Securing the future: retention of older health care workers

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Introduction
The workforce shortages in the Australian health care system are well documented. These shortages are more evident in rural and remote areas of Australia and despite some variance, encompass most health care professions. There is an inequitable distribution of health workers between metropolitan and rural and remote areas. This problem is exacerbated by the following trends. Rural populations experience not only poorer health outcomes than those in metropolitan areas, but also a higher rate of morbidity (1, 2). Secondly, the growth of the Australian population combined with the impending shift in the age structure of the population in the next 40 years, will drive future demand for hospital and health care services because older people generally require additional treatment by health care professionals and more hospital care (3, 4). A multitude of government reports have drawn attention to such labour shortages and the inevitable strain placed on current and future budgets (5, 6).

In addition to these budget pressures, the shrinking pool of younger employees as the health workforce ages and retires poses a threat to the availability of health services to future generations. It appears unlikely that those young health care professionals entering the workforce will make up sufficient numbers to replace Baby Boomers as they retire (3, 7). Schofield (2007) estimates that an average of 14% of the nursing workforce will retire every five years from 2006 to 2026, which represents between 20,000 and 25,000 nurses every five years. Despite increases in nursing places, future replacements may not make up for the increased demand (8). In the Health Workforce 2025 report, it is estimated that workforce shortages will be significant: for nurses 109,000 and for doctors 2,700 (9). Estimates of shortages for allied health professionals are less certain given the diversity of allied health professionals and the varying capacity to collect such data (10).

Awareness of this impending workforce crisis has led to a number of policy responses. The establishment of Rural Workforce Australia and Health Workforce Australia (HWA) provides an example of a significant initiative designed to address the problem. The role of HWA is to work with governments, professions and the health and higher education sectors to further develop and implement the necessary workforce, workplace and training reform (9). One of the stated goals of HWA is increasing numbers in the workforce (increasing numbers of clinical training places, encouraging re-entry, and supporting retention). In addition, recruitment strategies to rural areas have been a high priority for rural and regional practices in the past decade. The responses to these issues are varied, but include maintaining skilled migration, increasing the intake of students into health courses, exploring “new models of care”, and improving recruitment and retention, in particular within rural and remote communities.

It would seem obvious that one of the solutions might be to explore strategies designed to retain older health care workers. There is a considerable body of literature devoted to the retention of rural health care workers and health care workers more generally. Despite this there is limited research that explores the retention of older rural health care workers specifically. The literature on retention rarely takes into account age. Instead once a worker enters the age group of 50-55+, this shifts them into the domain of retirement, which adds another dimension to the retention issue. Leaving age aside, there appears to be four categories that are involved in decisions by rural health care workers to leave employment:

- Work/organisational, personal/social, financial and location/geography. The size and type of an organisation can have an impact on retention (11, 12) whether the worker is in a public setting or private practice (13, 14).
- The literature details various retention strategies yet there is a scarcity of research that evaluates the effectiveness of any particular strategy (12, 15). The evidence points to the development of “bundles of strategies” to address the various retention factors and for health services to prioritise and bundle
appropriate retention incentives according to need. (12, 15). This highlights the need for a rigorous investigation of organisational and social factors based upon a strong theoretical foundation.

**Theoretical framework**

This present research utilises the effort-reward imbalance model (ERI) that has been employed extensively in European studies of health and well-being of human service workers. This theoretical model gauges an employee’s perception of job stress, while allowing for the inclusion of individual difference variables. While the ERI model has been largely untested in an Australian population, it has been used frequently in explaining the contribution of work stress in the human service sector (16). Although other models of work stress are common in the literature, such as the job demand-control model (17), the ERI model provides an account of the more subjective elements involved in the stress process, allowing for a more psychosocial depiction of the phenomenon.

ERI has been linked to burnout in nurses (18), lower job satisfaction and increased mental distress (16), decreased well-being (19), sleep disturbance and fatigue (20), perceptions of work-life conflict (21) and in one recent study by Siegrist, Währendorf, Von Dem Knesebeck, Jurges, and Borsch-Supan (22), ERI was found to be associated with the intention to retire early.

The model was designed by Siegrist (23) to assess the deleterious health effects of stressful experiences at work. The fundamental ideology of the ERI model is that imbalance between a high amount of effort and low rewards represents a reciprocity deficit between ‘costs’ and ‘gains’, which in turn leads to a sustained strain reaction. In conjunction with efforts and rewards, a critical component of the ERI model is overcommitment, which accounts for individual personality characteristics. In short, the greatest amount of stress and strain is experienced if an employee perceives their work situation as being high cost and low reward. (Figure 1).

Recent European literature involving the effort-reward imbalance model with regard to retention, has found that those experiencing imbalance at high levels express a desire to leave their job as soon as possible, compared to those with relatively low levels of imbalance who are more likely to stay (24). A similar study, undertaken across 10 European countries on workers aged 50 and over, found that employees who experienced a high effort-reward imbalance and subsequently, poor work quality were likely to not only retire early, but to experience significantly lower well-being, than those who did not perceive an imbalance (22). Due to such compelling literature, linking the effort-reward imbalance model and retention, this theoretical framework is particularly applicable in the present study. Not only is the model largely untested in the Australian service population, but it also provides the scope to investigate the role of psychosocial factors which may have a bearing on the retention of older members of the rural health care workforce.

**Study design**

Within the effort-reward imbalance framework, this study employs a mixed methods design to determine the factors that impact upon the retention older rural health care workers. The overarching question is; **What extrinsic and intrinsic factors impact on the retention older rural health care workers in the north Victorian public sector who are aged 55 years and over?** The study encompasses two distinct stages of data collection. The first stage was designed to include an initial quantitative study (survey data) followed by a small exploratory qualitative study. In addition, the qualitative phase of the study, through the use of in-depth interviews, was designed to explore other psychosocial factors that might influence retention of this older cohort of workers, to build a more comprehensive understanding.
Figure 1  Effort Reward Imbalance Model

Extrinsic Components
- Labour Income
- Career Mobility / Job Security
- Esteem, Respect

Intrinsic Components
- Motivation
- Pattern of coping

Demand / Obligations

EFFORT

REWARD

IMBALANCE MAINTAINED
- If no alternative is available
- If accepted for strategic reasons
- If motivational pattern present (overcommitment)

Procedure
Phase one of the study utilised a paper survey in which participants were asked to: provide demographic data, answer a health related questionnaire as well as a work related questionnaire. Participants were recruited anonymously through the payroll department of 17 rural public health care facilities under the jurisdiction of the Victorian Government Department of Health, in the Hume catchment region. Ethical approval was obtained from the Human Research Ethics Committee of the Faulty of Health, La Trobe University (FHEC10/187) and ethical review committees of the respective health care services.
Effort-reward imbalance

ERI was measured using the comprehensive 23-item version of the model published by Siegrist (25), which has been shown to have good psychometric properties.

Psychological wellbeing

The 12-item version of the General Health Questionnaire (GHQ; 26) was used to assess the current levels of psychological strain of participants.

Control variables

Control variables included demographic characteristics such as age, gender, marital status, job sector (nurse, allied health), setting (acute, non-acute, community based), working hours and time in current position. These data were entered and analysed in SPSS.

Results

Table 1 provides some descriptive statistics of the sample including demographic data, employment status, potential retirement age as well as the Effort-Reward Imbalance score for each participant. The overall sample consisted of 299 health care workers who were at or over the age of 55 years. The mean age of the sample was 58.8 years ($SD = 3.27$), while the majority of the sample were women (94.3%) which, given the recognised feminisation of the health care workforce in the realms of the nursing and allied health professions, was an expected disparity (27). The sample was comprised largely of nurses (86.9%), while the remainder of the sample were in varied positions within the allied health field, reflecting the structure and composition of Australian public hospital system (28). Over 70% of those who responded work on a part-time basis with the mean hours worked 31.20. In relation to the age in which respondents expected to retire, the mean age was 64.55. The average ERI ratio score is 1.64. Note that any score over 1 indicates the presence of effort reward imbalance. Over 92% of all respondents recorded a score over 1 highlighting that 92% of the sample experience effort-reward imbalance.

Table 1  Quantitative data summary

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>Original cohort</th>
<th>Willing to be interviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Female</td>
<td>281</td>
<td>149</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>17</td>
<td>12</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td>Mean: 58.83 yrs</td>
<td>58.92 yrs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Range: 19 yrs</td>
<td>19 yrs</td>
</tr>
<tr>
<td>Hours worked</td>
<td></td>
<td>Mean: 31.20</td>
<td>31.12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Min: 6</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Max: 80</td>
<td>80</td>
</tr>
<tr>
<td>Employment status</td>
<td>Full time</td>
<td>70</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Part time</td>
<td>210</td>
<td>114</td>
</tr>
<tr>
<td></td>
<td>Casual</td>
<td>18</td>
<td>10</td>
</tr>
<tr>
<td>Employment general</td>
<td>Nursing</td>
<td>257</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Allied Health</td>
<td>39 (2 missing)</td>
<td>3</td>
</tr>
<tr>
<td>Age at which they</td>
<td></td>
<td>Mean: 64.55</td>
<td>64.68</td>
</tr>
<tr>
<td>plan to retire</td>
<td></td>
<td>Min: 55</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Max: 75</td>
<td>75</td>
</tr>
<tr>
<td>ERI ratio score</td>
<td></td>
<td>Mean: 1.64</td>
<td>1.61</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Min: 0.42</td>
<td>0.42</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Max: 4.09</td>
<td>4.09</td>
</tr>
</tbody>
</table>

Table 2 shows the correlations between the various components of the ERI model (effort, reward, overcommitment and the ERI ratio), age and psychological wellbeing. The effort component of the
model were negatively associated with the reward component and positively associated with overcommitment (all significant at \( p < .01 \)). Significant relationships were also observed between the three components of the model, the ratio score and psychological wellbeing (\( p < .0 \)).

Table 2  Descriptive Data and Correlation Coefficients (Pearson’s Correlation)

<table>
<thead>
<tr>
<th></th>
<th>Range</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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</thead>
<tbody>
<tr>
<td>Effort-Reward Imbalance</td>
<td>0.4-10</td>
<td>295</td>
<td>1.64</td>
<td>0.51</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Effort Score</td>
<td>6-30</td>
<td>297</td>
<td>15.11</td>
<td>4.84</td>
<td>.944**</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Reward Score</td>
<td>11-55</td>
<td>295</td>
<td>18.03</td>
<td>7.19</td>
<td>.805**</td>
<td>.603**</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Over Commitment Score</td>
<td>6-30</td>
<td>295</td>
<td>10.96</td>
<td>5.2</td>
<td>.674**</td>
<td>.630**</td>
<td>.569**</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>General Health Questionnaire Score</td>
<td>0.36</td>
<td>296</td>
<td>11.57</td>
<td>5.16</td>
<td>.541**</td>
<td>.445**</td>
<td>.560**</td>
<td>.568**</td>
<td>–</td>
</tr>
</tbody>
</table>

*p< .05.  **p<.01.  ***p<.001.

These finding provides support for the empirical literature which has found a negative psychological impact of employees experiencing high effort and low reward in their work settings (29-31). In the present study, those workers who are also overcommitted did also experience increased psychological strain. This finding lends support to other studies that have found a relationship between psychological wellbeing and high over-commitment (21, 30). A more detailed discussion of these findings including the results of a hierarchical regression can be found in a forthcoming article by the authors.

Phase two: Phase two of the study involved phone interviews with 17 health care workers from within the original cohort. These participants had indicated their willingness and consent to participate in interviews via their initial survey response. Interview questions were designed to explore some of the themes that became apparent in phase one. Analysis using NVivo demonstrated the frequency of references to a particular theme as well as the number of participants that referred to that theme. See Table 3 below.

Table 3  Influences on intention to leave/retire decisions

<table>
<thead>
<tr>
<th>Themes</th>
<th>Participants (n =17)</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extrinsic factors</td>
<td>17</td>
<td>552</td>
</tr>
<tr>
<td>Feeling valued</td>
<td>16</td>
<td>49</td>
</tr>
<tr>
<td>Flexibility</td>
<td>11</td>
<td>32</td>
</tr>
<tr>
<td>Interdisciplinary practice</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Interpersonal conflict</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>Lack of options</td>
<td>9</td>
<td>20</td>
</tr>
<tr>
<td>Support</td>
<td>14</td>
<td>60</td>
</tr>
<tr>
<td>Valued by the organisation</td>
<td>18</td>
<td>162</td>
</tr>
<tr>
<td>Workload pressures</td>
<td>17</td>
<td>207</td>
</tr>
<tr>
<td>Internal factors</td>
<td>17</td>
<td>334</td>
</tr>
<tr>
<td>Adjustment to change</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>Enjoyment of current work</td>
<td>15</td>
<td>68</td>
</tr>
<tr>
<td>Family influences</td>
<td>16</td>
<td>66</td>
</tr>
<tr>
<td>Financial influences</td>
<td>14</td>
<td>42</td>
</tr>
<tr>
<td>Health</td>
<td>13</td>
<td>22</td>
</tr>
<tr>
<td>Intention to retire</td>
<td>17</td>
<td>72</td>
</tr>
<tr>
<td>Sense of self</td>
<td>11</td>
<td>31</td>
</tr>
<tr>
<td>Social input</td>
<td>10</td>
<td>18</td>
</tr>
</tbody>
</table>

12th National Rural Health Conference
Extrinsic factors

Participants outlined several extrinsic factors that impact on their decisions to either retire or seek an alternate workplace. Using the ERI framework the participants discussed a consistently high workload in combination with what was felt to be a correspondingly low acknowledgment of that workload by upper levels of management within the participant’s workplace. Being acknowledged for their contribution to the industry and the value of this contribution was often mentioned. Participants felt somewhat dispensable despite the many years they had provided to health care. This was generally perpetuated by the interaction between them and their immediate and upper managers. These two factors will be discussed.

Feeling valued by the organisation was referred to by 17 interview participants to a total of 160 times. The thread of the discussion generally outlined the negative effect of the sense of disconnect between clinicians engaged in day-to-day care of health consumers and the upper levels of local management and or government bodies. In general, participants felt there was a lack of understanding of the physical and emotional requirements of providing health care of a high quality to an ever expanding client base in a continually resource restrained environment.

Communication, I think—between the exec and the ground staff. It supposedly comes down through the managers, but the managers, the pressure on them is enormous as well. So I think just if they could get out and have a look and speak to the people who are actually doing the work instead of making decisions based on—

Generally, the sentiment of disconnection from upper management was limited to employees working in the clinical setting. Participants who had a more senior role or a role that required a managerial oversight felt somewhat more connected to the upper levels of management.

When asked what their organisation could provide by way of recognition the most obvious issue of remuneration was often raised. Almost all participants highlighted the inequity of pay scales for health care professionals when compared with other professions. Many participants felt that the worth of caring for fellow human beings was disregarded and that this was reflected in pay rates. Aged care was often used as an example of this. Similarly, many participants identified professional development as a reward they valued highly. It was made clear that participants wanted access to quality professional development that was funded, in part or fully, by the organisation, beyond simple allocation of study days.

Participants most often referred to workload pressures and the negative effects it can have on their intention to stay in the workforce (17/17). Discussion outlined a number of themes within that of workload. Particularly, participants felt they were required to attend increasingly to administrative tasks (documentation) that drew them away from their primary focus of patient care.

It’s—we’ve had quite a few issues with doctors leaving, doctors unacceptably going and waiting lists blowing out to huge numbers. So it falls back on to me a bit. So the pressure of that—I mean, I don’t want to leave but that would be something that if it got too much may cause me to cut back or leave. (Tanya)

The physical tole of working in health care was mentioned by all of the participants. Generally, there was a realisation that advancing age, in combination with the wear and tear of long-term employment, limited the amount of clinical work they were able to sustain and thus their potential earning capacity with the associated negative effects.

another thing that was prompting me to get out of shift work was that I used to get migraines a lot, and just the—I found that the stress and irregular hours—I felt that I was becoming quite unhealthy and weary out quickly, and I was thinking I might not make 65 in a healthy state and I’d have to be cutting down hours, would be the other option. (Xavier)
It was also noted here that retention of older clinicians could be enhanced if there was increased flexibility around hours and days of work. Several participants indicated they were willing to consider putting off retirement if they were able to adjust their roster or schedule to better suit their personal and health needs. This was generally in response to the negative effects of the physical and emotional workload they experienced as health care workers. Interestingly, a number of participants (9/17) mentioned their inability to seek an alternate workplace due to a lack of options in the rural setting.

Intrinsic factors
The intrinsic factors that participants faced when considering leaving employment or retirement were also highlighted. These are the factors that participants were most able to influence and adjust themselves, not necessarily affected directly by the workplace.

A number of participants (14/17) discussed their level of enjoyment with the current workplace. Participants stated they generally enjoyed their work despite the numerous difficulties they had identified. Many identified the conflict they felt as they considered retirement and the potential loss of this enjoyment. Either participants were reluctant to retire or put off retirement.

As long as my health stands up I'll probably retire when I’m about 70. If I’m feeling really good then I probably won’t do it then either (Louise)

Financial considerations were another regular theme of discussion for the participants (13/17). This discussion took many forms but quite commonly participants were concerned with their ability to continue working to optimise potential superannuation. Many participants stated quite emphatically they were in no financial position to retire and had neither considered a date or the mere possibility of retirement.

I can’t see myself retiring for years at this stage. I did previously—we both had hoped that we would retire gracefully with our house paid for and no debts owing and all that sort of stuff. There’s no way we can do that now. (Xena)

Health related issues were spoken about often (12/17). Participants felt their health was a major contributor to their ability to work to or beyond 65 years. Discussion was generally focused on the effects of workload pressures and the confounding issue of failing health.

Of course, to retire, naturally. However, this is a great bone of contention because it depends on physically and mentally, how long I can keep doing it. So I’m edging towards that, in the sense that I’ve just cut my hours back down again. (Harriett)

A more detailed discussion of these findings can be found in a forthcoming article by the authors.

Conclusion
This paper sets out to provide a comprehensive analysis of the factors that affect retention of older rural health care workers. In the present study, 92% of the sample experience effort-reward imbalance, that is, they perceive their work situation to be high cost and low reward. This older cohort of workers perceive that they have a consistently high workloads that is unacknowledged by their direct management. Effort reward imbalance was also associated with psychological strain.

The qualitative data identified important intrinsic factors related to retention or the decision to retire and these included financial security, caring responsibilities and personal health considerations. Importantly, however the qualitative data identified a number of extrinsic factors related to retention or delayed retirement that provide some clues to start addressing current workforce dilemmas. Limited access to rewards associated with recognition and professional development and increased financial compensation important to this older cohort of workers. Job turnover literature has consistently found organisational characteristics (promotional opportunities, professional support, respect, satisfaction with financial compensation) to be key factors in retention of health care staff (32-34). Campbell, McAllister
and Ely (2012) in their review of the empirical research examining recruitment and retention of rural and remote allied health workers, found retention was negatively impacted by lack of personal recognition and respect, poor access to professional development and insufficient supervision (35).

Earlier in the paper it was argued that one of the solutions to addressing workforce shortages in rural areas, might be to explore strategies designed to retain older health care workers. Thus organisations, intent on retaining their older workers might focus attention on addressing the inherent disincentives and enhance rewards. Further research investigating the type of rewards that would influence retention is warranted.

References


