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Predictors of job satisfaction in the NHS Staff Survey

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Picker

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- Inspire the delivery of the highest quality care, developing tools and services which enable all experiences to be better understood.
- Empower those working in health and social care to improve experiences by effectively measuring, and acting upon, people's feedback.

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Predictors of job satisfaction in the NHS Staff Survey

Steve Sizmur, Dan Woods and Jaana Kosunen

The NHS Staff Survey provides comprehensive feedback on the experiences of people working in the health service. Picker currently provides staff survey services to 175 NHS organisations.

Although all of the survey questions cover aspects of job experience that are considered important, it is sometimes useful to focus on those aspects that make the most difference to how staff feel about their employment. In other words, it is useful to find what best predicts job satisfaction.

We used the data from the 2018 NHS Staff Survey for the organisations we work with to identify a measure of job satisfaction and of the relationships between this and a range of questions in the survey.

A measure of job satisfaction

Job satisfaction is an unobservable or ‘latent’ psychological construct; to measure it, we need one or more indicator questions that show how positively a staff member feels about their employment. There is no single question in the NHS Staff Survey that is intended to measure job satisfaction, and consequently a combination of indicators is needed. Reviewing the questionnaire, we considered the following potential contributors (Table 1), and identified those shown in bold as providing the most direct indicators of satisfaction. We considered that the questions not in bold could be more prone to influences additional to positive feelings about current employment.

Table 1: possible indicators of job satisfaction

Questions under consideration
Q2a. I look forward to going to work
Q2b. I am enthusiastic about my job
Q21c. I would recommend my organisation as a place to work
Q23a. I often think about leaving this organisation
Q23b. I will probably look for a job at a new organisation in the next 12 months
Q23c. As soon as I can find another job, I will leave this organisation

The relationship between questions and a hypothesised latent construct can be explored using factor analysis. In the factor analytic model, the latent variable influences responses on the indicators, with the strength of this influence being shown by factor ‘loadings’. A technique known as parallel analysis was applied to test whether the results of these questions are indeed driven by a single variable or whether there are other influences. This indicated that a single construct could account for the responses to these six questions.

For a good measure of a latent construct, indicators should be ‘exchangeable’: removing or replacing one question should not change the meaning of the score. It was clear from the analysis that the items forming Q23 were much more closely related to one another than to the other items, suggesting a level of redundancy amongst them and also a risk that these questions ‘drive’ the overall measure of satisfaction. Reducing the item selection to the three favoured items listed **in bold** preserved the strength of the relationship between the construct and Q2b & Q21c but reduced the strength of the relationship with Q23c. Including just the three questions, the factor loadings were more uniform, showing that job satisfaction contributes similarly to the responses on all three items. This was a more satisfactory arrangement than including all six of the indicator questions listed in Table 1.

As a result of this analysis, we adopted these three questions (Q2b, Q21c, and Q23c) as providing the best available measure of job satisfaction within the questionnaire. Job satisfaction for each respondent was calculated as the average of their ratings on the three questions (the rating for Q23c was inverted so that higher ratings indicated greater satisfaction).

Measuring question importance

Picker reports staff survey questions as ‘positive scores’: the proportion of respondents in an organisation giving the most positive evaluation of their experience. To gauge the ‘importance’ of the various questions to job satisfaction, we examined the correlations between the positive-scored questions and the job satisfaction score (Appendix 1). Correlations indicate the extent to which two items vary together: the highest correlations indicate that a positive response to those questions is strongly associated with job satisfaction while low correlations indicate questions that are essentially unrelated to job satisfaction. The range of values obtained was sufficient to suggest real differences in the strength of this relationship, from very closely related to effectively no relationship to satisfaction.

We excluded from this analysis the questions in Table 1, as these were shown from the factor analysis to be additional (but less pure) indicators of satisfaction rather than predictors of satisfaction. We also excluded questions about the care provided to service users, since we would argue that while this should be a priority for services it is not an aspect of how staff are treated by their employer – particularly for non-patient-facing roles – and is also not something that managers can easily change to improve job satisfaction. The ten best predictors of job satisfaction were:

- Q14. Does your organisation act fairly with regard to career progression/promotion...?
- Q5f. The extent to which my organisation values my work.
- Q5e. The opportunities I have to use my skills.
- Q5a. The recognition I get for good work.
- Q5d. The amount of responsibility I am given.
- Q3b. I am trusted to do my job.
- Q4a. There are frequent opportunities for me to show initiative in my role.
- Q4j. I receive the respect I deserve from my colleagues at work.
- Q5b. The support I get from my immediate manager.

- Q4b. I am able to make suggestions to improve the work of my team/department.

The questions showing the weakest relationship with job satisfaction were:

- Q19f. Were any training, learning or development needs identified?
- Q13a. In the last 12 months how many times have you personally experienced harassment, bullying or abuse at work from...Patients...?
- Q15a. Experienced discrimination from Patients/service users, their relatives or other members of the public
- Q19a. In the last 12 months, have you had an appraisal, annual review, development review, or KSF development review?
- Q12c. In the last 12 months how many times have you personally experienced physical violence at work from...Other colleagues
- Q16b. In the last month have you seen any errors, near misses, or incidents that could have hurt patients/service users?
- Q12a. In the last 12 months how many times have you personally experienced physical violence at work from...Patients/service users...
- Q10c. On average, how many additional UNPAID hours do you work per week for this organisation, over and above your contracted hours?
- Q11g. Have you put yourself under pressure to come to work?
- Q10b. On average, how many additional PAID hours do you work per week for this organisation, over and above your contracted hours?

We wanted to know whether the factors associated with job satisfaction were similar in different types of employment. We therefore calculated the correlations between satisfaction and the positive scores for the data set overall, then separately for eight different kinds of organisation represented in the survey, and again separately for staff whose roles were 'definitely' patient-facing and those whose roles were not patient-facing (Q1 in the survey).

Although there were small variations in the magnitude of the correlation coefficients between different cuts of the data, the order of the coefficients was very similar, as measured using Spearman rank-order correlations (Appendix 2).

This is an important result, and suggests that the predictors of job satisfaction are substantially independent of the type of role undertaken. This implies that we can use the importance rankings thus generated to better understand staff experience.

Conclusions

The three selected questions provide a good measure of job satisfaction, within the limits imposed by the questionnaire. The other questions in the survey, measuring different aspects of workers' experience of their employment, show varying degrees of relationship with job satisfaction. However, the pattern of relationships between these aspects of employment and job satisfaction is essentially the same irrespective of the type of organisation the respondent works in or of whether their role involves direct interaction with patients.

Across roles and organisations, the best predictors of job satisfaction were whether the employee felt that the organisation acts fairly in career progression, values their work,

provides opportunities to use their skills, recognises good work and gave an appropriate amount of responsibility. The aspects least predictive of satisfaction were to do with experience of harassment or violence and working extra hours. It is important to note, however, that questions towards the bottom of the list are not necessarily unimportant, just poor predictors of the person's overall job satisfaction. Whether an employee faces violence from patients is clearly a hugely important matter, although it does not appear to be reflected in employee satisfaction ratings (perhaps because it is relatively rare). In the case of working hours, it may be that willingness to work additional paid or unpaid hours is adversely affected by job satisfaction. Neither is it necessarily the case that improving factors near the top of the list will increase satisfaction. However, there are reasonable grounds for using these statements and their relationship to overall job satisfaction to reflect on how employees experience their work.

Further information

The various results are reported in the appendix.

The core questionnaire for 2018 and other information about the NHS staff survey can be found here <http://www.nhsstaffsurveys.com/Page/1058/Survey-Documents/Survey-Documents/>

Appendix 1: Correlations between survey questions and job satisfaction

The following correlations show the strength of relationship between the job satisfaction score and what each survey question is measuring. A correlation of 1 indicates a perfect relationship, while a correlation of 0 no relationship.

Correlations (in descending order)		
Q14	0.66	Does your organisation act fairly with regard to career progression/promotion...?
Q5f	0.63	The extent to which my organisation values my work.
Q5e	0.61	The opportunities I have to use my skills.
Q5a	0.61	The recognition I get for good work.
Q5d	0.60	The amount of responsibility I am given.
Q3b	0.59	I am trusted to do my job.
Q4a	0.58	There are frequent opportunities for me to show initiative in my role.
Q4j	0.57	I receive the respect I deserve from my colleagues at work.
Q5b	0.55	The support I get from my immediate manager.
Q4b	0.55	I am able to make suggestions to improve the work of my team/department.
Q8g	0.54	My immediate manager values my work.
Q19d	0.53	It left me feeling that my work is valued by my organisation.
Q28b	0.53	Has your employer made adequate adjustment(s) to enable you to carry out your work?
Q3a	0.52	I always know what my work responsibilities are.
Q8a	0.52	My immediate manager encourages me at work.
Q9b	0.52	Communication between senior management and staff is effective.
Q4h	0.51	The team I work in has a set of shared objectives.
Q4d	0.51	I am able to make improvements happen in my area of work.
Q18c	0.51	I am confident that my organisation would address my concern.
Q3c	0.50	I am able to do my job to a standard I am personally pleased with.
Q9d	0.50	Senior managers act on staff feedback.
Q11c	0.49	During the last 12 months have you felt unwell as a result of work related stress?
Q9c	0.49	Senior managers here try to involve staff in important decisions.
Q11a	0.49	Does your organisation take positive action on health and well-being?
Q6c	0.49	Relationships at work are strained.
Q13b	0.49	In the last 12 months how many times have you personally experienced harassment, bullying or abuse at work from...Managers?
Q8b	0.49	My immediate manager can be counted on to help me with a difficult task at work.
Q5c	0.48	The support I get from my work colleagues.
Q4c	0.48	I am involved in deciding on changes introduced that affect my work area/team/department.
Q17a	0.47	My organisation treats staff who are involved in an error, near miss or incident fairly.
Q19c	0.46	It helped me agree clear objectives for my work.
Q8f	0.46	My immediate manager takes a positive interest in my health and well-being.
Q8d	0.46	My immediate manager asks for my opinion before making decisions that affect my work.
Q8c	0.45	My immediate manager gives me clear feedback on my work.
Q15b	0.45	Experienced discrimination from Manager/team leader or other colleagues
Q17c	0.45	When errors, near misses or incidents are reported, my organisation takes action to ensure that they do not happen again.
Q11e	0.43	Have you felt pressure from your manager to come to work?
Q19b	0.43	It helped me to improve how I do my job.
Q4i	0.42	The team I work in often meets to discuss the team's effectiveness.
Q17b	0.42	My organisation encourages us to report errors, near misses or incidents.
Q19g	0.41	My manager supported me to receive this training, learning or development.
Q18b	0.41	I would feel secure raising concerns about unsafe clinical practice.
Q8e	0.40	My immediate manager is supportive in a personal crisis.
Q17d	0.39	We are given feedback about changes made in response to reported errors, near misses and incidents.
Q4g	0.39	There are enough staff at this organisation for me to do my job properly.

Q4f	0.39	I have adequate materials, supplies and equipment to do my work.
Q19e	0.38	The values of my organisation were discussed as part of the appraisal process.
Q4e	0.38	I am able to meet all the conflicting demands on my time at work.
Q5h	0.38	The opportunities for flexible working patterns.
Q5g	0.37	My level of pay.
Q11d	0.36	In the last three months have you ever come to work despite not feeling well enough to perform your duties?
Q6b	0.32	I have a choice in deciding how to do my work.
Q9a	0.30	I know who the senior managers are here.
Q18a	0.29	If you were concerned about unsafe clinical practice, would you know how to report it?
Q11f	0.28	Have you felt pressure from colleagues to come to work?
Q13c	0.28	In the last 12 months how many times have you personally experienced harassment, bullying or abuse at work from...colleagues?
Q20	0.27	Have you had any training, learning or development in the last 12 months? (Please do not include mandatory training)
Q11b	0.24	In the last 12 months have you experienced musculoskeletal problems (MSK) as a result of work activities?
Q6a	0.21	I have unrealistic time pressures.
Q12b	0.20	In the last 12 months how many times have you personally experienced physical violence at work from...Managers
Q16a	0.20	In the last month have you seen any errors, near misses, or incidents that could have hurt staff?
Q19f	0.18	Were any training, learning or development needs identified?
Q13a	0.17	In the last 12 months how many times have you personally experienced harassment, bullying or abuse at work from...Patients...?
Q15a	0.16	Experienced discrimination from Patients/service users, their relatives or other members of the public
Q19a	0.16	In the last 12 months, have you had an appraisal, annual review, development review, or KSF development review?
Q12c	0.15	In the last 12 months how many times have you personally experienced physical violence at work from...Other colleagues
Q16b	0.13	In the last month have you seen any errors, near misses, or incidents that could have hurt patients/service users?
Q12a	0.07	In the last 12 months how many times have you personally experienced physical violence at work from...Patients/service users...
Q10c	0.04	On average, how many additional UNPAID hours do you work per week for this organisation, over and above your contracted hours?
Q11g	0.03	Have you put yourself under pressure to come to work?
Q10b	-0.03	On average, how many additional PAID hours do you work per week for this organisation, over and above your contracted hours?

Appendix 2: Differences in the ordering of questions

The following correlations show the extent to the questions are ranked the same way in different types of organisation. A correlation of 1 indicates exactly the same ordering, while a correlation of 0 indicates completely different ordering.

Correlations between question orderings by organisation type								
		ACO	ACU	AMB	ASP	CCG	COM	MCO
Spearman's rho	ACU	1.00						
	AMB	0.91	0.91					
	ASP	0.98	0.99	0.91				
	CCG	0.95	0.96	0.89	0.96			
	COM	0.97	0.98	0.91	0.97	0.97		
	MCO	0.98	0.98	0.91	0.97	0.96	0.99	
	MEN	0.98	0.98	0.91	0.97	0.95	0.99	0.99

ACO: acute/community trust

ACU: acute trust

AMB: ambulance trust

ASP: acute specialist trust

CCG: clinical commissioning group/CCG support unit

COM: community trust

MCU: community and mental health trust

MEN: mental health trust

The following correlation shows the extent to the questions are ranked the same way in different types of employee role. A correlation of 1 indicates exactly the same ordering, while a correlation of 0 indicates completely different ordering.

Correlations between importance measures by staff role		
		Not patient-facing
Spearman's rho	'Definitely' patient-facing	0.98

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