Relationships between job satisfaction, intentions to leave family practice and actually leaving among family physicians in England

Mark Hann, David Reeves, Bonnie Sibbald

NPCRDC, The University of Manchester, Oxford Road, Manchester, UK

Correspondence: Mark Hann, NPCRDC, 5th Floor – Williamson Building, The University of Manchester, Oxford Road, Manchester M13 9PL, UK, tel: +44 (0) 161 275 7641, fax: +44 (0) 161 275 7600, e-mail: mark.hann@manchester.ac.uk

Received 18 September 2009, accepted 10 January 2010

Background: A national survey of family physicians working in the National Health Service (NHS) of England in 2001 revealed that 1/10 under 50 years of age were intending to leave direct patient care within 5 years, and that the principal predictor of their intention to leave was job satisfaction. Our research addressed two questions. First, does a family physician’s stated intention to leave their job predict whether or not they actually do leave? Second, to what extent does job satisfaction predict actually leaving? Methods: Secondary data analysis was performed on 1174 family physicians aged 50 years and under, who responded to the aforementioned survey. Using data from the annual census of physicians in the NHS, we determined which physicians actually left family practice during the next 5 years. Results: Of the 1174 family physicians studied, 194 (16.5%) had left direct patient care within 5 years. Multivariate regression showed that job satisfaction predicted a physician’s intention to leave direct patient care and that intention to leave predicted actually leaving. Logically, job satisfaction should then have predicted actual leaving. Our findings, however, suggest that this is only partly true. Conclusion: Although higher levels of job ‘dissatisfaction’ were associated with an increased likelihood of leaving, higher levels of job ‘satisfaction’ did not prevent leaving.

Keywords: England, family physician, family practice, intention to leave, job satisfaction

Introduction

Job satisfaction is known to predict job turnover, but the nature and strength of this association are rarely measured in the medical workforce. While the association of job satisfaction with intentions to leave and the association of intentions to leave with actually having been relatively well studied, only a small number of studies have investigated the effect of job satisfaction on actually leaving and here the findings have been mixed. For example, Vernooij-Dassen et al. concluded (qualitatively) that a lack of job satisfaction was the main reason for leaving amongst dementia care workers in the Netherlands, whilst Suzuki et al. found that very dissatisfied novice nurses in Japan were over seven times more likely to leave their job than very satisfied ones. Misra-Hebert et al. reported that a number of American studies have also confirmed an association between job satisfaction and leaving, although Rittenhouse et al. found no such association amongst a sample of specialist physicians in urban California. By way of contrast, in the economics literature, the association between job satisfaction and leaving has typically been observed to be negative and significant.

Understanding the link between job satisfaction and turnover in the medical workforce is particularly important because of the high cost of training physicians, the relative shortage of physicians in many developed and developing nations and the high cost of turnover to employers. Within the medical workforce, primary care physicians are generally the most numerous type given their pivotal role as the frontline providers of health care to the population. It is therefore particularly important to understand the factors affecting job satisfaction and retention in this sector of the workforce.

The factors influencing job satisfaction are often decomposed into extrinsic and intrinsic factors. Extrinsic factors relate to the architecture of a job, such as pay, working conditions and hours of work. Intrinsic factors relate to psychological attributes of a job, such as the inherent nature of the work, ability to use and develop one’s skills and recognition for achievement. Attention to intrinsic job factors matters most in promoting high levels of job satisfaction. Extrinsic factors are potent sources of job dissatisfaction, but improving such factors above a minimum acceptable level does not produce sustained improvements in job satisfaction.

Economic theorists argue that extrinsic factors, specifically pay, can be used to compensate workers for deficits in other job attributes. Thus, pay can be used as a proxy for the overall value or utility of a job and job moves can be viewed as a strategy for maximizing pay. While empirical research supports the contention that dissatisfaction with pay is an important determinant of employee turnover, other factors, such as job security, the opportunity to use one’s skills, the inherent nature of the work and working hours also play a significant role. Moreover the relative importance of these various factors in prompting turnover varies across different sectors of the workforce.

Public-sector workers, for example, may be dissatisfied with the pay, bureaucracy and workload they believe characterize the public sector but nonetheless decline to work for the private sector because the intrinsic value of public service outweighs the extrinsic value of pay maximization. Delfgaauw found that workers who elected to change jobs...
within the public sector experienced smaller pay gains than did workers who elected to move from public to private sector jobs. More importantly, he showed that this difference was explained by the differences in employees’ reasons for leaving their job. Workers who left because they were dissatisfied with job attributes that prevail throughout the public sector (bureaucracy, pay and inherent nature of the work) were likely to seek jobs in the private sector. Workers who left because they were dissatisfied with job attributes attributable to a specific employer (opportunities to use one’s skills, recognition for achievement and hours of work) were likely to seek other public-sector jobs.

Overall job satisfaction is a useful proxy for the net value or utility of a job to the employee, combining intrinsic and extrinsic factors both observable and unobserved. Dissatisfied employees are more likely than satisfied ones to express an intention to leave their job,\(^{11,12}\) and intent to leave is associated with actual turnover.\(^{5,6,13}\) Logically, job satisfaction should then predict the likelihood a person leaves their job. While empirical research generally supports this contention, the evidence base is surprisingly sparse and measured associations vary widely. Factors unrelated to job satisfaction, such as ill health, the need to care for a dependent relative or the desire to take a career break to rear children may influence both intentions to leave and actually leaving. The variation in actually leaving that can be explained by job satisfaction is therefore uncertain and may vary across different sectors of the workforce.

We aimed to explore the relationships between job satisfaction, intentions to leave and actually leaving among family physicians working in the National Health Service (NHS) of England. In 2001, we conducted a national survey of family physicians which revealed that 1/10 under 50 years of age were intending to leave direct patient care within 5 years,\(^ {14}\) and that the principal predictor of their intention to leave was job satisfaction.\(^ {14,15}\) We have since followed-up the physicians who participated in the survey to ascertain which actually left work within the subsequent 5 years. Here, we report the results of our analysis which looks at the variation in leaving that can be explained by job satisfaction.

**Methods**

Secondary data analysis was performed on 1174 family physicians aged 50 years and under who responded to the aforementioned survey, the details of which have been reported elsewhere.\(^ {14}\) In brief, questionnaires were posted to a random sample of 2000 family physicians in England, of whom 67% responded. The age distribution of the 1174 respondents was representative of all family physicians in England aged 50 years and under in 2001. However, the percentage of male respondents in the sample was considerably higher.

Physicians were asked to rate their overall job satisfaction, on a seven-point ordinal scale from ‘extremely dissatisfied’ to ‘extremely satisfied’, and state the likelihood that they would leave direct patient care within the next 5 years—‘none’, ‘slight’, ‘moderate’, ‘likely’ or ‘high’.

Using data from the annual census of physicians in the NHS, we determined which physicians actually left family practice (either temporarily or permanently) during the next 5 years. The annual census of physicians is conducted on 1st October each year and records all physicians in contract with the NHS ‘at that time’, although no information is available on the exact dates of when a contract begins or ends. The data are collated by (and is copyright of) the Health and Social Care Information Centre, England.

Individual physicians were tracked through successive censuses using their unique registration number with the General Medical Council (which licences physicians for practice in the UK). If a physician was not present on any one of the censuses from 2002 to 2006, they were deemed to have left family practice in the NHS, regardless of whether or not they subsequently returned. Physicians who left to undertake private family practice, to practice overseas or to take a career break for whatever reason were counted as having left as no information regarding the reason for leaving was available.

**Statistical analyses**

It was necessary to collapse the original seven-point job satisfaction scale to six points by combining the responses ‘very satisfied’ and ‘extremely satisfied’ because there were too few physicians in the ‘extremely satisfied’ category (\(n = 12\)) for analysis.

We first regressed the binary outcome variable ‘left direct patient care within 5 years’ on physicians’ stated intention to leave, controlling for known confounding effects—age, gender, ethnicity (white vs. non-white) and number of children aged under 18 years\(^ {14}\)—using logistic regression. Next, we regressed the same outcome variable on job satisfaction, controlling for the same confounding effects. We then included intention to leave in this model to assess whether this variable ‘mediated’ the relationship between job satisfaction and actually leaving. Mediational models are presumed ‘causal’;\(^ {16}\) for example, job satisfaction motivates a physician’s intention to leave family practice, not vice versa. The significance of multiple-category ordinal independent variables (job satisfaction; intention to leave) was assessed using a joint hypothesis test. This test tests whether the model coefficients for each category, taken as a whole, are simultaneously zero.\(^ {17}\) Where appropriate, tests for trends in the outcome, across ordered categories, were performed.\(^ {18}\)

**Results**

**Intention to leave family practice as a cause of actually leaving**

Of the 1174 family physicians studied, 194 (16.5%) had left direct patient care within 5 years. The percentage actually leaving increased monotonically with increasing intent to leave (table 1). Controlling for age, gender, ethnicity and number of children, a physician’s intention to leave was a significant predictor of actually leaving (\(\chi^2_{10} = 29.1, P < 0.001\)). The greater a physician’s intention to leave, the greater the likelihood they actually left—a trend which was highly significant (\(z = 5.36, P < 0.001\)).

<table>
<thead>
<tr>
<th>Intention to leave</th>
<th>Number of physicians</th>
<th>Number leaving</th>
<th>% leaving</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘none’</td>
<td>508</td>
<td>60</td>
<td>11.8</td>
</tr>
<tr>
<td>‘slight’</td>
<td>363</td>
<td>59</td>
<td>16.3</td>
</tr>
<tr>
<td>‘moderate’</td>
<td>164</td>
<td>34</td>
<td>20.7</td>
</tr>
<tr>
<td>‘likely’</td>
<td>65</td>
<td>16</td>
<td>24.6</td>
</tr>
<tr>
<td>‘high’</td>
<td>74</td>
<td>25</td>
<td>33.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1174</td>
<td>194</td>
<td>16.5</td>
</tr>
</tbody>
</table>

\(^a\): leaving direct patient care within 5 years.
Job satisfaction as a cause of leaving family practice

The estimated odds ratios and 95% confidence intervals for these models are shown in table 2. The baseline category was the original mid-point of the job satisfaction scale denoting that a physician was neither satisfied nor dissatisfied. Hence, the table shows the odds of leaving direct patient care at increasing levels of satisfaction as well as increasing levels of dissatisfaction.

When the outcome variable was regressed on job satisfaction alone, controlling for confounding variables (model 1, table 2), the joint hypothesis test of simultaneously zero job satisfaction coefficients was rejected ($\chi^2(5) = 11.87$, $P=0.037$). Thus, it appeared that level of job satisfaction was a significant causal factor in a physician’s decision to leave family practice. However, upon inclusion of intent to leave (model 2, table 2), the association between job satisfaction and actual leaving becomes non-significant ($\chi^2(5) = 7.50$, $P=0.186$), although some association still persists. This suggests that intent to leave mediates most of the effect of job satisfaction on leaving (not all of the steps required to show this are presented, but they are satisfied).16 In other words, it is a physician’s stated intention to leave, rather than their level of job satisfaction, that best predicts whether they actually leave family practice or not.
Table 3 The association between leaving family practice and a physician’s level of job satisfaction

<table>
<thead>
<tr>
<th>Job satisfaction</th>
<th>Number of physicians</th>
<th>Number leaving family practice*</th>
<th>Number leaving within 1 year and never returning</th>
<th>% leaving within 1 year and never returning</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘extremely dissatisfied’</td>
<td>50</td>
<td>14</td>
<td>8</td>
<td>57.14</td>
</tr>
<tr>
<td>‘very dissatisfied’</td>
<td>138</td>
<td>22</td>
<td>8</td>
<td>36.36</td>
</tr>
<tr>
<td>‘dissatisfied’</td>
<td>241</td>
<td>45</td>
<td>15</td>
<td>33.33</td>
</tr>
<tr>
<td>‘neither satisfied nor dissatisfied’</td>
<td>258</td>
<td>35</td>
<td>13</td>
<td>37.14</td>
</tr>
<tr>
<td>‘satisfied’</td>
<td>327</td>
<td>49</td>
<td>14</td>
<td>28.57</td>
</tr>
<tr>
<td>‘very/extremely satisfied’</td>
<td>160</td>
<td>30</td>
<td>8</td>
<td>26.67</td>
</tr>
<tr>
<td>Total</td>
<td>1174</td>
<td>195</td>
<td>66</td>
<td>33.85</td>
</tr>
</tbody>
</table>

a: leaving direct patient care within 5 years.

In order to illustrate this, figure 1 shows the probability of leaving direct patient care by intention to leave and job satisfaction, adjusted for physicians’ gender, age, ethnicity and number of children under 18 years of age. The probability of leaving increases monotonically as stated intent to leave increases. Job satisfaction shows an approximate U-shaped distribution at each level of intention to leave, suggesting that both highly satisfied and highly dissatisfied physicians are more likely to leave than those with neutral levels of job satisfaction.

We then hypothesized that dissatisfied physicians might leave permanently, while satisfied physicians might return. Table 3 shows that, of the 50 physicians who expressed extreme dissatisfaction with their job, 14 left direct patient care within 5 years and, of these, eight (57.1%) left within 1 year and never returned. In contrast, of the 160 physicians who expressed the greatest satisfaction with their job, 30 left within 5 years and, of these, just eight (26.7%) left within 1 year and never returned.

Discussion

Of the 1174 family physicians surveyed, one in six left their job within 5 years—a substantial figure for a group not yet nearing retirement age. Responders may have been more dissatisfied with their jobs than non-responders, leading to exaggerated estimates of dissatisfaction, intentions to leave and actual leaving. This might also explain the elevated prevalence of men in the sample, as previous research suggests men express lower levels of satisfaction with their work than do women.14,15 Non-response bias, however, is unlikely to explain the observed relationships among job satisfaction, intentions to leave and actual leaving.

We showed previously that job satisfaction predicts intention to leave direct patient care in this population14 and the findings presented here show that intention to leave predicts actually leaving. Logically, job satisfaction should then predict actual leaving. Our findings, however, suggest that this is only partly true. Although higher levels of job ‘dissatisfaction’ were associated with an increased likelihood of leaving, higher levels of job ‘satisfaction’ did not prevent leaving.

The explanation for this paradox may lie in closer scrutiny of the factors underpinning job satisfaction. As noted above, job satisfaction is a proxy measure of the overall value of a job to the physician, taking both extrinsic and intrinsic factors into consideration. Intrinsic job attributes increase a person’s pleasure in work, while extrinsic job attributes are capable only of promoting displeasure. As the factors causing satisfaction are different from those causing dissatisfaction, the two feelings cannot be treated as opposites of one another. The opposite of satisfaction is not dissatisfaction but ‘no satisfaction’. Job satisfaction scales, such as the one we used here, are therefore measuring two distinct constructs (satisfaction and dissatisfaction) only one of which (dissatisfaction) is strongly associated with an intent to leave one’s job. Thus, it seems probable that dissatisfied physicians leave because they are dissatisfied with their job, while satisfied physicians leave for reasons unrelated to their jobs. Estimates of the confounding parameters suggest that, independently, younger physicians, female physicians and physicians with fewer children under 18 years of age are more likely to leave family practice. Thus, it may be that social factors, such as the desire to have children and raise a family, may be as important as job dissatisfaction in explaining why some physicians leave family practice. We could not explore these ideas as we had no information about physicians’ reasons for leaving or their destination on leaving.

In order to further illustrate this, figure 1 shows the probability of leaving by intention to leave and job satisfaction, adjusted for physicians’ gender, age, ethnicity and number of children under 18 years of age. The probability of leaving increases monotonically as stated intent to leave increases. Job satisfaction shows an approximate U-shaped distribution at each level of intention to leave, suggesting that both highly satisfied and highly dissatisfied physicians are more likely to leave than those with neutral levels of job satisfaction.

We then hypothesized that dissatisfied physicians might leave permanently, while satisfied physicians might return. Table 3 shows that, of the 50 physicians who expressed extreme dissatisfaction with their job, 14 left direct patient care within 5 years and, of these, eight (57.1%) left within 1 year and never returned. In contrast, of the 160 physicians who expressed the greatest satisfaction with their job, 30 left within 5 years and, of these, just eight (26.7%) left within 1 year and never returned.

Discussion

Of the 1174 family physicians surveyed, one in six left their job within 5 years—a substantial figure for a group not yet nearing retirement age. Responders may have been more dissatisfied with their jobs than non-responders, leading to exaggerated estimates of dissatisfaction, intentions to leave and actual leaving. This might also explain the elevated prevalence of men in the sample, as previous research suggests men express lower levels of satisfaction with their work than do women.14,15 Non-response bias, however, is unlikely to explain the observed relationships among job satisfaction, intentions to leave and actual leaving.

We showed previously that job satisfaction predicts intention to leave direct patient care in this population14 and the findings presented here show that intention to leave predicts actually leaving. Logically, job satisfaction should then predict actual leaving. Our findings, however, suggest that this is only partly true. Although higher levels of job ‘dissatisfaction’ were associated with an increased likelihood of leaving, higher levels of job ‘satisfaction’ did not prevent leaving.

The explanation for this paradox may lie in closer scrutiny of the factors underpinning job satisfaction. As noted above, job satisfaction is a proxy measure of the overall value of a job to the physician, taking both extrinsic and intrinsic factors into consideration. Intrinsic job attributes increase a person’s pleasure in work, while extrinsic job attributes are capable only of promoting displeasure. As the factors causing satisfaction are different from those causing dissatisfaction, the two feelings cannot be treated as opposites of one another. The opposite of satisfaction is not dissatisfaction but ‘no satisfaction’. Job satisfaction scales, such as the one we used here, are therefore measuring two distinct constructs (satisfaction and dissatisfaction) only one of which (dissatisfaction) is strongly associated with an intent to leave one’s job. Thus, it seems probable that dissatisfied physicians leave because they are dissatisfied with their job, while satisfied physicians leave for reasons unrelated to their jobs. Estimates of the confounding parameters suggest that, independently, younger physicians, female physicians and physicians with fewer children under 18 years of age are more likely to leave family practice. Thus, it may be that social factors, such as the desire to have children and raise a family, may be as important as job dissatisfaction in explaining why some physicians leave family practice. We could not explore these ideas as we had no information about physicians’ reasons for leaving or their destination on leaving.

Our previous research into job satisfaction and intentions to leave in this workforce showed that, although pay affected overall job satisfaction, it had no direct effect on intentions to leave.19 Erosion of autonomy through increased external monitoring, the effect of NHS reforms and a high intensity of work appeared more important in adversely affecting retention. These findings were echoed in an earlier study in which we investigated reasons for leaving and career destinations of a cohort of family physicians who had actually left family practice.20 High workload, lack of flexible hours, NHS reforms and rising patient expectations were the most frequently cited reasons for leaving; other medically related work was the most common destination for leavers.

Job dissatisfaction is potentially amenable to workplace intervention.21,22 The importance of reducing job dissatisfaction is illustrated by our finding that extremely dissatisfied physicians left family practice quickly and did not return, while highly satisfied physicians stayed longer and were more likely to return.

Acknowledgements

We thank Alex Ding and Martin Roland for their critical comments, and Elaine Harkness and Hugh Gravelle for their assistance and advice in the early stages of this work. The views expressed are those of the authors and do not necessarily reflect those of the Department of Health.

Funding

The work was funded by the National Primary Care Research and Development Centre from its core grant from the Department of Health of England.

Conflicts of interest: None declared.

Key points

- One in six English family physicians who responded to a survey in 2001 left direct patient care within the next 5 years.
- A physician’s intention to leave family practice, rather than their level of job satisfaction, best predicted whether they actually left or not.
- Physicians who were satisfied with their jobs were as likely to leave family practice as those who were dissatisfied, but much more likely to return.
- Causes of job dissatisfaction need to be addressed in order to counter the phenomenon of family physicians permanently leaving the profession.
References


