Stress amongst UK consultant urologists and factors influencing when they leave full-time NHS practice.

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Abstract

Objective: The UK medical workforce is in crisis. The number of surgeons in NHS practice has decreased, partly because newly qualified doctors withdraw from the workforce, and partly because of the early retirement of experienced surgeons. The reasons for urological trainee loss are largely known, but stress factors influencing the retirement of consultants before state pension age (SPA) are not.

Methods: An online survey of the consultant membership of the British Association of Urological Surgeons was carried out over a 12-week period starting in September 2020. Information was sought regarding stresses at work and home, together with factors affecting retirement decisions. Data analysis was performed if >90% of questions were complete.

Results: 36.5% of 1,374 invitees completed the survey. Workplace-based issues were the main causes of stress; on-call, an unsupportive working environment, complaint handling and poor relations with hospital managers were predominant factors which were exacerbated by punitive taxation. Experienced urologists ameliorated these factors by reducing their contracted activity, increasing part-time working and, ultimately, retiring before SPA.

Conclusions: Workplace-based factors are associated with stress reported by consultant urologists. Alleviation of stressor factors, especially those related to on-call activity, should be explored to reduce the erosion of the senior workforce.

199 words.

Keywords: Workforce. Urologist. Job Plan. Career dynamics. On-call commitment. Stress. Retirement

Introduction

Whilst much is known about factors influencing career dynamics in high-income countries (1-6), little is known about those that influence the length of an individual's career, or their retirement, from medicine in the United Kingdom (UK) (7). The loss of experienced doctors in substantive posts, in general and specialist medical practice, exceeds those being trained to fill vacancies (8). As most UK doctors retire >5 years before state pension age (SPA) (7), this situation poses an increasing difficulty for primary and secondary healthcare provision; this is now a pressing issue as the UK SPA increases (9,10). Taxation disincentives (11), a greater desire for clinical autonomy, better work/life balance (12) and disenchantment with the working environment (13) are all factors that influence career lengths (14). This has led to earlier retirement for many senior doctors (7), a phenomenon that is common across international economies with fluid healthcare policies (15). Urology is not immune from these pressures (16), and it is difficult to see the UK's urological predicament improving without addressing either the early loss of trainees, or coherently attempting to improve retention of trained, established, surgeons.

The attrition of UK trainees from the workforce during, and immediately after, training is often due to a lack of support after certification, poor work/life balance or worse career prospects than had been anticipated (17,18). However, little is known about the generic structure of, or stresses in, a urological consultant's career, or which stress factors cause dissatisfaction resulting in their leaving the National Health Service (NHS) workforce. An understanding of attitudes to work throughout consultant careers, and factors inclining them to modify their work, or leave the workforce, is necessary to moderate the trend towards early retirement.

To try to understand the trend towards early retirement, we aimed to enhance our knowledge of consultant urologists' perception of stressors that influence their careers by examining their work- and home-based stresses. A secondary aim was to identify those stress-related factors which most influenced consultants' decisions about the length of their working lives.

Materials and Methods

An online SurveyMonkey[™] (SM)(19) descriptive study was constructed to determine individual urologist's views about their working life, stresses endured during their careers and attitudes towards retirement. The survey was endorsed by the British Association of Urological Surgeons (BAUS), approved ethically by Bournemouth University (BU, ethics ID 30747) and was intended to give further information about factors influencing the desire of urological consultants to stay in the UK workforce.

Study population

Two groups of surgeons participated: those currently working in permanent or temporary consultant posts, and those who had retired from surgical practice.

Study structure

Questionnaire discriminators were aggregated in seven domains dependent upon employment status (Table 1).

Demographic information including age, gender, ethnicity, and geographic region of activity was asked of all responders. Job characteristics such as programmed activities (PAs, 4-hour aliquots of time), supporting professional activities, patterns of working and contract type were asked of those still in employment. The retired population were asked when they had retired, their retirement age and about factors that influenced their retirement decision. The detailed structure of question domains is accessible via supplemental file 1.

Stress emanating from the home was measured by agreement or disagreement with a statement regarding various stressors in that environment. Workplace attitudes to career satisfaction were assessed using a 5-point Likert rating scale (20) of between 1 ('not liking at all') and 5 ('liking a great deal') and job satisfaction was assessed between 1 ('this is not the case') and 5 ('just how I want it to be'). A 10-point visual analogue scale (VAS) (21) between 0 ('Work dominates everything to the detriment of my home life') and 10 ('Home life dominates everything to the detriment of my work') was used to determine work/life balance (WLB). Stressors such as complaint management, regulator investigation or medico-

legal challenge were also assessed using a 10-point VAS between 0 ('no stress' and 10 'major stress'). Finally, factors potentially influencing decisions to retire were completed on an agree/disagree basis; these data were compared between the employed sample and those participants who had retired.

Data Collection

Invitations to participate in the online survey were emailed to 1,374 working, or retired, consultant members, whose details were on the BAUS membership database on 8th September 2020. A repeat invitation was sent out after six weeks and the study closed at twelve weeks. Participants were asked to give consent before proceeding. Data was aggregated on the SM platform and downloaded as a .csv file for analysis in Microsoft Excel[™] at the end of the survey.

Data analysis

Participants who entered <90% complete data were removed from subsequent analysis in line with guidelines for handling missing data (22). Employed consultants' data were analysed in five groups - four quinquennial groups from appointment to 20 years, and a fifth group for those in post >20 years. Retired consultants were analysed dependent on their age. Data is presented as mean scores, or mean percentages, for each quinquennial group of working urologists, or for the retired population, for each question domain.

Results

502 responses were received (36.5%), 382 (37.5% of those invited) from working consultants and 120 (33.5%) from consultants who had retired. 493 responses (98% of responders) had >90% data completeness and formed the cohort for analysis.

Basic demographics

In both employed and retired populations the geographical response rate varied from 21% – 54% of members in that survey region. The median age of the employed sample was 50 years (range 32 - 75, SD 8.45), and 70 years (range 46 - 86, SD 7.45) for retired consultants. The employed population, subdivided by gender (supplemental file 2) and ethnicity

(supplemental file 3), showed more women in the, and a more diverse, workforce the younger the quinquennial cohort.

10.2% of the employed cohort did not have a permanent contract. They either worked as locums at the beginning of their career or moved to part-time working from 16 years onwards. Data from the retired population showed the average UK urological consultant career lasted 26 years with a mean retirement age of 61 years (n= 115, mean = 60.9 years, range 40 - 70, SD 4.7). The number of consultants having a 'rolling NHS contract' increased significantly after 20 years with consultants 'retiring and returning' to clinical activity at ages 60 - 64 (32% of those in this age group), 58% between 65 - 69 and 52% between 70 - 74 years.

The mean employed consultant job plan comprised 11.1 PAs. The change in percentage mean PAs worked during careers, for each quinquennial group is shown in Table 2.

A mean of 45% of permanently employed consultants increased their contracted PAs within 5 years of appointment and 8% intended to do so. For men, the predominant reason to add PAs was a greater demand for more Direct Clinical Care (DCC); this was less marked amongst female consultants. Between 6 - 10 years from appointment the mean number of consultants decreasing their PAs, or intending to do so, matched the number increasing their contracted sessions and had surpassed it by 11 - 15 years. Once a consultant had been in post >20 years a mean of 62% had either decreased their contracted PAs or intended to do so. Amongst male consultants the predominant reasons for reducing PAs were to improve WLB or decrease intrinsic work stresses.

Stress originating from the home environment.

Percentage positive responses to questions about stresses related to ongoing/future health concerns, financial pressure, general stamina and incumbent home circumstances during consultant urological careers are shown in Table 3.

Health

A mean of 11% (range 4.2 - 16.6%) of consultants reported experiencing long-term health issues at some point during their careers, the frequency of which increased with age. 20% of consultants in post >20 years had moderate to serious health issues. Physical health problems predominated whilst a mean of 15% of the consultants with long term health issues (range 10 – 20%) had unspecified mental health problems. 34% of consultants in post >20 years had more than 6 weeks away from work at some point in their career for health-related issues. Ill health was a major factor (67%) causing premature retirement in those retiring at <60 years of age.

Personal finance

A mean of 18% (range 12 - 28%) of employed consultants relied on their NHS salary. Virtually all considered that income stable, and 92% did not have any factors influencing their earning capability during their career. >70% of consultants had a supplementary private practice income with 33% continuing this to age 70 years. A mean of 31% of the employed workforce (range 16 - 42%) only just lived within their means up to 15 years after consultant appointment. Geographically, consultants working in the south of the UK were the group most likely to be financially challenged. Up to 15 years post appointment a mean of 36% of consultants (range 27 - 42%) felt that finance would be a substantial factor determining when they could retire. However, 18% (range 14 – 23%) of consultants in post <16 years had no additional financial plan for their retirement beyond their occupational and state pension contributions. Those in post for >16 years had greater financial provision for their future than younger colleagues and were less concerned about the influence money would have on retirement (Table 3). Working consultants >16 years, however, were concerned about the unpredictable effect of punitive taxation on income and the annual allowance for pension contributions. Finance, in general was not an issue for the retired population although limitation in the lifetime allowance was a factor influencing the retirement decisions of consultants who had retired within 5 years of the survey.

Dependents and home circumstances

≈80% of consultants were married or lived with a partner (mean 77%, range 50 - 89%). Urologists had a mean of 2.2 children and 8% had other dependant relatives. Neither dependence, health issues nor marital status appeared to generate substantial home-based stress.

Work/life balance (WLB)

Most working urologists felt home life was stable, and settled, and that their lives were reasonably balanced with work. A mean Likert score of 3.5/5 was achieved across all quinquennial groups (n= 327, range 3/5 - 3.7/5) (Table 4).

Career satisfaction and stress originating in the work environment.

Career satisfaction

Career satisfaction was used as a marker of consultant's global satisfaction at work. This was good with a mean 5-point Likert score of 3.9/5 (n= 272, range 3/5 - 4.4/5 (Table 5).

327 consultant urologists recorded their satisfaction at work; during careers there was a marked decrease in job satisfaction at 11 - 15 years (Table 6) coinciding with additional work-related stresses emanating from a multiplicity of additional, parallel, roles supplementing clinical responsibilities (Table 7).

Workplace stress

Table 8 shows the stressors consultants reported that were challenging in the workplace; these are compared to those noted by retirees.

Urologists considered stress emanating from their work was mainly not due to their clinical roles, but rather from the demands of non-clinical and supplementary roles; this was most obvious in the first 10 years in post. The longer from appointment the more likely consultants were to have experienced stress due to some challenge to their clinical ability. Medico-legal challenge or interaction with the General Medical Council (GMC) are increasingly likely during consultant careers (64% and 25% respectively after 20 years) causing substantial anxiety to a large number of employed consultants (Figure 1).

Consultants found dealing with hospital-based complaints the least stressful on a 10-point VAS scale (mean VAS 6.1/10, range 5.5/10 - 7/10), medico-legal challenges of intermediate stress (mean VAS 7.4/10, range 5.9/10 - 8.5/10) and interaction with regulators the most stressful (mean VAS 8.3/10, range 6.2/10 - 10/10). 35% of retired consultants <70 years (range 26 - 50%) stated that patient challenge, and investigation by the regulator were major factors contributing to their decision to retire.

Factors contributing to considering withdrawal from the workforce.

Concerns that might curtail careers, about home pressures, future health, personal financial, adverse clinical events and 'stamina for the job' were substantial issues expressed by consultants soon after appointment; clinical training was not. A mean of 55% of working consultants (range 66% at 11-15 years to 36% at >20 years in post) thought the NHS workplace was a 'bad' environment and that work volumes were excessive; >40% of consultants in post <15 years expressed a lack of confidence in their colleagues. Negative interactions with hospital management were common throughout careers and these were problematic enough to consider withdrawal from the workforce for 42% of retirees. On-call working was another significant reason to stop working with >50% of working urologists expressing a preference to stop on-call before the age of 60 (mean 64%, range 25 - 43). Only 6% expected to be on-call at SPA. 25% of working consultants preferred to consider flexible working as an alternative to being on-call between 56 and 60 years. As a consequence of workplace-bases stresses the vast majority of working consultants felt they wanted to retire prior to SPA; the number wanting to leave employment as soon as possible dramatically increased >16 years in post, a figure exacerbated by experiences during the Covid pandemic.

Discussion

Retirement as a socially accepted means of ending a career only evolved after the introduction of a regular monetary payment, a pension (23,24). In the UK, in 1908, the 'basic state pension (BSP)' was a means-tested benefit at 70 (25), progressing to a universal supplement, in 1946, at 65 years for men and 60 for women (26). Greater longevity in the UK since that time (27) has prompted increasing the BSP to provide adequate means in retirement (28). This has proven impossible to achieve without deferment of the SPA (29),

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which is now 68 years for both men and women born after April 1978 (30). This will undoubtedly influence the length of working lives of individuals working as urologists born after this date, even though most will have contributed to an occupational pension. Therefore, any link between domestic and workplace-based stresses, established in general terms (7,10,14,31-33), and exacerbated by the Covid pandemic (34), need to be considered to try and reduce the early retirement of experienced consultants.

This survey parallels many comparable studies of the drivers to retirement in other sectors of society (1-6). Our data is, however, specialty specific and novel against retirement data from the rest of the UK medical fraternity (7). It defines the mean length to a consultant urologist's career and the mean dynamics of a consultant career. It suggests that most UK consultant urologists' home lives are stable, personal finance is not a major issue despite taxation legislation (11,35-36), and work/life balance is largely in equilibrium. Career and job satisfaction of BAUS members is high, concurring with findings that urologists are amongst the happiest specialists in the surgical community (37,38).

Like others we have also identified that issues related to work are the main contributors to dissatisfaction (7,13-14, 31-33), and are known drivers for early withdrawal from the consultant workforce (9,10). Sub-optimal physical workspace, poor relationships with nonclinical management and the need to deal with dissatisfied patients are well-recognised stressors in UK hospital medicine (7,14,34,39). However, we have also demonstrated that on-call commitments are a much bigger concern for consultants than had previously been appreciated; it appears, in fact, to be a consistent detractor to engagement throughout urological careers. Heponiemi and colleagues describe low job satisfaction, low productivity and high levels of distress as a consequence of out-of-hours activity (40). They ascribe these results to sleep deprivation when on-call, which they showed led to early withdrawal from the workforce (41). Their findings do not necessarily replicate all confounding issues pertinent to UK urology; consultant's on-call activity rarely occurs out of hours in the majority of larger units. The cause of on-call stress, therefore, demands further investigation and is possibly one of the most important outcomes from this survey.

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This observational study provides considerable evidence of the shape of urological careers, the stress factors which influence consultant's attitude to work and their consideration of when they will withdraw from the workforce. Attention to factors causing stress at work, and the inevitable impact of workplace stress on home life, have the potential to improve the retention of senior consultants to SPA. However, this survey is also limited by only surveying members of a professional body that represents 80% of UK urological consultants, and by only obtaining representative responses from a third of those invited to participate. It is also acknowledged that there are many other groups who contribute to the provision of urological services. The sample may, therefore, not be totally representative of the views of the whole of the urological workforce or, indeed, the totality of the consultant body.

Addressing drivers of stress in the consultant component of the urological workforce requires attention to multiple facets of both clinical and non-clinical activity. Consultant's dissatisfaction with the healthcare environment, and the top-down management style embraced by the NHS (42), has created uncertainty which influences their retention (43). Similarly, the ambient adversarial legal environment (44), together with financial disincentives to continue working beyond a certain age (11,35,45), have promoted earlier withdrawal from clinical responsibility. Factors influencing NHS health policy, litigation and the workplace environment are ones that can only be altered by significant organisational, governmental or societal interventions (46-47). Therefore, the impact of major recent reforms, such as the change in lifetime pension allowance (48), and the raising of the state pension age (30), are as likely to have as significant an effect on retirement intentions as any the individual can make themselves.

Individuals do, however, have to assume some responsibility in planning for predictable workplace-based stress during their careers. Personal organisation, reducing overcommitment and increasing effective teamworking, can help generate more stable time allocation during a career, and reduce stress (49). A more orderly work life has the potential to create a more productive workspace, which is easier for individuals to control as their careers draw to a close (50). However, better institutional support to help individuals modify career trajectories, 'job crafting' at appraisal, can optimise consultant's strengths, reduce stress and encourage their retention (51-52). Practitioners' legitimate concerns

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about on-call commitments, the flexibility of working practices and improvements in their working environment should, therefore, probably be factored into local job-planning processes before 20 years after appointment. Finally, better prolepsis with organisation of an appropriately trained clinical successor, will provide a greater continuity in clinical workflow and a reduction in stress at the end of careers which may not only prolong productive working lives, enhance patient care and, potentially, help bridge the financial gap between chosen retirement ages and SPA (53,54).

National bodies with an interest in their workforce (55-56) are probably the best agents to effect change in those external factors causing individual stress in urologists towards the end of their careers. This can potentially maximise career productivity, and satisfaction, for the individual, the organisation they work in and, ultimately, benefiting the patient those consultants have responsibility for.

Conclusion

Although UK consultant urologists generally have an acceptable work/life balance and job satisfaction, they are stressed by many workplace-based factors which impact on their work commitment, and the age at which they choose to withdraw from the workforce. Poor working environments, relationships with managers and punitive taxation were the predominant causes to consider early retirement. However, on-call commitments generate significant stress amongst UK urologists, the precise reasons for which are unclear. Substantial organisational, and individual, imperatives need to be addressed to deal with workplace-based stressors, to help mitigate the current rate of loss of experienced urologists from the workforce towards the end of their careers.

3255 words

Abbreviations

.CSV	Comma-separated value
BAUS	British Association of Urological Surgeons
BU	Bournemouth University

DCC	Direct Clinical Care
GMC	General Medical Council
NHS	National Health Service
PA	Programmed activity
SD	Standard deviation
SM	SurveyMonkey
SPA	State pension age
UK	United Kingdom
VAS	Visual analogue scale
WLB	Work/Life balance

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Question domain	Employm	ent status
	Permanent and	Retired
	non-permanent	
	employment	
Demographics	\checkmark	\checkmark
Health	\checkmark	
Personal finance	\checkmark	
Work	\checkmark	
Life, work/life balance	\checkmark	
Retirement planning	\checkmark	
Influences to retire	\checkmark	\checkmark

Table 1. Survey question groups, and areas of questioning by urologists' employmentstatus.

Question domain	Employm	ent status
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	Employed Consultant (years in post)							
Stress (%)								
	<5	6-10	11-15	16-20	>20			
Health	73	69	51	41	31	22		
Financial pressures	58	50	41	29	16	0		
Stamina	45	54	40	37	38	12		
Home pressures	39	30	23	6	5	3		
n	64	74	82	49	55	117		
Mean age (years)	39	46	50	55	61	71		

 Table 3. Employed (n=324) and retired (n=107) consultants: Percentage impact of personal stresses during consultant careers. n = sample size

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 Table 3. Employed (n=324) and retired (n=107) consultants: Percentage impact of personal stresses during consultant careers. n = sample size

Career Satisfaction (m/5)	Consultant (years in post)					
	<5	6-10	11-15	16-20	>20	
Medicine as a career	4.1	4.3	4.2	4.2	4.4	
Work environment/Trust	3.7	3.2	3.0	3	3.1	
Department environment	4.4	3.9	3.7	3.7	4	
Colleagues	4.3	3.9	3.9	4.1	4	
n	65	74	84	49	57	

 Table 5. Employed consultants: Mean career satisfaction; 5-point Likert scale between 1

 'not liking at all' and 5 'a great deal' (n=272) n = sample size

Views about job	Consultant (years in post)						
Satisfaction (%)	<5	6-10	11-15	16-20	>20		
Liked everything in job	29	26	12	27	32		
Job too pressurized	37	34	52	27	30		
Disliked timetable/job plan	12	8	4	13	7		
Disliked other roles	12	16	11	15	7		
Don't like work at all	2	2	2	4	0		
Other issues in job	8	12	19	15	23		
n	65	74	84	48	56		

 Table 6. Employed consultants: Percentage views about job satisfaction; consultants by

 length of employment (n=327) n = sample size

Supporting Professional	Consultant (years in post)						
Activity roles (%)	<5	6-10	11-15	16-20	>20		
Managerial	51	48	51	55	38		
Teaching	85	70	73	63	53		
Academic	20	20	34	13	23		
Roles outside Trust	16	11	32	28	19		
Other	0	11	6	10	19		
n	65	64	77	40	47		

 Table 7. Employed consultants: Percentage Supporting Professional Activities roles by length of employment (n=293) n = sample size

Stress (%)		Employed Consultant (years in post)					
	<5	6-10	11-15	16-20	>20		
On-call	70	77	76	80	55	29	
Bad workplace	61	61	66	51	36	32	
Hosp. management	56	53	56	53	47	42	
Bad colleagues	47	46	41	37	22	11	
Complaints	48	50	45	22	31	22	
Clinical events	44	45	40	22	24	4	
Work intensity	31	34	35	35	27	32	
Lack of training	8	5	4	6	2	1	
Other	3	8	12	4	13	-	
n	64	74	82	49	55	117	
Mean age (years)	39	46	50	55	61	71	

Table 8. Employed (n=324) and retired (n=107) consultants: Percentage personal, workenvironment and clinical and administrative stresses causing consideration of, or

contributing to, career curtailment. n = sample size



Figure 1. Employed population: Percentage medico-legal or regulator (GMC) investigation challenge by length of employment (n=305) n = sample size

Criterion	Consultant (years in post)						
	<5	6-10	11-15	16-20	>20		
Mean age	39	46	50	55	61	70	
Range	32 - 50	40 - 60	40 - 60	46 - 66	54 - 75	46 -86	
Male	74%	84%	84%	86%	94%	98%	
Female	26%	12%*,**	14%**	14%	5%**	2%	
Qualified age	24	24	23	23	24	24	
n=	70	76	89	55	86	117	
* 2% non-binary	·	* 2% non-binary ** 1% prefers not to answe		not to answer	÷		

Supplemental file 2. Whole sample: Age, gender and age at qualification (n=493)

Ethnic heritage Consultant (years in post)						Retired
	<5	6-10	11-15	16-20	>20	
Caucasian	53%	61%	66%	86%	80%	91%
Black/Afro-Caribbean	4%	0	1%	0	2%	0
Hispanic/Latino	0	0	0	0	1%	0
Asian	29%	26%	27%	13%	11%	7%
Arabic	6%	3%	0	1%	1%	2%
Mixed	4%	1%	3%	0	2%	0
Other heritage	4%	3%	1%	0	0	0
No answer	0	6%	2%	0	2%	0
					•	
n=	70	76	89	55	86	117

Supplemental file 3. Whole sample: Ethnic heritage (n=493)