

How was it for you? What factors influence job satisfaction for band 5 and 6 therapeutic radiographers

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ABSTRACT

Effective recruitment, retention and development of the existing workforce will become increasingly important as cancer incidence increases, patient numbers increase, and challenging targets are set to deliver world class radiotherapy in the UK.

This study aimed to explore the experiences of therapy radiographers working at band five and six with specific reference to job satisfaction. The key objectives were:

1. To explore and understand the experiences of Therapeutic Radiographers from graduation to their first senior/supervisory position.
2. To identify the factors that influence perceptions of job satisfaction.
3. To suggest supportive strategies which could lead to increased job satisfaction?

Method: A qualitative case study approach using focus groups was adopted to explore the professional experience of therapeutic radiographers in two large departments.

Thematic analysis was used to identify categories and themes, which informed the development of a framework that identified factors that influence job satisfaction.

Results and discussion: The participants identified diverse but interlinking facets that influence job satisfaction. The core theme was continuous professional development and subthemes were; organisation issues, transition into role, workload and teamwork. Job satisfaction appears to be multifaceted and is dependent on the individual, context of work and the working environment.

Conclusion: Significant factors which impact on job satisfaction for band 5–6 therapy radiographers have been identified. It would appear that these could be positively influenced by managers and organisations. Further insight into the professional experiences of therapeutic radiographers is needed with specific reference to preceptorship/mentoring, staff appraisals and career aspirations/expectations. This insight would be valuable to inform future retention and development strategies.

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Introduction/background

The World Health Organisation has concerns regarding a global shortage of Allied Health Professions (AHP) to meet changing health requirements.¹ A significant challenge is addressing the increasing cancer burden. It is projected that a 30% increase in the current Therapeutic Radiographer (TR) establishment is required.^{2,3}

TRs are key to delivering the Department of Health's⁴ vision of a world class cancer service in the UK. A satisfied, skilled and committed workforce is essential to enabling patients'

timely access to radiotherapy, a fundamental principle of the NRAG Report²

Staff shortages in radiotherapy have historically been a problem,⁵ with the DoH⁴ reporting vacancy rates of 4.8% for TR, this compares with 1.6% for other AHPs. Previous research has shown that TRs report more negative perceptions of the National Health Service (NHS) than other allied health professionals,⁶ Less than 10% of radiographers had positive views relating to the impact of Agenda for Change, with band 5 and 6 TR being the most dissatisfied.⁷ A third of radiographers disclosed being stressed with only 17% feeling "very satisfied".⁸

This low level of job satisfaction is known to be a precursor to withdrawal behaviours,⁹ such as absenteeism and passive

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compliance, and can affect an organisations ability to provide a safe and effective service.

As the NHS undergoes on-going organisational changes; more will be expected to be delivered for less.^{10,11} Managers will be required to adopt strategies to combat the deleterious effects of the pay and benefit reforms. The maintenance of staff morale and improving levels of job satisfaction will be vital.

It is anticipated that this and future research into staffs experiences in practice will help develop supportive strategies to enable the retention of the TR workforce.

Methodology

Ethical approval was granted through the Integrated Research Application System and the Regional Ethic Committee. A qualitative design following the framework advocated by Crotty¹² was adopted. A case study approach utilising focus groups was used to gather data. Two large centres participated; one had identified the retention of junior staff as an issue through a National Radiotherapy Forum, and the other volunteered for the study. The number of focus group participants was 34 and they represented diverse scopes of practice to try to capture all experiences, e.g. radiographers who had moved into dosimetry. The focus groups were facilitated by the authors and another experienced qualitative researcher. Each discussion was recorded and transcribed verbatim.

Systematic data analysis followed Yin's¹³ approach, and consisted of examining the transcripts, then categorising, tabulating and recombining the data into themes. Concerns about losing individual participants' experiences¹⁴ were anticipated, and tactics such as paraphrasing, encouraging elaboration and ensuring all members of the session contributed were employed. Summary notes were produced immediately following the focus groups.

A number of approaches were adopted to maximise trustworthiness and credibility of the study. Independent checks of data analysis, interpretation and construction of key themes were conducted. Member checking was also employed to increase the credibility of the data. The overarching themes were presented to participants at centre 1 to check that the identified themes reflected their opinion and were a reliable and representative account of the focus groups.

Results and discussion

Systematic data analysis yielded five themes. Continuous professional development (CPD) was identified as the core theme, with four surrounding themes: organisational support, transition phase, team working, and the impact of workload.

Core theme: continuous professional development (CPD)

During data analysis it became apparent that CPD was closely linked to perceptions of job satisfaction and was influenced by workload, transition into roles, and different forms of organisational support.

The core theme and subthemes can be seen in Fig. 1

During analysis the authors found a resonance with the work of Sandler-Smith et al.,¹⁵ and have used this to help structure the findings. Sandler-Smith et al.¹⁵ identified three major components of CPD: survival, maintenance and mobility. In the context of this study, survival and maintenance were also identified, and this was linked to retaining HPC registration by achieving the HPC's CPD requirements¹⁶ Mobility was about career progression, and was related to organisational support and the transition from a student to qualified staff member (and the move from a band five practitioner to band six practitioner). How teams worked together

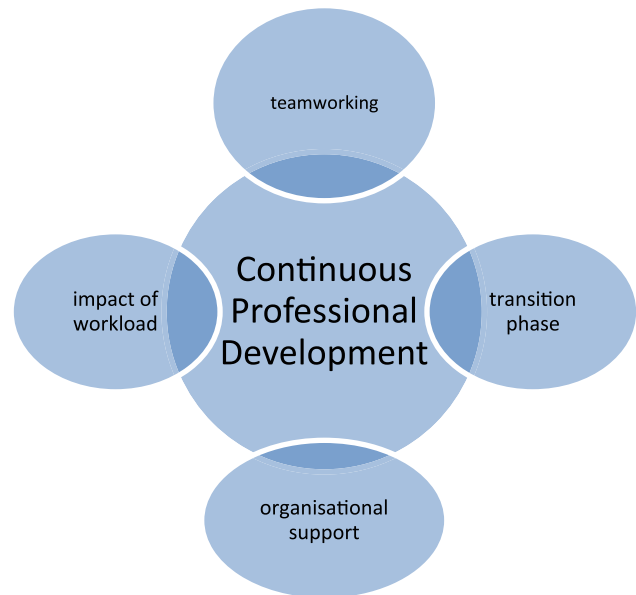


Figure 1. Key themes.

coupled with the workload impacted on an individual's opportunity to engage with CPD. It was interesting to note how these factors affected the individual during the transition from student to qualified practitioner and moving from band 5 to 6 practitioner.

Each of the four themes (organisational support, transition, workload and team working) had a number of subthemes, which this paper will now discuss with specific reference to how they relate to the core category of CPD.

Theme 1: organisational support

Although organisational support was the overarching theme, there were a number of subthemes illustrated in Fig. 2.

Some individuals felt that there was limited organisational support for CPD:

"If it was left up to (management) to support you then you probably wouldn't fulfil the criteria for HPC".

Although some participants acknowledged that development activities and appraisals were crucial to enhance their professional mobility and promotional chances, some had adopted a passive approach to their professional development. Balls¹⁷ suggests that junior nursing staff require "structured learning and career advice", a view supported by the participants.

"I had expectations, CPD wise, of a bit more lectures and learning on the job"

A lack of structure within the organisation to support CPD left some individuals feeling that their professional development had stalled. Indeed some claimed they had not engaged with any CPD at all, leading to dissatisfaction, and a notion of professional regression to "a student like state":

"I don't feel as intelligent as when I was a student".

Professional self-esteem is important as individuals create a vision of their professional world by drawing comparisons with their peers.^{18,19} Individuals see that personal and professional development enhances employability and career progression, although investment in professional development has never been exclusively concerned with promotion and remuneration. A



Figure 2. Organisational support for development.

supported process of staff development should encompass elements of personal satisfaction. Such an approach is associated with improved coping strategies, and managing work in new ways²⁰ thus facilitating a less stressful and more rewarding professional life.²¹ An individual developmental plan, relating to experiences and future development, could offer a goal orientated approach, facilitating personal and organisational growth.

Some participants felt disadvantaged where there was perceived inequality in access to development opportunities, such as working in different areas within the department. Not being "signed off" as competent in a work area was seen to hamper future career opportunities. Conversely, those individuals who were "signed off" in a number of different work areas were perceived to excel. This is a well-documented phenomenon which Gladwell²² describes as the "Matthew Effect" and can lead to increased job satisfaction.

The role of the professional development review (PDR) is important, and is a process to support and develop individuals. It can also be a driver for implementing departmental goals and organisational initiatives. However, some of the focus groups participants suggested that PDRs often fail to provide personal support, and there was a perception that the organisations had not fully committed to an appraisal process. It was suggested by some participants that the overarching reason for having a PDR was to meet Knowledge and Skills Framework²³ requirements rather than to support the individuals' development needs. Individuals also reported that some PDRs were rushed, and felt like "tick box exercises" where the outcomes "were not fed back into the system".

"I never had (a PDR) until it was brought in with Agenda for Change that you had to".

"My PDR seemed to be just ticking a sheet".

"Tend to take ten to 15 min and it's just like yep, yep, yep".

Although in the minority, some participants were satisfied with the process and the outcomes from their PDR.

"I got my PDR after three months; my senior was very into things like that, she did three months, six months and yearly".

The focus groups also highlighted that transparent career pathways and professional progression opportunities were important to individuals. Participants aspirations ranged from; "one day being head of department" to simply "get through the first year". A common target was to secure a band 6 position within 18 months, which matches the experiences of graduates where 76% of graduates expect to be band 6 within 2 years,²⁴ a target perhaps influenced by Annex T of Agenda for Change.

Career progression opportunities were important to the participants:

"Lack of career progression here really affects people. If as part of your career plan you were planning on being a senior by eighteen months... they (management) turn around and say there is a job freeze...".

"Job opportunity wise most people will end up going elsewhere" due to a "dead man's shoes" perception of promotion.

Organisational issues relating to systems of work also caused job dissatisfaction, and were seen to prevent them from undertaking tasks they believed they were competent and confident to carry out. Despite some elements of clinical work being competency based, a system of grade specific restrictions on certain tasks and activities also applied. This caused frustration when the rules were flexed depending on organisational and staffing restrictions.

"when people are in it's like 'yeah, you must ask us, you can't just do these things on your own, you need the support of your band 7'...but when they're not there – which is actually very often – it's just like 'deal with it yourselves'".

Paradoxically some evidence shows that working to protocol can significantly enhance job satisfaction.²⁵ Clearly defined protocols can provide role clarity, offering practice security especially in an age of increasing litigation. However, Kleinman²⁶ advocates the flattening of any leadership hierarchy to allow practitioners increased control and provide valuable development opportunities to aid succession planning.

The frequency and variety of staff rotations were also identified as potential barriers to development. Participants felt frustration where systems meant rotations were stagnant and limited the opportunity to gain a diverse range of clinical experiences. Participants reported little control or influence over their placements, and felt ill informed about future placements. It was felt that this impacted negatively on the TRs ability to compile meaningful objectives for their future development.

Role extension offers opportunities for CPD, staff development and the patients a more individualised service, seamless at the point of delivery. However there was some discussion in the focus groups regarding reduced scope of practice for a radiographer delivering treatment. Some focus group participants were reluctantly resigned to handing over certain elements of care, or sign posting patients to the appropriate resources.

"It would be nice to take that care on but I suppose it's a time issue".

This becomes important because the fragmentation of work has been shown to impact negatively on job satisfaction and an individuals' motivation.²⁷

There was also ambiguity regarding practitioners' scope of practice:

"Nobody knows what they're supposed to be doing, there's a big blurring of roles".

Taylor's scientific management approach²⁸ advocates maximising efficiency, and the development of many extended roles have mirrored this. Work flow designs, and service efficiency initiatives such as site specific machines, may have efficiency, productivity and quality advantages. However, it seems this may come at the cost of limiting horizontal scopes of practice, which could negatively impact on a TR's job satisfaction.

Theme 2: transition phase

Transition was seen as a critical stage in career development and is influenced by a number of processes (Fig. 3).

The transition from graduate to practitioner has caused concern for the Department of Health²⁹:

Some graduates were "insufficiently prepared for their first few months of work".

This was echoed by some of the participants in the focus groups where there was disparity between the expectation of the job, and the reality once qualified.

"I found the transition to being a qualified radiographer quite difficult...I didn't feel really ready. I only realised this when I started working".

"Before you start you're a little bit deluded...I thought in eighteen months I'm going to be a senior...you've got no idea, you don't appreciate how much learning there is to be done and it's quite a shock...".

It is interesting to note that whilst some found the transition challenging, others were frustrated by the repetitive nature of the work. Degree programmes are based on preparing individuals to manage complexity and take on challenging roles. However, Colyer³⁰ argues that radiotherapy graduates now are "over educated for treating people with breast cancer day in day out".

This sentiment was echoed by a band 6 radiographer:

"I quickly realised my life would involve treating 40 prostate cases a day."

How the transition phase is managed becomes critical when considering Sandler-Smith et al.¹⁵ notion of "survival", particularly the ability to continue to develop professionally and assimilate the skills required to perform the job. There appears to be a relationship between how quickly an individual can be classed as competent and their perception of being satisfied. The focus groups discussed the lack of opportunities to get "signed off" when newly qualified, and of being "reliant on specific training staff and the patients being available". One participant expressed surprise and frustration at "how many things you've got to get signed off for" and some reported that training packages were not available.

Literature indicates there is a variation in the support available for new graduates and practitioners preparing for or undertaking their first supervisory positions.^{27,31} New graduates and those new in post could benefit from additional support, a mechanism advocated by Jackson³¹ and described by Davis and Bheenuck.³²

Although positive examples of preceptorship and mentorship were reported they seemed informal and almost exclusively for band 5s. The band 6 TRs also expressed concern:

"My first day as a Band 6 I was abandoned"

"I'd been thrown in at the deep end".

"I felt completely out of my depth. I wished I hadn't [applied]. I just felt under a lot of pressure".

The length and content of preceptorships varied even within the same departments. They were also dependent on who was assigned as a preceptor or mentor and the work being undertaken.

"Managers expect the people on the machine to do the support...it's the luck of the draw who you get".

Theme 3: workload

Workload issues had a significant impact on job satisfaction and are reported in Fig. 4.

Workload, staff shortages and underfunded resources have been identified as significant factors in attrition from the nursing profession. Workload has also been identified in other AHP professions where practitioners reported having realistic patient numbers and achievable targets was an inherent part of working professionally.⁶

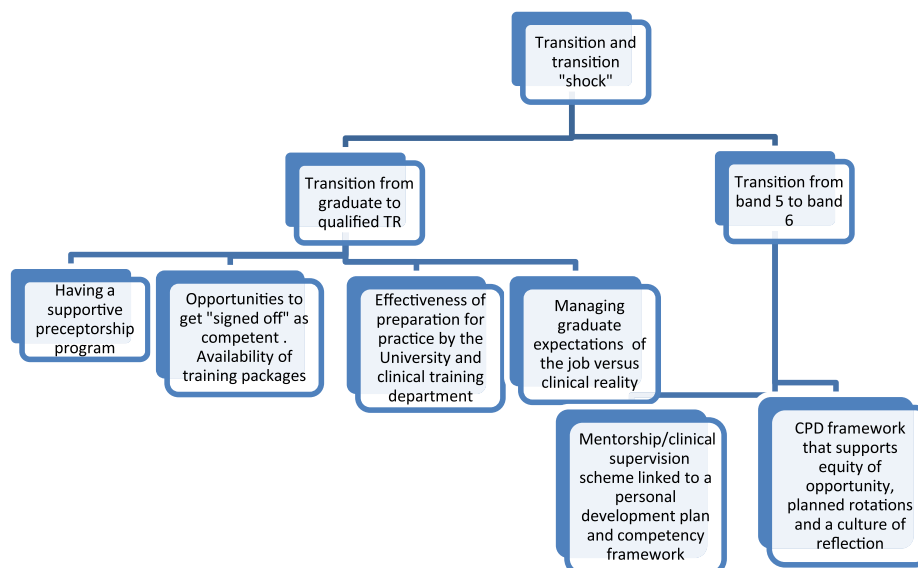


Figure 3. Summary of transition theme and subthemes.

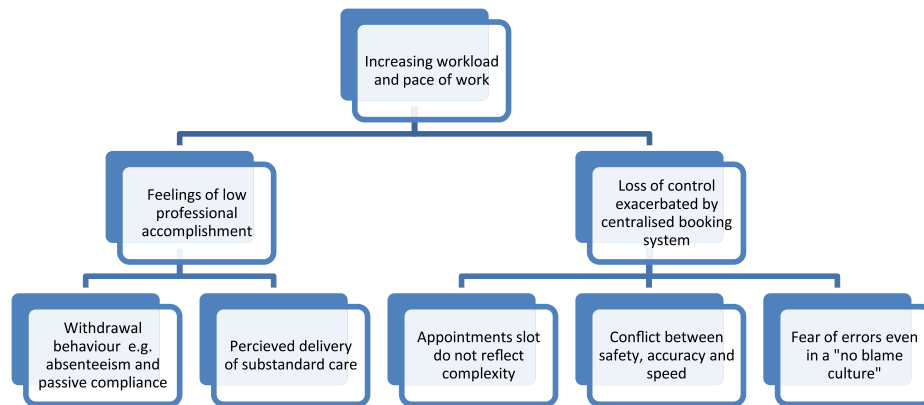


Figure 4. Summary of themes and subthemes for workload.

TRs are drawn to their vocational roles to make a difference, deriving “a lot of satisfaction from caring for patients”³³ and providing a quality service. Increasing workload may yield negative experiences, leading to intense feelings of frustration and anxiety, increasing the risk of burnout.³⁴ Some literature reports up to 27% psychological morbidity among health care professionals.^{35,36} Bridge and Jenkinson³⁷ report that the increased hours and pace of work impacted “significant psychological strain” on staff as treatment began to resemble “a production line”. Interestingly focus group participants, despite initial reluctance, welcomed the additional flexibility working extended days afforded them, but felt they lacked the support services outside core hours.

Low professional accomplishment increases the rate of withdrawal behaviours,³⁸ such as absenteeism and passive compliance.

One participant recognised when they were reaching a personal trigger point:

“I can always tell when I’m not happy, reaching my limit...I think ‘am I ill today? Can I claim a sore throat?’”

Increasing absenteeism exacerbates high workload issues, undermining the ability to support existing staff.^{39,40}

Faragher et al.⁴¹ state that employees have limited control over workload. Participants, in this study, expressed frustration with unrealistic timings that failed to appreciate the complexity of treatment and working with individual patient needs.

“Not to think that everyone is perfect and that everyone’s going to get done in 12 min”.

“Things double booked left, right and centre”.

“You’ve got to tell quite often 25 patients that you’re running an hour behind and it’s quite demoralising”.

One participant said there was

“No alternative but to just go along with it and just get (patients) done as quick as you can”.

This caused conflict because the practitioners realised that they were “totally responsible” for safe and accurate delivery of treatment. Although a “no blame culture” was in-place one participant commented that “there’s an awful lot of finger pointing goes on”.

Participants acknowledged workload and the pace of work were seen as contributing factors to treatment errors.

Concerns were also raised surrounding offering holistic care when workload increased:

“You don’t ask the patient...how they’re feeling...if they want to see a doctor, you are literally running them in and running them out”.

One participant stated they often felt:

“That patient has not had the treatment they deserve that day”.

A band 6 practitioner voiced disappointment that they had not done “a first day chat for months...it gets palmed on to the students...just don’t have the time”.

This consequently reduced their horizontal scope of practice and has the potential to decrease job satisfaction.

Theme 4: team

Team members have a responsibility not only to the patients but also their colleagues, as their behaviour can influence everyone’s job satisfaction. The team can act as buffer to negate factors that adversely influence job satisfaction (Fig. 5).

“Being able to have a laugh and a joke (helps) ...working here everybody always has banter...it makes it quite a fun department to be in”.

“When you’ve got a hard day ahead and everyone works together ...I find that quite satisfying”.

In the focus groups there was some discussion around hierarchical systems of working. One participant felt that as a Band 5 they were not “heard”, however as a band 6 their opinions were taken into consideration, and subsequently they felt “more valuable”.

Some literature does imply that a hierarchical system undermines constructive team working and development; advocating flattening of hierarchical structures.^{26,42} This was echoed by some participant’s comments

“it takes two people to deliver the treatment...so the idea of seniority is a bit redundant”.

One participant felt they would have benefited from more support at band 6. Similarly another participant felt when first promoted to band 6 it “was the worst point”.

“I was given the band 6 job and then all the support was just taken away from me”.

Enabling the development of effective professional relationships and building a team working ethos is valuable in developing skills and technical knowledge.⁴³ This can be affected by peer mentoring, which has been shown to offer benefits in terms of role satisfaction, commitment and career mobility.⁴⁴

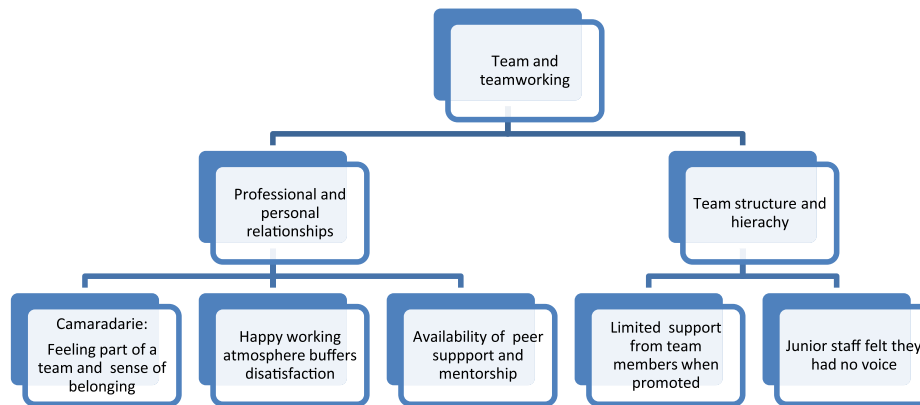


Figure 5. Summary of themes and subthemes for team and team working.

Conclusions

Some of the significant factors which impact on job satisfaction can be positively influenced by managers and organisations. Despite the current financial and political climate in the NHS, it appears that further resources are needed to ensure that job satisfaction prevails, and that a professionals' self-esteem and development requirements are fulfilled.

It would be useful to identify departments that have positive experiences with the PDR process, allowing the potential to benchmark and promote best practice. This research has indicated that the CPD and PDR should include elements of career planning supported by structured clinical placements and mentorship to support professional development. This would be useful for individuals who are planning their future careers and considering role extension and advanced roles. It may also help managers identify an individual's key skill base, thus identifying prospective candidates for specific roles. They could then be projected into roles by an individualised CPD program alongside a facilitated mentorship and clinical supervision scheme.

A delicate balance exists between creating efficient and effective systems of work and individuals feeling that there is a loss of personal and professional autonomy. It is important that practitioners are adequately consulted when designing systems of work, and where possible TR's should be allowed to practice autonomously within a protocol controlled environment.

Transition from graduate to qualified TR, and band 5 to band 6 is often a challenging period for individuals. Preceptorship, followed by mentorship, will support and guide practitioners through the challenges of transition, and the role of the team and other staff members in supporting individuals in this difficult period should not be underestimated.

A structured framework could introduce equity and facilitate the development of band 5 and 6 TRs to meet their professional, academic and career aspirations. The framework could comprise of personal development plans, competency frameworks, mentoring and planned rotations underpinned by a culture of CPD and reflective practice.

Such an approach acknowledges the inherent link between CPD, PDRs and service development, and aims to develop highly skilled and competent practitioners to deliver effective and efficient radiotherapy. A negotiated timeline could offer a goal orientated approach, facilitating personal and organisational growth and development.

Team members have a responsibility to each other and can directly influence their own and others job satisfaction. It may be useful for departments to look at team building work, and support

the development of leadership skills within the department as an overt part of a CPD framework.

Finally the authors suggest that further national research be undertaken in this area, supporting the national survey of the radiotherapy workforce that has recently been undertaken. Potentially this work could support the development of a national strategy to offer better support to therapeutic radiographers and the wider radiotherapy workforce.

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References

1. World Health Organisation. *The world health report 2006 – working together for health*. Geneva: WHO. Available from: http://www.who.int/whr/2006/06_chap1_en.pdf; 2006 [accessed May 2011].
2. NRAG: developing a world class service for England. A report to ministers from the National Radiotherapy Advisory Group; 2007.
3. NHS workforce review team. *Workforce summary – therapeutic radiographers*; July 2008.
4. *Radiotherapy: delivering a world class service for England*. Department of Health. Available from: http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyandGuidance/DH_074575; May 2007 [accessed May 2010].
5. Kresl JJ, Drummond RL. A historical perspective of the radiation oncology workforce and on-going initiatives to impact recruitment and retention. *International Journal Radiation Oncology Biology Physics* 2004;**60**(1):8–14.
6. Arnold J, Loan-Clarke J, Coombs C, Bosley S, Caroline M. Push and pull – why allied health professionals stay in, leave or return to the NHS. Views of professionals inside and outside the NHS; 2006.
7. Edwards H, Vosper M, Miller L, Price R, Herbland A, Le Masurier S, et al. *Effect of agenda for change on the career progression of the radiographic workforce 2009*. Report to the Society and College of Radiographers, 2009.
8. Rutter DR, Lovegrove MJ. Occupational stress and its predictors in radiographers. *Radiography* 2008;**14**:138–43.
9. Saari LM, Judge TA. Employee attitudes and job satisfaction. *Human Resource Management* 2004;**43**(4):395–407.
10. Department of Health. *Spending review*. Available from: http://www.dh.gov.uk/en/MediaCentre/Pressreleases/DH_1206762010 [accessed 16.07.11].
11. <http://www.audit.commission.gov.uk/nationalstudies/health/financialmanagement/moreforless200910/Pages/default.aspx> [accessed 16.07.11].
12. Crotty M. *The foundations of social research. Meaning and perspective in the research process*. Sage Publications; 1998.
13. Yin RK. In: *Case study research: design and methods*. 3rd ed. London Thousand Oakes: Sage; 2003.
14. Bradbury-Jones C, Sambrook S, Irvine F. The phenomenological focus group: an oxymoron? *Journal of Advance Nursing* 2009;**65**(3):663–71.

15. Sandler-Smith E, Allinson CW, Hayes J. Learning preferences and cognitive style: some implications for continuing professional development. *Management Learning* 2000;**31**(2):239–56.
16. *Your guide to our standards for continuing professional development*. Health Professions Council; 2006.
17. Balls P. What are the factors that affect band 5 nurses' career development and progression? *Nursing Times* 2010;**106**:15 [early online publication].
18. Adams J Stacey. Toward an understanding of inequity. *Journal of Abnormal and Social Psychology* 1963;**67**:422–36.
19. Festinger L. A theory of social comparison processes. *Human Relations* 1954;**7**: 117–40.
20. Maslow A. *Motivation and personality*. New York: Harper and Row; 1954.
21. Price B. Professional development opportunities in changing times. *Nursing Standard* 2007;**21**(25):29–33.
22. Gladwell M. *Outliers*. Little, Brown and Company, ISBN 9780316017923; 2008. pp. VII–IX.
23. The NHS knowledge and skills framework (NHS KSF) and development review process. http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4090843.
24. Williamson K, Mundy LA. Graduate radiographer's expectations for role development – the potential impact of misalignment of expectation and valence on staff retention and service provision. *Radiography* 2010;**16**:40–7.
25. Collins K, Jones ML, McDonnell A, Read S, Jones R, Cameron D. Do new roles contribute to job satisfaction and retention of staff in nursing and professions allied to medicine? *Journal of Nursing Management* 2000;**8**:3–12.
26. Kleinman CS. Leadership: a key strategy in staff nurse retention. *The Journal of Continuing Education in Nursing* 2004;**35**(3):128–33.
27. Probst H, Griffiths S. Retaining therapy radiographers: what's so special about us? *Journal of Radiotherapy in Practice* 2007;**6**:21–32.
28. Taylor FW. *Scientific management, comprising shop management, the principles of scientific management and testimony before the special house committee*. Harper & Row; 1911.
29. *Department of Health (DoH) "NHS cancer plan"*. London: Department of Health; 2000.
30. Colyer H. Therapeutic radiography at the crossroads. *Radiography* 2010;**16**(1): 3–4.
31. Jackson C. Assessment of clinical competence in therapeutic radiography: a study of skills, characteristics and indicators for future career development. *Radiography* 2007;**13**:147–58.
32. Davis N, Bheenuck S. A professional development pathways scheme. *Nursing Standard* 2003;**17**(48):40–3.
33. Brennan J. *Cancer in context: a practical guide to supportive care*. USA: Oxford University Press; 2004.
34. Kutner JS, Steiner JF, Corbett KK, Jahnigen DW, Barton PL. Information needs in terminal illness. *Social Science and Medicine* 1999;**48**:1341–52.
35. Borrill CS, Wall TD, West MA. Stress among staff in NHS trusts. Final report 1996. University of Sheffield, Institute of work psychology. University of Leeds, psychological therapies research unit.
36. Ramirez AJ, Graham J, Richards MA, Cull A, Gregory WM. Mental health of hospital consultants: the effects of stress and satisfaction at work. *Lancet* 1996;**347**:724–8.
37. Bridge P, Jenkinson D. Achieving waiting time targets: at what cost? *Journal of Radiotherapy in Practice* 2003;**3**:147–52.
38. Thorne S, Bultz BD, Baile WF. Is there a cost to poor communication in cancer care? A critical review of the literature. *Psycho-Oncology* 2005;**14**: 875–84.
39. Price RC, Le Masurier SB. Longitudinal changes in extended role in radiography: a new perspective. *Radiography* 2005;**13**(1):18–29.
40. Forsyth LJ, Robertson EM. Radiologist perceptions of radiographers role development in Scotland. *Radiography* 2005;**13**(1):51–5.
41. Faragher EB, Cass M, Cooper CL. The relationship between job satisfaction and health: a meta-analysis. *Occupational and Environmental Medicine* 2005;**62**: 105–12.
42. Senge P. *The fifth discipline fieldbook*. New York: Doubleday/Currency; 1992.
43. Kram KE. Phases of mentor relationships. *Academy of Management Journal* 1983;**26**:608–25.
44. Lee FK, Dougherty TW, Turban DB. The role of personality and work values in mentoring programs. *Review of Business* 2000;**21**:33–7.