



Service Priorities and Programmes
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Hospital Green Roof System in Hong Kong: The Environmental, Health and Safety Perspectives

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Introduction

The recent collapse of green roof at a university in Hong Kong has aroused the public concerns and given a warning signal to all buildings with similar system. It is suspected that vegetation placing on top may result in the overloading of the green roof.

Green roofs of similar structures are present in the hospitals of different countries with hundreds and thousands patients hospitalized in the same building. The structurally capability and legality of rooftop holding vegetation has been widely discussed in the public but little suggestions have been provided to the hospital green roof system in Hong Kong, especially in the environmental, health and safety perspectives. Such knowledge gap in green building management will be addressed in this study.

Objectives

To address the knowledge gap in green building management of the hospital green roofs in Hong Kong, especially in the environmental, health and safety perspectives.

Methodology

An inductive qualitative study had been performed which involved the texts sampling of websites based documents and case study reflective notes, etc. Conclusions were then made based on the findings and patterns identified in the study. The method of maximum variation sample was used such that the factor of demographic variable affecting the result of study was eliminated.

Result

Qualitative study concerning hospital green roofs had been performed online for a total of 60 samples for different online journals, conference papers, and web pages including reports, documents, case study reflective notes, etc.

Hospital green roof systems in Hong Kong have the benefits of protecting the building roof; conserving energy such as preventing the urban heat island effect; providing the healing and relaxing environment for patients; establishing the service of horticultural therapy; and improving the social health and wellbeing of both patients of hospital staffs. On the negative side, it arouses the environment hygiene concerns arising from establishing unnecessary native habitats for harmful bugs and animals imposing unnecessary risks to the patients. Besides, there are safety concerns to patients such as structurally capability and legality of green rooftop. It was also found that green roofs in Hong Kong were present in some open public spaces but extensive green roofs in the hospital settings was limited.

Conclusions:

Findings of studies have generated suggestions to address the issues and fill the knowledge gap of hospital green building management especially on green roof system in Hong Kong, focusing on the perspectives of environmental, health and safety.