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What do extended cardiac surgical team members in the Kingdom of Saudi Arabia think about their jobs, and what would improve them? A qualitative study

Abstract

Despite the long history of integrating non-medical practitioners into the extended cardiac surgical team, concerns about job design that reduce job satisfaction persist in the literature. In the Kingdom of Saudi Arabia (KSA), previous research has found that these non-medical practitioners known as cardiac surgical assistants (SAs) express significant dissatisfaction with multiple aspects of their role. Improving job satisfaction can positively impact on the recruitment and retention of this valuable workforce who increase surgical capacity within cardiac units. This qualitative study was therefore conducted to gain an in-depth understanding of cardiac SAs' perspectives of their role and to explore how it could be redesigned to improve their job satisfaction. Through thematic analysis of 14 individual interviews, six themes were identified: the importance of the role, low level of autonomy, lack of recognition, inconsistency of training, poor appraisal and feedback, and feeling unappreciated and undervalued. The data allowed a number of specific recommendations to be formulated that could be implemented at service, organisational and professional levels to enhance SA job satisfaction. It is important that the working conditions of surgical assistants should be further improved to address the issues which cause lower levels of motivation and a greater intention to leave their role.

Keywords: surgical care practice, job design, organisation, cardiothoracic surgery

Introduction

As the prevalence of coronary artery disease (CAD) increases, the number of patients requiring coronary artery bypass graft (CABG) surgery increases. However, there is a chronic global shortage of cardiac surgeons, and so the Kingdom of Saudi Arabia (KSA), like many other countries worldwide, has been employing non-medical practitioners to extend surgical care capacity since the 1990s. ^{2,3} Despite having similar roles, these practitioners are known

by different names internationally. For example, they are referred to as 'physician assistants' (PAs) in the United States of America (USA),⁴ as 'surgical care practitioners' (SCPs) in the United Kingdom (UK)⁵ and as 'surgical assistants' (SAs) in the KSA. Surgical assistants work primarily to perform surgical interventions, such as saphenous vein and/or radial artery harvest, and pre-operative and post-operative care under the direction and supervision of a consultant surgeon.⁴

Literature review

The wider literature on non-medical surgical assistants has found that they practised safely, contributed to shortening waiting lists and were considered as valuable members of the extended surgical team. 6-8 However, there is a dearth of literature on the non-medical workforce in cardiac surgery, with most accounts being anecdotal, and little empirical evidence on the clinical outcomes associated with the role. 9

As is the case with SCPs in the UK, cardiac SAs who are allied health professionals have expanded their roles as nurses and operating department practitioners. However, SAs in the KSA, unlike their counterparts in the US and UK. receive only in-house hospital-based training with no formal university curriculum. In addition, in the KSA, cardiac SAs can work in hospitals run by the Ministry of Health, the Ministry of Education and the Ministry of Defence or hospitals that are run privately.10 This diverse range of employing organisations results in disparities in how the cardiac SA job requirements, roles and responsibilities have been defined and operationalised in practice.

Internationally, there are concerns related to the job design of cardiac surgical assistants; including concerns about the degree of role autonomy, uncertainty surrounding the delegation of tasks and the relatively variable scope of practice structures. 11,12,13 Indeed, a survey by Krishnamoorthy and Britton¹⁴ reported that the vast majority (99%) of non-medical practitioners in cardiac surgery felt undervalued and unable to develop in their current advanced roles. Krishnamoorthy^{13,} p.1 suggests that if nothing is done to amend or alter these factors. then the workforce will 'soon cease

to exist'. Supporting this assertion, a recent national cross-sectional survey of 35 cardiac SAs in the KSA also found that 83 per cent were unsatisfied with aspects of their role, such as autonomy, and 62 per cent were dissatisfied with job complexity. Therefore, it is clear that there is a need for empirical research to better understand how the SA role is enacted in cardiac care in order to improve job satisfaction, recruitment, career progression and retention.

Research questions

This qualitative study was driven by the following research questions:

- What factors do cardiac SAs working in the KSA perceive influence their job satisfaction and their ability to perform their role satisfactorily?
- What job design recommendations can be drawn from SAs' suggestions on how they would like to enhance their role?

Method

This exploratory, qualitative study is part of a larger mixed method study which featured an explanatory sequential design to explore cardiac SAs' perspectives on their role in the KSA and what factors affect their job satisfaction and performance. The quantitative part of this study which was completed first has already been published.¹⁵

This paper details the qualitative element of the study which was used in the subsequent interpretation and clarification of results from the quantitative survey.

Theoretical framework

Hackman and Oldham's¹⁶ Job Characteristics Model (JCM) formed the basis for the quantitative element of the research and also informed the qualitative study described in this paper. The JCM proposes five key job attributes which influence an individual's personal and work outcomes, such as job satisfaction, absenteeism, work performance and motivation.¹⁶ These attributes are:

- task variety the degree to which the individual is required to use a range of skills
- task identity whether an individual feels responsible for completing an entire task
- task significance how the worker experiences the meaningfulness of their work
- 4. worker autonomy feeling of independence leading to the worker experiencing responsibility for the work outcomes
- 5. feedback the information the worker receives about the outcomes of their work

This framework informed the development of the qualitative semi-structured interview schedule together with relevant literature from a previous review.^{3,12,13,15} The JCM model was also used as a sensitising concept when conducting the analysis. Sensitising concepts are analytical constructs that 'give the user a general sense of reference'¹⁷ and which can guide attention to particular events or behaviours.¹⁸

Setting

This study was undertaken in seven cardiac centres around KSA that employ cardiac SAs. Two are in the central region, one in the south, two in the western region, and two in the eastern region.

Recruitment and sampling

Participants for the interview study were chosen by random purposive

sampling from a pool of 53 SAs who had previously been identified by the research team to take part in a survey on job satisfaction. Names were obtained by approaching hospitals for information on their employment of SAs. This pool of participants represented SAs working in hospitals run by ministries of health, education and defence across the entire KSA. In random purposive sampling, the researcher randomly selects instances from a sampling frame containing a purposely chosen sample.19

Participants were sent an email directly from the lead researcher with an information sheet and a consent form to return. Participation was entirely voluntary, and to avoid any coercion no members of the participants' organisations played a role in issuing study invitations. There were no inducements offered for participation. Equally only the research team was aware of the identities of the participants in this study. This was also affirmed throughout the interviews. The researcher interviewed consenting participants and continued to recruit from this pool until the team were confident that data saturation was met. This occurred after the fourteenth participant was interviewed. This approach was selected primarily to avoid recruiting more participants than would be needed to complete the research.

The interview guide was developed by members of the research team to elicit participants' attitudes on a range of topics pertaining to the characteristics of their job as an SA. Prompts and probes were used in conjunction with these guiding questions to encourage participants to elaborate on their responses. The interview guide was piloted on two surgical care practitioners in the UK

by the lead researcher (MBS), but no changes were required. (See Table S1 in supplementary material for interview guide.)

Data collection

Between November 2020 and March 2021, data collection was conducted by the lead researcher (MBS). Due to the pandemic caused by SARS-CoV-2 (COVID-19), all participants were interviewed virtually using Zoom or Microsoft Teams. Fourteen interviews were completed, the audio recordings from the interviews were professionally transcribed and then imported into the qualitative data analysis software NVivo 12. The interviews lasted between 60 and 90 minutes and were conducted by the lead researcher (MBS). Ethical permission was provided by both Kings College London (MRSP-19/20-17546) in the UK and King Abdullah Medical City (20-705) in the KSA. The methods used were in accordance with both the hospital's and the university's research data management policy.

Data analysis

The data were analysed thematically in six stages, as recommended by Braun and Clarke.²⁰ While thematic analysis is a flexible approach it is still necessary to select a theoretical basis for analysis; this can either be deductive or 'top-down' (driven or framed by a specific research question) or inductive or 'bottom-up' (driven purely by data). Braun and Clarke²⁰ propose a hybrid approach, which was used in this study. Thus, some themes clearly emerged from the interview questions based on the research framework (e.g. elements of autonomy from the JCM) and others emerged only after a full examination of the data (e.g. poor appraisal processes). The data in this study were also analysed to produce an overall understanding using

semantic themes (explicit, surface meaning) rather than latent themes (underlying meanings).

The six stages of analysis are outlined as follows.

- The researcher undertook repeated readings of the transcripts to ensure familiarisation with the data.
- 2. Initial codes were generated.
- 3. The researcher examined these codes to identify themes.
- 4. The themes were reviewed to ensure that they were useful and accurate representations of the original data.
- 5. The themes were defined and named.
- 6. The themes were used to produce the report.

For the final three stages, excerpts of the transcripts were reviewed by two other researchers (GL and ML) independently, to further define themes and to establish how well they reflected the narrative of the overall dataset

Guidance from Lincoln and Guba²¹ was used to ensure trustworthiness of the findings. The researcher spent significant time familiarising and reviewing the data to ensure accuracy and credibility. Themes from the data are presented with quotes to show that the content and described meanings are consistent. The exact reporting of the research process and findings enable repetition and provide an audit trail to ensure dependability.

Reflexivity in terms of researcher bias was also addressed. The researcher who conducted the interviews and led the analysis (MBS) was a male cardiothoracic SCP who had worked in the KSA. Thus, he shared the culture of the SAs being interviewed and also

had prior knowledge of the role of the SA. Throughout data collection, the researcher was aware of his own personal reflections about the SA role and was careful to reflect on how this might impact on the way that questions were asked and what themes were pursued. The researcher was also closely supported during interviewing and analysis by two senior academics (GL and ML) with diverse expertise and an interest in advanced practice, but with no previous experience of SA work or the culture within KSA.

Results

Participants' characteristics_

The sample was diverse in terms of age and experience, as well as academic qualifications and professional origins. The sample was however dominated by male participants. The baseline characteristics of the individuals are summarised in Table 1. In the reporting of the qualitative data, we used pseudonyms to maintain participant anonymity.

Themes

Six themes were identified relating to aspects of the role which either promoted or decreased job satisfaction in SAs. The themes were: the importance of the role, low level of autonomy, lack of recognition, inconsistency of training, poor appraisal and feedback, and feeling unappreciated and undervalued.

Table 1: Participants' characteristics

Demographic		N	%
Gender	male	12	85.7%
	female	2	14.2%
Age	25–34	8	57.1%
	35-44	5	35.7%
	45-54	1	7.1%
Qualification	bachelor degree	9	64.2%
	diploma	3	21.4%
	master's degree	2	14.2%
Experience	1–5 years	8	57.1%
	6–10 years	4	28.5%
	11+ years	2	14.2%
Professional origins	operating department practitioner (ODP)	10	71.4%
	nursing	4	28.5%

The importance of the role

Some participants explained how the novelty of the role had attracted them initially, they saw it as presenting a positive challenge. Being able to witness the immediate results of their work in terms of improving patient outcomes was also a valued part of their role which contributed to job satisfaction.

It's nice to do something or to do an operation and you see the result immediately after doing it. It feels great, really.

Angel

In addition, interviewees emphasised the sense of pride they felt as integral members of the surgical team. Those who were most enthusiastic about continuing in their role, despite challenges, were clearly self-motivated and felt that their role was of importance and contributed measurable value to the health system.

I believe myself that I'm doing a great role in surgery: that's why I keep talking about our career and also encouraging other people who want to join the career to join the cardiac assistant programme.

Alex

Low level of autonomy

Participants expressed conflicting opinions about their ability to practice to their full capability. The majority of cardiac SAs emphasised that they were practicing with low levels of autonomy, as they needed to consult the operating surgeon who made the decisions despite their skills in, for example, identifying suitable vein grafts.

I can say it's very highly dependent on the surgeons. The role itself does not have autonomy. For example, if the leg vein was not good, I couldn't by myself decide to go to the thigh or move to the other leg.

Bev

Others felt that they were able to practice with autonomy, but that it was often contingent upon developing a personal trusting relationship with surgeons over time.

To be honest, I'm happy with my autonomy; however, it's gained through years of experience I used to be an operating room tech for ten years: therefore, I'm known by all the surgeons.

Carol

Furthermore, when discussing their capacity to complete their work, some participants brought up issues of medical hierarchy. This is seen in the emotive language used by the participants. Some participants described the negative effects of comments from surgeons, including humiliation, and being undermined.

Let's say there is a complication during the harvesting ... everything is under control ... I didn't ask for the surgeon's help ... and suddenly I will just see someone pushing my hand away and taking my place. You will feel just bad, and you will feel a little bit humiliated and down, but you cannot really discuss it ... I'm not satisfied at all.

Chris

Lack of role recognition

A number of cardiac SAs spoke about the absence of recognition for their role as a factor which contributed to their lack of autonomy, and which caused frustration. Well, you know, I should say if they are not recognising us officially ... your job title is not clear to everyone – of course you will feel that something is missing. I believe the recognition is a must. Recognition for all the assistants is a must.

Alex

Participants also highlighted worries about medico-legal implications because of the lack of national standardisation of cardiac SA roles. The absence of a protected job title created confusion which negatively influenced their acceptance in the clinical setting because their colleagues and the patients did not always fully understand their role.

I am only known as an SA inside the operating room and, to be honest, I don't feel I am doing an independent profession, as my title is not known – sometimes 'technician's assistant', sometimes 'nurse assistant', even though I am not a nurse.

Ash

Some participants explained how role definition varied between organisations, and consequently they were practising with unclear autonomy or scope. This lack of a clear role structure and formal recognition were found to be contributing factors to the poor social support experienced by the respondents.

Without a clear structure of the role where we can feel we are doing our recognised work, I do not think we will be valued, valued by our organisation ... If I'm a leader of an organisation, how am I going to value and socially support employees without understanding the structure of the role?

Mel

Inconsistency of training

Cardiac SAs expressed concerns regarding their ability to meet certain competencies, such as endoscopic skills to harvest conduits for CABG, and the adequacy of training provided to perform the role, e.g. training in pre- and post-operative skills. There is currently a wide range of training content for cardiac SAs, which has had an impact on the level of equivalence between different organisations. This situation was clearly of concern to participants in this study.

I believe we need more and more training for all the surgical assistants, to at least ... remove the variations between them, to be at the same level, so they can work anywhere with more confidence.

Kris

Participants highlighted their dissatisfaction with only receiving unstructured in-house training and were concerned about the absence of a standardised curriculum to ensure consistent and high-quality education.

I received only in-house training. This is the problem. We don't have a well organised curriculum for training for SAs on the national level or on the centre's level.

Mel

Additionally, some participants mentioned concerns about the unstructured approach of their on-the-job training, which relied upon surgeons who already had their own roles and responsibilities. Often there was minimal oversight to ensure that the training reached appropriate standards.

... do you know who is doing the training? They are the surgeons. Unfortunately, the surgeons they are desiring to improve their own skills, OK. I don't think they will put you before themselves. So maybe they will give you good training, but it's not the optimum training that it should be ... I'm not satisfied.

Danny

Poor appraisal and feedback

The participants unanimously agreed that the feedback they received on their performance was inadequate and inconsistent. Often feedback was dependent on so-called 'incidents' or mistakes and this meant that much of the feedback took a critical approach, rather than being constructive. Assistants mentioned formal job appraisals which were general, not specific to SAs, and were not performed by an appropriate staff member, for example, by a senior cardiac SA.

To be honest, usually it's an evaluation for all the hospital staff. It's a general form with general points, it's not exactly describing what I'm doing as a surgical practitioner in the theatre ... to be honest, it's not specific – it's a general evaluation for all the hospital staff.

Alex

Cardiac SAs stressed that the overall way that their performance was appraised was poor and far below their expectations and needs.

Lack of constructive feedback was interpreted as lack of interest in their role, for some, and was one of the greatest sources of dissatisfaction.

Feeling unappreciated and undervalued

Several individuals declared their intention to leave the job if their role remained unchanged. Along with the factors and issues mentioned previously, cardiac SAs perceived that their role was not being properly incorporated into the organisation. They felt, in part, that this was because their profession was not widely understood by their health care colleagues.

Sometimes you are making your effort and at the end nobody knows what you are doing. Many people ignore what you did. You feel nobody is focusing on your job.

Ash

Several participants felt that their role was characterised by lack of reward and related this to role invisibility. Thus, despite the usefulness of their work, interviewees felt that they were unappreciated by their employers on both an individual and an organisational level. With the exception of a few SAs who expressed their satisfaction with greater autonomy, the remaining respondents felt unsupported in their workplace.

No, no-one looks after us ... maybe because we are just a few groups, that's why they are not focusing on us ... It's really not fair.

Kris

Participants also reported dissatisfaction with the current payment scale, with several participants commenting that the present scale was out of line with their actual activities and responsibilities because it was developed for technicians with minimal responsibilities who did not require sophisticated abilities.

... frankly speaking, this scale was made for technicians whose work will not involve harvesting or any advanced task like what we are doing ... So, I feel it's not fair for our payment to be equal to technicians.

Jem

Participants described the nature of their jobs as having a 'risk to self', but many felt undervalued because they did not receive an 'infection allowance' from their employer which is typically given to practitioners who are prone to infection at work and perform high-risk jobs.

It's not risk-free at all. We are dealing with knives and sharps at all times, and we are prone to injury, injection, infection, and until now we don't have the infection allowance, which is ten percent of the basic salary.

Jo

Participants also felt undervalued by their organisation when they perceived that they had less resources than other professional groups. In particular, participants mentioned that SAs were not always allocated sufficient space within their hospital buildings to do their job properly, to pray or just to relax.

Discussion

This qualitative study of cardiac surgical assistants found that their autonomy was generally fairly limited and tended to be gained after having worked with surgeons for some time. These surgeons then developed confidence having had first-hand evidence of their assistants' skills and knowledge. This autonomy was not there from the outset; therefore, it had to be earned. This is referred to as 'negotiated performance autonomy' and numerous studies indicate that positive interpersonal relationships, collaboration with

medical doctors, and team trust all contribute to autonomy and informal empowerment.^{22,23} However, there are issues with this type of autonomy because it is predicated on the development of trust between non-medical practitioners and medical doctors. Thus, non-medical practitioners' autonomy may be very limited if doctors are excessively authoritarian or bureaucratic.²⁴

Lack of role clarity and recognition of the role at national level was a common source of dissatisfaction among participants. Indeed, a recently published review²⁵ discovered that a lack of role clarity among organisations was impeding effective non-medical advanced clinical practice role implementation in the UK by creating tensions when enacting role autonomy. Currently in the KSA, no national standard exists for the role of cardiac SAs, and each organisation has its own standards and governance. Furthermore, the lack of formal recognition of cardiac SAs on a national level is comparable to the situation in the UK. Although SCPs are typically registered with the Nursing and Midwifery Council or the Health and Care Professions Council, their registration is limited to their first qualification (e.g. as a nurse or operating department practitioner). The regulatory framework is insufficient to encompass their extended surgical practice, meaning that they practise in areas outside their primary (and registered) profession, which consequently limits their role autonomy.26

Participants in this study reported obstacles to on-the-job training, including identifying training needs and appropriate accessibility. Such challenges are the natural outcome of poor role clarity which results in an insufficient knowledge of job prerequisites.²⁷ As trainee cardiac SAs in KSA undergo unstructured

in-house training with no university involvement, this also creates substantial concerns for both patients and trainees.¹³ Even in the UK, where the Department of Health approved a curriculum in 2014 and universities began offering the MSc degree for SCPs, some hospitals continue to appoint SCP trainees for just in-house training.¹³

This study identified two main concerns for SAs regarding performance feedback, namely its inadequate nature and delivery, and the standard of annual appraisals. Ineffective performance feedback, combined with a suboptimal appraisal system, can ultimately result in low job satisfaction.²⁸ However, there is a dearth of literature on how the non-medical workforce in cardiac surgery view their feedback and appraisal systems. The appraisal process is used to determine professional competency, boost staff development, encourage employees, and determine training and development.²⁸ However, participants in this study highlighted the lack of an appropriate competency framework and the inadequacy of their current appraisal systems.

Some participants felt as if they were invisible to their organisations and were unappreciated in terms of rewards and reimbursement. Literature on social support for non-medical workforce practitioners working within extended surgical teams is scarce. However, our findings support a single-centre study in the USA focusing on advanced practitioner burnout which discovered that these practitioners reported a lack of social support.29 Although our study and the US study²⁹ examined distinct contexts and locations, participants in both studies agreed that their managers were unaware of their day-to-day job challenges.

Clinical implications

The data collected from SAs in this project suggest a number of specific recommendations which could enhance their job design in KSA (see Table 2). However, various social and political barriers which may have an impact on the ease with which these recommendations can be implemented should be acknowledged. These may include, but are not limited to, an inadequate level of management support, a lack of encouragement for cardiac SAs to work to their full scope of practise, an organisational focus on a business model rather than on care delivery, and a lack of access to and funding for cardiac SAs' educational and professional development.³⁰ Currently, in the KSA, cardiac SAs are not supported by any professional organisations. This is in contrast to countries such as Australia and the UK where surgical assistants are supported by their respective colleges of surgeons. 14,31 Without the support of such a body, restructuring the way SAs are trained, supported and renumerated in KSA is challenging. Robust research which promotes a better understanding of the outstanding issues and engagement of stakeholders, such as cardiac surgeons and health care managers. are key to this process. Indeed, this research has already prompted informal discussions with individuals affiliated to the Saudi Society for Cardiac Surgeons with regards to their support for several recommendations.

Strengths and limitations

Even though this small study was conducted in a single country and only focused on one non-medical practitioner role, to the best of our knowledge, this is the first qualitative study to explore the

Table 2: Recommendations for enhancing job design of cardiac SAs in Saudi Arabia

Role area	Recommendation	
Organisational governance	Develop a communication strategy to promote the cardiac SA role more effectively internally and among other health care settings, defining its responsibilities, clinical scope and contributions to health care delivery.	
	Develop clear governance on the role which includes a detailed job description of the cardiac SA role.	
Legislation	Seek support for legislation from Saudi Health Commission through education and training to address medico-legal issues that have arisen as a result of a lack of national role recognition for cardiac SAs.	
Training and education	Conduct learning needs analysis at both individual and service levels to assess SAs' existing competencies and inform the development of tailored training to develop the SA role and ensure job safety	
Assessment and appraisal	Produce guidelines for assessment of the cardiac SA role, including identifying appropriately trained assessors to ensure constructive, useful feedback.	
	Ensure line managers can support cardiac SAs' work and provide regular one-to-one reviews to discuss development and concerns.	
	Conduct regular reviews of team working to ensure that cardiac SAs work in inclusive, stable, effective and, ideally, interdisciplinary teams with a suitable hierarchy.	
Employment conditions	Address issues concerning poor job rewards, compensation and adequate reimbursement for the role.	
	Ensure that cardiac SAs have access to organisational resources such as office and rest spaces in line with other professional groups.	

job characteristics of non-medical practitioners who are part of the extended cardiac surgical team. Thus, the results may be of interest to cardiac surgical assistants practicing in other countries as well as other non-medical practitioners in other professions. However, interviewees in this study were from a self-selected pool of volunteers and thus their views and experiences may have been different to those who were not interviewed. In addition, given the important role that other members of the surgical team play in the satisfactory performance of the SA, this research could have been strengthened by the inclusion of other members of staff such as surgeons and line managers in the interview sample.

Future research

To understand the extent to which these results are dependent on context and role, it is suggested that the research be conducted in a variety of settings and with a variety of non-medical practitioner groups. Furthermore, when cardiac non-medical assistants engage in postgraduate and accredited study, the outcomes of job satisfaction and perceived job characteristics may be quite different. Such research could be critically important for countries like Australia, the UK and the USA, as well as for other countries aiming to advance the agenda on non-medical workforce design.

Conclusion

The findings of this study shed light on cardiac SAs' perceptions of their current role and provide suggestions on how to better design these jobs to support a more satisfied. sustainable workforce. Overall, policymakers, health administrators and employers in the KSA need to foster more accommodating professional environments for cardiac SAs and address their work design concerns. This research has contributed to the literature by generating knowledge about the job design of non-medical practitioners in the cardiac surgical field in one country. However, a knowledge gap clearly exists in other countries and other surgical specialties. Findings from this study can contribute to

advancing the agenda on non-medical workforce design globally, supporting Krishnamoorthy and Britton's¹⁴ call for the wider assessment of the challenges of implementing surgical non-medical practitioner roles.

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Supplement 1: Interview guide

Please describe your role as a cardiac surgical assistant.

- 1. What aspects do you find rewarding or most satisfying? Why?
- 2. Generally, what aspects of the role do you find least satisfying or fulfilling? Why?
- 3. How much independence would you say you have in terms of carrying out your work?
- 4. What aspects of your job do you have 1) complete 2) partial 3) no autonomy in? Can you provide examples of each?
- 5. How does this autonomy impact on your motivation and job satisfaction?
- 6. Is there anywhere that you would like more autonomy in your role? Is there scope for this?
- 7. Do you receive any feedback on your work performance? Can you give me some examples of the type of feedback you receive?
- 8. Do you find the feedback satisfactory? What improvements would you make, if any?
- 9. What are the components of your role as an SA? To what extent are you able to complete tasks without interference? Do you find this satisfactory?
- 10. What aspects of the job are particularly complex and need specific training?

- 11. To what extent are you satisfied with the level of training that you receive to perform complex tasks?
- 12. How much do other people (supervisor or peers) in the organisation provide information about your job performance? To what extent are you satisfied with this feedback?
- 13. Since commencing your job as an SA, have you received any awards as a result of your work?
- 14. Could you describe your working environment from a social perspective? For example, do you have the chance to build friendships with other colleagues?
- 15. To what extent are you satisfied with the level of social support provided by your organisation? How might you improve this?
- 16. To what extent do you feel that your job is risk-free? Why do you say this?
- 17. Based on what we've talked about what would help to increase your job satisfaction and motivation? What aspects would you prioritise if you had to choose?
- 18. Is there anything you would like to ask or add?