

## 影響醫師使用「可攜式電子病歷」意願之相關因素 The Influential Factors of Physicians' Acceptance in Portable Electronic Health Record

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### 摘要

**背景：**電子病歷已成為國際間提升醫療照護品質的主要發展趨勢。而病歷的主要製作與使用者為醫師，若無臨床醫師的支持及參與，電子病歷導入的益處將無法發揮，故本研究目的為瞭解醫師對於醫院資訊科技之使用現況，及對可攜式電子病歷之認知及使用意願，並探討影響其使用意願之相關因素。

**方法：**本研究乃一橫斷式量性研究，研究對象為參與衛生署「建構以病人為中心之電子病歷跨院資訊交換環境案」計畫試辦醫院內之醫師，涵括了北、中、南及東部共計九家醫學中心。研究工具採自填式結構性問卷，以Likert量表五點尺度衡量，經信度及效度檢定後，以定額方式每家醫院寄發200份問卷，共計回收有效問卷為426份，回收率為25.6%。

**結果：**影響醫師使用可攜式電子病歷之因素為：科技認知因素(包含知覺有用性、知覺易用性及瞭解使用流程程度)( $p < 0.001$ )、電腦自我效能( $p = 0.038$ )及外在環境因素(包含加註電子簽章、時戳與使用權限及管控機制)( $p = 0.013$ )，可解釋49.1%之變異量(Adjusted  $R^2 = 0.491$ )。

**結論：**樣本醫師對紙本病歷整體環境滿意度及對於可攜式電子病歷使用流程瞭解程度偏低，如醫院加強宣傳、教育訓練及服務，提升醫師對電子病歷可用性、易用性之認知，增強電腦自我效能，並減少其在安全性及隱私權的擔心，可增加其對電子病歷之使用意願。

**關鍵字：**可攜式電子病歷、科技接受模式、醫師

### Abstract

**Background:** At present the electronic health record (EHR) had become a main-stream of information technology (IT) development in international to enhance quality of care. Due to health records were documented and used mainly by physicians, the advantages of EHR could not be performed without their support and participation. The main purposes of this study were to understand the current EHR systems used by physicians, the cognition and willingness of using portable EHR, and to explore the influential factors of physicians' acceptance to portable EHR.

**Methods:** This study adopted quantitative cross-sectional approach, and subjects were physicians from nine medical centers which participated in Taiwan DOH "Building of an Information Exchange Environment for Cross-Hospital Digital Medical Record" project. We used structured questionnaire and 5-points Likert Scale as our research tool. After the reliability and content validity test, 200 questionnaires were sent to each of nine medical centers. 426 questionnaires were valid and the effective response rate was 25.6%.

**Results:** The factors affected physicians' acceptance to portable EHR were: technical cognition (perceived usefulness, perceived easiness of use and familiar with portable EHR process) ( $p < 0.001$ ), computer self-efficacy ( $p = 0.038$ ) and the external environmental (electronic signature, time stamp and access control) ( $p = 0.013$ ). The explanation power of model  $R^2$  was 49.1% (Adjusted  $R^2 = 0.491$ ).

**Conclusions:** Since physicians were not satisfied the traditional paper medical record environment and also not familiar with portable EHR process. If hospitals could provide moderate EHR educations and trainings, it would enhance physicians' perception of EHR functions of usefulness and easiness, computer self-efficacy, and reduces the security and privacy concern to increase the willingness of using EHR.

**Keywords :** portable electronic health record; Technology Acceptance Model (TAM); physicians