. Data are obtained through an expert survey in the city of Tehran. In this approach, a group of urban planners undertakes the effect of social and physical components on subjective well-being. First, the existing literature is studied, and the related components are identified. Then, some interviews are made, and the cross-section analysis effects are extracted in a cross-effect matrix. As the finding revealed, among physical factors, percapita and spatial justice can have the highest impact on subjective well-being in Tehran. This was followed by access to urban transportation networks depending on their type, quality, and amount. Also, commute, neighborhood, housing, and job satisfaction were predictors of subjective well-being. Among social factors, spending leisure time, continuous social interactions, and health status impact subjective well-being.

Keywords: *Subjective Well-being, Environmental Dimension, Social Elements, Physical Elements, Spatial justice.*

INTRODUCTION

Achieving high subjective well-being is recognized as one of the main personal goals in life but has also emerged as a major goal for public policy. Subjective well-being is one of the major components of social sustainability and a subjective indicator of livability in cities. Researchers often use subjective indicators directly related to urban life (Mouratidis, 2020; Okulicz-Kozaryn & Valente, 2019; Paul, 2020). By definition, environmental factors affect large groups that share common living or working spaces. Thus, they are key candidates as explanatory factors for subjective well-being differences across geographic areas, such as cities and rural.

Indeed, a major motivation for the research on environmental determinants of subjective well-being has been the repeated observation that many life quality outcomes are spatially patterned. These patterns are present across cities and regions and at smaller scales, such as across neighborhoods (Ala-Mantila et al., 2018; Bongaarts, 2013; Musa et al., 2018; Zhang & Zhang, 2019). Strong spatial variation is present for a large range of life quality outcomes, including many of the outcomes for which there are cross-cities life quality differences, such as associated risk factors, health factors, access networks. (Ala-Mantila et al., 2018; Okulicz-Kozaryn & Valente, 2019). According to Kurt Lewin, the environment is of three types that influence an individual's personality: Physical Environment, Social Environment, and Psychological Environment. The physical environment mentions physical circumstances wherein an individual lives. Social surroundings include an individual's social, economic, and political condition. The moral, cultural and emotional forces influence the life and

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nature of individual behavior. However, the physical and social environment is common to the individual in a specific situation. Yet each individual has his psychological surroundings during which he lives (Fung, 2020; Ibiam et al., 2020; Scatena, 2018). Understanding the relationship between "human" and "physical environment" always raises many questions about how the built environment interacts with humans and the interactive characteristics. The interrelationships between man and the environment and well-being are fundamental areas that are questioned in this regard. There are still questions regarding the social and physical environment as predictors of subjective well-being. For instance, what are the effects of each physical and social environment variable on subjective well-being, or how do experienced interdisciplinary specialists interpret the effects of diverse environmental dimensions on subjective well-being. From an interdisciplinary perspective, the purpose of this study is to uncover whether social and physical factors are indeed predictors of subjective well-being and which indicators of them are reliable indicators of quality of life in cities. This article attempted to address the existing gaps by presenting and organizing the relevant environmental factors in subjective well-being. For this purpose, this study is organized as follows: first, in the theoretical foundations, the research literature on the role of environment elements in subjective well-being is reviewed, and then our conceptual framework is presented. Second, the research materials and methods are explained. Third, the results are analyzed, and finally, in conclusion, is discussed.

Theoretical Foundations

Research on how the environment affects the quality of life is increasing. Researchers are trying to establish a scientific framework to improve the quality of life through urban planning measures. Kent & Thompson (2014) have measured and analyzed the relationship between urban environments and quality of life and suggested that the environment can lead to health benefits and improved well-being in three ways: helping the community via physical exercise, social solidarity, and access to healthy food for all people. Mouratidis (2018a), in "Is compact city livable? The impact of compact versus sprawled neighborhoods on neighborhood satisfaction," points out that the urban environment can affect the level of residents' subjective well-being in four ways: social relationships, leisure, health, and emotional experience. Shekhar et al. (2019) have tried to explore well-being as a central concept in the larger conceptual framework of human settlement planning. They presented an interdisciplinary understanding of well-being and proposed the wheel of well-being in human settlements, which consists of four pillars, participation and engagement, access, identity, and safety. also, they have discussed the linkage between well-being and sustainable development and argued that by focusing on the well-being of people, settlements could become more resilient and sustainable. They believe that even though a universal definition of well-being remains arguable, understanding well-being in human settlements as a spectrum of attributes and aspects that depend upon their context can assist in formulating policies that enhance the well-being of people and make settlements more sustainable and resilient. From the point of view Pfeiffer & Clouof tier (2016), the main reasons for happiness in some neighborhoods are the existence of open spaces, natural and green spaces, and the type of urban design in them, because these factors cause more interaction for residents with each other, which leads to an increase in social security. Also, in an overview of the quality of urban life, Marans & Stimson (2011) have pointed out that the environment can help society's health and welfare in three ways: physical exercise, social solidarity, and access to healthy food for all people. Also, in the relationship between subjective well-being and Environment, Mouratidis (2021) pointed out seven spheres: social relationships, leisure, health, travel, emotional reactions, work, and residential well-being. The research has suggested some urban planning-based strategies to improve subjective well-being. Some of the solutions he has mentioned are as follows: uphold maintenance and order in urban space, vegetation, and transport networks; advance public transport while limiting cars; deliver easy access to services and facilities; improve visually good-looking constructions and public spaces according to residents' favorites and needs, and decrease socio-spatial inequalities while making protections for public transportation and housing for vulnerable groups; advance settings for active travel; improving quality of life inclusively with advanced technology and emerging mobility options; deliver accessible, communal spaces and inclusive public spaces; and utilization of noise reduction strategies.

Subjective Well-being

Subjective well-being denotes a variety of psychological phenomena that comprise an overall satisfaction of a person's life, a set of pleasant and unpleasant feelings about work, leisure, residence, and family life. Persons with high mental well-being have a positive evaluation from the events around them, while people with lower mental well-being do not feel good in their lives. These people also experience more negative emotions such as anxiety, depression, and anger (Okulicz-Kozaryn & Valente, 2019). Chaudhary believes that studying the well-being of individuals and communities and its promotion is the greatest practical human challenge after the improvement and progress in technology, medicine, and wealth. Therefore, given the importance of having healthy subjective well-being, it is very important to know its influencing or predicting factors. Subjective well-being can be examined in three dimensions: life satisfaction, mental health, feelings of happiness, and bliss.

A) Life Satisfaction: Life satisfaction is a mental and unique concept for every human being. Along with positive and negative emotions, it constitutes the three basic components of subjective well-being. It generally refers to a person's cognitive

assessments of their life. This concept is a general assessment of life and is based on individual judgment. Meaning the individual measures his quality of life based on his criteria. Various factors such as physical and mental health, personality traits, and demographic factors including gender, age group, marriage, socioeconomic status, and culture can affect the amount of life satisfaction.

B) Emotional well-being consists of positive emotions and negative emotions. Positive emotions mean feeling comfortable, calm, satisfied, cheerful, and good mood, and negative emotions mean anxiety, depression, and fear.

C) The feeling of happiness and bliss: Although happiness cannot be easily defined, philosophers and researchers have conceptualized it in two main ways: hedonia and eudaimonia. Both of these together represent two long-term traditions in the study of happiness, which has been the case since the ancient philosopher's era. Happiness as hedonia is based on the hedonistic view of happiness. The goal of life is to experience the maximum amount of pleasure and the minimum amount of pain. According to this tradition, the sum of a person's hedonistic moments of happiness can affect the amount of his happiness. When measuring hedonistic happiness, modern psychologists tend to use subjective well-being assessments. In the past, however, hedonistic philosophers had a relatively small view of pleasure and pain related to physical feelings, appetite, and personal well-being. Such examples of these types of hedonia are eating delicious foods.

Nowadays, psychologists focus on mental beauty and well-being using a hedonistic perspective. In general, happiness can be due to behaviors that enhance mental stimulation, stress relief, a sense of social connection, positive mood. This broad conceptualization allows hedonistic studies to enter areas such as economics. An instance of this is when enjoyable brainstorming helps shoppers decide how to make a purchase and understand how much satisfaction and benefit they can get by choosing a product. Happiness as Eudaimonia, on the other hand, holds that true happiness manifests itself when a person engages in virtuous behavior. Pursuing this type of happiness is doing something worth doing and pursuing. As a result, not only can we achieve our true potential in life, our values, and our true selves, but we can nurture our talents and strengthen our relationships.

Environmental Factors Affecting Subjective Well-being

Understanding the relationship between "human" and "environment" always raises many questions about how the environment interacts with humans and the interactive characteristics. The interrelationships between "man and the environment" and "relations between the components of the environment" are fundamental areas questioned in this regard. Where human life is formed is a space that has been called the environment. Such a human space contains the economic, social, mental. Settings related to human activities.

Environmental factors affect human well-being, especially subjective well-being (Marans, 2003; Mouratidis et al., 2019). Undoubtedly, the economic and political conditions of the individual and society, the type of interaction of the rulers, and the way each society is governed can significantly impact subjective well-being. Due to environmental factors, this study focused on physical and social factors.

According to the literature review conducted, the social and physical dimensions considered are expressed in Table 1, and the following is explained in detail.

Subjective Well-being & Physical Dimension

Essentially, all the components and elements are created, changed, regulated, and maintained by humans, referred to as the built environment. In general, the products and processes created by humans in space are referred to as environments (Okulicz-Kozaryn & Valente, 2019). The environment is studied as a relatively new and comprehensive concept under architecture, design, and urban planning. Understanding the environment as a pervasive concept is associated with vast differences. In this study, the components of the physical environment are land use (type of land use and how to distribute land uses), access and transportation networks (Rider and pedestrian), the type of urban design, and finally, the housing situation.

A) Land use: One of the effective ways to organize spaces is to use land-use planning. Land use planning means allocating land for citizens' activities and distributing land for different uses in neighborhood units and the city. It seems that land use can, directly and indirectly, affect the formation of citizens'

Table 1: The social and physical dimensions of the environment

Dimensions	Physical	Social
Factors	Land use City and neighborhood Form quantity and quality of transportation access network housing	Job satisfaction leisure time commute satisfaction social interactions neighborhood satisfaction life satisfaction happiness health

subjective well-being.

B) Transportation system: The transportation system has an increasing impact on subjective well-being. The existence of walking and cycling paths and the quality of these paths can affect subjective well-being. Paying attention to criteria such as route length, safety equipment, comfort, ease of access, and reduction of travel time make citizens more satisfied with traveling. Satisfaction with travel will increase the quality of life and subjective well-being.

C) Urban design style: Type of city areas and neighborhoods next to each other, population and building density, coordination of urban space, the landscape of the city, as well as the use of aesthetic elements in the buildings can be effective in increasing residents' satisfaction with their housing and neighborhoods.

D) Housing can also greatly impact the subjective well-being of citizens. The existence of proportions in the interior elements in the building, type of design, size, area, quality of construction, the existence of open spaces around the building, and finally, the type of ownership can increase residents' subjective well-being.

Subjective Well-being & Social Dimension

Social factors include elements and dimensions that affect human social and individual life. The welfare of the people of the society depends to a large extent on these factors. These social factors include the existence of social solidarity and communication among citizens, how they spend their time, work, social interactions, and how people travel in cities.

Travel: Travel affects all aspects of citizens' individual and social life. The quality of travel is also effective in life satisfaction, quality of life, and residents' happiness (Morris & Guerra, 2015). One of the tools to assess the impact of travel on subjective well-being is to measure citizens' satisfaction with traveling in the city (Lyons et al., 2018). The level of travel satisfaction mainly depends on the duration of the trip, how to travel, and other factors such as safety, comfort, and cleanliness of vehicles (Mouratidis et al., 2019). Short travel time and type (cycling and walking) can be directly and positively affected by increasing travel satisfaction (Chatterjee et al., 2020). Dense and high-rise urban areas seem to positively increase travel satisfaction, as they reduce travel time and expand walking and cycling (Friman et al., 2013). The use of new technology as an alternative to movement and relocation can also change the experience of traveling and traveling in cities. These new technologies have potentially created opportunities to learn and improve the quality of life (De Vos et al., 2013). Travel can also impact leisure, work, health, and housing. In general, it can be said that travel is related to subjective well-being in the following ways:

A) Participate in activities and meeting needs: Travel allows people to meet other people, access workplaces, visit shops, healthcare centers, education, recreation, sports, and cultural facilities and services. These types of access help to satisfy needs and thus create happiness and a sense of well-being in people.

B) Emotional consequences of travel: Travel is an opportunity to participate in activities and directly affect people's emotional health by creating positive or negative emotions. Traveling via physical activities such as walking and cycling are the most enjoyable travel methods (Wild & Woodward, 2019), while driving a car is the least attractive and the most stressful mode of travel (Legrain et al., 2015).

C) Physical activity during travel: Appropriate environments that encourage walking and cycling can positively affect people's physical activity and physical health (Frank, 2007). In compact, densely populated urban areas, with mixed-use, emphasis on the public transportation system rather than personal cars increases the amount of walking and cycling (Ewing & Cervero., 2010). Increasing access to public transportation can increase walking. Walking is often needed to reach public transportation stations and helps maintain a non-sedentary lifestyle and physical activities (Besser & Dannenberg, 2005).

Leisure time: Like work and housing, Leisure time is one of the most important aspects of human life. Leisure time plays an important role in people's mental well-being (Caldwell, 2005). The type of activities that people do in their spare time affect their level of satisfaction. Leisure activities and leisure satisfaction are related to physical and mental health (Mouratidis et al., 2019). Preference for leisure activities rather than work to earn more money is associated with higher levels of happiness (Hershfield et al., 2016). Lively and compact cities increase access to goods and services. Also, they facilitate daily interaction, attract talent, accelerate entrepreneurship, and enable social and economic mobility.

Social ties & Interactions: Interactions and social connections: Social relationships are another dimension that affects mental well-being (Sagone et al., 2018). Having intimate family ties, close relationships with relatives, seeing friends and relatives, receiving support from relatives and acquaintances, and enjoying social bonds contribute to greater mental well-being (Vaillant, 2012). Researches conduct that people with strong social cohesion and supportive relationships enjoy a higher level of happiness (Diener, 2018a). Social interactions can be examined in two levels.

A) Local social relations: Urban researchers focusing on relationships in the community or traditional neighborhood units examine how the environment affects social relations smaller than in the cities. Although neighborhood and local connections seem to be less important today for professionals, experts, and the educated (Popenoe, 2009) However, they are still a valuable factor in assessing residential well-being, especially for more vulnerable groups such as the elderly or the poor (Rogers & Sukolratanametee, 2009). Collective activities in local communities and the outdoors can improve neighborhood social cohesion. Areas with a lower population

and building densities also have lower levels of local social cohesion, and many neighborhood facilities are associated with reduced social cohesion in the neighborhood (Shirazi, 2020). It seems that in dense neighborhoods with mixed-use, impersonal relationships are more frequent, leading to lower social cohesion. Daily interactions between neighbors in these areas are usually more superficial, and this can be due to the following reasons: 1) Villas, duplexes, and terraced housing in low-density areas can be more useful for continuous and deeper social interactions between neighbors compared to apartment blocks in high-density areas; 2) In these areas, lower density housing causes residents to have more control over people who are in constant contact with each other. Also, due to the smaller number of neighbors, residents are associated with a limited number of neighbors; this builds the necessary trust to develop social relationships and neighborhood ties. 3) Residents of dense neighborhoods and central city areas can easily establish links with groups living in other neighborhoods due to the geographical centrality and greater access. Therefore, they may have less need to socialize with their local neighbors and less interest in creating social ties in their neighborhood (Shirazi, 2020).

B) General social relations: Although the compact urban form leads to more impersonal social interactions between neighbors and poor neighborhood relations, it enables residents to socialize more with friends and family in general and develop and maintain larger social networks. Also, it facilitates the development and maintenance of larger social networks, as it increases the proximity of space to more people and provides greater access to "third places" or urban spaces (Mouratidis, 2018a; Valibeigi & Shaneh, 2021). On the other hand, lower densities drive people further apart and reduce collective social activities (Melis et al., 2015).

Neighborhood Satisfaction: Residents' satisfaction with living in a particular space and the type of their perception of the quality of life in their community is defined as "residents' attitudes towards their own living space." Residential well-being is another component of quality of life that affects subjective well-being. The most important indicator for measuring residential welfare is satisfaction with housing, neighborhood, and city. These cases can also be assessed by measuring residential home, neighborhood, and city satisfaction (Sirgy, 2012).

A) Housing satisfaction: Housing satisfaction is related to the house and building in which the person lives, and the level of satisfaction with it is related to subjective well-being. Housing satisfaction is positively related to life satisfaction, happiness, and well-being (Davis & Fine-Davis, 1991). Building features associated with housing satisfaction include design, layout, size, adequacy of interior space, building quality, facilities, and housing prices (Sallis et al., 2016). The type of homeownership is also directly related to the level of housing satisfaction, in a way that the level of satisfaction among landlords is higher than that among tenants. (Elsinga & Hoekstra, 2005). Shared spaces next to a residential home expand privacy and thus increase social interaction between neighbors. It is also considered a safe place for children to play, and as a result, it can increase residential satisfaction and well-being (Valibeigi & Shaneh, 2021; Kweon et al., 1998).

B) Satisfaction with the neighborhood: Satisfaction with the neighborhood is related to the characteristics of the neighborhood, as well as the extent to which the individual and family needs of the people living in it are met. Satisfaction with the neighborhood is related to life satisfaction, happiness and bliss. Observing and understanding environmental characteristics effectively forms satisfaction with the neighborhood and, subsequently, the issue of community health. These characteristics include the location of the neighborhood in the city, where the neighborhood is located in the city, access to urban facilities, and the existence of green space (Mouratidis, 2018b). Access to grocery stores and high-quality restaurants promotes health and well-being in the neighborhood. Perception and mentality about the neighborhood's security, the degree of fear of crime, mental perceptions about the quality of public spaces, and understanding of the aesthetic features of the neighborhood affect local satisfaction. Social inequalities manifested in neighborhood deprivation and poverty reduce the neighborhood's quality and the positive feelings of residents within it and, in general, reduce local satisfaction.

C) Satisfaction with the city: In addition to housing and neighborhood, satisfaction with the city, in general, can be effective in the formation of subjective well-being. This is because citizens do not just use their home and neighborhood but also fulfill many of their life needs in the city. In addition, in many cases, the characteristics of the city are related to the characteristics of the neighborhood and the characteristics of the house and residential area. Therefore, satisfaction with the city, neighborhood, and housing is related. The objective characteristics of the environment in the city can improve subjective well-being because the existence of open, natural, green spaces and urban spaces can facilitate social interaction and promote security (Pfeiffer& Cloutier, 2016). A study of European cities (Węziak-Białowolska, 2016) showed dissatisfaction with public transport, cultural facilities, access to retail centers, green space, air quality, reliability, governmental management, and administrative efficiency with life in the city.

Health: Health Is one of the dimensions affecting subjective well-being. The health of individuals in society leads to a higher level of mental well-being, and high mental well-being reciprocally contributes to greater health and longevity (Gruebner et al., 2017). Living in cities has caused psychological problems such as schizophrenia, stress, and anxiety (Diener et al., 2018a). This phenomenon can be due to poverty and social inequality in some urban neighborhoods (Mouratidis et al., 2019). A survey of Oslo residents found that downtown residents were more stressed. This can be due

to the lack of connection with nature and stressful life in the city center (Aletta & Kang, 2018). Living in a crowded and high-rise area high-risk city and having high access to the public transport network reduces the risk of stress. Because it increases mobility and social interaction, especially for women and the elderly (Melis et al., 2015; Valibeigi et al., 2020), it seems that the high rate of mental illness reported in cities may be due to more strong reporting systems in urban areas than in rural areas.

MATERIALS AND METHOD

How can we find determinants that have the potential to predict subjective well-being? It is the key question of the research.

A qualitative framework has been designed to include different researchers in this field. Accordingly, some interviews were made, and content analysis was done. An expert survey includes 17 scholars working in Tehran's urban quality of life in this approach. Questioning and polling experienced specialists, scholars, academics, or other experts has provided scholars with a trove of information about processes and local context. Expert surveys permit scholars to create comparable indicators across diverse contextual settings (Holguín-Veras et al., 2020). to items generation and reduction, systematic reviews, interviews, and expert opinions should be used to create a list of potential concepts and themes relevant to the research question: which environmental dimensions can be considered determinants of subjective well-being in Tehran. Individual items informing the Environment elements of the research question should be generated, and a grid can be assembled to correlate the elements of the research question with subjective well-being.

Based on an in-depth document review, 13 factors were taken out in two dimensions: social and physical. To investigate the effect of factors on each other and to determine the importance of factors and their ranking, a cross-impact matrix was made. This matrix was given to experts in the field of urban studies.

Based on the expert survey, we then categorized the items of the research question. With MICMAC analyses, we made a grid to correlate the elements of the research question, whether they addressed contextual factors, what locus they addressed, and their design elements.

MICMAC analysis is used to classify the factors and validate the interpretive structural model factors in the study to reach their results and conclusions. A structural analysis reduces the system complexity of direct and indirect relationships between factors, and experts remove redundant or less important items and aim for a manageable list. Once the main items to study are defined, questions should then be crafted to provide data on each of these items and constitute a matrix of cross-effects between items. Data analysis in Micmac software is done in three steps: 1) Extraction of variables, 2) Investigation of relationships between variables, and 3) Determination of effective variables (Campbell et al., 2020; McKinlay et al., 2021; White et al., 2018). Targeted sampling and snowballs were used to select the experts.

For this purpose, first, purposeful sampling was used to prepare a list of experts in the quality of urban life. This is often when conducting semi-structured interviews or focus groups. Focus groups contribute many shared characteristics with semi-structured interviews. A group discussion on a specific topic is organized for research purposes (Agrawal, 2019; Asnawi et al., 2020; Suresh et al., 2019). The most important research topic in this category was: What researchers have worked in urban welfare in Tehran? And what studies have been done in this field? With the assistance of 15 urban planning students at Buin Zahra Technical University, the names of researchers in this field were prepared. As a result, the selection and sampling of snowballs began by interviewing the first researcher. Gradually, more researchers by snowball sampling have joined the research and interviewed. Researchers were not required to select from the list, and the list was for selection only. Then, the degree of variable correlations in a range between zero to three was calculated in the cross matrix. After defining the variable effects on each other, we used cross-impact analysis in Micmac software to identify variables affecting the subjective well-being of Tehran.

RESULTS AND DISCUSSION

Based on the literature review of environment agents (as seen in the theoretical framework), 13 factors were identified in the social and physical dimensions. Then cross-impact analyses were done to assess the factor effects on each other and rank them. So, a cross-impact matrix was prepared and gotten to experts. In a range between zero to three, the effects have been calculated. Then, the effects of agents on each other were determined, and then the main agents that affect mental well-being with cross-impact technique in Micmac software were found. Thus, the 13 * 13 matrix and the variables were designed in two parts. As shown in Table 2, 92% of the factors affect each other. And also, a total of 5 categories of variables can be identified in the variable dispersion sheet, including the number of repetitions (7), number of zeros (13), number one (17), number two (123) number three (16). These variables include:

- Determinant and influential variables: These can be seen in the northwest of the diagram with the lowest impressionability and the highest effect. These variables can be said to be the most critical agents because the major changes in the system are related to these factors, so their control is increasingly important. These factors are leisure, space per capita, and spatial justice.
- Two-sided variables: These factors are both impressionable and influential and can be seen in the northeast section of the diagram. They are quality & quantity of access & transportation.
- Impressionable variables: These are shown in the southeast section of the diagram with low influence rate and high

Table 2: Specifications of direct effects of the matrix

Indicator	Number of zeros	Number one	Number two	Number three	Number of repetitions	Total	Matrix dimensions	Filling rate
	13							
		17						
			123					
				16				
					7			
						156		
							13	
								91.31

impressionability rate and are as follows: neighborhood satisfaction, job satisfaction, life satisfaction.

- Independent variables: These are shown in the southwest section of the diagram with low impressionability and influence because they had nothing connected with the system, did not bring the progress of a variable and did not cease a variable. The variables are feeling of happiness, city, and neighborhood form, and the type and housing quality.

- Regulatory variables: These are shown near the diagram center. They can be considered sequentially as a secondary lever for weak goals and also can be brought up consecutively as secondary risk changes. These variables are social interactions and health.

A cross-section analysis presents a collection of two types of relationships, including direct and indirect relationships, which are listed separately by the degree of impact. In Table 3, the direct relationships are shown, and Table 4 shows indirect relationships.

The direct effect represents a direct effect of the variable x on the variable y. The indirect effect is an indirect effect of the variable x on y through another predictor variable. The relationship between X and Y is indirect when X is the cause of Z, and Z, in turn, affects Y. Indirect effects are calculated by multiplying the coefficients of each path. Finally, to calculate the overall effect of one variable on another, the direct effect is summed with its indirect effects. Table 5 shows the direct and indirect effects of variables, and fig 1 shows the ranking of variables based on their degree of impact on subjective well-being.

As can be seen in Figure 1 and Table 6, based on cross-sectional analysis, the ranking of variables is illustrated on the influence diagram. The most important influential indicator on

Table 3: direct relationship of variables and degree of impact

Variable	Direct Effects	
	Level of Impressionable	Level of Influential
Per-capita and Spatial Justice	707	868
Transport network and access	803	868
leisure time	739	803
commute satisfaction	803	771
social interactions	803	771
Health Status	771	771
quantity and quality of transportation	868	771
The city and the neighborhood form	675	739
Housing	675	739
Job satisfaction	803	739
Life satisfaction	803	739
Neighborhood Satisfaction	803	707
Happiness	739	707

Table 4: indirect relationship of variables and degree of impact

Variable	Indirect Effects	
	Level of Impressionable	Level of Influential
Per-capita and Spatial Justice	711	864
Transport network and access	801	858
leisure time	741	802
commute satisfaction	800	776
social interactions	808	771
Health Status	771	773
quantity and quality of transportation	856	772
The city and the neighborhood form	679	742
Housing	678	740
Job satisfaction	804	742
Life satisfaction	803	738
Neighborhood Satisfaction	798	710
Happiness	744	705

Table 5: The Direct and Indirect Relationships Environment Variables

Variable	Indirect influence	Direct influence
Percapita and spatial justice	864	868
Transport network and access	858	868
leisure time	802	803
Health	776	771
commute satisfaction	771	771
social interactions	773	771
quantity and quality of transportation	772	771
The city form	742	739
Housing	740	739
Job satisfaction	742	739
Life satisfaction	738	739
neighborhood satisfaction	710	707

Table 6: The Ranking of Effective Environmental Factors on Subjective Well-being

Variable	Rank
Percapita and spatial justice	1
Transport network and access	2
leisure time	3
Health	4
commute satisfaction	5
social interactions	6
quantity and quality of transportation	7
The city form	8
Housing	9
Job satisfaction	10
Life satisfaction	11
Neighborhood satisfaction	12

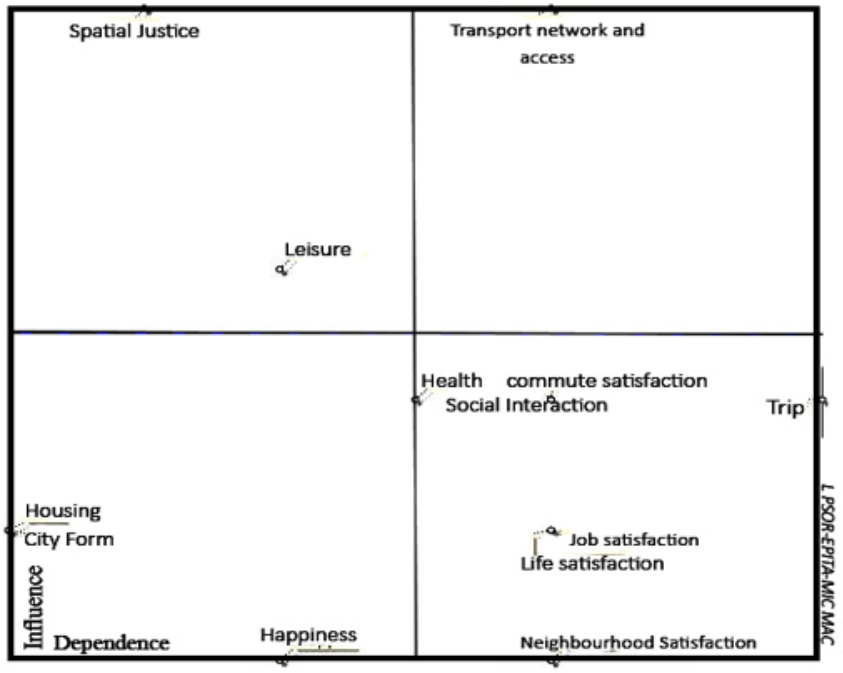

Fig1: The Ranking and Diagram of Effective Environmental Factors on Subjective Well-being

the subjective well-being of communities is the spatial justice in place that can be seen in the city's distribution of resources and services. Proper distribution per capita affects subjective well-being significantly. Following this factor, urban transportation networks, leisure time, health, commute satisfaction, social interactions, quantity and quality of transportation, the city form, housing have the highest effect on subjective well-being in Tehran city, respectively. Spending leisure time and health care in the next ranks as social indicators of an environment. Although satisfaction affects well-being, they seem to be lower since other variables also influence the intermediate variables. Also, they can be called mediating variables, which, even though they represent subjective well-being, are not the main cause of it.

CONCLUSION

Subjective well-being is a set of psychological phenomena related to one's overall satisfaction with life, a set of pleasant and unpleasant feelings about work, leisure, residence, and family life. This study aimed to investigate the role of environmental dimensions on well-being in Tehran qualitatively. The results show that spatial justice and access and transport network are the highest impact on subjective well-being. These variables have an increasing impact on the subjective well-being of citizens. Therefore, city officials and managers can increase citizens' subjective well-being and ultimately improve their quality of life by emphasizing these variables and optimizing the situation in the above areas. The greatest impact on well-being can be met by a proportional distribution of spatial per capita and spatial justice through land-use planning. A goal is achieved by reducing the distance between the three spaces of life, work, and leisure.

The formation of land-use systems in each city and how the land is divided and used for various activities reflects the collective action of various environmental, economic, social, political, and legal forces. The results show that this relates most to citizens' subjective well-being. Having standards per capita and a fair distribution of land use in urban spaces causes a sense of welfare in citizens and affects their level of subjective well-being significantly. Lack of optimal distribution of land use in various social, cultural, and economic fields disrupts the spatial order of cities and reduces the welfare of citizens both objectively and subjectively. Spatial justice in the distribution of service centers in the city provides the preconditions for sustainable urban development, and disorder in regional and local distribution causes regions and neighborhoods to distance themselves from social justice. From urban planning, justice includes proportional functions and services, proper access to services and activity centers without discrimination, and differences between residents. The results of the study confirm the importance of this issue.

Leisure is one of the social, cultural, and even economic

factors (if used optimally in a way that brings satisfaction for user) that can have positive effects on a person's views and perceptions of society, its conditions and future, and can make a person regard their society with a more optimistic outlook. This attachment, cohesion, and hope towards their society will undoubtedly cause the individual to strive and help their society achieve its goals, promote them, and improve its economic and welfare situation.

Health is one of the most fundamental components towards the well-being of an individual and their society and is based on human life. However, whenever it is mentioned, more attention has been paid to its physical dimension and its psychological dimension in recent decades. However, other aspects, including its social aspect, have received less attention. While paying attention to countries to ensure community members' subjective, physical, and social health, the World Health Organization emphasizes that none of the dimensions of health is superior to other dimensions. Growth, excellence, and the general welfare of society depend on that community's health. Identifying the determined and related factors for policy-making and planning at the micro, and macro levels of society from the perspective of three dimensions (physical, psychological and social), is one of the most concerning issues of any society.

Urban and territorial planning is a vehicle for social health improvement and ultimately for achieving subjective well-being- applying a health 'lens' to this process ensures all the determinants of health are considered and significantly improves subjective well-being in Tehran.

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