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The role of city parks in creating 'wellbeing societies': A case study of Piłsudski Park in Łódź, Poland

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ABSTRACT

This article examines the role of urban green spaces (UGSs) and city parks in fostering wellbeing among urban residents. UGSs are increasingly being recognized for their contribution to public health, mental wellbeing and social cohesion, and this research fills a gap in the understanding of these benefits in the context of Central and Eastern European cities. The current study presents research on the motivations, patterns of use, chosen activities and wellbeing benefits of visiting the largest city park in Łódź: Marshal Józef Piłsudski Park. The research utilizes a questionnaire-based survey of 238 park users to explore patterns of park use, motivations for visiting and perceived wellbeing benefits. Findings reveal that physical activities, such as walking, are the primary motivation for park visits, while mental benefits like relaxation and stress reduction are highly valued outcomes. Although social interactions are rated lower overall, they are particularly significant for younger and older users, as well as marginalized groups such as unemployed individuals. The study also highlights the role of proximity and the frequency of visits in amplifying wellbeing benefits. Despite the park's evolving infrastructure, aligning with modern trends, passive recreational activities dominate usage patterns. The research underscores the potential of urban parks to address health and social challenges, advocating inclusive and participatory urban planning. These findings contribute to the broader discourse on sustainable urban development and the creation of 'wellbeing societies' through urban green spaces.

KEYWORDS

urban green space, urban park, wellbeing

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1. Introduction

Recently, urban green spaces (UGSs), including city parks, have been attracting increasing attention from researchers, practitioners and users. From the very beginning, i.e. in the 19th century, the idea of (European) city public parks was aimed at contributing to improving health conditions for city residents, as well as enhancing urban aesthetics (Grochowski, 2023). The notion in the 20th century was to make city parks accessible public recreational spaces (although the modernist aesthetics of the parks varied). At the end of the 20th century, parks were assigned new roles in city development strategies (cf. the Parisian parks – La Villette and André-Citroën), and in the 21st century this became a common trend, at least in Europe (Bernacki, 2009). As a result, city parks have become not only a basis for the ecological system of urban greenery and an increasingly appreciated urban amenity, ideally in the close vicinity of residence (Sokołowicz, 2017), but also an increasingly desirable component for sustainable and liveable cities (Mouratidis, 2021; Wolff & Haase, 2019). Urban parks in Europe, especially the large ones, are undergoing changes in their landscape in the 21st century. Functional and spatial programs can be found, with growing importance in previously marginal functions, such as cultural or commercialization. There is also a growing emphasis on pluralism and participatory activities, as well as experimentation in design and attention to naturalization and the recycling of space (Bernacki, 2009; Ignatieva, 2021). More recent studies have emphasized the importance of recycling or adapting urban space to new functions (Gadomska, 2018), as well as (re-)naturalizing UGSs (Ignatieva, 2021; Rojas et al., 2021).

In post-socialist cities in Eastern Europe where the availability and accessibility of green areas and often their quality was lower than those in Western Europe (cf. Biernacka et al., 2020; Csomós et al., 2020; Kabisch et al., 2016), developers as far as possible started to look for ways to improve the potential of urban greenery. Hence, the aforementioned changes in city parks were also implemented in post-socialist cities (CEE), although it was suggested that urban sprawl was strongly connected to a scarcity of adequate green spaces in the inner-parts of those cities (Csomós et al., 2020; Koprowska et al., 2020). Many projects were undertaken that aimed to contribute to an increase in the overall level of greenery in a city, improving accessibility to UGS (Krzywnicka & Jankowska, 2021), as well as their functional usage and attractiveness (cf. Smith et al., 2024). It should be noted that accessibility has multiple meanings and can refer to proximity to the park on foot or by public transport, physical infrastructure within the park, ease and comfort of moving around, social dimensions relating to inclusion, and feelings of safety (Wojnowska-Heciak et al., 2022).

As shown by Kowalczyk-Anioł and Smith (2024), quite visible changes have taken place in the international discussion (in the field of the social sciences in particular) on the importance of city parks in the most recent decade of the 21st century. Initially, the contribution of green spaces or parks to the quality of life of residents was discussed, with the discussion on ecosystem benefits/services becoming more prominent over time. Today, in the broad debate on the role of parks and other green areas in the city, attention is increasingly being paid to the possibilities of reducing climate change in urbanized spaces, in addition to the various health and wellbeing benefits for residents. The growing role of UGSs as key spaces for experiencing nature for city residents (Melon et al., 2024), including their role in strengthening and building wellbeing, (including mental wellbeing[1]) is featuring increasingly in international health documents (e.g. World Health Organization [WHO], 2023a, 2023b).

In the latest (post-pandemic) document on wellbeing, WHO (2023a) emphasizes the need to focus national and local policies (including urban ones) on strengthening individual and community wellbeing to create 'wellbeing societies' in the field of public health and health promotion. Barton and Rogerson (2017) propose that, given the universal urgent need to improve the available health-promoting infrastructure for mental health, the potential of green spaces should be used, especially in urban environments. They argue that urban parks can play a key role in the mental health of the urban population. The question therefore arises to what extent do urban parks/ UGSs contribute to creating or strengthening 'wellbeing societies'. How significant are the benefits of visiting parks in the opinion of urban park users for various dimensions of their wellbeing? These issues are still insufficiently researched, especially in the context of CEE cities, where the attractiveness of urban parks is still being improved.

There is growing evidence to support the health-promoting effects of UGSs, especially during physical activity. In a recent review of the literature, Jabbar et al. (2022) emphasize that by providing an appropriate environment for physical activity, UGSs help to improve the physical, mental and social wellbeing of their users (see also Burrows et al., 2018). Today, experiencing nature itself is considered an important resource in preventing and reducing mental health problems (Bratman et al., 2019; Van den Berg, 2017), especially in reducing the stress associated with urban life (Hunter et al., 2019). Hence, the practice of prescribing nature ('nature pills') to motivate patients to take a break in nature has been growing in recent years in North America and Europe[2]. Many believe that regular, frequent visits to green spaces are key to mental health benefits (Ma et al., 2019; Pasanen et al., 2023).

Taking the above into account, the aim of the article is to present research on the motivations, patterns of use, chosen activities and wellbeing benefits of visiting Marshal Józef Piłsudski Park, the largest in Łódź, a post-industrial city located in the center of Poland. The research was conducted using a questionnaire, the design stages and construction of which are described in detail in section 3. The analysis conducted focused on finding answers to the following questions:

1. Who are the contemporary park users and what are their patterns of use in terms of frequency and duration of visits?
2. What are the motivations for using the city park in terms of activities and expected benefits?
3. What are the main wellbeing benefits of visiting the park?
4. Does proximity to residence and frequency of visit affect the wellbeing benefits of visitors?

Although there is already quite a rich literature about Łódź city parks, they are usually discussed using objectively measured data on accessibility, attractiveness, environmental justice and green gentrification. The topic of the wellbeing of users is under-researched and there has not been much detailed research on a single park. Moreover, as shown by Kowalczyk-Anioł and Smith (2024) studies on city parks in Poland still lack research on the benefits for the wellbeing of their users. Taking this into account, the article attempts to fill these knowledge gaps. It also supplements the international literature with a discussion of whether and how a city park contributes to creating or strengthening 'wellbeing societies', especially in a CEE city that is still in transition. The studied park (*Park na Zdrowiu*; Piłsudski Park) has been undergoing a transformation in recent years driven by city policy and participatory activities (projects connected to the so-called 'Citizens' Budget'). They are especially visible in the dimension of recreational development and sport amenities. Hence, its selection as a research site seems justified from theoretical, empirical and applied perspectives.

2. Literature review

Urban green spaces, especially parks, serve a number of important functions in cities: providing recreation, wellbeing and health benefits, improving the environmental quality, offering nature-based experiences and contributing to the conservation of biodiversity (Jabbar et al., 2022; Kabisch et al., 2016; Loughran, 2020; Szumacher, 2011). Parks and green spaces also play an important role in social interaction and community cohesion, bringing individuals together and encouraging them to use outdoor areas (Kumar & Vuilliomenet, 2021). These can include physical activities relating to fitness and sports, as well as meeting people, doing activities with children or walking a dog (Pinto et al., 2021). The use of urban parks for social activities and enjoying nature can contribute to a sense of place (van Dinter et al., 2022). Some authors have considered that UGSs play a role in enhancing economic development, for example, residential, commercial, retail and tourism (Lim & Xenarios, 2021; Liu et al., 2020; Promsaka Na Sakolnakorn, 2018). In the case of leisure and tourism, the recreation function and social benefits of urban parks are more important than the conservation and ecological benefits (Du & Zhao, 2022). The connection between UGSs and tourism has been increasingly recognized by some researchers (Saari, 2023) who note the relaxation opportunities (Adiati et al., 2018; Jabbar et al., 2022), as well as the possibility of using city parks for staging cultural activities (Bunakov et al., 2019).

Nevertheless, the role of green spaces in improving the quality of life in terms of a healthier environment and more sustainable development should not be under-estimated (Valánszki et al., 2018). Li et al. (2024) advocate developing strategies to protect and promote the sustainability of UGSs to ensure better health and wellbeing for residents. One systematic review showed that research on public urban green landscapes and human wellbeing has developed from focusing on health (e.g. physical activity, mental health, stress) to include ecology, biodiversity and ecosystem services. The topic of naturalness (the level of man-made elements) is also mentioned as an increasingly important factor that influences the aesthetic appreciation of the green space and can have a positive health impact (Reyes-Riveros et al., 2021). Clearly, climate change presents some new challenges for the maintenance and protection of UGSs. It is also important to note that there may be some conflicts between user groups in an urban park because of different needs and interests (Rollins et al., 2001) or because of visitor interactions and overcrowding (Aydemir et al., 2024). Pitas et al. (2024) refer to conflicts with the unsheltered homeless who use urban parks for several functions, including sleeping at night. Indeed, issues around perceived safety in city parks at night have been highlighted by some authors (Lis et al., 2023; Rahm et al., 2021).

A growing interest in the interaction between public UGSs and human wellbeing in the last decade or so has been noted in systematic reviews (Reyes-Riveros et al., 2021). One systematic review of urban park literature identified wellbeing as being the most common theme (Torabi et al., 2020). Samus et al. (2022) summarize the theories that support the impact of UGSs on community health and wellbeing which include biophilia theory, which posits that humans have an inherent affinity with nature, and attention restoration theory (ART) which

recognizes that natural environments offer opportunities for restoration and stress reduction. Olszewska-Guizzo et al. (2022) also refer to stress reduction theory whereby natural environments promote recovery from stress. Urban greenness positively influences leisure satisfaction (Mouratidis, 2019) and contributes to quality of life (Valánszki et al., 2018) and it has been shown that sitting in an urban park for just five minutes enhances wellbeing (Neill et al., 2019). This is connected to creating opportunities for physical activities (Burrows et al., 2018) and social interaction (Kim & Jin, 2018) and it seems that the link between being in green spaces and improved mental health is quite significant, especially with frequent visits to city parks (Ma et al., 2019). The health benefits of being outdoors were especially recognized during the COVID pandemic (Kleinschroth & Kowarik, 2020).

It has been suggested that cities need to improve urban planning and design to maximize the positive impact of green spaces on mental health (Liu et al., 2020). However, it has been suggested that there is a lack of evidence-based guidelines for landscape architects and urban planners when designing urban green spaces to promote mental health and wellbeing (Olszewska-Guizzo et al., 2022). Ideally, green spaces should be located within easy reach of one's home (Liu et al., 2020) and there is a positive correlation between the number of parks in a local neighborhood and mental health (Wood et al., 2018). Accessing parks that are further away may present physical, mental or social challenges (Błaszczyk et al., 2020) and they are less likely to be visited (van Dinter et al., 2022). There have been some concerns that the availability of UGSs in Eastern and Southern Europe is relatively low compared to the number in Western and Northern Europe (Kabisch et al., 2016). Some studies of Eastern European cities showed that access to green spaces tends to be more limited for lower income residents (Farkas et al., 2022), while even quality of life studies that focus on smart cities have emphasized the lack of green spaces (Fekete, 2023).

There is still little research on the nightlife of urban parks. Ngesan et al. (2013) conducted research on night-time leisure activities in parks and designing them for night-time usage. Currently, more attention is paid to the (perceived) safety of users, for example, Rahm et al. (2021) and Lis et al. (2023) examine the relationship between urban green infrastructure, street lighting and safety.

Some studies have differentiated between user groups and their preferences. For example, van Dinter et al. (2022) show that older people (in the Netherlands) are more likely to visit a park to enjoy nature than to meet other people. Couples with children are more likely to engage in social activities, especially using playgrounds. However, this aspect seems to be relatively under-researched. Li et al. (2024) suggest that future research should focus on the differential health benefits of urban green spaces according to age, socioeconomic status and cultural background.

3. City park study – methodology

In preparation for the study, a systematic review following the PRISMA structure (Moher et al., 2009) was undertaken between 2017 and 2023 which consisted in searching for the terms 'urban green space' and 'well-being' in EBSCOhost. To qualify as useful sources, the articles needed to focus on nature connection, leisure and recreational use of green spaces. The term 'wellbeing' was used in preference to 'quality of life', as social science researchers seem to prefer this term when discussing the benefits of nature and landscape. A total of 40 articles were selected from 297. To be included, the articles needed to be written in English, to be based on urban green spaces, and to focus on human wellbeing. Types of UGSs analyzed in the articles include parks, botanical gardens, woods and urban forests which had become even more important during the COVID-19 pandemic, and especially city parks (Kleinschroth & Kowarik, 2020). The majority of the articles (95%) focused on local residents and the most popular method for research was a questionnaire (used in 60% of the articles). A questionnaire with local residents was chosen as the main research tool for this study as well.

Many authors have shown that visiting parks contributes to physical and mental wellbeing (Burrows et al., 2018; Ma et al., 2019; Taylor et al., 2020), others have emphasized the contribution to social wellbeing (Hajzeri, 2021; Pinto et al., 2021; Torabi et al., 2020; Yilmaz et al., 2017). Konijnendijk et al. (2013) used the term 'social cohesion', which included social interaction and inclusion, however, it was concluded that people mostly visit a park with someone they know beforehand, e.g. family members or friends. For the purposes of measuring social wellbeing, it was important to include who the respondents usually visit the park with. Some studies also include cultural activities and events (Bunakov et al., 2019). The questionnaire was designed with these domains of wellbeing in mind, as well as other motivations for visiting and the benefits including the most popular activities.

The questionnaire design took into consideration several studies that have focused on visitors' use of city parks. For example, a study of what visitors want from urban parks (Taylor et al., 2020), the services and benefits that promote wellbeing in urban parks (Konijnendijk et al., 2013), the mental, physical and social wellbeing effects of urban green spaces (Yilmaz et al., 2017)

Table 1. Questionnaire design and statements

Domains	Themes	Statements
Duration/ frequency/ journey	– Time spent in the park – Frequency of visits – Length of journey – Mode of transport	– How often do you visit the City Park? – On average, how long do you spend in the City Park if you visit? – How do you reach the City Park from home? – How long does it take you on average?
Companions	– Tendency to visit the park alone or with others	Who do you most often visit the City Park with? – Alone – With my dog – With my children – With my grandchildren – With my friends – With my partner – With my whole family – With my sports team – Other, please specify…
Motivations for visiting	– Physical activities (e.g. sports, fitness, walking, jogging) – Mental benefits (e.g. to relax, nature connection) – Social interactions (e.g. meeting friends, picnics, playgrounds) – Cultural attractions or events – Practical/functional (e.g. walking to work, parking, working) The statements were adapted from Yilmaz et al. (2017): *Physical health* – Walking – Cycling – Sports activities *Mental health* – Being alone with nature – Contact with nature (e.g. flowers, animals) *Socialization* – Meeting with others – Being together with friends Taylor et al. (2020) noted the importance of functional reasons, e.g. being able to easily access a park was a common reason for its utilization (i.e. being in transit)	Main motivations for visiting the City Park (Likert scale 1–7): *Physical* – To have a walk – To go jogging – To cycle – To use the sports facilities – To use the outdoor gym – Roller skating *Physical/social* – To walk my dog – To take my children to the playground *Social* – To meet friends *Mental* – To read ▪ *Mental/physical* ➢ To sunbathe (relaxation, Vitamin D, cultivating a tan) ▪ *Mental/social* ➢ To visit the cafes (alone or with others) ➢ To have a picnic (alone or with others) ▪ *Mental/nature connection* ➢ To sit on a bench and enjoy the surroundings ➢ To look at flowers and plants *Functional* – To work – To pass through on my way to work – To use the parking facility *Other…?*
Main benefits of visiting the park	– Physical (e.g. exercise, fitness) – Mental (e.g. feeling calmer, less stressed, connecting to nature) – Social (e.g. meeting or interacting with others) – Cultural (e.g. aesthetics, learning) The statements were adapted from Yilmaz et al. (2017): *Physical health* – I feel healthy – I breathe clean air *Mental health* – I feel healthy – I feel relaxed – I feel peace – I get rid of the daily stress of life – And keep away from the city noise – Contact with nature *Socialization* – Share life with my friends and my family Taylor et al. (2020) found that one in eight park users felt relaxed, happy, peaceful, calm	Main benefits of visiting the City Park (Likert scale 1–7): *Physical* – Improving my health – Improving my fitness – Feeling energized – Enjoying the shade on hot days – Enjoying fresher air *Mental* – Improving my health – Rest and relaxation – Spending time alone for myself – Feeling calmer and less stressed – Feeling less anxious or depressed – Feeling energized – Finding inspiration in the park – Escaping from the busyness of the city – Enjoying nature – Reconnecting to nature – Learning about trees, plants and flowers – Watching wildlife *Social* – Improving my social life – Socializing with others – Doing sports with others – Enjoying time with my children – Enjoying time with my grandchildren – Enjoying time with my dog

Source: authors.

and how urban park usage relates to the quality of life (Hamdan et al., 2017). The latter authors test the relationship between behavioral competences and psychological wellbeing using five variables: physical activity, health status, social interaction, levels of satisfaction and respondents' emotions. A study was also consulted that presented a toolkit for measuring health and wellbeing in urban green spaces (Wheeler, 2018). This included physical and mental health and social interactions.

One report that included a detailed systematic review (Konijnendijk et al., 2013) differentiates between the direct and indirect health effects of urban parks. Direct effects include improved self-perceived health, psychological wellbeing and reduced stress while indirect effects mainly refer to physical activity through sports and exercise facilities. Some authors differentiated between passive and active recreation (Taylor et al., 2020), and this was also taken into consideration in the questionnaire. Here, more passive activities include sunbathing, sitting on benches, looking at flowers and plants, observing cultural buildings from the outside while active recreation relates more to sport and fitness.

Taylor et al. (2020) address the question of why people visit parks and how they experience them using brief interviews about why they came, what they notice and how they feel. These responses were very useful in the design of the statements because they provided detailed information about motivation, activities and benefits using the following categories:

1. How people used the park (e.g. exercise, meeting others).
2. How people think about the park (e.g. safe, family-friendly, dog-friendly).
3. Proximity (i.e. close to home or the city center).
4. Transit (e.g. walking through the park on the way to work).
5. Nature (e.g. shady, cool, views of water, birds).
6. Internal processes (e.g. to relax, think).
7. To get away (e.g. to have a break from work, get out of the house).

The authors clustered 886 responses into themes like connection to nature (e.g. vegetation, wildlife, shade, fresh air), facilities (e.g. playgrounds, gyms, sports fields, parking) and culture (e.g. statues, memorials).

Table 1 shows how the questionnaire was designed in terms of domains, themes and statements. It was challenging to separate the domains of wellbeing from each other, especially the mental wellbeing category, as it could be considered that physical, social and cultural activities can create mental wellbeing benefits.

Some questions were also included about the management and general maintenance of the park, including cleanliness, safety and the availability of public toilets. Safety in parks can be especially important at night (Hajzeri, 2021).

The questionnaire was prepared on the basis of Table 1, translated into Polish, tested and finally used for field research. In the period from October 22 to November 23, 2024, face-to-face questionnaire interviews were conducted among 240 adult users of *Park na Zdrowiu*; the research sample was selected based on availability. Ultimately, 238 complete questionnaires were used, which were analyzed using contingency tables, and Pearson contingency coefficient *C* was used in relation to wellbeing benefits.

4. Piłsudski Park as a research area

As mentioned, despite the fact that there are several contemporary studies about Łódź parks (including Biernacka et al., 2020; Borowska-Stefańska & Wiśniewski, 2018; Feltynowski et al., 2023; Haase et al., 2022; Kronenberg et al., 2023; Łaszkiewicz, 2024), these omit wellbeing issues and usually focus on a set of parks. The research by Pietrzyk-Kaszyńska et al. (2017) showed that the residents of Łódź (69.9%) spend their free time in public parks and gardens more often than residents of other large cities (i.e. Poznań and Kraków). It is significant that the residents of these three Polish cities indicate that the main attractions of these spaces are anthropogenic factors (well-planned area, functional design) and biodiversity[3].

Marshal Józef Piłsudski Park is one of 34 in Łódź[4] and according to Biernacka et al. (2020), it is the most popular among residents with a good level of accessibility compared to others. It should be emphasized that a feature of Łódź is the presence of historical parks, which were created at the end of the 19th and at the beginning of the 20th centuries (Wycichowska, 2015). City parks were designed to serve the residents of the overpopulated industrial city, while private parks (parks adjacent to villas and palaces) were meant to add prestige to their owners (factories). Among the city parks in Łódź, 12 historical (7 private and 5 city) are entered in the register (Wycichowska, 2015). The park under investigation is one of the historic city parks.

Marshal Józef Piłsudski Park (officially also called the *Park Ludowy* [People's Park]) or *Park na Zdrowiu*), is located in the western part of Łódź (Figure 1). It currently covers an area of approximately 169 ha, which makes it not only the largest of the Łódź parks but also one of the largest in Europe.

The park was established between 1919 and 1939. As Olenderek (2020) writes, the Marshal Józef Piłsudski *Park Ludowy* [People's Park] was the largest garden and recreational complex built in interwar Poland and Europe. It was located outside the Łódź circular railway[5] in the Łódka valley, on former areas of the

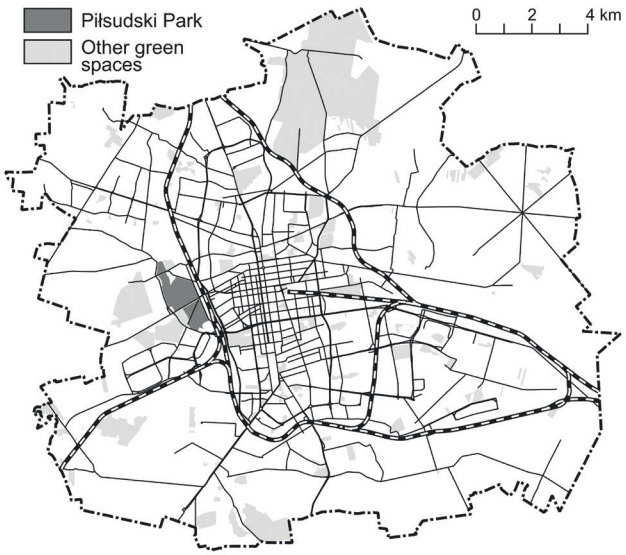

Figure 1. Piłsudski Park and other green spaces in Łódź
Source: authors

city forest (the Polesie Konstantynowskie reserve is a remnant of this large forest[6], which is adjacent to the park from the south-west). Part of the newly created park (e.g. the Zoo) included post-exploitation areas[7] (Kobojek, 2021). The final version of the plan that was adopted for implementation was in line with the then latest modernist tendencies of composing such huge park complexes of a forest-sports-recreational nature (Olenderek, 2020).

The construction of the park, modern for its time, aroused great interest in the country and abroad. Above all, the park's program (concept, design, functions) and its modernist architectural and landscape form stood out. According to the plans, this area was to meet a wide range of possibilities for common active and passive recreation, education and culture. Roads and ponds were built, sports and educational programs were created (memorial sites, thematic gardens, monuments), new trees and shrubs were planted. Ultimately, the planned cultural program was not implemented, because the work was interrupted by the outbreak of World War II[8] (Olenderek, 2020).

After the war (during the Polish People's Republic), attempts were made at various times to rebuild the destroyed facilities. Among other things, work on the water supply network was resumed, the road surface was modernized, lighting was installed, and the Zoo was expanded. In the 1960s, the Botanical Garden was built[9]. Work was also underway to monitor the condition of the trees (Olaczek, 2019) and in the 1970s, the area received significant investment. Among other things, a city amusement park was built (1974) and the *Fala* Aquapark (1976). The next decade was unfavorable with only the necessary cleaning and snow removal being carried out, while gardening works only in the central part. The great popularity of the amusement park led to the destruction of the vegetation, scaring away animals and littering the area.

It was not until the 1990s that comprehensive renovation works allowed the reconstruction of the neglected pre-war water system – a complex of park ponds (Wycichowska, 2012). At the beginning of the 21st century, the construction of a complex of sports fields and a complex of 'Jordan' gardens (including adaptations for disabled children) was completed in the vicinity of the amusement park, and outdoor strength training equipment was installed. The communication system was also modernized. A significant part of the funds for the conservation and revitalization of the historic greenery of Łódź, including the park under study, came and still comes from EU funds (e.g. Wycichowska, 2008). In the second decade of the 21st century, the initiatives and choices of residents became quite visible in the transformation of urban greenery in Łódź as part of subsequent 'Citizens' Budgets' for the city (Leśniewska-Napierała, 2017). In this way, further changes were initiated to increase the attractiveness of Piłsudski Park, both in terms of general equipment (e.g. Wi-Fi network, specialist benches for mothers with children, lighting system, bird nesting boxes, a green tunnel made of plants), recreational amenities (phased creation of the modern recreation, leisure and animation zone on the site of the former amusement park, running paths, cross-country skiing/ roller-skating classes, sports training, classes promoting a healthy lifestyle), the organisation of cultural events (the Polówka outdoor summer film festival) and inclusive activities (animation classes for families and people of all ages).

Nowadays, Piłsudski Park is an important element of the natural system of Łódź, it is a basic place of everyday recreation for the residents (Biernacka et al., 2020) and according to the cited authors, the park is characterized by good accessibility. The rich, publicly accessible functional program of the park (Figure 2) includes a modern recreation, leisure and animation zone with playgrounds for children and youth, an outdoor gym, football and basketball courts, bicycle tracks, pump tracks for cycling, ping-pong tables and a set of climbing and play equipment. Comfortable paths for walking, cycling, jogging or rollerblading have been planned throughout the park. In 2023, a local spatial development plan was adopted, which clarified the guidelines for the protection of natural, landscape and cultural values of a significant part of the historic area of the park[10]. As part of the protection of the cultural landscape, conservation protection includes the main compositional axes, the compositional layout of the paths, elements of the development plan with ponds, sports grounds and a shooting range. All activities, includ-ing greenery plantings, or projects from the civic budget must be consistent with this

Figure 2. Piłsudski Park in Łódź
Source: based on Olaczek (2019)

plan. The Monument of the Revolutionary Act has been defined as a contemporary cultural asset, covered by the preservation order, as well as an exhibition protection zone. The document also shows that there are two unpublicized archaeological sites from the Bronze Age. The only paid facilities (managed separately, but treated by users as integral parts of the Piłsudski Park) are the Zoo and the *Fala* Aquapark. In 2022, an Orientarium was created on the premises of the Zoo, the design of which was ap-preciated in international competitions for leisure architecture[11]. In the winter of 2024/2025, a temporary commercial lighting installation was arranged in the Orientarium: the Million Lights Park.

In order to complete the characteristics, it should be emphasized that the changes observed are largely consistent with trends in the development of contemporary European city parks, as defined by Bernacki (2009). Recreational infrastructure is strongly present in the functional and spatial design of the park while there are relatively few cultural facilities and modern conservation protection does not foresee any changes in this respect. However, the potential for educational activities related to the presence of archaeological sites, as well as the organization of cultural, educational and entertainment events can be indicated. The latter, including summer cinema screenings or other outdoor events promoting a healthy lifestyle, have been quite visible in recent years. It is also worth emphasizing that there are no officially available data on the users of Piłsudski Park, or research on their behavior or preferences.

5. Research results

Field research was conducted in the publicly accessible (free of charge) area of the entire Piłsudski Park in Łódź. The selection of the research sample was purposeful and accessible[12], with an attempt to include various types of park user. Analysis of the locations of the conducted interviews allows us to state that the most frequently used areas of the park are the area around Konstantynowska Street, the runners' path, ponds and the recreation zone (former amusement park).

5.1. Who are the users of Piłsudski Park and what are their patterns of park use?

The respondents were mainly permanent residents of Łódź[13] (74%), 22% were other types of residents (e.g. from elsewhere in Poland or another country), and 4% were short-term 'guests' – Table 2. This structure confirms the belief that city parks are used mainly by city residents and activities carried out in them should take into account their needs. The majority of the surveyed group are women (64%), while in terms of age, young people between 18 and 25 years of age (34%) predominate among although a sufficient presence of other age groups will allow for an investigation of age-related relationships. The respondents declared mainly

completing secondary (47%) or higher education (42%) and are diverse in terms of their professional situation: 44% are professionally active, 26% are students, 20% are retirees or pensioners. Among the surveyed, 64% are in a relationships, and a fairly large number of single people are represented from all age groups.

Table 2. Socio-demographic characteristics of respondents (n = 238)

Category		Total (%)
Sex	Women	152 (64)
	Men	86 (36)
Age	18–25	80 (34)
	26–38	57 (24)
	39–54	47 (20)
	55–73	29 (12)
	74+	25 (10)
Civil status	Married	87 (37)
	In a relationship	63 (27)
	Single	53 (22)
	Divorced/widow	34 (14)
Educational level completed	Primary school	4 (2)
	Vocational school	21 (9)
	Secondary school	112 (47)
	Studies	100 (42)
Occupational situation	Employed in a private company	78 (33)
	Self employed	14 (6)
	Civil servant/ public sector employee	13 (5)
	Retired/pensioner	47 (20)
	Student	63 (26)
	Unemployed	12 (5)
	On maternity/ parental leave	11 (5)
Residence	Permanent resident of Łódź	173 (74)
	Resident from elsewhere in Poland	28 (12)
	Resident from another country	5 (2)
	Temporary resident from elsewhere in Poland	15 (6)
	Temporary resident from another country	5 (2)
	Short-term guest in Łódź	10 (4)
Distance of residence	I live a few minutes away	92 (39)
	About 20–30 minutes	78 (33)
	< 30–60 minutes	48 (20)
	More than 60 minutes	20 (8)
Frequency of visits	Several times a week	50 (21)
	Once a week	69 (29)
	Once a month or more	51 (21)
	Several times a year	50 (21)
	Other	18 (8)

Source: authors.

Among the surveyed park users, 39% are those who 'live in close proximity' ("I live a few minutes from here"), while 33% indicated that they live 20–30 minutes away. Every fifth user lives 30 to 60 minutes from the park – Table 2.

To analyze the patterns of park use, the frequency of visits, their duration, the most common way of reaching the park and the company with whom they spend time there were determined: 29% visit the park once a week. People who visit more often ("several times a week") constitute 21% while the same share is held by those who use the park once a month or more. The park is often used (at least once a week) by retirees and those living nearby (up to 30 minutes). The vast majority of respondents spend 1–2 hours in the park (63.4%), 41.4% reach it on foot, and these are usually those who live closest to and visit the park most often. Men arrive by bike more often than women. The local reach of Piłsudski Park is evidenced by the significant share of people arriving by public transport (28.8%) or by car (18.4%). Although every fourth user is usually alone (26.4%), the majority indicate that they are accompanied (23.5% friends, 11% children, 10% the whole family); 12.4% most often come with a dog.

5.2. Main motivations for visiting the Piłsudski Park

Motivations were measured using a Likert scale (1–7: 1 – *not significant at all*; 7 – *very significant*), from which the central measure (arithmetic mean) was then calculated. In accordance with the previously presented structure of the questionnaire (Table 1), the responses were grouped into the following categories: physical activity (from walking to various forms of physical recreation), physical/social activity (playing with children in the playground and walking a dog), social activity (meetings with friends), mental – including reading (mental), sunbathing (mental/physical), picnic (mental/social), sitting on a bench and enjoying the surroundings

(mental/ nature connection). The relationships between the categories of motivation and the socio-demographic variables were analyzed based on contingency tables (cross-tabulation) – Table 3. After the initial analysis, in the case of multi-component categories, the highest result was identified. For example, in the category of physical activity motivations, this component was "walking", and in the category of physical/social activity motivations "walking a dog" or "playing with children in the playground". The introduced solution was important to obtain a true picture of the hierarchy of motivations for visiting the studied park.

As a result, the general hierarchy of motivations for visiting *Park na Zdrowiu* is as follows. By far the strongest motivation to visit the park is physical activity in the form of walking (5.9 for all respondents) indicated by all types of park user regardless of age, gender, distance of residence or frequency of visits. Much less importance (2.2–3.1) was assigned to various active forms of recreation (cycling, running, using sports equipment and outdoor gyms), although they were indicated by people from all age groups. The unemployed rated the possibility of using sports infrastructure more highly (4.5).

However, short-term visitors (4.7) and those visiting the park the least frequently (4.6) indicated that psychological motivation – nature connection – was more important to them, while the unemployed (6.64) indicated that they were most motivated by the desire to meet friends (activity/social motivation) – Table 3.

Psychological motivations related to the possibility of experiencing nature (4.8) took second place in the hierarchy and turned out to be important for visiting the park, especially for women (5.20), those aged 55–73 (5.93), as well as those living closest to the park (4.7). It is significant that the frequency of visiting the park did not influence the choice of this answer.

There are also differences in the hierarchy of motives by age group. The youngest (5.26) and oldest (4.76) park users are noteworthy for whom social activity (meeting friends) was the second most important (after physical activity). Similarly, single people and students placed social motivation in the overall hierarchy (5.26). On the other hand, people with migration experience, especially residents from another country, considered it to be as important (6.75) as physical (walking).

Table 3. Socio-demographic characteristics of respondents and main motivations for visiting the Piłsudski Park (Likert scale: 1–7)

Category		Motivations for visiting the park									
		Physical		Physical/Social			Social activity	Mental	Mental/ Physical	Mental/ Social	Mental/ Nature connection
		Physical	Walking	Physical	Walk with the dog	Walking with children					
All		3,21	**5,89**	2,57	2,60	2,55	4,26	2,82	2,16	2,76	4,88
Sex	Women	3,05	**6,25**	2,89	2,27	1,84	4,43	2,89	2,30	3,14	5,20
	Men	3,46	**5,24**	2,06	2,80	2,98	4,03	2,64	1,94	2,11	4,29
Age	18–25	3,33	**5,41**	1,70	2,19	1,22	5,26	2,37	2,06	2,70	4,31
	26–38	3,57	**6,02**	3,28	2,54	4,02	3,77	2,65	2,10	3,06	5,02
	39–54	3,27	**5,41**	3,24	3,36	3,13	3,67	3,23	2,51	3,15	4,79
	55–73	2,86	**6,59**	2,67	2,63	2,70	3,67	2,85	2,11	2,41	5,93
	74+	2,47	**6,67**	1,98	2,42	1,54	4,79	3,33	2,04	2,08	4,75

5.3. How far do recreational developments motivate users to visit the park?

Referring to the importance of the Park's recreational infrastructure, it can be seen that although the use of recreational facilities is the second most important physical activity motivating people to visit, its rank (3.1) is much lower than that of walking. It is significant that the use of sports facilities/infrastructure in the park

Civil status	Married	3,18	**6,07**	3,11	2,37	3,86	3,46	3,12	2,18	3,09	5,28
	In a relationship	3,57	**5,58**	2,38	3,00	1,77	4,77	3,14	2,56	2,84	4,88
	Single	3,35	**5,63**	1,95	2,34	1,55	5,21	2,42	2,13	2,79	4,55
	Divorced	2,58	**6,46**	2,39	2,94	1,85	4,58	2,18	1,73	1,91	4,48
Educational level completed	Primary school	4,08	**6,00**	3,00	5,00	1,00	4,00	3,25	2,00	3,00	3,50
	Vocational school	3,58	**5,90**	2,88	3,05	2,70	4,20	4,15	2,90	3,10	5,85
	Secondary school	2,91	**5,91**	2,20	2,22	2,19	4,66	2,26	2,09	2,50	4,66
	Studies	3,38	**5,85**	2,90	2,80	3,00	3,90	3,04	2,08	2,96	4,93
Occupational situation	Employed in a private company	3,42	**5,89**	2,80	2,77	2,82	3,82	2,82	2,23	2,76	5,02
	Self-employed	3,15	**4,67**	2,42	1,92	2,92	2,92	1,42	1,25	2,42	3,92
	Civil servant/ public sector employee	4,12	**5,50**	3,10	2,40	3,80	4,80	3,90	3,90	4,70	5,20
	Retired/pensioner	2,55	**6,67**	2,38	2,58	2,18	4,16	3,20	2,07	2,27	5,36
	Student	3,33	**5,55**	1,72	2,13	1,32	5,26	2,45	2,24	2,76	4,34
	Unemployed	3,64	5,64	2,14	2,18	2,09	**6,64**	2,55	1,73	2,55	4,64
	On maternity/ parental leave	3,15	6,60	5,40	4,10	6,70	3,40	3,10	1,90	3,80	5,40
Residence	Permanent resident of Lodz	3,53	**5,94**	2,30	2,64	2,45	4,00	1,20	1,20	2,20	3,20
	Permanent resident (Polish resident) from elsewhere in Poland	3,03	**5,94**	2,55	1,82	2,65	4,22	2,83	2,04	2,65	4,94
	Permanent resident from another country	3,60	6,00	2,24	4,00	7,00	4,88	2,12	2,41	3,18	4,24
	Temporary resident from elsewhere in Poland	4,54	**5,50**	5,50	2,50	2,50	3,75	3,25	2,50	3,25	3,75
	Temporary resident from another country	4,15	**6,75**	2,50	2,50	2,25	4,38	3,88	3,50	3,75	6,13
	Short-term guest in Lodz	4,46	2,67	2,38	3,00	3,00	**6,75**	2,75	2,50	3,50	5,00
Distance of residence	I live a few minutes away	3,09	**6,25**	2,85	2,99	2,70	3,92	3,02	1,90	2,50	4,90
	20–30 minutes	3,42	**5,59**	2,34	2,29	2,40	4,40	2,86	2,08	2,78	4,63
	30–60 minutes	3,25	**5,80**	2,63	2,57	2,70	4,87	2,57	2,90	3,47	5,40
	More than 60 minutes	2,92	**5,08**	1,63	1,42	1,83	4,58	1,83	2,67	2,75	4,75
Frequency of visits	Several times a week	3,47	**6,15**	2,54	2,47	2,62	4,55	2,91	1,89	2,23	4,74
	Once a week	3,29	**6,00**	2,86	2,93	2,80	3,99	3,06	2,16	2,64	5,06
	Once a month or more	3,14	**6,04**	2,30	2,18	2,42	4,58	2,32	2,16	3,32	5,12
	Several times a year	2,90	4,50	2,79	2,71	2,86	4,36	3,29	2,71	3,71	**4,64**

Source: authors.

motivates people with the lowest level of education (5.0), the unemployed (4.5) and non-indigenous residents (6.0) to visit. Generally, however, passive activities are preferred among the types of physical activity, requiring fewer skills, less effort and little equipment.

Although the recreational development of the park was not considered by the park users as one of the main reasons for visiting it, users notice and appreciate it. In the open question "What do you like most about Piłsudski Park?" the most – 36% of respondents (85 people) – indicated recreational/leisure amenities – Figure 3.

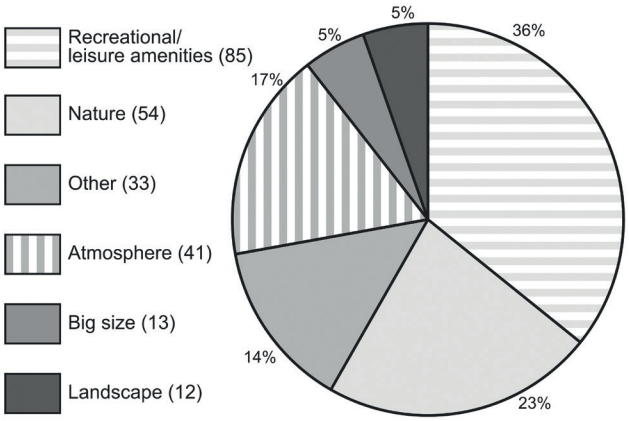

Figure 3. What do you like MOST about the Piłsudski Park?
Source: authors

The most frequently mentioned facilities were playgrounds, recreation areas (former amusement park), the Zoo, *Fala* Aquapark, benches, paths and pump trucks. As mentioned earlier, most of these recreation/leisure amenities are quite new, largely implemented as part of participatory tasks. Much fewer – less than a quarter of users – indicated that what they liked most about the park was nature (including "beautiful nature", "abundance of plants", "ponds", "ducks"). Of the remaining identified categories, 17% concerned the atmosphere of the place (peace, cleanliness of the park and silence), and 5% each the "beautiful" landscape or referred to the size of the park. The other category (14%) included proximity to home, the possibility of sports activities in natural surroundings, the variety of attractions, as well as "everything".

5.4. Wellbeing benefits of visiting Piłsudski Park: Does proximity to residence and frequency of visits matter?

As before, the benefits were measured using a Likert scale (1–7), from which the central measure (arithmetic mean) was then calculated. The analysis of benefits from visiting the park was conducted using contingency tables (Table 4). To measure the strength of the relationship, Pearson's contingency coefficient (*C*), a measure of correlation based on the chi-square statistic, was used to compare the relationship between age, proximity to home and frequency of visits, and the respondents' assessment of individual benefits for wellbeing.

According to Table 1, the benefits for wellbeing identified by respondents were grouped into three categories: benefits for physical wellbeing (improved health, improved fitness, feeling energetic, enjoying the shade on hot days and enjoying fresh air); mental wellbeing (rest and relaxation, feeling calm and less stressed, feeling less anxious or depressed, finding inspiration in the park, escaping the hustle and bustle of the city, enjoying nature, reconnecting with nature, learning about plants and observing wildlife); social wellbeing (improved social life, socialising with others, doing sport with others, spending time with children, spending time with a dog).

Among the above categories in the study group, the highest rated benefits were for physical wellbeing (5.44) and mental wellbeing (5.06). However, when we take into account partial ratings, in the study group the highest rated benefits were related to mental wellbeing: "rest and relaxation" (6.12), and also "feeling calmer and less stressed" (5.83) were highly rated. From the category of physical wellbeing, the highest rated were the fresh air (6.02) and the general improvement in health (5.97).

The highest rated benefit for mental wellbeing – "rest and relaxation" – is particularly appreciated by women (6.38), retirees and parents on maternity leave[14]. Pearson's contingency coefficient *C* in this case is $C = 0.37$ ($p < 0.05$) in relation to the age of the respondents and even lower for the frequency of visits ($p < 0.05$; $C = 0.3$) and distance of residence ($p < 0.05$; $C = 0.25$) – Table 4. Similarly, the average strength of the relationship ($p < 0.05$; *C* between 0.34 and 0.31) describes these variables and "feeling calmer and less stressed". Among the benefits for mental wellbeing, age quite strongly differentiates the observation of wildlife ($p < 0.05$; $C = 0.41$) and escape from the hustle and bustle of the city ($p < 0.05$; $C = 0.39$). They are increasingly appreciated with increasing age (but excluding the oldest respondents). In the study group, there is a tendency to assess the benefits for psychological wellbeing more highly in relation to mitigating the pressures of a big-city lifestyle (M1–M4) than to contact with nature (M6–M9). This type of benefit is assessed more highly by unemployed people (they declare a reduction in the feeling of anxiety or depression) and those with a migration history.

Interestingly, the age of the respondents differentiates statistically significantly ($p < 0.05$) the assessment of improved physical health ($p < 0.05$; $C = 0.42$). It is a particularly highly valued benefit for physical wellbeing by the elderly (people aged 74+ rated it 6.83), the unemployed, the self-employed, as well as those

Table 4. Socio-demographic characteristics of users and wellbeing benefits of visiting Piłsudski Park (Likert scale 1–7)

Category		Wellbeing benefits																					
		Physical (PH)						Mental (M)										Social (S)					
		All	1	2	3	4	5	All	1	2	3	4	5	6	7	8	9	All	1	2	3	4	5
Total		5.44	5.97	6.02	4.84	5.46	4.91	5.06	6.12	5.83	4.87	5.23	5.35	5.41	5.29	3.14	4.27	3.51	4.92	4.56	2.72	2.84	2.53
Sex	Male	5.25	5.88	5.64	5.16	5.27	4.31	4.64	5.64	5.33	4.90	4.68	5.04	4.65	4.75	2.92	3.85	3.41	4.69	4.41	3.60	2.16	2.21
	Female	5.56	6.01	6.24	4.69	5.60	5.28	5.30	6.38	6.10	4.88	5.53	5.55	5.83	5.59	3.28	4.53	3.58	5.05	4.66	2.24	3.22	2.71
Age	18–25	5.08	5.68	5.64	4.61	5.10	4.39	4.76	5.94	5.48	4.89	4.85	5.35	4.95	5.05	2.44	3.95	3.56	5.69	5.54	3.23	1.31	2.05
	26–38	5.19	5.54	5.81	4.44	5.37	4.77	4.95	5.89	5.95	5.14	5.05	5.30	5.21	4.77	4.14	4.05	3.73	4.65	4.25	2.88	4.28	2.61
	39–54	5.64	6.17	6.34	5.17	5.60	4.94	5.10	6.04	5.64	4.60	5.19	5,26	5,45	5,36	4,00	4,34	3.53	3.83	3.55	2.83	4.17	3.26
	55–73	6.06	6.55	6.66	5.14	6.07	5.86	5.94	6.69	6.41	5.59	6.10	6,21	6,38	6,31	4,03	5,76	3.17	4.41	3.83	1.97	3.07	2.59
	74+	6.21	6.83	6.42	5.75	6.08	5.96	5.19	6.67	6.33	4.04	5.92	4,79	6,13	5,96	2,79	4,13	3.28	5.75	5.04	1.46	1.67	2.46
Civil status	Married/ in a relationship	5.44	6.07	5.94	4.95	5.45	4.80	5.02	6.05	5.77	4.79	5.20	5.19	5.36	5.27	3.19	4.38	3.60	4.89	4.41	2.91	3.17	2.61
	Single/divorced/ widow	5.57	5.89	6.28	4.82	5.59	5.26	5.19	6.29	6.03	4,94	5,42	5,68	5,65	5,49	2,95	4,24	3.42	5.10	4.98	2,46	2,00	2,55
Career situation	Employed residents	5.47	6.10	5.98	5.09	5.38	4.79	4.97	5.74	5.64	4,73	5,16	5,22	5,31	5,19	3,64	4,07	3.63	4.54	3.97	3,22	3,99	2,44
	Retired/pensioner	6.13	6.67	6.61	5.39	6.15	5.80	5.62	6.78	6.43	4.76	6.04	5.52	6.43	6.15	3.43	5.02	3.12	4.93	4.28	1.63	2.26	2.50
	Student	5.01	5.56	5.81	4.40	4.98	4.32	4.92	5.97	5.56	4.95	5.24	5.35	5.05	5.32	2.68	4.17	3.50	5.75	5.49	2.81	1.38	2.08
Residence	Permanent resident of Łódź	5.59	6.02	6.16	5.09	5.61	5.09	5.08	6.19	5.98	4.73	5.21	5.49	5.46	5.25	3.06	4.36	3.48	4.67	4.55	2.72	2.84	2.61
	Resident from elsewhere in Poland	4.96	5.81	5.52	4.26	4.93	4.26	4.92	5.74	5.00	5.11	4.89	4.85	5.52	5.30	3.48	4.41	3.70	5.85	4.96	2.74	2.81	2.11

Table 4 (cont.)

Category		Wellbeing benefits																					
		Physical (PH)						Mental (M)										Social (S)					
		All	1	2	3	4	5	All	1	2	3	4	5	6	7	8	9	All	1	2	3	4	5
Residence	Resident from another country	6.28	6.80	6.80	5.20	6.60	6.00	5.71	6.20	6.00	6.40	6.40	6.00	6.20	5.80	3.60	4.80	3.80	4.80	2.80	2.20	5.80	3.40
	Short-term visitor	4.22	5.30	4.80	3.60	4.20	3.20	4.76	5.40	5.00	5.40	5.10	4.10	5.40	5.40	2.60	4.40	3.66	5.50	4.30	2.90	3.40	2.20
Distance of residence	I live a few minutes away	5.61	6.07	6.33	4.93	5.59	5.11	5.16	6.21	6.03	4.77	5.41	5.50	5.58	5.47	3.10	4.36	3.41	4.60	4.05	2.15	3.27	2.95
	Around 20–30 minutes	5.61	6.14	5.79	5.24	5.73	5.12	4.90	6.10	5.85	4.69	4.74	5.36	5.21	4.95	3.18	4.04	3.45	4.62	4.55	3.24	2.51	2.35
	< 30–60 minutes	5.39	5.81	6.08	4.60	5.29	5.15	5.31	6.25	5.83	5.40	5.69	5.33	5.67	5.67	3.42	4.54	3.61	5.54	5.21	2.79	2.46	2.06
	More than 60 minutes	4.18	5.20	5.35	3.45	4.25	2.65	4.59	5.45	4.80	4.80	5.20	4.65	4.85	4.90	2.50	4.15	3.99	6.05	5.35	3.15	3.00	2.40
Frequency of visits	Several times a week	5.96	6.59	6.67	5.34	5.94	5.24	5.38	6.12	6.06	4.72	6.06	5.22	5.90	5.76	3.74	4.82	3.48	5.02	4.40	2.64	3.00	2.34
	Once a week	5.58	6.04	6.17	4.94	5.51	5.25	5.07	6.09	5.94	5.04	4.99	5.78	5.42	5.29	3.00	4.12	3.66	4.64	4.30	2.91	3.17	3.28
	Once a month or more	5.47	5.78	5.78	4.71	5.82	5.27	4.99	6.29	5.86	5.16	4.94	5.45	5.20	5.22	2.71	4.12	3.55	5.24	4.96	2.57	2.76	2.24
	A few times a year	4.83	5.50	5.50	4.36	4.76	4.04	4.88	5.90	5.48	4.76	5.20	4.82	5.24	5.00	3.20	4.34	3.55	5.04	5.02	3.04	2.52	2.12

Note: PH1 – improving my health, PH2 – enjoying fresh air, PH3 – improving condition, PH4 – feeling energy, PH5 – use the shade on hot days, M1 – rest and relaxation, M2 – feeling calmer and less stressed, M3 – feeling less anxious or depressed, M4 – finding inspiration in the park, M5 – escape from the hustle and bustle of city, M6 – enjoying nature, M7 – reconnecting with nature, M8 – learning about trees plant and flowers, M9 – wildlife watching, S1 – improving my social life, S2 – socializing with others, S3 – playing sports with others, S4 – spending time with children, S5 – spending time with your dog.

Source: authors.

who visit the park more often. In turn, improved fitness and the use of fresh air show a strong statistical relationship with the frequency of visiting the park ($p < 0.05$; $C = 0.43$; $C = 0.41$). The more often respondents visit the park, the higher they rate these benefits. In addition to frequent visitors, the value of fresh air in the park is rated very highly (above 6.0) by women, residents with migration experience (especially from other countries), those of working age, as well as people living in the immediate vicinity. A strong statistical correlation was noted between the distance from residence and the benefit of "enjoying the shade on hot days" (Pearson contingency coefficient $C = 0.41$; $p < 0.05$). Generally, this benefit was appreciated by people living up to an hour away from the park.

Although, as already mentioned, in the categories studied the benefits for social wellbeing were rated relatively lower (3.51), and it should be emphasized that "improving my social life" was of particular importance for those aged 18–25. The youngest respondents indicated "improving my social life" (5.69) in second place among all the benefits of visiting the park (after relaxation – a benefit for mental wellbeing). Improving social life through visiting the park was also appreciated by the oldest respondents (5.75). This is a very important benefit for those with a lower level of education, the unemployed, students and people with migration experience. "Improving my social life", similar to "socializing with others", shows a strong statistical relationship with the age of the respondents ($p < 0.05$; $C = 0.46$). The remaining benefits for social wellbeing were rated much lower.

6. Conclusions and discussion

The main aim of the article was to research the motivations, patterns of use, chosen activities and wellbeing benefits of visiting the largest city park in Łódź: Marshal Józef Piłsudski Park. The wellbeing benefits of using a city park have not yet been discussed in depth in the Polish context, therefore, the selected park turned out to be an inspiring 'research laboratory' for this topic and others.

The functional and spatial development of the Park is constantly evolving, although its fundamental design remains consistent with the original modernist aspiration to offer a multifunctional, attractive, accessible space for leisure and recreation for various users. It is essentially a space that responds to current social needs and offers possibilities for strengthening the wellbeing, especially mentally, of city residents. The obtained results correspond with the conclusions of Pietrzyk-Kaszyńska et al. (2017) indicating that for the residents of large Polish cities, including Łódź, anthropogenic elements (well-planned area, functional design) are a very important asset of city parks. This is an interesting issue that requires further research, including in the context of wellbeing.

The analysis enables the drawing of several conclusions. Firstly, in the overall assessment of the benefits for wellbeing, users strongly appreciate both the benefits related to physical and mental health, which is consistent with the results known from the literature (cf. Talal & Santelmann, 2021). It is interesting, however, that although the respondents indicated physical motivations to a greater extent, they ultimately assigned high scores to the benefits felt for both physical wellbeing and mental wellbeing. This is a favorable situation, noted in the literature (Jabbar et al., 2022), likewise in the context of promoting and strengthening subjective wellbeing through various forms of activity in public green spaces, even if in practice, passive forms of recreation dominate. Future research, and more importantly, action could aim to promote this not yet fully realized potential for all dimensions of health, including especially mental benefits. Returning to the motivations for visiting the park, the data showed that its diverse forms of sports and recreational activities are still not fully used, including by people living nearby and often using the park. At the same time, a large group of the respondents rated the attractiveness of recreational amenities highly, which, as shown, are one of the visible dimensions of the change currently taking place in the park.

A deeper analysis allowed for a nuanced valuation of wellbeing benefits, including in various social contexts. It was shown that social wellbeing benefits are highly valued by unemployed, less educated people, with migration experience, which is important in the context of common actions aimed at using city parks for social inclusion and social cohesion, as noted also by Seeland et al. (2009) and Rigolon (2016). The high social valuation of these spaces by the surveyed youth (including students) and the elderly confirms Pasanen et al.'s (2023) observations.

The presented study, like any other, has its limitations. They mainly result from the non-probability sample, which was nevertheless justified by objective considerations. However, it is not the statistical but the exploratory nature of the study that may constitute its value. It is the first attempt at an in-depth exploration of benefits for various dimensions of human wellbeing in the context of a Polish urban green space. The presented results may be useful for park managers, as well as public authorities responsible for shaping pro-health solutions. At a theoretical level, it should be emphasized that the article extends the UGS literature with an example from a CEE city in which green spaces are often lacking compared to their Western counterparts. The didactic aspect could also be mentioned, as the construction

of the research tool itself encourages further studies on the possible contribution of contemporary urban parks to the wellbeing of metropolitan individuals and communities.

Endnotes

[1] As WHO (2023b) point out, the (globally) experienced mental health crisis particularly affects urban populations. For example, van Os et al. (2010) state that the risk of schizophrenia is twice as high in urban areas.

[2] Referring to these practices, Hunter et al. (2019) demonstrated that experience of nature in the city reduces stress in the context of everyday life, based on the salivary physiological stress biomarkers cortisol and alpha-amylase.

[3] In a study on formal and informal green spaces in Kraków, Łódź and Poznań, respondents attributed the greatest importance to city parks. Residents of Łódź (69.9%) especially indicated parks and public gardens as green areas where they spend their free time.

[4] Parks and squares together constitute 3% of the area of the city of Łódź (Biernacka et al., 2020).

[5] The Łódź Circular Railway, a line surrounding the city on all sides, was built in 1898 at the initiative of the Warsaw–Vienna Railway Company.

[6] According to Dmochowska-Dudek and Majecka (2014), the "Polesie Konstantynowskie" reserve, established in 1930, is one of the oldest forest reserves in Poland and one of the oldest in Europe located within an urban area.

[7] Areas of former exploitation of building materials (especially clay for brick production) for a developing industrial city.

[8] According to Olenderek (2020, p. 42) "the exhibition grounds in the area of the ŁKS stadium, planned as Park Wystawy Stałej [a Permanent Exhibition Park] adjacent to *Aleja Unii* (in the post-war period, a complex of swimming pools called the *Fala* Aquapark was built here) and the Park Wystawy Periodycznej [Periodical Exhibition Park] were not built. … The botanical garden with a palm house planned opposite the dendrological garden was not established (it was created in the post-war period…). Other buildings, such as the Dom Ludowy [People's House] or park pavilions for various purposes (exhibitions, cafes, changing rooms, showers, etc.) were not built. Łuk Triumfalny [The Arc de Triomphe], Pomnik Wolności [the Freedom Monument] and the Obelisk were not built, only Pomnik Poległych [the Monument to the Fallen]" [own transl. – J.K.-A.].

[9] According to the information from the Zarząd Zieleni Miejskiej [Municipal Greenery Board], the body managing the Piłsudski Park in Łódź, the Zoo and the Botanical Garden, originally part of the park, are now separate facilities (Zarząd Zieleni Miejskiej, n.d.). In the conducted study, the Zoo and the *Fala* Aquapark were treated as components of the Piłsudski Park, because this is their perception socially and the approach in the literature (cf. Biernacka et al., 2020).

[10] The studied area was covered by the local spatial development plan for the part of the city including Marshal Józef Piłsudski Park, located in the area of the streets: Konstantynowska, Krakowska, Siewna, Wieczność (*Uchwała nr LXXVII/2315/23 Rady Miejskiej w Łodzi* [Resolution No. LXXVII/2315/23 of the City Council in Łódź], 2023).

[11] The project won in two categories of the European Property Awards 2022–2023: Leisure Architecture and Public Service Architecture. The modern complex also won the title of "21st Century Construction" in the category of "Animal-Friendly Facilities" in the "Modernization of the Year & 21st Century Construction" competition.

[12] The park is a public facility, is not fenced and has multiple entrances. There are no statistics kept or measurements of the number of users, which would have allowed for a different research sample.

[13] The field research was conducted in the autumn when there may be fewer users in the park than in the summer. However, weather conditions were conducive to outdoor activities. In order to include the widest possible cross-section of users, the research was conducted at different times of the day and on different days of the week.

[14] Small subpopulations in the study group (e.g. pensioners, parents on maternity leave, the unemployed) are important to show different types of park user. Their inclusion in the analysis has a high cognitive value and indicates potential directions for further research.

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