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Development of Standardized Ethanolic Extract of *Fraxinus griffithii* as CNS Depressant

Kartini KARTINI, Sutarjadi SUTARJADI, Aguslina KIRTISHANTI, Dini KESUMA, Soediatmoko SOEDIMAN, Kusuma HENDRAJAYA

Faculty of Pharmacy, University of Surabaya, Jl. Raya Kalirungkut , 60293 Surabaya, Indonesia

A wide range of chemical components and biological activities have been studied from *Fraxinus* species. *Fraxinus griffithii* or called as tiken (in Indonesia) is a member of this genus. This plant widely distributed in East Java, Indonesia. Crude extract of *F. griffithii* leaves is marketed for opium substitution and the worker is getting sleepy after making this extract. Base on this finding, *F. griffithii* leaves is estimated potential to be developed as the central nervous system depressant. In Indonesia, traditional medicine is categorized into three groups: "jamu", standardized herbal medicine (SHM) and "fitofarmaka". The differences in these three groups are proof of the activity and safety as well as the standardization of raw materials. To develop *F. griffithii* as SHM or fitofarmaka, there is necessary to ensure the activity and quality of its extract. Efficiency of extraction process is determined by many factors. In this study, extraction has been conducted on different part of *F. griffithii*, as well as different solvent and extraction methods. Each extract is standardized both on the specific and nonspecific parameters. Additionally, phenobarbital induced sleeping time test has been perform on each extract. There is can be concluded that all of the extracts have central nervous system depressant activity, but the optimal activity and quality of extract is obtained from leaf, using 96% ethanol by percolation method.

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Creating a healing environment in hospital buildings through day-lighting design

Srazali ARIPIN

Dept Architecture, KAED,IIUM, P.O. Box 10, 50728, Kuala Lumpur, MALAYSIA

In the hospital building, where patients seek medical treatment and hospital staff (doctors and nurses) provide continuous support, creating a healing environment is an imperative. A majority of literature on the healing environment has reached a consensus that the physical aspects of built environment could contribute indirectly to the health outcomes of patients and staff. Day-lighting, among others, is considered one of the most influential factors to achieve visual comfort contributing to a healing environment. Therefore, a two-pronged hypothesis is adopted in this paper: (1) visual comfort can be achieved through appropriate daylighting design strategies. (2) A healing environment is achieved only when the patients are satisfied with the visual comfort in the ward environment. This paper outlines the role and importance of physical aspects (i.e. daylighting) in hospital design. With the theme of 'daylight and health', previous studies related to the factors of the physical environments in hospital buildings that influence health outcomes are critically reviewed. The physical factors affecting daylighting to achieve visual comfort are also analysed. Conflicting issues of daylighting: 'physical to physical' (daylight vs. solar heat gain) and 'physical to psychological' (daylight vs. undesirable glare) are discussed. To achieve this, qualitative (observations and questionnaire surveys) and quantitative (measurement) analyses are adopted to examine daylighting conditions in the existing four-bed ward environments of selected public hospital designs in Malaysia. The opinion surveys of the four-target groups (patients, hospital staff, healthcare designers and healthcare providers) will be analysed and the findings will be corroborated by means of field measurements. The paper calls for a comprehensive critical review of the physical aspects, in particular daylighting design, in creating a healing environment physically and psychologically appropriate in hospital design.