



## المقدمة

The medical sector's growth highlights **the significance of rehabilitation centers** in social **development, cohesion, and sustainable vision**, as health typology and population characteristics necessitate global rehabilitation for healthcare, disease prevention, and treatment.

Rehabilitation centres are essential for achieving **Bahrain Sustainable Development Strategy 2023's Goal 3**: "Ensure healthy lives and promote well-being for all ages." Architectural principles aim to fulfill human needs by **connecting human senses with the built environment, altering feelings and perceptions.**

يسلط نمو القطاع الطبي الضوء على أهمية مراكز إعادة التأهيل في التنمية الاجتماعية والتماسك والرؤية المستدامة، حيث يتطلب التصنيف الصحي والخصائص السكانية إعادة التأهيل العالمي للرعاية الصحية والوقاية من الأمراض والعلاج.

تعتبر مراكز إعادة التأهيل ضرورية لتحقيق الهدف الثالث لاستراتيجية التنمية المستدامة في البحرين 2023: "ضمان حياة صحية وتعزيز الرفاهية لجميع الأعمار". تهدف المبادئ المعمارية إلى تلبية احتياجات الإنسان من خلال ربط حواس الإنسان بالبيئة المبنية، وتغيير المشاعر والتصورات.

## Research problem



The research discusses the problem of **missing clear guidelines in the health building design regulation** to include **phenomenology theory** in the architectural design of rehabilitation spaces. Disregarding the user's feelings in the design will directly influence the treatment by reducing the recovery speed, decreasing positive emotions that affect stress, deteriorating the treatment results, and diminishing the working atmosphere for the medical staff.

## Research aim

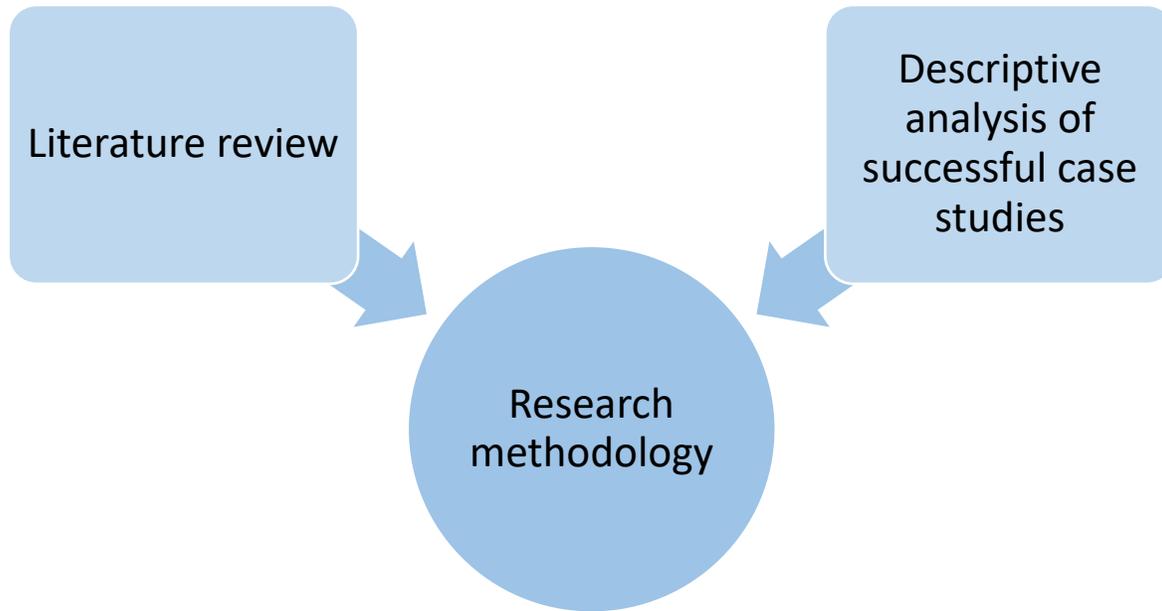
**T**his study aims to achieve successful rehabilitation Centers using the **sustainability multiple pillars** while enhancing such centers' working environment in these essential facilities, promoting social well-being and health, as well as promoting medical tourism in the Kingdom, which will **support the "Health Sector Transformation Program" in Vision 2030**,

**B**y

studying how the **body's experience** through the five senses can influence rehabilitation as a conceptualizing key to treatment success in medical centers.

**F**urthermore, the study gathers and proposes various strategies for implementing the phenomenology elements at the core of designing the medical rehabilitation center.





## Methodology منهجية البحث

To accomplish the aim, a **Literature review** followed by a **descriptive analysis of successful case studies** used the phenomenology theory in the design to result in guidelines for designers to follow.

The basic criteria for selecting these projects were the positive results of using the phenomenology theory in design with patients.



## النتائج Results

The phenomenology theory is a valuable tool in designing rehabilitation processes, promoting a **human-centered approach**, and highlighting the **importance of social and environmental factors** in the architecture of rehabilitation spaces.

By considering the individual's social context, culture, and beliefs, architects can design spaces that **focus on the human senses** to provide a space that improves the healing journey with a soothing environment by incorporating natural elements and elements that generate a feeling of relaxation. Architects can design effective and meaningful rehabilitation centers by acknowledging and **valuing individuals' unique experiences and perspectives**.

Healthcare architecture increasingly incorporates natural elements like trees and views into spaces to enhance patient healing and well-being. This approach provides physical benefits like improved health and socialization, offers a temporary escape from stress, and promotes positive emotional changes. **Overall, nature in healthcare architecture creates sensory experiences that improve patient well-being.**



## مناقشة النتائج Discussion

The research shows that the application of phenomenology theory positively impacts the design of "Rehabilitation Centers" and improves the rehabilitation journey for the patients. Care of the users' senses is significant in their recovery process, which could be found via implementing phenomenology theories in designing such projects as:

- The light, colors, and natural components can create a therapeutic atmosphere and generate positive emotions, such as relaxation, feeling comfortable, welcomed, and active in certain zones, enhancing the overall healing experience.
- In addition, a therapeutic garden can also improve these feelings in an intimate place such as home.
- Moreover, the overlooked sense of smell plays a significant role in architecture and the sensory experience, particularly in its ability to evoke emotions, trigger sensory awareness, and reduce stress when connected to nature.
- Lastly, natural surroundings and sounds, such as natural sounds, have been found to enhance well-being, decrease adverse effects, and promote healing in patients. In contrast, technological sounds are often perceived as disturbing and disruptive.



## التوصيات

## Recommendations

- Using gardens, natural lighting, and comfortable materials in the rehabilitation facility helped **dispel the institutional atmosphere associated with hospitals**.
- **Including a small walking circuit** demonstrates a commitment to providing a safe and dynamic space for patients to engage in mobility exercises. In addition, it overcomes the negative perception of medical facilities and creates a positive and welcoming environment.
- **The use of courtyards, natural light, and well-organized circulation patterns** contribute to the comfort and health of the users.
- The design of rehabilitation centers should consider **phenomenology, which directly impacts visitors' experiences**, and sustainable pillars. By integrating sensory perception, the center creates an abstract, observed, and encountered experience, avoiding poor design that ignores the visitor's sensory experience.
- The critical success of such types of buildings focuses on **attracting the patients' senses, ensuring a more holistic and effective rehabilitation experience**.

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شكرا لكم،،،

Thank you,,,

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نهج الظواهر الحسية في مشاريع إعادة التأهيل: رؤية  
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