

Humanisation in the Complementary and Integrative Practice ambience: the meaning of well-being from the users' perspective

Mariana Silva Villela (<https://orcid.org/0000-0002-7074-4027>)¹

Vera Helena Moro Bins Ely (<https://orcid.org/0000-0002-2888-3453>)¹

Abstract *Aiming to have a qualitative increase in health spaces and provide a positive experience for its users, this article presents the meanings of well-being related to the environment, attributed by users of therapeutic environments with complementary and integrative practices (CIPs). One of the objectives of the qualitative research was to “Identify the meaning of well-being and the stimuli that influence it in CIP environments”. An environmental assessment was carried out in three case studies in 2017, using multiple methods, of which interviews – with therapists, patients and coordinators from institutions – and systematic observations best contributed to the results presented here. The categorisation of the results suggests that the meanings of well-being attributed by users of therapeutic CIP environments are: Welcomeness, Motivation, Beauty, Concentration, Trust, Relaxation and Simplicity. In this article, the discussion of categorisation in relation to the literature review, user samples, environmental stimuli and methods is presented. It is estimated that this categorisation can contribute to the humanisation of CIP ambiances and to improving their architectural projects.*

Key words *Humanisation, Healthcare architecture, Environment and public health, Complementary and integrative practices*

¹ Programa de Pós-Graduação em Arquitetura e Urbanismo, Universidade Federal de Santa Catarina. Rua Roberto Sampaio Gonzaga s/n, Trindade. 88040-900 Florianópolis SC Brasil. arq.marianavillela@gmail.com

Introduction

Experiences that lead to positive emotions tend to benefit a person's organic rebalancing, as an emotion can retrieve memories or stimulate a mood, and thus affect the immune system. Stressful experiences can delay or impede the immune system's response; positive experiences, on the other hand, can accelerate this response and help in the healing process¹. Human-environmental interactions are among the experiences likely to affect people.

In the Public Health agenda, creating favourable environments for health and well-being has been global since the promulgation of the Ottawa Charter². According to Cohen³, the Health Promotion movement produced studies on the relationship with environments, notably encouraged by the World Health Organization (WHO) and the Pan American Health Organization (PAHO) – “[...] the challenge would be to intervene on the determinants of health in the built space”³(p.13). Furthermore, for about fifty years, when attempting to understand the environmental factors that influence well-being, human-environmental interaction has been studied in various areas of knowledge – often in a transdisciplinary way – such as Environmental Psychology, Architecture, Ergonomics, Neuroscience, among others. Regarding therapeutic environments, the contribution of these studies was mainly reflected in humanisation guidelines and projects of health facilities around the world. This research focused mostly on the establishments of medicine most commonly practiced in Western countries, showing a gap in the studies of environments of the health modalities that make up Complementary and Integrative Practices (CIPs).

Due to factors such as symptom relief, low cost, more natural and less aggressive treatments, among others, since the beginning of the 21st century, international incentives have been carried out by the WHO to create local health policies that consider alternative approaches, integrative or complementary^{4,5}. In Brazil, CIPs are regulated in the Unified Health System (SUS in Portuguese) by the National Policy on Complementary and Integrative Practices (NPCIPs) enacted in 2006⁶. Their growth since then includes both the variety of therapeutic offer and the number of establishments involved⁷.

In order to contribute to architectural quality and investigate human-environmental interaction in CIP therapeutic environments, research from which this article derives⁸ was carried out

using the research question to investigate the influence of ambience on the well-being of users of CIP therapeutic environments (patients, therapists and coordinators of the researched institutions). The general objective was to know which environmental stimuli influence well-being, and as a main result, a categorisation of specific well-being influencing stimuli for the CIP ambience was proposed, the subject of which was dealt with in a previous article⁹.

To answer the original research question, the meaning of well-being needed to be defined for users of CIP therapeutic environments. This article presents the meaning of well-being attributed by the participants in relation to ambience. It is estimated that this knowledge can contribute to the humanisation of the CIP environment, meeting the psychological and subjective needs of its users.

Human-environmental interactions and the ambience phenomenon

SUS's National Humanisation Policy (NHP) understands humanisation as the valorisation, autonomy and protagonism of users, workers and managers involved in the health production and management process, identifying social health needs, among other aspects¹⁰. The NHP also includes “Commitment to the environment, improvement of working conditions and services”¹⁰(p.15). In this approach, from the point of view of the architecture of environments and human-environmental interaction resulting from its occupation, the definition of Malard¹¹ is adopted here:

*Humanising spaces means making them suitable for human use; making them appropriate and appropriable. Appropriation involves the reciprocal user/space interaction, in which the user moulds places according to their needs and desires. Places, on the other hand, become receptive. This mutual influence between user/space is the reason why people and groups find – or not – their identity in the different places in which they live. Receptive places are those with which people feel in perfect harmony and in which they find their individual and collective identity. The ambience of the environment is what makes this communicative process possible*¹¹(p.4).

The current guidelines for health facility projects date back to studies located in a broad context of discussion about their humanisation, which began in the 1970s at an international level. Furthermore, with the advancement of Neu-

rosience and Psychoneuroimmunology (NPI) beyond cognitive aspects and their relationships with perceptions and behaviours – widely explored by Environmental Psychology – researchers began to investigate the interactions between behaviour and the nervous, endocrine and immunological systems^{1,12}. According to Farling¹², Environmental Psychology studies the type of behaviour that occurs in a given environment, while Neuroscience seeks to explain why it occurs. Sternberg¹ addresses NPI studies that demonstrate the interconnection of behaviour and emotions with nervous, endocrine and immune system mechanisms, both for balance and imbalance. This research highlights the negative influence of factors such as environmental stress on an individual's immune system (e.g., generating anxiety states). On the other hand, emotional states of love, compassion, happiness and peace activate the prefrontal cortex and parietal lobes (a region of the brain related to resilience and positive emotions)¹. An environment that arouses such feelings can stimulate the activation of endorphins and dopamines in the brain and favour the immune system's reaction to stress states¹. Figure 1 summarises these concepts.

In the field of Environmental Psychology, the Stress Recovery theory proposed by Roger Ulrich, and the Attention Restoration theory put forward by Rachel Kaplan and Stephen Kaplan, culminated in developing the concept of restorative environments¹³. Restorative environments are those whose elements and/or attributes help restore attention and recovery from psychophysiological stress¹³⁻¹⁵. Some environmental elements and/or attributes can influence behaviour, emotions and psychophysiological aspects of individuals, such as blood pressure and cardio-respiratory rate. For example, environments with

natural elements or views of nature tend to promote a positive influence (states of relaxation); on the other hand, environments with confused and disorienting circulation tend to lead to negative influence (anxiety states).

Considering the opportunity of offering a smooth recovery of cognitive functions, restorative environments were studied in contexts where stress and attentional fatigue were acute, which could influence healing processes¹⁵. Among the specific studies on the effects of architecture on health and well-being, The Center for Health Design (CHD) in the United States popularised the results of its research with the Evidence-Based Design (EBP) method, which aims to find scientific evidence for a certain performance of the environment. It is estimated that the results of research in health facilities provided one of the most reliable repertoires of design guidelines for the EBP method¹⁶. One of the pioneers in investigating the influence of hospital environments on patient recovery was Ulrich. His study with patients in post-surgical recovery indicated the relationship between environmental factors and their influence on length of stay, pain perception, among others¹⁷. Later, based on extensive research, Ulrich¹⁸ identified the main stressful environmental components of users of long hospital stays and developed the Project Support Theory. This theory identified the humanising components and, consequently, guided projects in hospital environments helping to reduce users' stress and anxiety.

In Brazil, in 2004, the SUS launched an Ambience booklet¹⁹ aiming to qualify public health care environments for the reception and well-being of users: "By adopting the concept of Ambience for architecture in Health spaces, a qualitative advance has been achieved in the de-

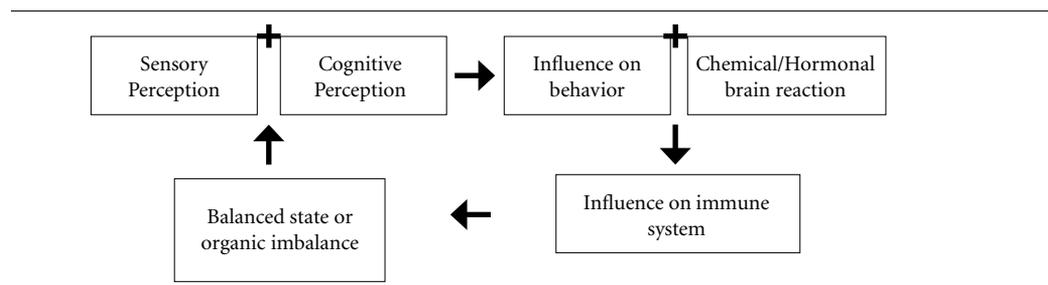


Figure 1. Summary of the relationship between perception, resulting influences and organic states.

bate on humanising SUS meeting places”¹⁹(p.5). Aspects such as lighting, colours, art, sounds, privacy, among others, are in line with the scope of recommendations of the scientific studies in the area. However, there are no specific guidelines for the CIP ambience, whose demand may be different from conventional health establishments.

To understand the relationship between environmental stimuli and well-being, we need to understand the meaning of well-being for CIP users. The relevance of investigating this specificity from the users’ perspective stems from the fact that the ambience phenomenon is a subjective experience. Understood as a phenomenon that occurs in the process of inhabiting²⁰, based on elements and attributes of the environment that trigger perceptual and sensitive processes in its users, ambience is perceived as a whole. Cultural, subjective, ergonomic and personal comfort aspects of users in an environment can be related to the attributes and/or elements found there, such as shapes, materials, colours, lighting, etc.^{20,21}. However, it is not always possible to identify which element of the ambience causes a specific reaction, both because of individual characteristics and because of the possibility of different stimuli captured simultaneously by more than one sensory system. Pallasmaa²² states that this multisensory capacity is associated with the right side of the brain, and allows us to understand atmospheres, feelings and moods, as well as grasping the essence of vast entities (spaces, places, landscapes and entire cities), so that we perceive the whole before identifying its parts.

Therefore, the more that is known about users’ needs, including psychological and subjective ones, the more assertive the design and humanisation of therapeutic environments will be.

Methodology

Qualitative, exploratory and descriptive in nature, the methodology of the environmental assessment that was the background to this article aimed to meet the main objective of the research: i.e., to know the stimuli (attributes and/or environmental elements) that influence users’ well-being of CIP therapeutic environments. Environmental assessment research (or post-occupancy assessment) develops into practical contributions to the qualitative improvement of environments, by forming a conceptual and technical repertoire in the creative and executive process of new architectural projects²³⁻²⁵. The

development of the research followed the Research Cycle phases described by Minayo²⁶: a) exploratory phase (definition of the research object, theoretical and methodological development); b) fieldwork (application of theoretical construction in empirical practice); and, c) treatment of empirical and documental material (data analysis in light of the theory that supported the research).

The results highlighted in this article are related to the specific objective “Identify the meaning of well-being and the stimuli that influence it in CIP environments”. As these are psychological and subjective aspects, that is, only partially observable, the data collected in the fieldwork phase – especially through interviews – were the main ways to identify them.

Data were collected from case studies from three health care and/or educational institutions, selected based on two criteria: offering diversified CIP therapies and providing qualified environments for the activities. As one is public and two are private, the institutions are linked to universities and offer their therapies to the community where they are located. They are: a) *Projeto Amanhecer/Nucleus NUAM* from the Professor Polydoro Ernani de São Thiago University Hospital at the Federal University of Santa Catarina (UFSC in Portuguese) in Florianópolis, Santa Catarina; b) *Centro de Práticas Naturais*, the clinical school of the Naturology course at Unisul in Palhoça, Santa Catarina; and, c) Spa & Wellness Center, the spa school at the Anhembi Morumbi University in São Paulo, São Paulo.

Thirty-eight interviews were conducted with users of the environments (patients, therapists and coordinators of the researched institutions), totalling 23 hours. The criteria for selecting the sample of patients were: having emotional and physical conditions to communicate with the researcher; diversity of pathology and/or therapy; avoiding embarrassment (e.g., naked person); and, age group (adults only). The sample of therapists was selected with the help of the coordinators, and in two case studies, the therapists were supervised trainees. The 5 coordinators form the research universe for this type of user. The distribution of participants is shown in Chart 1.

In the case studies, the annual average of appointments (for 2014, 2015 and 2016) and the universe of therapists were, respectively: a) Spa & Wellness Center: 326.6 appointments and 8 therapists; b) *Projeto Amanhecer*: 5,913.6 appointments and 134 therapists; and, c) *Centro de Práticas Naturais*: 2,147 appointments and 97

therapists. Concerning the profile of the interviewees: 89.48% were female; aged from 21 to 60 years for coordinators and therapists and 31 to 50 years for patients; most of the respondents attended the institutions for a period of up to 5 years.

The three interview scripts (differentiated by samples) contained a mix of open questions and structured questions on the following aspects: characterisation of the interviewees' profile, work routine (therapists and coordinators), treatment routine (patients), assessment of environments (all), identification of humanising and restorative characteristics of well-being (therapists and patients) and perception of the contribution of the environment to well-being (therapists and patients).

In addition to the interviews, another method that contributed to identifying the meaning of users' well-being were the 12 systematic observations carried out in the working environments. This method made it possible to observe activities, the relationship between therapists and patients, their behaviours and their spatial interactions, whose results were later compared to the interviews. Due to the availability of offers from the institutions at the time of data collection, most observations took place in CIPs administered individually, using a treatment table.

All collected data were treated with content analysis, whose objective is to systematise the data obtained until a reality other than the message can be deduced, and then interpret them (a process called inference)²⁷.

The research obtained formal authorisations from the institutions so that it could be carried out and the research project was submitted, via Plataforma Brasil, to the Committee for Ethics in Research on Human Beings (CEPSH in Portuguese), which was given full approval.

Results and discussion

The first topic of analysis proposed was "Meaning of well-being for users", for identification based on perceptions, sensations, opinions and meanings attributed to the experiences in the environments. The method that best contributed to providing the data for this analysis was the interviews, especially the respondents' answers to open questions.

Systematic observations of activities contributed to confirmations of subjective data, when observable by body language and spontaneous reports (e.g., relaxation states and/or concentration during treatment).

Psychological category and thematic elements

The analysis theme "Meaning of well-being for users" generated a category called Psychological, referring to influences on the participants' minds and/or behaviour. The subcategories were decoded from existing environmental stimuli and/or personal interactions in therapeutic environments. They are: a) Welcomeness: feeling at ease in the place; b) Motivation: willingness and motivation for therapeutic activities; c) Beauty: perception of environmental aesthetics; d) Concentration: perception of the user's degree of attention to the therapeutic activity; e) Trust: feeling of being safe and free from phobias to engage in treatment; f) Relaxation: the patient's feeling of rest, obtained from environmental and/or therapeutic stimuli; and g) Simplicity: perception of environmental aesthetics without excess.

In the analysis, the raw data were grouped by meaning cores. That is, from the thematic elements relevant to the chosen analytical objective, the grouping of content by similarity was carried out, successively in progressive nuclei of meaning, until allowing the codification in categories and subcategories for each theme of analysis.

Chart 1. Participants in research.

Participants	Institution			Total
	Spa & Wellness Center	Projeto Amanhecer	Centro de Práticas Naturais	
Patients	4	10	5	19
Therapists	3	6	5	14
Coordinators	2	1	2	5
Total per institution	9	17	12	38

Source: Villela⁸.

Chart 2 presents the synthesis of thematic elements mentioned by the interviewees.

The analysis of psychological aspects showed evidence of the influence of personal relationships and environments in all subcategories, directly or indirectly. With greater or lesser emphasis, ambience can contribute to feelings of welcomeness, trust, relaxation and motivation, a concentration state, as well as to perceptions of beauty and simplicity.

Environmental stimuli influencing well-being

The second topic of analysis was called “Environmental stimuli influencing well-being” and allowed the identification of the influence caused by each stimulus, both positive and negative, according to its presence or absence, in all user samples. This categorisation of stimuli is detailed in a specific article⁹. As this article focuses on psychological aspects, the categorisation of stimuli is presented in this section to discuss the results.

Ten categories were codified: Artistic (presence of adornments and/or artistic elements in different media); Auditory (presence of silence or soft music); Biological (absence of toxic agents and/or contaminants); Luminous and Hygrothermal Comfort (presence of natural and/or artificial resources to control lighting, ventilation, temperature and humidity); Energetics (anchoring of vital and spiritual energy for treatments); Spatial (presence of elements and attributes configured from the building and its interior setting – shape, openings, colours, surface finishings, layout, etc. – that help to carry out activities and promote positive sensations); Natural (presence

of natural elements such as vegetation, water, natural sounds or views of nature); Olfactory (presence of pleasant aromas); Social (possibility of social relationships and social support); and, the Sociospatial (presence of spatial configurations that favour privacy, environmental control and territoriality).

Discussion

The subcategories of the Psychological category will be discussed in this section, relating them to the researched literature, to user samples and to the categorisation of stimuli to well-being. When pertinent, the contributions of the methods used are shared.

Welcomeness

The Welcomeness subcategory was highly valued in the users’ perception of well-being. All patients responded positively when asked if the environment should provide warmth/welcomeness. In the same sample, the perception of welcomeness also comes from the behaviour of the institution’s employees and therapists – even when asked about the environment, some participants responded about kindness, friendliness, etc. (related to Social stimuli).

Regarding the environmental welcomeness, in all samples, the relationships were associated with sensations of comfort, feeling at ease or feeling at home. Some patients mentioned that environmental comfort helps them to relax. The lack of acceptance is seen in a negative way (e.g., colours that are too cold or too white).

Chart 2. Synthesis of thematic elements of the subcategories of the Psychological category.

Subcategories	Thematic element
Welcomeness	Cosy; welcoming; feel at ease; inviting
Welcomeness (absence)	Cold colours; empty; no warmth; unwelcoming; not personalised; very neutral
Motivation	Mood; motivation; will
Beauty	Beauty; beautiful elements (plants, flowers, pictures); beauty helps (in welcoming, relaxing)
Concentration (for treatment)	Disconnection (from the external environment); concentration; interiorisation; attention; receptivity; contemplation
Trust	Safety; relational environment (between therapist and patient); absence of phobias
Relaxation	Atmosphere of peace; calm; tranquility; relaxation; harmony; meditative state
Simplicity	Simplicity; less information

Source: Adapted from Villela⁸.

In the relationship of Welcomeness with environmental stimuli, there was a greater differentiation between the samples. Patients relate this welcomeness mostly with Spatial stimuli, such as colours, textures, surface finishings, layout, furniture, circulation, etc. In the researched literature, the feeling of cosiness from colours²⁸⁻³⁰ and from surface finishings^{29,31,32} is mentioned. Therapists value the same items, however their focus is more ergonomic, focusing on the adequacy of space for carrying out the activity. In the literature, the adequacy to the activity is related to Spatial stimuli: layout and furniture^{28,29}, equipment²⁹ and flexible spatial configurations^{28,29}. There were also correlations with Auditory (silence or soft music), Natural (internal plants or views of nature), Olfactory (pleasant aromas) and Sociospatial (the therapist's ability to customise the space for care) stimuli.

Motivation

The Motivation subcategory had less spontaneous citation in the interviews. However, in response to a question about the influence of the environment on their moods, respondents indicated an overall view of the ambience as a positive stimulus (e.g., expressions such as “*the context of the environment*”, “*the welcoming environment*” and “*the ambience in general*”). Some elements mentioned were related to Spatial stimuli, such as colours and surface finishings or functional organisation of space. Particularly for therapists, the ambience as an influencer in the mood prevails before the service. For the patients, the therapy itself and/or the therapist were more prominent in promoting mood, denoting a relationship with the motivation for therapy and with the feeling of welcomeness (related to Social stimuli).

In the relationship of Motivation with environmental stimuli, the most cited for positive influences were: Biological (hygiene); Natural (nature and/or nature views); Spatial (surfaces and functional organisation); Auditory (sound); and, Olfactory (aromas). The negative stimuli mentioned were: dirt, noise, agitated people next door (in the waiting room) and suffocating, poorly ventilated or claustrophobic environment.

In the literature review, no references to Motivation were found.

Beauty

People who are more sensitive to aesthetic beauty relate it to the feeling of well-being. Accord-

ing to the theory of restorative environments, environments that provide soft fascination allow space in the mind for reflection, contributing to the restoration of cognitive functions and stress relief^{3,15,33}. Beauty is indicated as an environmental restorative component that contributes to soft fascination³⁴.

In the relationship of the Beauty subcategory with the environmental stimuli, Biological (cleaning) and Natural (presence of internal plants or green view) were positively identified. The other correlations refer to other subcategories of the Psychological category (Welcomeness, Motivation, Trust, Relaxation and Simplicity), arising from the ambience as a whole, without specification.

Concentration

The Concentration subcategory denotes indirect influence of the environment, as it is stimulated by other sensations and perceptions (e.g., relaxation and the perception of welcomeness, which favour the patient's receptivity and concentration). Thus, environments frequented before the room where the treatment is carried out can help in this aspect.

Some therapists call “*internal environment*” the patient's state of concentration and introspection at the time of therapy, related to their ability to disconnect from the perception of the external environment. This state denotes a receptivity that is valued by therapists, as it favours practices, even if they are more active than relaxing.

The favouring of introspection – the possibility of being reserved, alone or among other people – may result from environmental stimuli, contributing to concentration. For example, one of the interviewees reported entering a meditative state when contemplating artistic elements or staying in the garden while awaiting treatment. In the literature, precisely the Natural^{13,15,17,18,28-30,33,35} and Artistic^{13,15,18,29-32,35,36} stimuli are related to attentional restoration and reduction of stress, freeing the mind for other reflections. From the patients interviewed, some mentioned the contribution of environmental stimuli to concentration before or during therapy. Others mentioned that they only reach receptivity and concentration at the time of therapy from the therapist's actions. In systematic observations of activities, introspective and relaxed states were easily observed.

The therapists reported greater ease in accessing concentration states due to training and the need for the activity itself. In systematic observa-

tions, their concentration states were checked for intervals of 30 to 60 minutes during the sessions. In some cases (e.g., Reiki and Craniosacral Therapy sessions), the therapists kept their eyes closed. Compared to patients, therapists rely less on the environment to access concentration states. However, the maintenance of these states can be favoured by the environment, since, mostly, they avoid being distracted between one service and another. There were mentions of being in a “*state of alert*”, “*vigilance*” or “*state of introspection*” and, even if they leave the treatment room, they avoid talking.

Stimuli that favour maintaining concentration are Auditory (silence), Luminous and Hygrothermal Comfort (by controlling light, ventilation and temperature), Olfactory (pleasant aromas), Sociospatial (privacy and control of the environment), the Artistic and the Natural (for their contemplative possibilities).

Trust

The Trust subcategory was related to safety and the absence of fears (e.g., claustrophobia or fear of falling). In relation to the categories of environmental stimuli, claustrophobia can be alleviated in naturally airy and light environments with openings to the outside (Hygrothermal and Luminous Comfort stimuli). Concerning fear of falls, this can be alleviated using wide treatment tables and access by stepladder (Spatial stimuli). The proper width of the treatment table allows for comfortable posture changes (e.g., from supine to prone), especially for people with a broader trunk and/or obese. The reduction in the risk of falls and accidents can be achieved through the Universal Design³².

The sense of security appears little related to psychological aspects in the literature, and the following aspects are more frequent: prevention of intoxication or contamination^{28,31,32} and hygiene^{29,30,32}, related to Biological stimuli; lighting for safety in clinical procedures^{28-31,35}; ventilation for air quality^{30-32,35}, related to Luminous and Hygrothermal stimuli; and, use of surface finishings^{29,31,32} and reduced risk of falls and accidents³², related to Space stimuli.

In addition to trusting the therapist (Social stimuli), patients related the feeling of trust to the first impression caused by the environments, especially regarding cleanliness – presence of hygiene or prevention of contamination (related to Biological stimuli, as mentioned in the literature). Therapists reasoned that fostering trust

through the environment can foster receptivity to therapy and avoid unnecessary tension and worry.

Relaxation

The Relaxation subcategory is related to the ambience from the mental escape it provides. When asked about the relationship between the environment and mental escape, one of the interviewees undergoing treatment replied: “*when I am in an organised, welcoming environment, it is an escape valve and I feel strengthened internally, it improves my quality of life*”. According to the theory of restorative environments¹³⁻¹⁵, ambiances that provide mental escape can alleviate an individual’s cognitive saturation and mental exhaustion, altering the body’s physiological indices (e.g., lowering blood pressure and regularising cardiorespiratory rate).

When specifically asked about their illnesses and limitations, few patients directly mentioned states of stress or anxiety. However, throughout the interviews, such states often emerged as thematic elements. It is estimated that, in the case studies, stress and anxiety states are a strong motivation in the search for CIP treatments. Regarding the therapists and coordinators, their answers corroborate the association between psychological states of stress, anxiety and the patients’ need for relaxation.

The therapists’ responses indicate that the relationship between ambience and mental escape is smaller, possibly due to their training to access meditative states and/or prolonged concentration, by their own personal and/or professional practice. According to Sternberg¹, studies conducted with experienced meditators detected *Gamma*-type brain waves, related to insights and focused attention. Instead of the possibility of relaxation based on the ambience, the need to maintain states of attention and concentration between appointments was more mentioned by therapists.

For respondents undergoing treatment who reported depressive states, relaxation from the ambience was also not valued, but rather the possibility of feeling vitalised. The therapists’ responses confirmed these reports, as the focus of treatments on people with depressive states is to make them more willing and active.

Relaxation was associated with Artistic and Natural environmental stimuli (possibility of contemplation); Auditory (soft music and silence); Biological (hygiene); Luminous and Hygro-

thermal Comfort (temperature, half-light or twilight); Spatial (finishes, treatment table comfort and colours); Olfactory (pleasant aromas); Social (therapist action); and, Sociospatial (visual and auditory privacy).

Simplicity

This subcategory is related to the perception of an aesthetically simple environment, without excessive furniture (Spatial stimuli), lighting (Luminous stimuli), decoration (Artistic stimuli), etc. Simplicity emerged mainly from the sample of therapists, due to their perception of influence on the patient's well-being and contribution to the therapeutic process. According to a therapist: *“Cutouts [forms] and stuff and a lot, a lot of design I think is unnecessary, for the effect we want of self-awareness, of perception. I need the person to look inwards and not look outwards too much. Simplicity in structures is important. We are very used to complex things. Simplicity... we lack simplicity, in architecture as well”*.

When analysing the responses from all samples, visually less complex information was defined as neutrality, and its positive perception is related to avoiding distractions and facilitating introspection processes. Thus, finishes, surface finishings, functional organisation, shapes, etc. (Spatial stimuli) conform the simplicity perceived in neutrality. However, their negative perception can also occur, when they denote *“impersonality”, “no personalisation”* and *“coldness”*.

In the literature review, no references to Simplicity were found.

Summary of correlations

Based on the theoretical scope previously presented – focusing on restorative environments – the data analysis showed congruence between the literature and field results, in the subcategories Welcomeness, Beauty, Concentration, Trust and Relaxation. Motivation and Simplicity, in turn, were empirical results.

Chart 3 presents a synthesis of the correlations between the psychological aspects of well-being and environmental stimuli.

In some cases, respondents did not identify which attribute or specific element of the ambience contributed to their well-being, relating it to the ambience as a whole.

Conclusions

The research that originated this article aimed to understand the environmental stimuli that influence users' well-being of CIP therapeutic environments. To meet the objective, it was necessary to know the meaning of users' well-being of such environments, which was the theme presented in this article.

Most respondents reported the influence of ambience on their well-being, especially in relation to psychological aspects and in the subcategories identified by the survey: Welcomeness, Motivation, Beauty, Concentration, Trust, Relaxation and Simplicity. Well-being categorisations, when analysed in light of the ten categories of environmental stimuli influencing well-being – presented in the Results and Discussion section and in a previous article⁹ – can help in designing CIP environments. Categorisations are the main results and contributions of the research, due to the lack of studies and the absence of specific design guidelines for CIP environments.

Taking as an example the categories of Concentration and Relaxation, relationships can be observed in terms of designing environments. While in the context of the most practiced medical health establishments in the West, projects aim to reduce environmental stressors, in CIP sensory and psychological comfort is a prerogative in many treatments. Therefore, the focus is often on the need for relaxation and concentration – precisely the states favoured by restorative environments, with relief from cognitive saturation and mental exhaustion. The possibility of relaxation in the treatment was highly valued by the interviewees – especially patients who reported states of stress and/or anxiety. In this case, environments that favour introspection are preferable to environments that allow social interaction, especially for patients with individual practices carried out on treatment tables. In waiting environments, this behaviour is reflected by the contemplation of artistic or natural elements, by remaining seated with eyes closed or reading, away from other people. In treatment environments, in addition to the therapist's action, resources such as aromas, a comfortable treatment table, low light and silence (or soft music) can help the patient's relaxation and concentration. Other aspects can also be favoured by the ambience, such as: maintaining the therapists' state of concen-

Chart 3. Summary of correlations between psychological aspects and environmental stimuli.

Psychological subcategories	Environmental stimuli categories
Welcomeness	Auditory, Spatial, Natural, Olfactory, Social, Sociospatial
Motivation	Auditory, Spatial, Natural, Olfactory, Social, Sociospatial
Beauty	Biological, Natural
Concentration	Artistic, Hearing, Luminous and Hygrothermal Comfort, Natural, Olfactory, Sociospatial
Trust	Biological, Luminous and Hygrothermal Comfort, Spatial, Social
Relaxation	Artistic, Auditory, Biological, Luminous and Hygrothermal Comfort, Spatial, Natural, Olfactory, Social, Sociospatial
Simplicity	Artistic, Light and Hygrothermic Comfort, Spatial

Source: Villela and Bins Ely⁹.

tration between one service and another; trust in the institution and/or the therapist; creating a welcoming atmosphere, which is also related to trust, encouragement for therapy; among others.

Although some therapeutic environments of conventional medical practices also use the theoretical scope studied in this research, the peculiarities of CIP treatments, mentioned here, require planning that is different from their ambiances. However, the results presented may be of interest in designing different health environments,

when their objective is to create an ambience that values the same meanings of well-being identified by the research.

A limitation of the research, due to the availability of institutions at the time, was the data collection, mostly in CIP environments of individual modalities (with a therapist and a patient lying on a treatment table). Thus, the results found should be relativised to collective CIP and can also be investigated in future research.

Collaborations

MS Villela made contributions to the conception, writing, data acquisition, analysis and interpretation of data for the research. VHM Bins Ely made contributions to the conception of the article, revised it critically, and supervised the research.

Acknowledgements

The authors would like to thank everyone who supported and enabled the research, especially the interviewees and the institutions surveyed.

They would also like to thank the Coordenação de Aperfeiçoamento Pessoal em Nível Superior (CAPES) for the financial support.

References

1. Sternberg E. *Healing Spaces: the science of place and well-being*. Cambridge: The MIT Press; 2009.
2. Buss PM. Uma Introdução ao Conceito de Promoção da Saúde. In: Czeresnia D, organizador. *Promoção da Saúde: conceitos, reflexões, tendências*. Rio de Janeiro: Editora Fiocruz; 2009.
3. Cohen SC. *Habitação saudável como um caminho para a promoção da saúde*. Rio de Janeiro: Escola Nacional de Saúde Pública, Fundação Oswaldo Cruz; 2004.
4. World Health Organization (WHO). *WHO Traditional Medicine Strategy 2002-2005*. Geneva: WHO Press; 2002.
5. World Health Organization (WHO). *WHO Traditional Medicine Strategy 2014-2023*. Geneva: WHO Press; 2013.
6. Brasil. Ministério da Saúde (MS). Secretaria de Atenção à Saúde. Departamento de Atenção Básica. *Política Nacional de Práticas Integrativas e Complementares no SUS*. 1ª ed. Brasília: Editora do Ministério da Saúde; 2008.
7. Brasil. Ministério da Saúde (MS). Departamento de Atenção Básica. Portal da Saúde do SUS. PNPIC. *Onde tem PICS?* [Internet]. [acessado 2020 jul 18]. Disponível em: http://dab.saude.gov.br/portaldab/ape_pic.php?conteudo=onde_tem_pics.
8. Villela MS. *A Ambiência nas Práticas Integrativas e Complementares: estímulos ao bem-estar do usuário* [Internet]. Florianópolis: UFSC, Pós-ARQ; 2017 [acessado 2021 jul 11]. Disponível em: <https://repositorio.ufsc.br/handle/123456789/188694>.
9. Villela MS, Bins Ely VHM. Stimuli towards well-being in an environment with Complementary and Integrative Practices (CIPs). *Ambiente Construído* 2020; 20(2):441-456.
10. Brasil. Ministério da Saúde (MS). Secretaria-Executiva. Núcleo Técnico da Política Nacional de Humanização. *HumanizaSUS: política nacional de humanização: documento base para gestores e trabalhadores do SUS*. 2ª ed. Brasília: Editora do Ministério da Saúde; 2004.
11. Malard ML. Os objetos do cotidiano e a ambiência. In: *2º Encontro Nacional de Conforto no Ambiente Construído, Anais do 2º ENCAC*. Florianópolis: ANTAC, ABERGO, SOBRAC; 1993.
12. Farling M. From intuition to immersion: architecture and neuroscience. In: Robinson S, Pallasmaa J, organizadores. *Mind in architecture: Neuroscience, Embodiment and the Future of Design*. Cambridge: MIT Press; 2015.
13. Gressler SC, Günter IA. Ambientes restauradores: Definição, histórico, abordagens e pesquisas. *Estud Psicol* 2013; 18(3):487-495.
14. Hartig T. Issues in restorative environments research: matters of measurement. In: Fernández-Ramirez B, Villodres CH, Ferrer CMS, Méndez MJM, editores. *Psicología Ambiental 2011: Entre los estudios urbanos y el análisis de la sustentabilidad. XI Congreso Psicología Ambiental*. Almería: Universidad de Almería; 2011. p. 41-66.
15. Joye Y, Van den Berg A. Restorative Environments. In: Steg L, Van den Berg A, Groot JIM, editores. *Environmental Psychology: An Introduction*. New Jersey: Wiley-Blackwell; 2012. p. 57-66.

16. Hamilton K, Watkins D. *Evidence-Based Design for multiple building types*. New Jersey: John Wiley & Sons; 2009.
17. Ulrich R. View through a window may influence recovery from surgery. *Science* 1984; 224:420-421.
18. Ulrich R. Effects of interior design on wellness: Theory and recent scientific research. *J Health Care Inter Des* 1991; 3(1):97-109.
19. Brasil. Ministério da Saúde (MS). Secretaria de Atenção à Saúde. Núcleo Técnico da Política Nacional de Humanização. *Ambiência*. 2ª ed. Brasília: Editora do Ministério da Saúde; 2010.
20. Malard ML. *Brazilian low-cost housing: interactions and conflicts between residents and dwellings*. Sheffield: University of Sheffield; 1992.
21. Elali GA. Relações entre comportamento humano e ambiência: Uma reflexão com base na Psicologia Ambiental. In: *Colóquio Internacional Ambiências compartilhadas: cultura, corpo e linguagem. Anais do Colóquio Internacional Ambiências Compartilhadas*. Rio de Janeiro: ProArq-UFRJ; 2009. p. 1-17.
22. Pallasmaa J. Body, mind, and imagination: the mental essence of architecture. In: Robinson S, Pallasmaa J, organizadores. *Mind in architecture: Neuroscience, Embodiment and the Future of Design*. Cambridge: MIT Press; 2015. p. 51-98.
23. Ornstein SW. Divergências metodológicas e de resultados nos estudos voltados às relações ambiente-comportamento (RAC) realizados nas escolas brasileiras de arquitetura. In: Tassara ETO, Rabinovich EP, Guedes MC, editores. *Psicologia e ambiente*. São Paulo: EDCU; 2004. p. 231-240.
24. Ornstein SW, Bruna G, Romero M. *Ambiente construído e comportamento: a avaliação pós-ocupação e a qualidade ambiental*. São Paulo: Nobel/FAUUSP/FUPAM; 1995.
25. Zeisel J. *Inquiry by design: environment/behavior/neuroscience in Architectures, Interiors, Landscape, and Planning*. New York: W.W. Norton & Company; 2006.
26. Minayo MCS, organizadora. *Pesquisa social: teoria, método e criatividade*. Petrópolis: Vozes; 2011.
27. Bardin L. *Análise de Conteúdo*. Lisboa: Edições 70; 1977.
28. Shraiky J. Prescribing Architecture: A Critical Evaluation of How Design Impacts Health and Wellness. *J Health Sci Humanit* 2011; 1:1.
29. Shepley MM, Pasha S. *Design research and Behavioral Health Facilities*. Concord: The Center for Health Design; 2013.
30. Iyendo TO, Uwajeh PC, Ikenna ES. The therapeutic impacts of environmental design interventions on wellness in clinical settings: a narrative review. *Complement Ther Clin Pract* 2016; 24:174-188.
31. Ulrich R, Quan X, Zimring C, Joseph A, Choudhary R. *The Role of the Physical Environment in the Hospital of the 21st Century: A once-in-a-Lifetime Opportunity*. Concord: The Center for Health Design, 2004.
32. Thomson H, Petticrew M. *Is housing improvement a potential health improvement strategy?* Copenhagen: WHO Regional Office for Europe; 2005.
33. Kaplan S. The restorative benefits of nature: toward an integrative framework. *J Environ Psychol* 1995; 15:169-182.
34. Ouellette P, Kaplan R, Kaplan S. The monastery as a restorative environment. *J Environ Psychol* 2005; 25:175-188.
35. Van den Berg AE. *Health Impacts of Healing Environments: A review of evidence for benefits of nature, daylight, fresh air, and quiet in healthcare settings*. Groningen: Foundation 200 years University Hospital Groningen; 2005.
36. Lankston L, Cusack P, Fremantle C, Isles C. Visual art in hospitals: case studies and review of the evidence. *JRSM Open* 2010; 103:490-499.

Article submitted 27/08/2020

Approved 29/07/2021

Final version submitted 01/08/2021

Chief editors: Romeu Gomes, Antônio Augusto Moura da Silva