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The evolving role of radiographers in symptomatic mammography image interpretation

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To explore the roles of radiographers interpreting and reporting mammography images in UK symptomatic breast clinics

- Commenting
- Delayed double (second) reporting
- Instant single reading
 - mammography image interpretation only
 - mammography image interpretation +/- ultrasound, sampling

Realist evaluation (Pawson & Tilley, 1997)

- articulate, develop and test ‘theories’ which explained how and why practice varied across institutions
- identified ‘triggering’ contexts and consequential ‘outcomes’

Qualitative data

Purposive sampling - sites & participants

- 8 sites - unstructured interviews
 - clinical lead radiologist; 31 mammographers
 - (10 CP; 16 AdvP; 4 RP; 1 ARP)
- 2 sites - non-participant observation & 'teacher – learner' interviews
 - 11 radiographers (5 CP; 6 AdvP)
 - 10 one-stop clinics (91 patients)
 - 5 MDT meetings (104 patients)

In times of workforce shortage at a particular level, some tasks can be undertaken by other workers (Nancarrow, 2004)

- Responsibility for interpreting mammograms transferred from radiologists to radiographers
 - Two models of practice
 - Blended care
 - Holistic care

Blended model of care



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Radiographers with only
one advanced practice
breast imaging skill

- Patients met **multiple radiographers** during their clinical visit
- Practitioners worked **collectively** to co-ordinate patient care and transfer information along the chain of diagnosis

peer review
double reporting
release radiologist
logistic bottlenecks
novice / part-time

A feature of early 'advanced practice' career development

Task substitution

- allocation of clinical responsibilities to lesser or more narrowly trained healthcare professionals (Hoskins, 2012)

Holistic model of care



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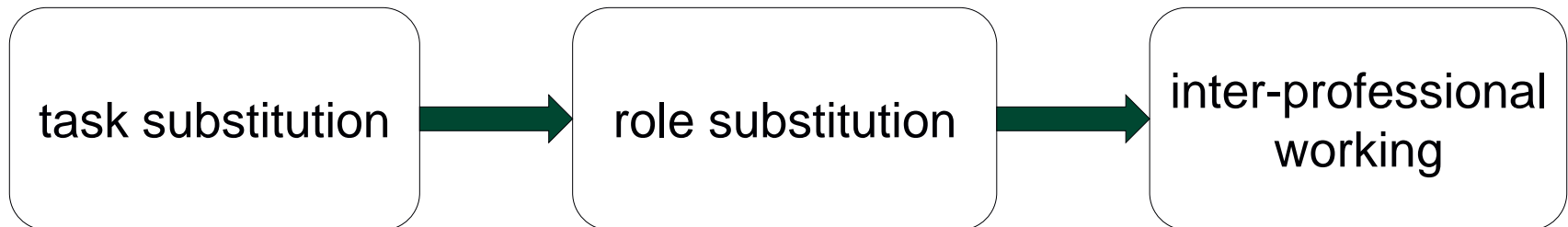
Radiographers multiskilled
in all advanced practice
breast imaging skills

- **Single radiographer** performs all imaging investigations
- Direct **continuity** of care and communication

patient focussed
'ordering' bias
knowledge synthesis
logistic flexibility
continuity of provision

- A typical feature of the experienced advanced practitioner or the consultant practitioner
- Radiographers had
 - **dedicated their practice** to the 'breast' clinical domain
 - acquired **expertise** across the full range of advanced practice techniques over an **extended period of time**
- Role substitution
 - aspects of a previously defined role are undertaken by another professional usually a non-medical practitioner (Hoskins, 2012)

Evolving non-medical roles can be plotted on a spectrum (Hoskins, 2012)



Interprofessional working



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- communication & cooperation to achieve common goal

Ovretveit et al. (1997)

- share resources, skills and responsibility
- interdependent team members
- professions work alongside but independently

Leathard (1994)

- share knowledge
- respect individual autonomy of professional groups
- surrender professional territory where necessary

Carrier and Kendall (1995)

Other professions begin to understand and accept the new role and its specific knowledge

Accepted and respected

*she does exactly what I do...
she's **treated in the same way**
[Site 7 R]*

***the surgeons ask your opinion...**
the cases are discussed... they see
who's reported... **(they) are aware
of how good you are** [Site 3 CP]*

The (substitute) professional group claim the area of work as their own

**Confident clinical
decision makers**

***I feel confident giving my opinion...**
I can do the diagnostic MDT...
**that's part of my role... to make a
decision...** [Site 3 CP]*

*'our consultant radiographer works
independently... **she makes her
own... decisions** ... exactly the
same as a consultant radiologist '
[Site 9 R]*

Consequences



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The new breed of workers contribute towards successful service delivery

*they can deal with breast imaging to the **same standard if not better...***

[Site 9 R]

*they are a complete package... but at a **cheaper** price...*

[Site 6 R]

*... [radiographers] are more flexible - they can (do) **additional clinics...** we can **keep to targets** because the radiographer's here all the time...[Site 9 R & AdvP]*

*Its **not very easy to get a breast radiologist...** when there were hardly any... (radiographers) had to step up... (or) the symptomatic **service would have collapsed** [Site 6 R & CP]*

Radiographers with
advanced practice
skills in MIIR

Radiographers single read
mammograms in symptomatic clinic

- Task substitution
- Role substitution
- Interprofessional working

? equivalent diagnostic accuracy
? cost savings
maintain / increase capacity
address radiology workforce shortage

References



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