HEALTH PROMOTION AND THE BUILT ENVIRONMENT – VIEWS FROM SWEDISH HEALTHCARE ORGANISATIONS

Elke Miedema [(1)*], **Göran Lindahl** [(2)], **Marie Elf** [(3)]

[(1)] Division of Architectural Method and Theory, Department of Architecture and Civil Engineering, Chalmers University of Technology, Sweden

[(2)] Division of Building Design, Department of Architecture and Civil Engineering, Chalmers University of Technology, Sweden

[(3)] School of Education, Health and Social Studies, Dalarna University, Sweden

* Corresponding author e-mail: miedema@chalmers.se

Abstract

Objective – The study examined the role and integration of the built environment in health promotion as perceived and described by representatives of Swedish health promotive healthcare organisations (HPHs).

Background – A majority of Swedish healthcare organisations have implemented health promotion strategies in their plans and actions. These HPHs engage in an ongoing reorientation from a disease focus to a health focus, which includes a person-centred approach that considers people as active participants controlling their own health and care.

Swedish HPHs are supported by the Swedish HPH network in introducing health promotion. The HPH network aims are guided by health promotion standards, which indicate the importance of creating health-promoting environments. These aims are confirmed in a letter of intent and membership contract. The aims are also expected to have implications for the planning of healthcare buildings. However, knowledge of the relationship between HPH strategies and the built environment is limited. Additionally, health promotion, when used by building designers, often seems to be reduced to a focus on the enhancement of health. To continue developing health promotion and fulfilling the intentions of the letter of intent as a driver for HPHs, it is important to understand and actively include the built environment in analysis, planning and design.

Research question – How do Swedish HPH representatives perceive and describe the relationship between HPHs and the built environment?

Methods – An explorative study including both qualitative and quantitative data was carried out. First, data were collected through a survey with county representatives of Swedish HPHs (n=17). Then, qualitative data were obtained from interviews with the Swedish HPH network committee members. The combined data were analysed through descriptive statistics and content analysis.

Results – The results showed varied and limited perspectives on the relationship between the built environment and health promotion and diverse HPH intentions related to health equity, health, empowerment, population health, and preventive measures. The results indicated that the documentation meant to support HPHs was not used or well known. Surprisingly, representatives who worked on healthcare building projects did not necessarily consider the built environment to be related to design strategies or characteristics or to their health promotion work within the framework of their HPHs.

Conclusion – The results indicate the need to recognise the diverse dimensions and interpretations of health promotion to be able to integrate the built environment in HPHs.

Keywords: *Building design | health services | health promotive healthcare | hospital design | salutogenic orientation*

Introduction

Health promotion is often defined as 'the process of enabling individuals and communities to take control over their health' [2]. Health promotion is often seen as a way to face complex public health problems [14], such as increasing health inequalities and increasing chronic disease. Healthcare organisations are therefore including health-promoting approaches in their services. This expansion includes an ongoing reorientation from a disease focus towards a person-centred approach, which emphasizes people managing their own health processes and care [2] in relation to their social, natural and built environments [15, 16].

The term 'health promotion' is also increasingly used by architects working with healthcare design [11]. Research has already linked the built environment of healthcare to the improved health-outcomes, such as healing of patients, stress reduction and improved safety for building users [17, 18]. The built environment is increasingly emphasised as important for health promotion [19], including for health promotive healthcare organisations (HPHs). However, it seems that architects often reduce 'health promotion' to 'health enhancement' [11].

The majority of HPHs are members of, and supported by, the Swedish HPH network [20-22]. The Swedish HPH network supports healthcare organisations to develop good, equal, and health-promoting healthcare [23], and most Swedish health care organisations are members of this nation-wide network [24]. Their membership means that they have agreed to focus on the implementation of health promotion strategies in their organisations [1], creating a health-promoting environment [4, 7]. The implementation of health promotion strategies may require adjustments in the organisational philosophies, values and practices affecting several organisational levels of an HPH [25]. In addition, a health promotion approach is also expected to have consequences for the built environment [10].

However, knowledge about the relationship between the built environment and HPH strategies on a broader scale is limited [26]. This study therefore focuses on the role and integration of the built environment for health promotion as perceived and described by Swedish HPH representatives.

Background

The term 'health promotion' is often used and discussed in the literature [27, 15, 28], and many definitions have been developed over time [15]. Health promotion is often confused with other concepts, such as illness prevention [29, 27]. The difference can be understood through salutogenic theory [27]. The term 'salutogenic' is derived from words meaning 'the origins of health' and refers to what keeps us healthy [29]. Health promotion should include a salutogenic orientation towards health [27]. In contrast, a pathogenic orientation concerns the causes of disease [29, 27, 30]. A pathogenic approach thus includes healthcare, prevention and health protection [30].

In Sweden, healthcare organisations are often considered the front runners of health promotion. These healthcare organisations appointed healthcare staff responsible for health promotion work within the organisations. Some of these staff also represent their HPHs in the HPH network. All these HPH representatives take up different roles in the HPH network. Some HPH county representatives are responsible for communication between the HPH network and the different HPHs in their county (n=21). Committee representatives are involved in the everyday management of the Swedish HPH network and relations with the international HPH network [31] (n=7). Other workgroup representatives are involved in the various workgroups in the HPH network (n=11), such as the group for health-promoting care environments.

As mentioned, Swedish HPHs are supported by the Swedish HPH network [32, 33]. The Swedish HPH network focuses its efforts on four population groups: patients, the local population, employees, and management [33]. The Swedish network is part of several HPH networks that support the development of the establishment of HPHs globally, regionally and nationally [20-22]. These networks, founded by the WHO [23], developed a set of HPH standards, including the Ottawa [3], Vienna [5] and Budapest versions [4].

Not all healthcare organisations that incorporate aspects of health promotion are HPHs [25]. A HPH should (1) offer health promotion for all building users and the local community, besides treatment for patients, (2) include salutogenic health approaches (3) play a representative role in the health promotive community, and (4) follow the HPH standards [25]. These standards are based on an environmental approach [15, 34] and refer to environmental aspects, such as the physical environment.

Previous studies on health promotion, healthcare and the built environment have shown several challenges, such as difficulties of using the concept of health promotion, as the interpretations are often implicit, unclear, inconsistent, or limited [35, 9, 10]. Moreover, the relationship between HPHs and the built environment seems underdeveloped within the Swedish HPH network [36]. There have been no studies investigating how healthcare organisations understand the relationship of the built environment to HPHs. This study therefore aims to examine the role and integration of the built environment in HPHs as perceived and described by Swedish HPH representatives.

Method

A cross-sectional design was employed. Quantitative and qualitative data were collected through an online survey and one interview.

Setting and sample

The study focused on Swedish healthcare organisations that are members of the Swedish HPH network. The HPH representatives' names and contact information were assembled from the Swedish HPH network website.

A survey with county council HPH representatives was conducted to obtain quick insights on their interpretations of the role of the built environment as understood in Swedish HPHs. The county council representatives are supposed to have an overall view of what occurs in the organisations within their counties. Seventeen of 22 county council

representatives participated in the online survey. These informants had different backgrounds and included health and nursing staff (n=8), physiotherapists (n=4) public health staff (n=3) and management or administration (n=2).

The interview with two of the seven HPH network committee members focused on their reflections and explanations of the survey results. The committee members are responsible for contact between the different HPH networks and the HPHs. They provide the supporting HPH documents and may have an idea of the inclusion of built environmental aspects in HPHs. The committee members received the survey data prior to the hour-long online interview.

Data collection

Data were collected between May and November 2018. Before the data were collected, all participants were provided written and verbal information concerning the study.

The data collection was performed in two steps. First, quantitative and qualitative data were obtained from a survey with the county representatives. The survey developed for this study included questions about topics such as HPH network members' understandings of the meaning of HPH network membership, the meaning and content of the letter of intent and European HPH network standards, and the built environment (see Table 2). All survey responses were compiled in a table.

Table 1. List of survey questions for the HPH representatives

HPH
How would you define an HPH?
What makes the HPH health promotive?
What does it mean to be a member of the Swedish HPH-network?
HPH documentation
Are you familiar with the letter of intent?
Are you familiar with the content of the letter of intent?
In what way do you base your work on these intentions stated in the letter of intent?
Are you familiar with the European HPH standards?
Are you familiar with the content of the l European HPH standards?
In what way do you base your work on these intentions stated in the European HPH standards?
Built environment
Do you think the design of the HPH relates to the success of health promotion?
In what way do you integrate aspects of the built environment in your health promotion aims and strategies?
If you would be part of a project to (re-)design a complete healthcare facility,
– What building design would limit health promotion
– What building design would support health promotion
Involvement in building project
Are you involved with building projects within your organisation?
Are there other HPH representatives involved in building projects within your organisation?
If you are engaged in a building project, is it as part of your role as HPH representative?
Do you have people who are working with the health promotive building environment continuously?

The next step of data collection consisted of the collection of qualitative data from a follow-up interview with the committee members. The interview was semi-structured [37] and based on the survey results. The members were asked to comment on the results. The subsequent discussion was recorded and transcribed.

Data analysis

The data were analysed by a combination of descriptive statistics [38] and content analysis [39]. The iterative process began with a translation of the text into English, followed by repeated reading of the text to become familiar with the content.

Descriptive statistics were used to summarise the quantitative data [40]. The quantitative data were nominal and ordinal [38]. For instance, yes/no answers were divided and counted (nominal). Then, we categorized the data related to value statements (ordinal), such as questions with Likert scales (e.g., the extent to which participants thought the design of the HPH was related to the success of health promotion), into hierarchical groups. Based upon these categories and groups, relations between answers emerged.

All qualitative data, from both the survey and interviews, were initially read by the first author to obtain a broad view of the data. Subsequently, a table was created based on the survey questions to identify different views as found in the descriptions. Then, similarities and differences were identified in the texts to develop categories to describe the respondents' views of HPHs, HPH network documentation, and the role of the built environment, as well as their involvement in building design projects.

Results

The combined analysis of the survey and the interview shows that the HPH representatives described HPHs differently. Additionally, not all HPH representatives were familiar with, or used, documentation to support their

HPHs, and only some of them considered the built environment to be a factor for health promotion. In addition, few HPH representatives believed that they should be involved in building design projects for developing health promotive organisations.

Descriptions of HPHs by the county representatives

The participants in the study described various views of HPHs, using terms such as 'health equity', 'health orientation', 'empowerment', 'population health' and 'prevention' (see Table 2). These terms, or similar terms, were often used in isolation and without further explanation. For example, health equity was expressed in terms of accessibility, and empowerment described as 'mobilis[ing] patients' own resources to manage their lives and their health'. Most of the descriptions were related to either one or two HPH approaches. For example, one participant noted that an HPH involved both person-centred care and equal care. Other participants stated that a hospital considered to be an HPH should contribute to improved patient and population health and should not be focused only on medical diagnoses and treatments of diseases.

The participants mentioned different target groups in relation to HPHs. The majority mentioned patients (n =11), sometimes in combination with staff (n =4) and the population (n =5). For instance, one participant answered that an HPH is defined as a 'hospital that contributes to better health for patients and the population and not only diagnoses and treats disease'. Only one participant's response included all target populations proposed by the Swedish HPH network; this participant defined a HPH as an organization where 'health promotion focuses on patients, employees, the population as well as management'.

Several participants mentioned that health promotion can be successful only if the entire organisation adopts and, ideally, embraces health promotion. Another added that management documents and policies must support health promotion work.

Table 2. Overview of HPH approaches mentioned by the participants

HPH approaches	Representative quote
Health equity	– considering equality and equal care – person-centred approach
Health orientation	– prioritise health outcomes rather than healthcare and production and costs
Health empowerment	– developing health knowledge, including healthy choices – staff receive support to motivate patients – patients at the centre of all meetings
Population health	– there is a focus on the population rather than just the patients – working with the community
Prevention	– prevent rather than just treat

The HPH network committee members noted two main descriptions of HPH approaches: a health orientation approach and a health empowerment approach. One committee member argued that the distinction is important; health orientation prioritises improving health-related results, such as lowering blood pressure, while a health empowerment approach prioritises empowerment outcomes, such as being in control of one's own health development. The respondent added that these priorities can lead to different actions even if the approaches are closely related.

The two committee members also observed that only one participant referred to all target populations proposed by the Swedish HPH network. They reflected that it seems that these groups receive unequal attention within HPHs.

Familiarity with and use of HPH documentation

The data show that neither of the supportive documentation provided by the HPH network are familiar to, or used by, all HPHs. The HPH network letter of intent was familiar to 13 participants. Twelve participants used the letter in their health promotion work, though with dissimilar interpretations. One participant reported using the letter of intent to clarify to the healthcare management what health promotion work encompasses. Another participant described difficulties in understanding how to work with the statements in the letter.

Ten participants were familiar with the HPH standards, and four participants stated that they based their health promotion work on these standards. They described in various ways how these standards governed their work. They argued that collaboration, preventive work, patient and relative involvement in care, knowledge development, and the development of routines were governed by the standards. The majority (n = 13) of the participants did not use the HPH standards at all.

The network committee members attributed the lack of familiarity and uses of the support documentation to the limited promotion of these supporting documents by the Swedish HPH network. They suggested that these documents were considered to have a narrow view of health promotion limited to preventive approaches. The committee also reasoned that these HPH documents lacked clear guidance for how to implement health promotion in the organisations. They explained that the HPH network therefore encouraged HPHs to develop their own, hopefully more holistic, definitions of health promotion and HPHs.

HPHs and the built environment

The survey participants described a number of aspects of the built environment that can be related to HPHs (see Table 4). These aspects can be divided into descriptions of what the design should achieve (objectives) or the design characteristics (features). Design objectives included categories related to prevention, restoration and health education approaches, as well as patient-centredness, health behaviour and health equity. Most participants listed only one category. For instance, one participant suggested that there should be 'access to many stairs to stimulate physical activity for those who can use them'. Another described the need to 'ask the employees and the patients how they want the [healthcare] environment to be'. Six representatives indicated that they lacked the knowledge of what building aspects would support or hinder health promotion.

Table 3. Design objectives mentioned in the survey of HPH county representatives

Design objective category developed by the research team	**Aspects used by the HPH county representatives**
Protective	Safety
	Attentiveness to allergies (protective)
Preventive	Support to quit smoking
	Tobacco prevention
	Designated outdoor smoking areas
Restoration	Animal and nature rehabilitation
Prevention healthcare	Access to health information
	Health education
Patient perspectives	Patient perspectives (walk in patients' shoes)
	Freedom of choice (autonomy)
	Balance between different human values
Healthy behaviour	Promotion of physical activity, (in)activity
	Healthy nutrition in food areas
Health equity	Accessibility for all people
	Availability
	Affordability
Health empowerment	Engagement of citizens
	Patient involvement
	Agency

The participants addressed a variety of design features for HPHs (see Table 4), such as visibility, cleanliness, scale, and finishing. One respondent listed 'stairs in the centre' to promote physical activity, in addition to 'light and healthy food in the restaurant/kiosk'. Only a few design features were mentioned more than once, including acoustics, art, and nature.

Table 4. Design features mentioned in the survey of HPH county representatives

Design feature category developed by the research team	**Terms used by the HPH representatives**
Acoustics	Music
	Sound
Visibility	Stair placement
	Views
	What the patient can see
Cleanliness	Sterile environment
	Hygiene
Scale	Large building
	High walls
Nature	Lack of nature
	Nature art
Finishing	Colour
Furnishing	Art
Opening	Closed doors
Location	Location

Involvement in building design projects

The results showed that several of the participants in the survey were involved in building design projects. None of these linked this task to their roles as HPH network representatives. However, the majority believed that there is a strong connection between the built environment and the success of health promotion work (see Table 5). Some participants were involved in building projects but had not considered the existence of a relationship between the built environment and HPHs. Unfortunately, the survey did not ask for the reasoning behind these answers.

Table 5. Relating project involvement to the perceived role of the built environment for HPHs

Involvement in building design projects	Perception of the relation between the built environment and the success of HPHs		
	Strong	Neutral	Weak
Has been involved	5	1	2
Has not been involved	7	1	1

In addition to the reflections on the abovementioned topics, the HPH network committee members also noted the difficulties of working with these different perspectives and their intentions. One secretary mentioned that the HPH intentions shown in the survey results may have conflicting implications. She argued that 'it is our role [as an HPH network] to support people working with health promotion to see how some health promotive intentions can be mutually beneficial for other professionals'. She added that health promotion professionals should be able to translate and combine health promotion intentions to make them important to the main stakeholder. For instance, when health promotion intentions can be shown to contribute to economic goals, they might be easier to 'sell' to stakeholders who are not familiar with health promotion.

Discussion

The study examined the role and integration of the built environment in health promotion as perceived and described by Swedish HPH representatives. The study questioned how these representatives perceive and describe the relationship between HPHs and the built environment. The presented results indicate that HPH representatives

- have inconsistent interpretations of HPHs,
- may not be supported by some of the HPH documentation,
- have diverse interpretations of the role of the built environment for HPHs and
- do not necessarily relate their involvement in healthcare building projects to their health promotion work.

Inconsistent interpretations of HPHs by the participants

The results showed that people who work with health promotion in HPHs interpret the meaning of health promotion in various ways. As mentioned, the HPH network also stimulates the development of individualized, holistic interpretations of health promotion and HPHs. However, the results indicate that some interpretations of HPHs do not address the multiple dimensions of health promotion or HPHs.

Not all healthcare organisations that incorporate health promotion aspects should be considered HPHs [25]. For instance, HPHs should consider the local population and effects for the natural environment [25]. However, the results show that the representatives referred mostly to one or two pathogenic aspects, such as safety or health education, or when they had a salutogenic orientation, they reduced this orientation to either working with the community or supporting healthy choices.

Based upon the results and previous research, we emphasise the importance of considering diverse dimensions of both health promotion and HPHs, thus including both a pathogenic and a salutogenic orientation. HPHs should pay attention to employees, the local population, and management in addition to patients. Additionally, HPHs should include consideration of outcomes for the natural environment.

Limited support from HPH documentation

The results indicate that the HPH documents, meant to support HPHs, are not widely known or used. As mentioned, these formal HPH documents are not promoted within the Swedish HPH network, as they are considered to give little guidance and lack a holistic view on health promotion. In particular, the HPH standards list the need to create an HPH environment, which includes the built environment [4, 7]. However, it seems that the built environment is easily neglected without these HPH standards. Nevertheless, the results suggest that the only strategic supportive documents for HPHs that do mention the built environment are not useable.

A recent study indicated that the inclusion of aspects of the built environment in healthcare strategies can improve the quality of care [41]. Reports have stated that to continue developing health promotion and fulfilling the intentions of the letter of intent, it is important to include the built environment in healthcare strategies [12, 13]. The HPH network, as well as HPHs, should include both health promotion and the built environment in their strategic material.

Lack of knowledge relating to HPHs and the built environment

The results suggest that health promotion representatives lack the necessary comprehension of the built environment to relate their health promotion work to aspects of the built environment. As mentioned, the health promotion representatives referred to either design objectives or design features. For instance, one representative mentioned the

'healthy inside and outside environment'. However, this intention does not say anything about *how* the built environment should do this, nor do they give directions for design decisions. The representatives' restricted consideration of built environmental aspects may be related to their professional backgrounds; none of the representatives were building designers, nor were they experienced or trained to deal with the planning and design of healthcare buildings. Nevertheless, they might have been able to indicate what the built environment should do, although they might not have had the competence to indicate how these objectives should be achieved and what that would look like.

Involvement in building design projects as HPH representatives

The results unexpectedly showed that HPH representatives involved in building projects did not necessarily consider the built environment as important for health promotion (Table 5). Moreover, they also did not see their involvement in building design projects as part of their health promotion responsibilities. It could be that they were involved in these building projects based upon other roles they had within the HPHs. Nevertheless, surprisingly, they did not relate these different roles. Consequently, the risk is that health promotion is neglected within building projects.

Previous studies have indicated that the design process for healthcare facilities may be used as a health promotion strategy [9, 10, 19]. Furthermore, some studies have emphasised the need for cross-disciplinary collaboration relating to health promotion [15], HPHs [42] and healthcare building design [9]. Nevertheless, HPH representatives' involvement in building design projects should make it less difficult to develop and build collaboration between health promotion and building design professionals that hopefully will based upon a multi-dimensional interpretation of health promotion and HPHs, with a distinction between the setting as place and the built environment as object.

Conclusion and recommendations

This study indicates that the Swedish HPH network representatives: (1) have inconsistent and limited interpretations of what an HPH entails; (2) use HPH documentation, which is meant to support them, only to a limited degree; (3) have difficulties understanding the role of the built environment for HPHs; and surprisingly, (4) do not relate their health promotion work to their involvement in building design projects.

Nevertheless, healthcare organisations are increasingly introducing health promotion approaches [20-22]. This introduction of health promotion will have implications for the built environment [9, 10]. People working with health promotion, including those in HPHs, should therefore consider their work in relation to the built environment.

Previous studies have already noted that health promotion is a complex concept [43, 44], also in relation to healthcare building design [35, 9, 10]. This paper compliments the limited amount of available studies with the insights of Swedish HPH representatives and their perceptions and descriptions of the relationship between HPHs and the built environment. This study indicates gaps, such as the underdeveloped, incoherent perspective of HPHs in relation to building design. The combined findings might contribute to the development of a common understanding of the relationship between health promotion, HPHs and building design. Moreover, this improved understanding may prevent the execution of healthcare building projects that may restrict health promotion interventions [10].

Based upon the outcomes of the study, directions for those working with health promotion issues in an HPH context should include definitions for health promotion and HPHs that are clear and operational. Then, they should relate their health promotion strategies to the built environment and intended outcomes. This approach will, however, require specification of different strategies for different target groups.

To continue HPH development, the HPH network may want to reflect upon the use and possible support of HPH documentation. The HPH network might want to add aspects of the built environment to the overall strategies, including in the letter of intent. Furthermore, the HPH network should consider which knowledge surrounding the health promotive built environment should be shared within their network with those involved in new HPH facilities. Additionally, the HPH network should consider whether professionals concerned with building healthcare facilities should be included.

Nevertheless, more research is needed on the built environment of healthcare in relation to HPHs. Future research could focus on investigating best practice cases of built environments that promote health, or other perspectives on the role of the built environment for health promotion, such as building users or the community.

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