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The main priority of the Malaysian Hospital design quality has been to organise an informational domain for patient-oriented care design that requires a user-friendly environment. Despite the variety of quality design assessment, the usability evaluation has brought a new dimension in tracking the quality in-use by exploring the meaning of users' experiences. Furthermore, those methods lack the procedures that can effectively identify the needs of users would lead to what of the quality dimension to be considered in its implementation. Therefore, the aim of this research had been to develop a usability evaluation framework, in which the nature of patients and visitors' experience could affect the quality of Hospital environments. The theoretical part suggested that the experiences of hospital end-users might be understood through their feedback on the status of Hospital environments by extending usability and quality theories. This research adopted nine usability criteria, which were identified from the literature. After synthesising the literature, a usability evaluation framework was developed. In addition, the usability parameters for each usability criteria and the domain of user experience context of-use the Hospital physical environment were investigated. Phenomenological philosophy and qualitative dominant approach with case studies were carried out in three Malaysian public hospitals. The

data from the main case studies were retrieved from the viewpoint of patients and visitors through the conducts of semi structured interviews (n=36) and walkthrough journey experience (n=18 group). The data were analysed using content analysis that was run by NVivo9. The findings were validated by the end-users of hospitals, experts who were experienced in construction, design, maintenance, and Hospital domain experts. The findings suggested 25 usability parameters and six (6) domains of users' experience that affected those parameters. The findings were analysed and the refinement of the usability evaluation framework was carried out. The research findings confirmed that the usability evaluation had been an effective approach and the walk-through journey experience method was the best way to gain holistic information pertaining to users' experience. The main contribution of this study is that the usability evaluation has given an added value in assessing the experiences among patients and visitors, quality design assessment, designing, constructing, and managing the hospital. Hence, this study should help organisations to understand the needs of end-users and to support the design of a user-friendly environment. Furthermore, this research provided a starting point from a different setting with more perspectives from the viewpoints of different actors.