

以操作型技巧直接觀察評量方式探討醫事放射臨床學習成效

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摘要

花蓮慈濟醫院影像醫學部運用操作型技巧直接觀察(Direct Observation of Procedural Skills, DOPS)做為學員一般放射診斷攝影臨床教學成果之評量，臨床教師近年來亦參與 DOPS 相關師資培育教學課程，做為評量學員之訓練課程，但目前大多數 DOPS 應用於醫事放射臨床能力評量尚無信效度統計及學員學習成效之分析。本文探討花蓮慈濟醫院設置 DOPS 評量表單、信效度、作業程序、檢核表、執行成果等方式及初步經驗，用來評估分析學員學習成效與臨床能力之表現。

建立各醫院自己 DOPS 信效度並不容易，特別是實習學員生少的教學醫院。本研究模式先建立評估表單，然後由資深醫事放射師共同制定該院期望的評分項目的標準，每年於實習學員生測驗完畢後做檢討改進，若沒有重大錯誤出現，則第二年建議不修評量項目，評分教師也希望能夠盡量減少太多執行評分，慈濟醫院影像醫學部執行 DOPS 測驗項目攝影技能包含有：一般例行 X-光放射攝影、電腦斷層攝影、磁共振造影、血管攝影、特殊攝影、超音波掃描、乳房攝影等共七項，其中主要取用例行 X-光放射攝影是因為測驗數量多且都是同一位教師評分，可以減少因為教師的不穩定而降低表單的評分標準。

本文研究結果建議在醫事放射教育 DOPS 中應發展出個別技術的總體評估項目，如較為繁複技能之電腦斷層攝影、磁共振造影、血管攝影等。在探討直觀評估亦可能會有評分者間差異所產生的誤差，需藉由評量者的訓練與標準化來克服。對於某些步驟性技術可將評量過程錄影或許也是直觀評估法可接受的替代方式，但是要注意應取得病人的同意而且不可侵犯到病人的隱私。

關鍵字：臨床表現、操作型技巧直接觀察、X-光放射攝影

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The Assessment of Clinical Competence in Medical Radiology
Assessed by Direct Observation of Procedural Skills

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Abstract

Direct Observation of Procedural Skills (DOPS) is adopted by the Department of Medical Imaging of Hualien Tzu Chi Hospital to assess clinical performance. In recent years, teachers have been participating in training courses in order to be qualified as assessors. However, there are few statistics showed on the application of reliability and validity of DOPS. Consequently, the study has conducted a preliminary evaluation based on the assessment, reliability and validity, checklist, analysis of DOPS, and preliminary experience established by Hualien Tzu Chi Hospital.

It is challenging for hospitals to establish its own reliability and validity of DOPS, especially for those not having enough interns. Therefore, the study has established an assessment first, then have senior radiologic technologists prescribe the standard of the assessment collaboratively, and review it each year after interns finish the examinations. If not for significant errors, it is not suggested to revise the assessment over the next year, and teachers are expected to take part in the promotion of the qualities of clinical teaching programs. The DOPS performed by Hualien Tzu Chi Hospital includes routine radiography, computed tomography(CT), magnetic resonance imaging, (MRI), angiography(Angio), special radiography(Special), sonogram (SONO), and mamography(MAMO).

The study is conducted solely based on the result of Routine because it has more samples and is rated under the same teacher, which can help to rule out instability. Furthermore, the study also suggests to develop assessments for each individual technology of Medical Radiology, such as CT, MRI, and Angiography, etc. In the assessment of DOPS, inter-rater variations can be prevented by standardize procedure and certain training for raters. As to some detailed technologies which are likely to increase variations, videotaping can be an alternative, but it is essential to follow rules in the actual practice of patients' informed consent and privacy.

Key words: clinical performance, direct observation of procedural skill(DOPS), radiography