

Article

Investigating the Preferences for Hospital Landscape Design: Results of a Pilot Study from Poland

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Abstract

One of the sometimes-neglected fields is the landscape design of hospital premises. This study focuses on the perception and preferences of responders regarding hospital site design. The objective was to determine if people are aware of the benefits of restorative contact with nature and if there were preferences for any specific landscape type. The online questionnaire with color figures was distributed using emails and social media from 4 May to 2 August 2024. Some 110 respondents returned the questionnaire. Most of the respondents were women under 25. Most respondents declared that the surroundings of the healthcare building influence the health and well-being of patients (96%) and health personnel (86%). The results confirmed the awareness of the importance of contact with nature (89%). Moreover, this study demonstrated a preference for calm garden compositions, stimulating physical and mental recovery with trees, flowers, and water features, as well as stabilized paths and sheltered sitting places. The results confirm previous studies and demonstrate the importance of landscape architecture design of hospital premises for the well-being of patients. The findings may influence urban landscape planning and the design of hospital sites.

Keywords: hospital design; landscape design; architecture; urban design



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1. Introduction

This study focuses on the perceptions and preferences of prospective healthcare patients regarding the landscape design of hospitals.

Firstly, it was assumed that the hospital grounds should guarantee contact with nature. This assumption was grounded on numerous studies confirming the importance of contact with nature for human health. Exposure to natural environments and urban green and blues spaces can reduce stress [1–4], improve attention recovery [4,5], promote mental restoration, and increase happiness [5–11]. Moreover, morbidity was related to access to urban green spaces [12]. The prevalence of asthma episodes was lower in places with abundant tree cover [13]. There were attempts to promote urban planning and design for health, both in physical, mental, and spiritual areas [14–16]. Spiritual needs were considered as important as physical demands [14–16].

The interesting question was how the green surroundings within hospital premises should be designed. Claire Cooper Marcus promotes the creation of healing gardens in every healthcare setting [17–19]. There was a vast amount of literature about the design of healing and therapeutic gardens based on Evidence-Based Design [17–24]. The restorative gardens accompanied the sick for centuries and recent years brought a plethora of evidence of their importance for physical and mental recovery [20,21]. There were some works providing guidelines on how they should be designed [22–24]. There was research evidence confirming the need for “naturalness” [4–7,11,25,26]. Relf (2005) stated that the healing garden was effective in giving a restoration effect to users [27,28]. In Malaysia, since the 1990s it has been officially recognized that every new hospital must have a healing garden, and there were studies about the features which must be included [27]. Stigsdotter and Grahn (2002) coined three theories of the healing garden [28–30]. The first theory stipulates that the nature-like surroundings and wild nature cause restorative influence on emotional centers in the limbic system of the brain. The second theory links the health effects with the restorative influence of verdure on cognitive functions. The third theory asserts the health effects resulting from demands of nature that can softly balance the person’s own ability and control. Plants and rocks are there all the time, they cannot demonstrate ingratitude [28,29]. There were some interesting works dedicated to hospital-based garden design.

There were numerous case studies of healing and therapeutic gardens constructed on hospital premises. The ‘Secret Garden’ at Glenfield Hospital in Leicester was helping the local community with an area to unwind and learn new skills. It was a relaxing, therapeutic area for patients and staff of the hospital as well as an educational and recreational space for the community [31]. Research at Neuro Critical Care Unit at Emory University Hospital in Atlanta, Georgia confirmed that gardens located nearby acute care facilities favorably affect health outcomes for patients and contribute significantly to reducing stress for families, hospital staff, and patients [32]. A study on rooftop hospital gardens and gardens for physical rehabilitation—Rooftop Therapy Park located on the roof of the surgery center at Fort Sanders Regional Medical Center in downtown Knoxville, Tennessee—pointed to the importance of maintenance [33]. Even though garden elements have significant meaning and value to users seeking to escape the indoor environment, poor maintenance decisions result in decreased functional and esthetic value [33]. What was interesting in this study was that nearly all staff members responded that the garden was extremely valuable and capable of improving their emotional or spiritual outlook [33].

Literature Review—Physical Elements of Hospital Gardens

Even though there was a vast array of literature dedicated to importance of contact with nature, there was not much information about the actual features that the landscape of hospital grounds should offer.

According to research on Rooftop Therapy Park located on the roof of the surgery center at Fort Sanders Regional Medical Center in downtown Knoxville, Tennessee, the healing gardens need to be well-maintained to improve emotional or spiritual outlook of staff members, families, and patients [33]. The respondents in this study declared preference for well-maintained ordered composition with formed topiary and a modern garden with upkept grass. They expect well-ordered places which were peaceful [33].

There was substantial evidence about the importance of a view through a hospital window for patient recovery. The importance of a view through a hospital window for patient recovery was proven by Roger Ulrich [34].

A study in five green outdoor spaces in three pediatric hospitals in east Texas demonstrated that quality of seats and poor shade impact visitor and family member garden

visitation [35]. Researchers suggest that following factors help a garden reach its full potential of usability: garden location, visibility, accessibility (including wheelchair and cane-friendly paths and unlocked doors), familiarity, quietness, and comfort, as well as abundant greenery, seating options, and shade in warmer climates [17,36–39]. Even if there was a garden on the hospital grounds, it may not be accessible to many.

Claire Cooper Markus derives the essential design elements and environmental qualities of healing gardens [40–42]. She mentioned the following:

- *opportunities to make choices, seek privacy, and experience a sense of control*
- *opportunities which encourage people to gather together and experience social support*
- *opportunities for physical movement and exercise*
- *engagement with nature*
- *visibility*
- *accessibility*
- *sense of security*
- *physiological comfort*
- *familiarity*
- *quiet*
- *unambiguously positive design features* [42]

Maggie Keswick Jencks wrote about the longing the patients have for beautiful, uplifting environments [43]. The study conducted in San Diego concluded with some recommendations [44]. Children prefer *opportunities for active use of space over esthetics, especially safe, enclosed, and hidden places*. Sandra Whitehouse with her team also noted *aspects of nature such as trees, grass, water, visible sky, rocks, flowers, and birds as particularly helpful in hospital settings* [44]. Results of an empirical study suggested that water, topography, and plants had significant positive effects on human-perceived restorativeness [45,46]. This study demonstrated preference for flowers, water, and calm garden composition. The landscape of a natural mountain forest appearance had the most restorative effect [47].

Patric Grahm listed eight features of green restorative spaces, which can be put together like colors on a painter's palette [*Serene, Wild, Rich in Species, Space, The Common, The Pleasure Garden, Festive, Culture*] [29]. Moreover, Anna Bengtsson and Patric Grahm presented an outline of a quality evaluation tool (QET) to be used in the process of designing outdoor environments in healthcare settings, e.g., healthcare gardens [47]. Rodiek (2003) presented a list of features that encourage outdoor usage such as *“more places to walk”, “more trees”, “benches to rest”, “doesn’t make you feel closed-in”, “different views”* [48,49].

However, there was still not much information about the preferred esthetics of hospital gardens. This study aims to fill the gap in knowledge and understanding.

2. Materials and Methods

The first major goal of this research was to investigate whether responders were aware of the health benefits of contact with nature.

The second goal of this research was to evaluate what people want when it comes to hospital settings and evaluate the preferences for various types of landscape design on hospital grounds. The interesting question was whether people would prefer more formal design.

For this study, various methods were used. Firstly, research of the literature was undertaken to determine which were the most desirable hospital grounds features and esthetics.

Secondly, the method of online survey was employed. The survey was conducted in spring 2024. The questionnaire was distributed online with electronic links and QR codes published in various Facebook groups and send via emails to responders, e.g., students and university staff in selected Polish Universities. It was assumed that all adult people have some previous experience of visiting a hospital for any reason and potentially would,

at some point in their life, require hospitalization. The form contained a clear statement emphasizing the confidentiality and privacy of all collected information and data. No personal identifiers, such as names, were recorded in the questionnaires. The respondents could abandon filling out the questionnaire at any time. The survey included 38 questions and was designed to require less than 15 min to fill.

The questionnaire was divided into four sections:

1. basic demographic,
2. esthetic preferences for landscape design based on photographs of various gardens,
3. the relationship between the feelings associated with healthcare setting environments—actual and expected design,
4. recommendations on recreational infrastructure and whether it should be open to all visitors.

This study received formal consent from the University of Gdańsk Ethical Commission in April 2024 (12/2024/WNS). The geographical scope of the study was limited to Poland, and the survey form was offered in Polish language.

For statistical analyses, frequency analysis, chi-square, Mann–Whitney, Wilcoxon U, Kruskal–Wallis H, and Spearman correlation coefficient tests were used. Statistical analyses were performed using R version 4.4.1 (R Core Team, 2024) [50,51] and RStudio version 2025.5.1.513 (Posit team, 2025) [50,51].

2.1. The Questionnaire

2.1.1. Basic Demographic

The questions included only basic demographic information about sex and age. It was assumed that all persons who were over 18 years old in Poland must have had some experience with healthcare buildings. All respondents were free to report experiences they had in different healthcare settings—they may be very different from one another. They were also asked to report the names of the several practices and/or healthcare structures they referred to.

2.1.2. Esthetic Preferences for Landscape Design Based on Photographs of Various Gardens

The second part of the survey included questions regarding esthetic preferences for landscape design. The questionnaire was divided into basic questions regarding attitude towards contact with nature and the importance of the design of the healthcare environment. A study conducted in Texas using paired photographic comparison confirmed the feasibility of such type of study [52]. In this study, respondents were asked to choose the image they preferred in each pair or group of large color photographs depicting a variety of outdoor areas. It was based on photographs of various gardens taken by Author (Figure 1). Firstly, the individual gardens' suitability for the hospital site was assessed and then the respondents chose their favorite one (Figures 1A–F and 2A–F). The respondents chose multiple preferred options among six (A–F).

The pictures of real gardens visited by Author were chosen to represent the variety of garden types. They were chosen to represent an interior courtyard garden (multiple choice).

A variety of paths in various outdoor settings was proposed. The respondents were asked to choose their favorite garden type (multiple choice).

Then, the respondents choose their favorite path design (Figure 3A–H). The respondents chose multiple preferred options among eight (A–H).

A variety of park alley materials were proposed. The respondents were asked to choose their favorite path material (multiple choice).



Figure 1. Various garden types, selection 1. Source: Author.

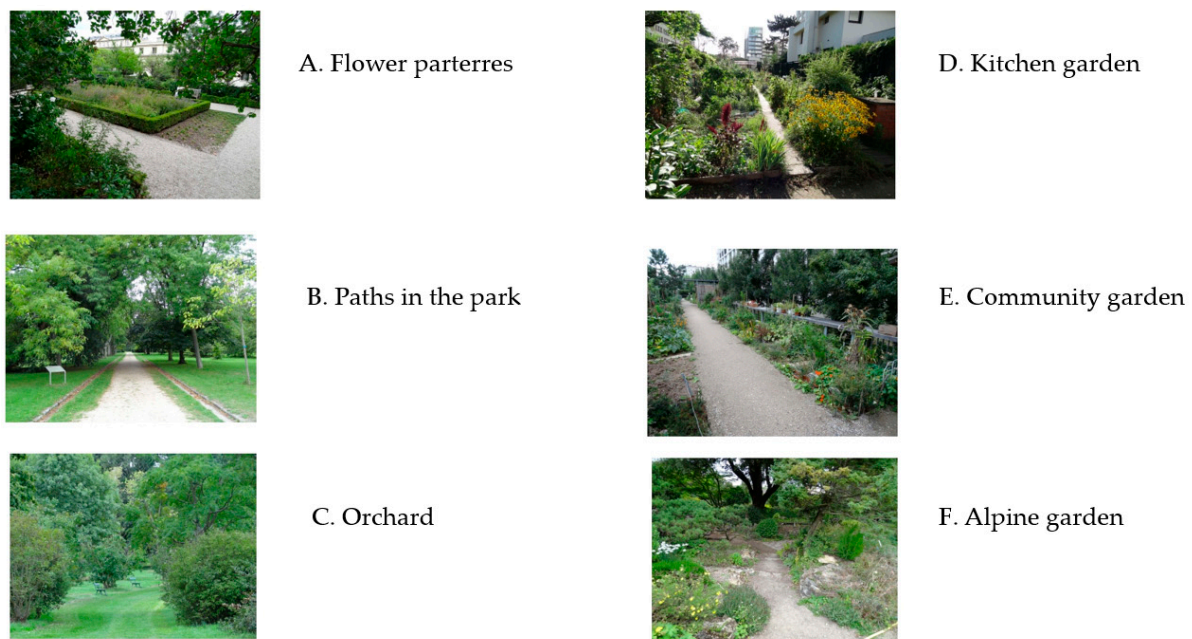


Figure 2. Various garden types, selection 2. Source: Author.

The following question concerned preferences for various types of landscape—natural or designed (Figure 4). The respondents chose one preferred option among two (A–B). Today, the use of the ‘naturalistic’ style is growing in popularity among landscape design professionals. A study in Sheffield (UK) demonstrated that the public appreciates both naturalistic (as opposite of formal parks) and more obviously designed landscapes [31].

This question was a paired photographic comparison between the naturalistic landscape and the more obviously designed landscape.

The survey included questions examining preferences for garden composition (Figure 5). The respondents chose multiple preferred options among four (A–D).

A quadrupled photographic comparison of a variety of garden compositions was provided (multiple choice).

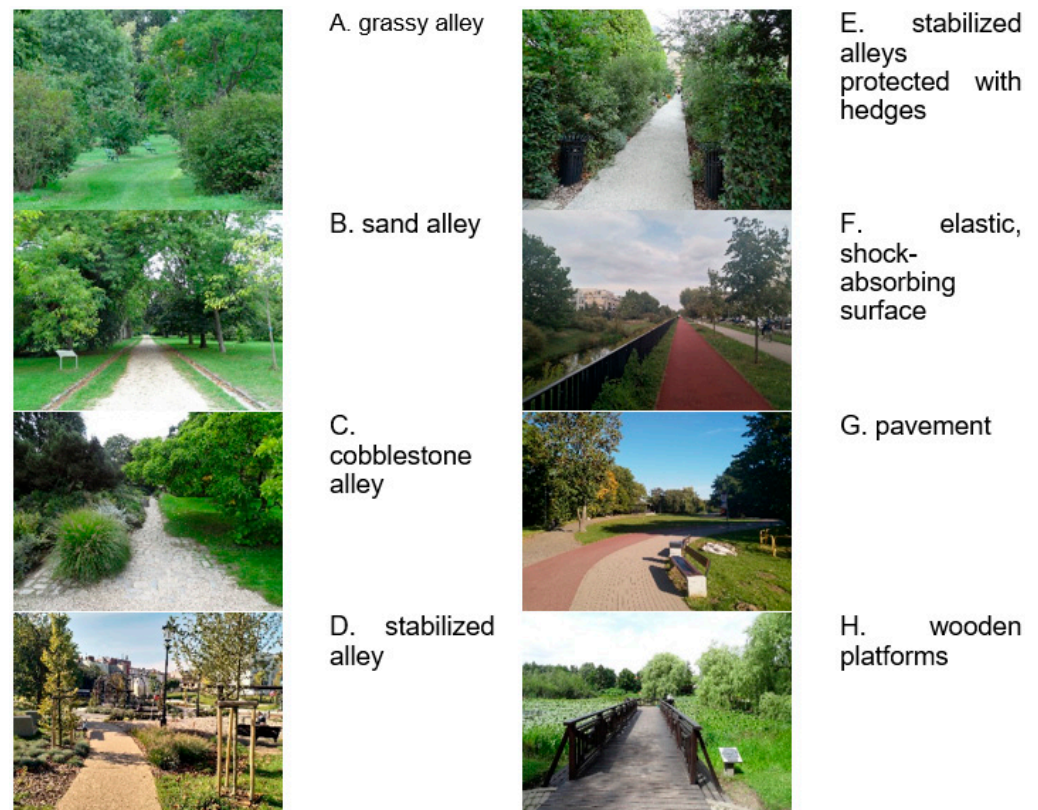


Figure 3. Various alleys. Source: Author.

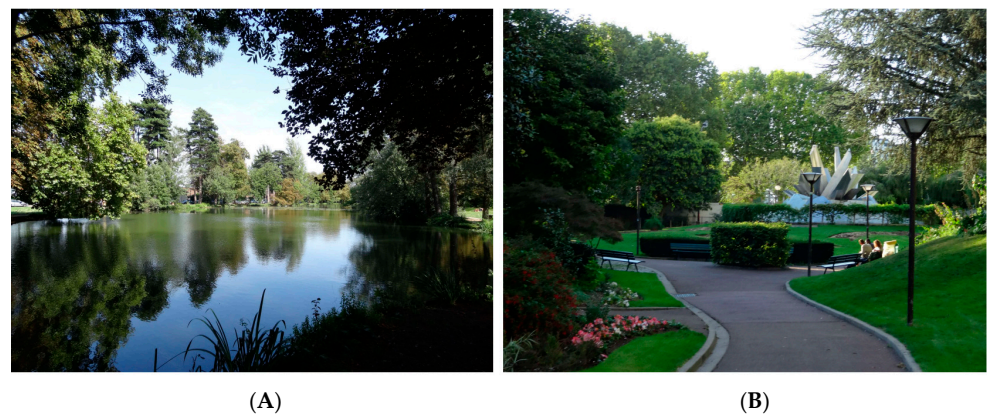


Figure 4. Preferred landscape. Source: Author. (A) Natural landscape. (B) Designed landscape.

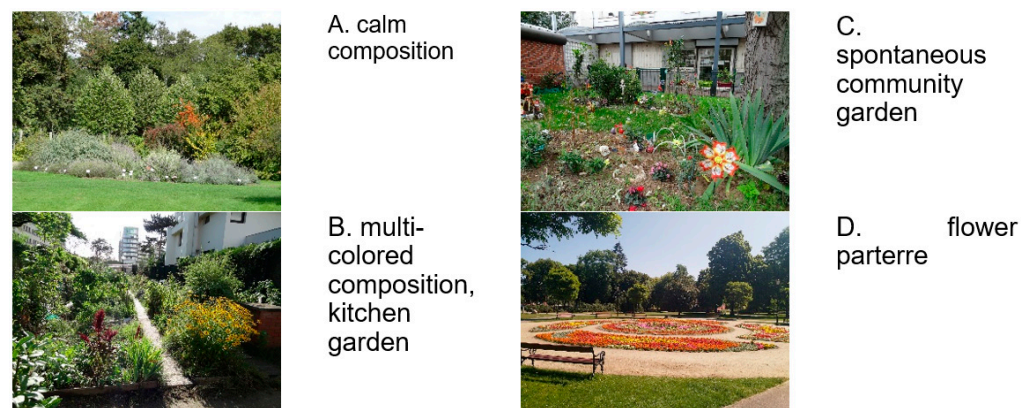


Figure 5. Preferred garden composition. Source: Author.

Another question concerned preferences for preferred parterre—lawn or flowers (Figure 6)—with one preferred option among two (A,B). The savannah hypothesis links human preferences to savanna-like settings—the grasslands of East Africa [7,27]. The survival advantages of the savannah landscape lead to the desire for reproduction in other parts of the world. Therefore, the question for preferred parterre was added (Figure 6). A paired photographic comparison of a manicured turf versus flower parterre was proposed—one preferred option among two (A,B).



Figure 6. Preferred parterre. Source: Author. (A) Lawn. (B) Flower parterre.

There was a preference among human beings toward landscapes with water [36,37]. Therefore, one of the questions concerned the presence of water (Figure 7). It was a paired photographic comparison—one preferred option among two (A,B).

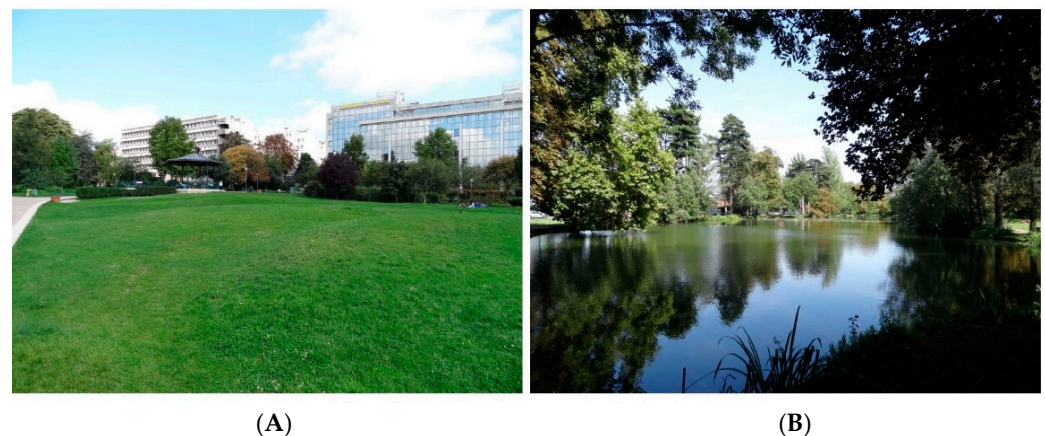


Figure 7. Preferred interior type. Source: Author. (A) Lawn. (B) Water pond.

Some questions concerned the size of garden interiors (Figure 8)—one preferred option among four (A–D).

There was evidence of the need for secluded gardens and places to rest in silence and solitude [17–24,27–31].

The secluded garden in the atrium interior was a hypothetically preferred option as mentioned in many previous studies [17–24,27–31]. This question is illustrated in Figure 9. The respondents were to choose one preferred option among two (A,B).

One of the questions concerned the preferred location and setting for benches and sitting places (Figure 10) [17–24,27–31]. The respondents chose multiple preferred options among four (A–D).

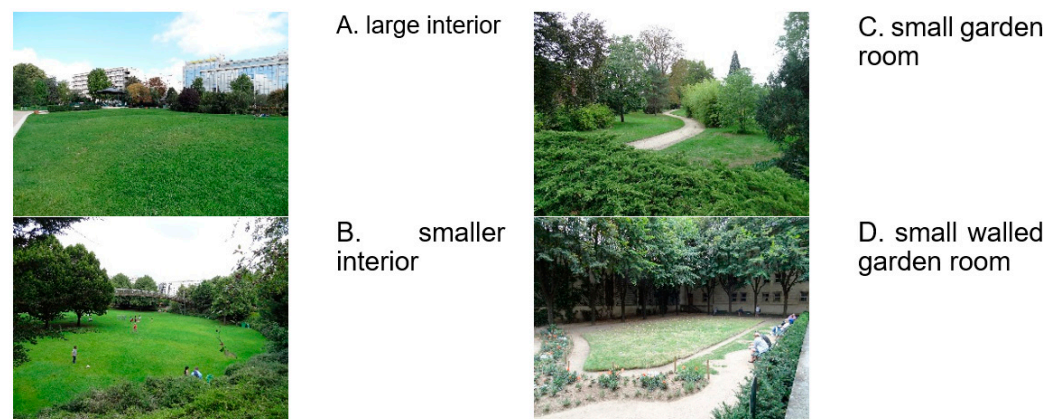


Figure 8. Preferred size of interiors. Source: Author.



Figure 9. Preferred atrium type. Source: Author. (A) Atrium—small terrace. (B) Pocket park.

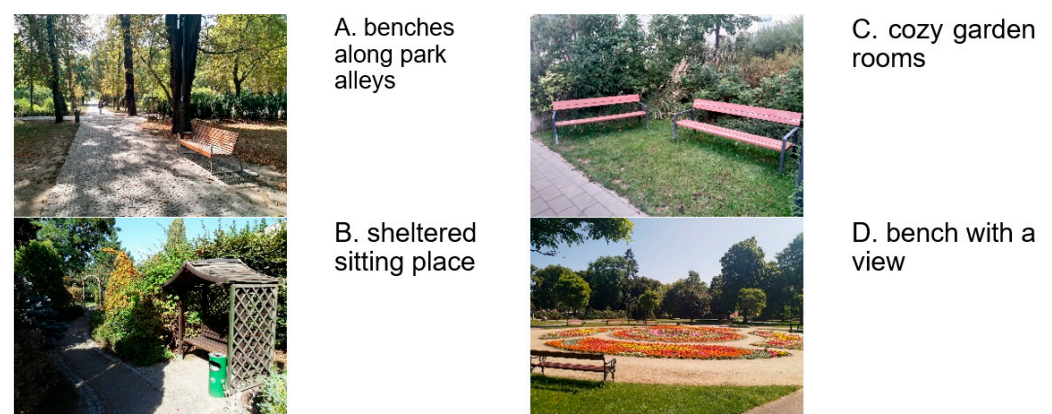


Figure 10. Preferred location for sitting benches (multiple choice). Source: Author.

2.1.3. Relationship Between Feelings Associated with Healthcare Setting Environments—Actual and Expected Design

The rest of the questionnaire included questions regarding the relationship between the feelings associated with healthcare setting environments—actual and expected design. It included the list of adjectives describing the features associated with healthcare setting environments, as they were and should be according to respondents (Table 1).

Table 1. Adjective list used in this study.

Attributes/Features
providing relief
causing distress
eye-catching
not paying attention
neutral
well-ordered
chaotic
monotonous
varied
uniform
contrasting
depressing
hope-giving
sad
joyful
multi-colored
one-colored
shaded
sunny
pessimism-generating
optimism-generating
not promoting regeneration
promoting regeneration
causing fear
giving a sense of security
variety of species
wildness of nature unchanged by humans
space
safe, separated garden zone
meeting place
place with fascinating history
peaceful
fascinating, paying attention
allowing one to break away from problems
allowing one to feel comfortable
meeting expectations

The questionnaire used in the study was inspired by the ACL Adjective List and refers to opinions about the external space of healthcare facilities. However, unlike the original test by H. G. Gough and A. B. Heilbrun, it was neither such a comprehensive tool nor does it have separate scales used to distinguish individual human properties (self-image, needs, originality, intelligence, etc.) [53,54].

However, according to the possibilities of using ACL, the subject of the study may be not only personality traits but also objects, such as cities, their parts, or specific buildings. The actual tool was originally designed to assess personality from an observer's perspective. It was then extended to include self-reports regarding the real self and the ideal self, also indicating applications such as relating aspects from the past to the present [39,40]. Such research properties—enabling the comparison of actual (present) and expected (future) features—served as a source of inspiration to develop a simplified list of terms referring to the current and desired state of the space surrounding medical facilities. In addition, there were many studies indicating the impact of emotions on the phenomenon of recovery and shaping healthy attitudes [38,39]. Understanding the affective and functional expectations

related to the environment of healthcare setting facilities translates into creating well-being through appropriate design that includes patients' needs.

The terms provided to the respondents concerned two situations. In the first case, the respondents were asked to indicate terms referring to the space surrounding the facility where they received treatment—as they perceived it (real image). In the second step, they should choose the properties of this space as they would like it to be (expected image). In each situation, the subjects selected the corresponding terms from the same range of 36 adjectives. This list contained 12 pairs of features (24 items) selected based on the opposition (e.g., soothing—causing anxiety, eye-catching—not attracting attention, orderly—chaotic, monotonous—varied, sad—joyful, etc.) and 12 terms referring to the function of the space and meeting the needs of its users. The adjectives were identified by the authors of the article as important and worth measuring because they refer to the emotional sphere of the users of the analyzed spaces and were therefore an aspect that was difficult to measure in a way other than the self-report method. In addition, they indicate whether or not needs were met, such as a sense of security, relief, comfort, or promoting regeneration.

2.1.4. Recommendations on Recreational Infrastructure and Whether It Should Be Open to All Visitors

The survey asked for recommendations on what types of recreational infrastructure should be available on the hospital site, and whether it should be open to all visitors. An open question for suggestions was included. The respondents could also share their opinions about the importance of viewing a tree through hospital windows and the availability of interior winter gardens.

3. Research Results

This study confirmed the results of research on factors that help a garden reach its full potential of usability [17,37] and provided further details.

However, the literature review demonstrated the gap in knowledge about the preferred esthetic of hospital grounds. Therefore, the results of the survey were promising to shed light on preferences of respondents in Poland.

3.1. Basic Demographic

The final research sample consisted of 110 respondents who filled out the anonymous questionnaire. The majority of respondents were young women under 25, but other age groups were also represented. Male respondents constituted a minority, with only 20 respondents (Table 2).

Table 2. The structure of the studied population: sex and age.

sex	n	%
woman	90	81.8
man	20	18.2
age	n	%
18–25	47	42.7
26–40	25	22.8
41–60	34	30.9
60<	4	3.6

3.2. Esthetic Preferences for Landscape Design Based on Photographs of Various Gardens—Results

The first major goal of this research was to investigate whether responders were aware of the health benefits of contact with nature (Table 3).

Table 3. Perception of the natural environment and contact with nature as factors contributing to the improvement of patients' health.

Answers: Yes	Is Contact with Nature Important to You?		Does the Environment of a Healthcare Facility Impact the Health and Well-Being of Patients?		Does the Environment of a Healthcare Facility Affect the Quality of Staff Work?		Does the Environment of a Healthcare Facility Impact the Health and Well-Being of Patient Family Members?	
	89.1%		96.3%		85.5%		89.1%	
sex	%	Sig.	%	Sig.	%	Sig.	%	Sig.
woman	90.0	0.454	97.8	0.155	85.6	0.417	91.1	0.140
man	85.0		90.0		85.0		80.0	
age	%	Sig.	%	Sig.	%	Sig.	%	Sig.
18–25	80.9	0.196	93.6	0.246	89.4	0.539	89.4	0.681
26–40	96.0		96.0		84.0		88.0	
41–60	94.1		100.0		82.4		91.2	
60<	100.0		100.0		75.0		75.0	

The vast majority, 96%, declared that the surroundings of the healthcare building influence the health and well-being of patients. The majority, 86%, understand that the healthcare environment influences the quality of work of health personnel. A total of 89% marked that the hospital site design influences visitors' health and well-being. Nearly all of the respondents declared that the view through the window of the healthcare facility on greenery influences their well-being (Table 3). Regardless of the gender and age of the respondents, the results confirmed the importance of contact with nature for the patients (89%). A total of 36% of respondents seek restoration in contact with nature every day, and 43% once a week. Neither gender nor age have any influence on the declared frequency of spending time in natural surroundings (Table 4).

Table 4. Frequency of recreation in natural surroundings.

	Everyday	Once a Week	Once a Month or Less	
sex	35.8%	43.1%	21.1%	Sig.
woman	38.2	41.6	20.2	0.536
man	25.0	50.0	25.0	
age				Sig.
18–25	26.1	54.3	19.6	0.097
26–40	44.0	40.0	16.0	
41–60	35.3	35.3	29.4	
60<	100.0	-	-	

The respondents assessed the impact of the quality of the healthcare facility's environment on the health and well-being of its occupants as very high (8.65 mean value on a scale of 1 to 10) (Table 5). The significance level (Sig.) is $p = 0.089$. As $p > 0.05$ (approaching but not reaching statistical significance), this indicates no significant difference between age groups. The additional Spearman correlation ($r_s = 0.22$) suggests a weak positive correlation between age and rating (older age associated with higher ratings). However, since p was not significant, this correlation also lacks statistical significance.

Table 5. How important is the impact of the quality of the environment of a healthcare facility on the health and well-being of the people staying there?

How important is the impact of the quality of the environment of a healthcare facility on the health and well-being of the people staying there?		
	m ± SD	Sig.
	8.65 ± 1.61	-
sex	m ± SD	Sig.
woman	8.8 ± 1.45	U = 1023.5,
man	8.2 ± 2.19	p = 0.313
age	m	Sig.
18–25	8.30 ± 1.77	H = 6.52, p = 0.089 r _s = 0.22
26–40	8.64 ± 1.55	
41–60	9.09 ± 1.36	
60<	9.25 ± 1.5	

3.3. Esthetic Preferences for Landscape Design Based on Photographs of Various Gardens

The second goal of this research was to evaluate what the preferences were when it comes to garden style and features. The interesting question was whether people would prefer more formal design.

(Figure 1) proved preference for B. Ordered composition with formed topiary (55%).

(Figure 2) demonstrated an inclination towards B. The paths in the park, as it was, marked as the most preferred option by 79 respondents (73%).

Among the options for various alleys (Figure 3), the favorites were D. Stabilized alleys (50%).

Preferred landscape (Figure 4). The preferences for natural and designed landscapes were almost half to half—48% and 52%, respectively.

Preferred garden composition (Figure 5). The majority of respondents preferred A. calm garden composition 69%.

Preferred parterre (Figure 6). Flower parterre was preferred over lawn—81 to 27.

Preferred interior type (Figure 7). Water pond was preferred over lawn—80 to 28.

Preferred size of interiors (Figure 8). The respondents demonstrated a preference for B. Smaller interiors (47%).

When it comes to atrium type (Figure 9), the pocket park (79%) was preferred.

The preferred location for sitting benches (Figure 10) was B. Sheltered sitting place (63%).

The majority of respondents find the environments of the place where they stay important, e.g., concerning the view through a window (Tables 5 and 6). It was of utmost importance for 50%.

Table 6. The importance of the quality of the environment of a healthcare facility factors on the health and well-being of the people staying there.

	m ± SD
How much importance do you attach to the external environment of the place you are currently in, e.g., the view from the window?	4.26 ± 0.94
Does the sight of greenery outside your window or in the immediate vicinity of a healthcare facility affect your well-being? To what extent?	4.52 ± 0.76
Does the view of other people's activities outside the window/in the immediate vicinity of a healthcare facility affect your well-being? To what extent?	4.02 ± 0.93

The respondents declared that the view through the window of the healthcare facility on greenery influences their well-being. On a scale of 1–5, 63% declared 5 (utmost importance).

When it comes to a room with a window overlooking the activity of other people, the opinions were more nuanced. On a scale of 1–5, 38% declared it was of utmost importance to see the activity of other people, 35% marked it as very important, and 24% marked it as important.

3.4. Relationship Between the Feelings Associated with Healthcare Setting Environments—Actual and Expected Design—Results

The adjectival method used provides information on the perception of the actual and expected appearance of the immediate surroundings of medical facilities based on responses collected from 100 study participants (Table 7). The results provided in the text have been rounded to whole numbers.

Table 7. Adjective list used in this study. The feelings associated with healthcare setting environments, as they were at the day of study, according to respondents.

	Attributes/Features	Per Cent Reporting $n = 100$
The feelings associated with healthcare setting environments, as they were, according to respondents, (currently) 100 responses	providing relief	15%
	causing distress	20%
	eye-catching	6%
	not paying attention	36%
	neutral	40%
	well-ordered	22%
	chaotic	15%
	monotonous	41%
	varied	5%
	uniform	19%
	contrasting	4%
	depressing	26%
	hope-giving	10%
	sad	34%
	joyful	8%
	multi-colored	8%
	one-colored	17%
	shaded	17%
	sunny	10%
	pessimism-generating	20%
	optimism- generating	11%
	not promoting regeneration	27%
	promoting regeneration	8%
	causing fear	9%
	giving a sense of security	11%
	variety of species	4%
	wildness of nature unchanged by humans	8%
	space	7%
	safe, separated garden zone	5%
	meeting place	5%
	place with fascinating history	3%
	peaceful	11%
	fascinating, paying attention	3%
	allowing one to break away from problems	6%
	allowing one to feel comfortable	11%
	meeting expectations	7%

The answers regarding the current development of space constituting the immediate surroundings of healthcare facilities were varied but indicate that they were perceived by the respondents primarily as neutral (40% of responses), monotonous (41%), and also as sad (34%), and not paying attention (36%) (Table 8). Users also indicated that these places

were not conducive to regeneration (27%) or even generated a feeling of depression (26%). The fewest respondents described the current development of spaces surrounding healthcare facilities as fascinating and paying attention (3%) or as hiding the sentimental aspect of places with a fascinating history (3%). For the people participating in the study, these zones were not very diverse—with a small richness of species and poorly contrasted—therefore, they did not function as a positive distractor that allowed people to break away from problems for a while. The results obtained, however, did not indicate a complete lack of positive implementations in this area, because some respondents perceived the environment of medical facilities as clearly positive—providing relief (15%) and hope (10%), optimistic (11%), joyful (8%), giving a sense of security (11%) or promoting regeneration (8%).

Table 8. Adjective list used in this study. The feelings associated with healthcare setting environments as they should be according to respondents.

	Attributes/Features	Per Cent Reporting <i>n</i> = 103
The feelings associated with healthcare setting environments, as they should be, according to respondents, (expected) 103 responses	providing relief	80%
	causing distress	2%
	eye-catching	27%
	not paying attention	4%
	neutral	9%
	well-ordered	52%
	chaotic	2%
	monotonous	2%
	varied	24%
	uniform	4%
	contrasting	8%
	depressing	2%
	hope-giving	59%
	sad	1%
	joyful	62%
	multi-colored	46%
	one-colored	4%
	shaded	24%
	sunny	43%
	pessimism-generating	1%
	optimism- generating	55%
	not promoting regeneration	1%
	promoting regeneration	64%
	causing fear	0%
	giving a sense of security	49%
	variety of species	33%
	wildness of nature unchanged by humans	23%
	space	23%
	safe, separated garden zone	44%
	meeting place	42%
	place with fascinating history	9%
	peaceful	50%
	fascinating, paying attention	18%
	allowing one to break away from problems	57%
	allowing one to feel comfortable	60%
	meeting expectations	18%

The answers regarding the expected development of the space constituting the immediate surroundings of healthcare facilities were highly dispersed (Table 5). However, based on the answers provided by over half of the respondents, it was possible to indicate the properties of places with this function preferred by users. These include the follow-

ing: spaces that provide relief (80% of study participants), promote regeneration (64%), were joyful (62%), give hope (59%), allow you to feel comfortable (60%), and at the same time allow you to break away from problems (57%) and generate optimism (55%). The respondents expected well-ordered places (52%) which were peaceful (50%).

3.5. Recommendations on Recreational Infrastructure and Whether It Should Be Open to All Visitors—Results

The open question about the functions of the terrain adjacent to the hospital brought 74 answers. Both thematic and content analysis was conducted. The majority of respondents wrote about the need for calm and tranquil open green spaces and healing gardens away from the hustle and bustle of everyday life and buffered from traffic. One of the respondents draws attention to missing sheltered benches in case of bad weather. Another wrote about the need for recreation and sports equipment or hobbies. Mini playgrounds for children were also mentioned along with small ponds, fountains, or other water features. Small cafés and brine graduation towers were also mentioned by various respondents. Uplifting, colorful gardens accessible by wheelchairs and trolleys were mentioned repetitively by many respondents. The hospital grounds were mentioned as a space to sit in quiet, relax, and spend quality time with visiting relatives and friends.

4. Discussion

This paper investigates the perception and preferences of healthcare patients regarding the landscape design of hospitals, based on results of a pilot study in Poland. It employs various methods, combining a literature review of previously published research with an online survey conducted in spring 2024 in Poland.

By integrating data from these diverse approaches, the study reveals that there is a need for well-designed and maintained gardens on hospital grounds. Previous studies indicated that hospital gardens need to be relaxing, therapeutic areas for patients and staff of the hospital as well as an educational and recreational space for the community [31]. The hospital grounds were expected to favorably affect health outcomes for patients and contribute significantly to reducing stress for families, hospital staff, and patients [32].

4.1. Contact with Nature

The results of this study confirmed the importance of contact with nature for the patients. Nearly all respondents declared that the surroundings of the healthcare building influence the health and well-being of patients. The respondents preferred spaces that provided relief, promoted regeneration, were joyful, gave hope, allowed people to feel comfortable, and at the same time allowed people to break away from problems and generate optimism.

The results of the questionnaire survey proved that majority of respondents found the environments of the place where they stay important. People cared for the view through a hospital window.

4.2. Calm, Ordered Design

More than half of the respondents preferred a manicured orderly garden composition. This may suggest that more formal garden design should be used in hospital settings. Perspective users preferred paths in the park with stabilized alleys. However, the preferences for natural and designed landscapes were almost half to half. It confirmed preferences for an orderly, formal design with a calm garden composition. Flower parterre and water ponds were preferred over lawns. Smaller, more cozy interiors were preferred as they offered more intimate spaces. That choice was confirmed by preference for pocket parks and sheltered sitting places.

4.3. Design Features

The majority of respondents in this study wrote about the need for calm and tranquil open green spaces and healing gardens away from the hustle and bustle of everyday life and buffered from traffic. However, there were suggestions to include recreation and sports equipment or hobbies, mini playgrounds for children, as well as small cafés and brine graduation towers. Accessibility for people with special needs was also mentioned by respondents, along with gazebos and sheltered benches in case of bad weather. The respondents were longing for uplifting, colorful gardens on hospital premises. This study demonstrated a preference for calm garden compositions, stimulating physical and mental recovery with trees, flowers, and water features, as well as stabilized paths and sheltered sitting places.

4.4. Limitations

This study focused on non-inpatient public preferences for exterior hospital landscapes in a Polish context. It was limited to a relatively small research sample from Poland, central Europe. The geographical scope of the study was limited to Poland, and the survey form was offered in Polish language. The questionnaire was distributed online with electronic links and QR codes published in various Facebook groups and sent via emails to responders, e.g., students and university staff in selected Polish universities. It was assumed that all adult people have some previous experience of visiting a hospital for any reason and potentially would, at some point in their life, require hospitalization. The preference for outdoor settings might be influenced by the local Polish climate (moderate summers and cold winters of central and eastern Europe) [55]. It is noteworthy that some differences were detected but generalization is cautious given the pilot-scale sample.

All respondents were free to report previous experiences they had in different healthcare settings. The reported healthcare settings might be very different from one another. The experiences and length of stay might also vary, from dental visits to long-term hospitalizations.

5. Conclusions

5.1. Awareness of Contact with Nature Benefits

The first major goal of this research was to investigate whether responders were aware of the health benefits of contact with nature.

The study confirmed that patients know the importance of contact with nature and expect the hospital site to provide a place of refuge and respite with calm garden compositions, stimulating physical and mental recovery. Trees, flowers, and water features were as important as accessible paths for strolling and numerous sheltered benches.

5.2. Specific Landscape Features Preferred

The second goal of this research was to evaluate what people want when it comes to hospital settings and evaluate the preferences for various types of landscape design on hospital grounds. The interesting question was whether people would prefer more formal design. The answer is yes. This study demonstrated preference for more formal design—ordered composition with formed topiary and calm garden composition providing relief, inspiring optimism and hope. This research results indicated the preference for calm, ordered, formal garden design with water features, various plants with flowers, and comfortable paths. The respondents mentioned some recreational infrastructure for engaging in play and comfortable, intimate places to seek shelter. Thus, the results of this study support the findings of the previous research results.

These findings indicate that the provision of a healing garden should be a priority for all healthcare institutions. Moreover, the design, construction, and maintenance of

a healthcare garden was a recognized feature, which might influence the decisions and choices of responders.

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