Does the substantive clinical placement explain some of the variation in student academic achievement and progression when demographic factors are controlled for in an analytical model?

Lay Summary:

Radiography education programmes in the UK are a synergy of academic and clinical learning with practice based learning within clinical settings forming a substantial part of undergraduate degree courses (CoR, 2011). These placements are evaluated by the Health Professions Council (HPC, 2011) and accredited by the College of Radiographers (CoR, 2005) to ensure suitability to support learning through an appropriate range and volume of examinations; access to appropriate equipment; availability of staff to support learning; and effective liaison arrangements with the HEI are in place. However the College of Radiographers (2011; 2004) have suggested that there is evidence of variability in working culture, staff attitude towards students, and teaching abilities between clinical placements. These factors may have a significant impact on student experience and learning and while previous studies have considered student experience and placement satisfaction, no identified study has considered the impact of clinical placement on academic achievement within the context of varying student radiographer demographics.

This study will consider the academic performance of 6 cohorts of diagnostic radiography undergraduate students at one UK Higher Education Institution (HEI) where students are allocated to a single Hospital Trust for the majority of their practice placement. Clinical placement, age, sex, highest academic award and ethnicity will be examined independently and in combination to determine their influence on academic achievement. This knowledge will provide a valuable new insight into the impact of clinical placement on learning within a radiography degree programme and enhance our understanding of experiential equity across different demographic groups.
a) Principle Aim of the Study

To determine if substantive clinical placement and demographic factors are influential in determining academic achievement within an undergraduate diagnostic radiography programme.

b) Primary research question

Does the substantive clinical placement explain the variations in student academic achievement and progression when demographic factors are controlled for in an analytical model?

c) Secondary research questions

Is the substantive clinical placement a factor in determining student academic achievement and progression when considered independently?

Is ethnicity a factor in determining student academic achievement and progression when considered independently or in combination with other factors within an analytical model?

Is age at start of programme a factor in determining student academic achievement and progression when considered independently or in combination with other factors within an analytical model?

Is gender a factor in determining student academic achievement and progression when considered independently or in combination with other factors within an analytical model?

Is highest academic award at the start of the programme a factor in determining student academic achievement and progression when considered independently or in combination with other factors within an analytical model?

Is declared disability a factor in determining student academic achievement and progression when considered independently or in combination with other factors within an analytical model?

Is travelling distance from term time residence to main clinical placement a factor in determining student academic achievement and progression when considered independently or in combination with other factors within an analytical model?

d) Outcomes

The primary outcome is to determine whether substantive clinical placement site influences student academic achievement within a 3 year undergraduate diagnostic radiography degree programme within a single HEI when academic and non-academic variables (age, sex, declared disability, highest academic award, travelling distance to clinical placement and ethnicity) are controlled for. This will be the first study to objectively measure how these factors interact to influence student academic achievement and will provide crucial information as to how the clinical learning environment impacts on academic success whilst controlling for academic and non-academic variables which have been highlighted in previous studies as influential to academic achievement (Ali & Naylor, 2010; McCarey et al, 2007).

e) Review of the literature and identification of current gap in knowledge

The clinical practicum is a fundamental component of the undergraduate radiography course and learning that takes place in the clinical environment is crucial to enable students to develop professional skills and integrate theory and practice (CoR, 2011). While clinical placement learning is an integral component of all radiography programmes across the UK, the College of Radiographers suggests that the culture, staff attitude and teaching abilities vary between clinical departments (CoR, 2011; CoR, 2004). Consequently, assuring “equity of the student experience in practice education” as advocated by the College of Radiographers (CoR, 2005) becomes a difficult, if not impossible, task (Tanda & Denham, 2009; CoR, 2004).

Clinical placements present students with a very different learning environment to that found within the academic classroom (Brown et al, 2011; Makarem et al, 2001). It is suggested that environments that support staff development and encourage independent thinking are most able to foster quality learning (Henderson et al, 2011; Chan, 2002). Pryjmachuk et al (2009) support this belief and identified variation in the level of student nurse attrition across different healthcare organisations, suggesting that organisational issues impacted on student nurse attrition. However, they also acknowledged a paucity in the literature with regard to healthcare organisational influences on nurse education and the need for further work to identify specific influential factors.

Studies that have attempted to evaluate the clinical learning environment have focussed predominantly on the perceptions of the student (McCall et al, 2009; Papp et al, 2003). However,
11. References:


COLLEGE OF RADIOGRAPHERS (2005) Guidance on Approval and Accreditation of Practice Placements at all Levels of Pre-Registration Education, London: College of Radiographers

COLLEGE OF RADIOGRAPHERS (2011) Roles and Responsibilities in Clinical Education, London: College of Radiographers


