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Perceptions of fairness in the psychological contracts of allied health professionals
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Abstract

Purpose - The purpose of this paper is to investigate the relationships between components of the psychological contract, organisational justice, and negative affectivity (NA), with key employee outcomes (i.e. organisational commitment, job satisfaction, depression, and psychological distress) among allied health professionals.
Design/methodology/approach – In total, 134 (response rate of 46 per cent) Australian allied health professional completed a questionnaire.
Findings – Multiple regressions revealed that higher NA was associated with lower organisational commitment, lower job satisfaction, and higher levels of depression. The psychological contract variable, breach, was associated with depression. Informational justice was associated with organisational commitment. Distributive justice was associated with job satisfaction.
Research limitations/implications – This research is limited by its cross-sectional design and that the data were self-reported. The results obtained suggest the potential utility of collecting longitudinal data to replicate and extend the results.
Practical implications – While NA may be beyond management control, it may be ameliorated by attention to improving communication of management decisions and by sensitivity to the elements implicit in psychological contracts. The negative consequences of contract breach may be offset by informational and distributive justice.
Originality/value – This study is one of the first to examine multiple measures of the psychological contract in addition to organisational justice and NA. Further, this study adds to the literature for allied health professionals, where little is known about factors contributing to their turnover.

Keywords
Business administration, Human resource management, Organizational development

Paper type
Research paper

Introduction
Allied health professionals make up 18 per cent of the Australian healthcare workforce (Australian Institute of Health and Welfare, 2010), with expected increases in rates of participation in patient care (Schofield, 2009), yet there is a paucity of research on this integral group (Keane et al., 2008). Allied health professionals represent a large and diverse range of health services, including, but not limited to social work, physiotherapy, occupational therapy, and psychology (Keane et al., 2008). A key issue facing managers of the allied health workforce is retention. Similar to other professionals in the healthcare industry such as nurses and medical professionals, it is increasingly common for allied health professionals to retire, change jobs, or reduce the number of hours they work (Schofield, 2009). However, little is known about the factors surrounding these and other issues specific to the allied health workforce, prompting recommendations for further research in this area (Australian Health Workforce Advisory Committee, 2004). A retention of nurses has been linked to attitudinal and health outcomes including organisational commitment, job satisfaction, and depression (Vishwanath et al., 1999; Currie and Carr Hill, 2012). Employee perceptions of fairness, including whether expectations have been met (i.e. the psychological contract), and whether organisational decisions and processes regarding staff are fair (i.e. organisational justice) have been demonstrated to be key influences on such employee outcomes among both nurses and other professional groups (e.g. Mallette, 2011; McCabe and Sambrook, 2013; Robbins et al., 2012). Prior research with nurses may be a guide to understanding the
workplace dynamics of allied health professionals. Further, negative affectivity (NA) has been demonstrated to influence employee outcomes relating to perceptions of organisational justice (Barsky and Kaplan, 2007), and may have a similar effect on perception of the psychological contract and the extent to which it is honoured. That is NA may be relevant in the perception of breach because “breach” is identified via an interpretation process (Robinson and Morrison, 2000). Subsequently, the aim of the current study was to investigate the relationships between the psychological contract, organisational justice, and NA, with key employee outcomes (i.e. organisational commitment, job satisfaction, depression, and psychological distress) among allied health professionals.

The psychological contract
Grounded in social exchange theory (Blau, 1964), the psychological contract entails a set of beliefs held by the employee regarding the mutual responsibilities between their employer and themselves (Robinson, 1996). Distinct from a formal contract, the psychological contract is perceptual in nature. Although both the formal and psychological contracts are important aspects of the employment relationship (Sonnenberg et al., 2011), as the psychological contract is a set of beliefs held by the employee, it may not be recognised by the employer (Morrison and Robinson, 1997). Central to the psychological contract are three concepts: obligations, fulfilment, and breach. Psychological contract obligations refer to the employees’ beliefs regarding what the employer’s obligations are based on perceived promises. Fulfilment refers to the employee’s perception of whether these obligations have been fulfilled. Finally, a psychological contract breach is the employee’s perception of whether an employer’s action(s), or lack thereof, fail to satisfy the obligations of the psychological contract (Robinson, 1996; Morrison and Robinson, 1997). Breach and fulfilment can be thought of as on a continuum; however, the consequences of breach are considered to have greater effects on the employee than those of fulfilment (Conway et al., 2011). The proposed reason behind this is that while inequity can be resolved (e.g. pay can be altered), underlying a psychological contract is trust, and therefore if the contract is breached, it is unlikely to be easily repaired (Rousseau, 1989).

The various aspects of the psychological contract have been associated with a number of employee outcomes among a range of occupations, including professionals in the healthcare industry. Psychological contract obligations have been associated with job satisfaction and intent to leave (Tekleab et al., 2012), while psychological contract fulfilment has been associated with greater levels of both job satisfaction and organisational commitment (e.g. Gakovic and Tetrick, 2003; Lambert et al., 2003; Sutton and Griffin, 2004; Sturges et al., 2005; Mallette, 2011). Psychological contract breach has been linked to lower job satisfaction and organisational commitment (Zhao et al., 2007; McCabe and Sambrook, 2013), and also with poor mental health outcomes among employees (Gakovic and Tetrick, 2003; Robbins et al., 2012). Although these links have been established, few studies have examined multiple components of the psychological contract simultaneously. Thus this study will enable a greater understanding of the processes by which the components impact employee outcomes.

Organisational justice
Conceptually similar to the psychological contract, organisational justice is another measure of perceived fairness in the employment relationship. In particular, organisational justice concerns employee perceptions of how fair the processes and decisions of the organisation are. Organisational justice has four components; procedural, distributive, interpersonal, and informational justice (Colquitt, 2001). Procedural justice refers to the procedures involved in reaching decisions, while distributive justice refers to the decision outcome. Interpersonal justice refers to the manner in which the employee is treated as decisions are made, and informational justice refers to the information the employee receives from their employer, and whether they regard this as satisfactory (Colquitt, 2001). Among various occupational groups organisational justice has been linked with a range of employee outcomes. These include job satisfaction, organisational
commitment, and mental health outcomes (Cohen-Charash and Spector, 2001; Colquitt et al., 2001; Robbins et al., 2012). Among healthcare employees, perceptions of organisational injustice have been associated with poor health (Kivimaki et al., 2003) and increased distress (Sutinen et al., 2002). While both the psychological contract and organisational justice have been demonstrated as linked with both positive (e.g. job satisfaction, organisational commitment), and negative outcomes (e.g. depression), it is unknown whether these relationships are apparent among allied health professionals due to a lack of research among this group. Therefore this study intends to determine whether such relationships exist among this group of professionals.

NA
Individual characteristics such as NA may also influence individuals’ perceptions of organisational fairness. NA is considered a pervasive dispositional trait, whereby those high in NA generally hold a more negative world-view and are considered prone to high levels stress and anxiety (Watson and Clark, 1984). Individuals high in NA are likely to report experiences and events more negatively, particularly regarding variables such as stress and strain (Brief et al., 1988). Hence, it is important to control for NA in self-reported studies measuring perceptual constructs (Brief et al., 1988). Indeed, NA has been found to influence perceptions of all types of organisational justice, possibly as individuals high in the trait are more likely to perceive the environment as negative, and are more sensitive to negativity (Barsky and Kaplan, 2007). With regard to the psychological contract, NA may play a role as individuals high in NA may disproportionally focus their attention on aspects of the employment relationship where they have received less than they believed was promised, than they do on any aspects of the relationship where they receive more than they believe was promised (Turnley and Feldman, 1999).

Taken together, the aim of the current study is to examine the relationships between psychological contract (i.e. obligations, fulfilment, and breach), organisational justice (i.e. procedural, distributive, interpersonal, and informational), and NA with organisational commitment, job satisfaction, and depression among allied health professionals. We expect that perceptions of fairness (i.e. obligations, fulfilment, organisational justice) will lead to positive staff outcomes (i.e. organisational commitment, job satisfaction), while perceptions of unfairness will lead to negative staff outcomes (i.e. depression). We also hypothesise that high NA will be linked to negative staff outcomes.

Method
Participants and procedure
The sample comprised allied health professionals working for a medium to large healthcare organisation located in a metropolitan area of Australia. During October 2009, questionnaires were sent to 290 employees through the work internal mail system. Completed questionnaires were returned to the first author using a reply paid envelope. Totally, 134 employees participated, resulting in a response rate of 46 per cent. The majority of respondents were female (80 per cent), and were employed on either a part-time (50 per cent) or full-time (40 per cent) basis. In regards to age, 4 per cent were aged below 25 years, 33 per cent were aged between 25 and 39 years, 40 per cent were aged between 40 and 54 years, and 23 per cent were aged 55 years or older.

Measures/materials
Obligations and fulfilment.
Participants’ perceptions of obligations and fulfilment were measured using two seven-item subscales developed by Rousseau (1990). Each item related to an area of employment (e.g. “Promotion and advancement”, “Training”), with participants required to indicate their beliefs regarding how much the organisation owed them, and how much they had fulfilled their obligations. The five-point rating scale ranged from 1 (Not at all obligated/fulfilled) to 5 (Very obligated/fulfilled).
Breach. Participants’ perceptions of the extent to which the psychological contract was breached by their employer was measured using the five items related to breach from Robinson and Morrison’s (2000) psychological contract breach and violation scale. Participants were asked to indicate how much they agreed with statements about the psychological contract (e.g. “My employer has broken many of its promises to me even though I’ve upheld my side of the deal”). The responses on the five-point rating scale ranged from 1 (Disagree strongly) to 5 (Agree strongly). Three items were positively worded, and hence were reverse coded before analysis, so that a higher score was indicative of a greater level of perceived breach.

Organisational justice. A 20-item scale developed by Colquitt (2001) was used as a measure of participants’ perceptions of organisational justice. The scale consisted of four subscales: procedural justice (seven items, e.g. “Have those procedures been applied consistently?”), distributive justice (four items, e.g. “Are your benefits justified, given your performance?”), interpersonal justice (four items, e.g. “Have they treated you with respect?”), and informational justice (five items, e.g. “Have they explained the procedures thoroughly?”). Participants were required to indicate the extent to which they agreed with the provided statements on a rating scale ranging from 1 (Very often) to 5 (Rarely). All item scores were reverse coded so that a high score indicated a greater level of perceived organisational justice.

NA. Negative affect was measured using the ten-item negative subscale of the positive and negative affect schedule (Watson et al., 1988). Participants were required to rate how frequently they had experienced feeling negative emotions (e.g. irritable) during the week prior to completing the survey. The five-point rating scale ranged from 1 (Very slightly or not at all) to 5 (Very much).

Organisational commitment. Organisational commitment was measured using Allen and Meyer’s (1990) eight-item affective commitment scale. Participants rated the level each item reflected their point of view (e.g. “I really feel as if this organisation’s problems are my own”) on a five-point rating scale ranging from 1 (Disagree strongly) to 5 (Agree strongly). Three items were reverse coded so that a higher score indicated a higher level of commitment to the organisation.

Job satisfaction. A shortened six-item version of Brayfield and Rothe’s (1951) satisfaction scale was used to measure job satisfaction. Participants were asked to rate each statement (e.g. “I find real enjoyment in my job”) on a five-point rating scale ranging from 1 (Strongly disagree) to 5 (Strongly agree).

Depression. Depression was measured using a shortened nine-item version of the Centre for Epidemiological Studies Depression Scale (Santor and Coyne, 1997). Participants were asked to rate each item (e.g. “I was bothered by things that usually don’t bother me”) on a three-point rating scale ranging from 0 (rarely or none of the time) to 3 (most or all of the time). Two items were reverse coded so that a higher score was indicative of greater depression.

Results
Prior to conducting analyses, missing values were assessed. In total, 25 participants were excluded from the data set due to missing over a third of responses in either a scale or subscale, leaving 109 participants. To ensure the respondents who were excluded for missing data did not differ from those remaining in the sample, independent samples t-tests were conducted, which revealed that the outcome responses of the excluded participants did not differ significantly from those remaining in the sample. The majority of the remaining participants were female (78 per cent), and were employed on either a part-time (46 per cent) or full-time (41 per cent) basis. In regards to age, approximately 5 per cent were aged 24 years or younger, 35 per cent were aged between 25 and 34 years, 41 per cent were aged between 40 and 54 years, and 19 per cent were aged 55 years or older.
The remaining missing values were replaced using the expectation-maximisation technique.

Table I. Means, standard deviations, correlation coefficients, and Cronbach's $a$ coefficients of the study variables.

<table>
<thead>
<tr>
<th>Variables</th>
<th>$M$</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Negative affect</td>
<td>14.21</td>
<td>5.77</td>
<td>(0.84)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2. Psychological contract obligations</td>
<td>23.10</td>
<td>5.74</td>
<td>(0.85)</td>
<td>(0.69)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>3. Psychological contract fulfilment</td>
<td>21.39</td>
<td>5.44</td>
<td>(0.67)</td>
<td>(0.67)</td>
<td>(0.87)</td>
<td></td>
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<tr>
<td>4. Psychological contract breach</td>
<td>12.79</td>
<td>4.29</td>
<td>(0.89)</td>
<td>(0.69)</td>
<td>(0.87)</td>
<td>(0.69)</td>
<td></td>
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</tr>
<tr>
<td>5. Procedural justice</td>
<td>20.08</td>
<td>6.45</td>
<td>(0.89)</td>
<td>(0.89)</td>
<td>(0.87)</td>
<td>(0.69)</td>
<td>(0.69)</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Distributive justice</td>
<td>11.35</td>
<td>4.43</td>
<td>(0.93)</td>
<td>(0.93)</td>
<td>(0.93)</td>
<td>(0.93)</td>
<td>(0.93)</td>
<td>(0.69)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>7. Interpersonal justice</td>
<td>15.50</td>
<td>4.21</td>
<td>(0.95)</td>
<td>(0.95)</td>
<td>(0.95)</td>
<td>(0.95)</td>
<td>(0.95)</td>
<td>(0.95)</td>
<td>(0.69)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>8. Informational justice</td>
<td>17.50</td>
<td>5.04</td>
<td>(0.92)</td>
<td>(0.92)</td>
<td>(0.92)</td>
<td>(0.92)</td>
<td>(0.92)</td>
<td>(0.92)</td>
<td>(0.92)</td>
<td>(0.92)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Organisational commitment</td>
<td>25.61</td>
<td>6.03</td>
<td>(0.85)</td>
<td>(0.85)</td>
<td>(0.85)</td>
<td>(0.85)</td>
<td>(0.85)</td>
<td>(0.85)</td>
<td>(0.85)</td>
<td>(0.85)</td>
<td>(0.85)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Job satisfaction</td>
<td>22.49</td>
<td>4.90</td>
<td>(0.90)</td>
<td>(0.90)</td>
<td>(0.90)</td>
<td>(0.90)</td>
<td>(0.90)</td>
<td>(0.90)</td>
<td>(0.90)</td>
<td>(0.90)</td>
<td>(0.90)</td>
<td>(0.90)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Depression</td>
<td>4.17</td>
<td>4.74</td>
<td>(0.85)</td>
<td>(0.85)</td>
<td>(0.85)</td>
<td>(0.85)</td>
<td>(0.85)</td>
<td>(0.85)</td>
<td>(0.85)</td>
<td>(0.85)</td>
<td>(0.85)</td>
<td>(0.85)</td>
<td>(0.85)</td>
<td>(0.85)</td>
</tr>
</tbody>
</table>
Univariate outliers were then assessed, resulting in the exclusion of a further 16 cases. Multivariate outliers were assessed thereafter, and the remaining cases for each regression were as follows, n=103 for organisational commitment and job satisfaction, and n=101 for depression. The sample conforms to rules of thumb (Tabachnick and Fidell, 1996, p. 132) as well as suited to confidence intervals (Kelley and Maxwell, 2003). Assessments of normality revealed that the variables of negative affect and depression required transformation. Subsequently, negative affect was transformed using inverse transformation for all regressions, and depression using square root transformations. Analyses were conducted with and without the transformed variables, and all regressions resulted in the same pattern of results without the transformed variables, except for the depression regression. Therefore, with the exception of the depression regression, non-transformed regression data has been presented for clarity. The means, standard deviations and Cronbach’s α variables were calculated, along with the correlations between each of the predictor and outcome variables, and are presented in Table I.

In total, three multiple regressions were conducted using the psychological contract variables (i.e. obligations, fulfilment, and breach), justice variables (i.e. procedural, distributive, interpersonal, and informational), and NA to predict organisational commitment, job satisfaction, and depression. For each outcome, the variables were entered in the following blocks: (1) negative affect, (2) psychological contract and justice variables. The results of these regressions are presented in Table II.

The final regression model explained the following amount of the variance in organisational commitment (R2adj=0.306, F(8, 94)=6.63, p<0.001), job satisfaction (R2adj=0.144, F(8, 94)=3.15, p =0.003), and depression (R2adj=0.415, F(8, 92)=9.85, p<0.001. Negative affect was associated with all of the outcomes, whereby higher negative affect was linked to lower organisational commitment and job satisfaction, and higher depression. Of the psychological contract variables, breach was linked to lower depression. Of the justice variables, higher informational justice was linked to higher organisational commitment, and higher distributive justice was linked to lower job satisfaction.

Discussion

The aim of the current study was to investigate psychological contract variables, organisational justice, and NA, and their influence on the employee outcomes organisational commitment, job satisfaction, and depression among a group of allied health professionals. The trend of results suggests that the psychological contract may be associated with mental health outcomes (e.g. depression), however not in the manner that was expected. Organisational justice, on the other hand, is more likely to influence work attitudes (e.g. organisational commitment, job satisfaction). The present study found that psychological contract breach was negatively associated with depression, which is in contrast to prior research indicating that psychological contract breach is often linked with heightened depression and mental health issues (e.g. Robbins et al., 2012). A possible explanation may be that the allied health professionals in this study expect that their contract may be breached, and therefore when a breach occurs, it does not have as much of a negative impact as it may if it was unexpected. In an industry where more is increasingly expected of them (Schofield, 2009), allied health professionals may instead focus on what they do receive, rather than what they do not. Future research investigating whether staff members expect the organisation to uphold their end of the psychological contract may be useful in understanding this result. Neither psychological contract fulfilment nor obligations were associated with any of the outcomes.

In regards to organisational justice, informational justice was positively associated with organisational commitment, suggesting that allied health professionals appreciate being informed of the decisions of the organisation. This partially supports the hypotheses regarding organisational justice, however is surprising that it is the only result of this nature. Given the nature of many of the roles within the various allied health professions, where some employees may not have regular contact with their supervisors, communication is understandably important. In contrast to previous research (e.g. Colquitt et al., 2001) distributive justice was negatively associated with job
satisfaction. Whereas distributive justice is often associated with personal outcomes such as satisfaction (e.g. McFarlin and Sweeney, 1992), in the current study the opposite relationship was apparent. Given few studies have been conducted on this group future research is required to investigate the relationship between organisational justice and outcomes among allied health professionals. This is particularly important in order to retain such staff, given the increasing number of allied health professionals choosing to reduce working hours or retire.

Table II. Results of the hierarchical regressions

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>N</th>
<th>Organisational commitment</th>
<th>Job satisfaction</th>
<th>Depression</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>NA</td>
<td>200</td>
<td>-0.10 (0.09)</td>
<td>-0.10 (0.09)</td>
<td>-0.11 (0.09)</td>
</tr>
<tr>
<td>2</td>
<td>Job satisfaction</td>
<td>198</td>
<td>0.13 (0.09)</td>
<td>0.13 (0.09)</td>
<td>0.11 (0.09)</td>
</tr>
<tr>
<td>3</td>
<td>Organisational justice</td>
<td>196</td>
<td>-0.11 (0.07)</td>
<td>-0.11 (0.07)</td>
<td>-0.10 (0.07)</td>
</tr>
<tr>
<td>4</td>
<td>Psychological contract obligations</td>
<td>194</td>
<td>-0.10 (0.07)</td>
<td>-0.10 (0.07)</td>
<td>-0.10 (0.07)</td>
</tr>
<tr>
<td>5</td>
<td>Psychological contract fulfillment</td>
<td>192</td>
<td>-0.08 (0.07)</td>
<td>-0.08 (0.07)</td>
<td>-0.08 (0.07)</td>
</tr>
<tr>
<td>6</td>
<td>Psychological justice</td>
<td>190</td>
<td>-0.07 (0.07)</td>
<td>-0.07 (0.07)</td>
<td>-0.07 (0.07)</td>
</tr>
<tr>
<td>7</td>
<td>Distributive justice</td>
<td>188</td>
<td>-0.06 (0.07)</td>
<td>-0.06 (0.07)</td>
<td>-0.06 (0.07)</td>
</tr>
<tr>
<td>8</td>
<td>Procedural justice</td>
<td>186</td>
<td>-0.05 (0.07)</td>
<td>-0.05 (0.07)</td>
<td>-0.05 (0.07)</td>
</tr>
</tbody>
</table>

NA was associated with lower commitment and job satisfaction, and higher depression, supporting the suggestions that individuals high in NA are more likely to report negatively (Watson et al., 1988). These results also highlight the importance of including NA as a variable in its own right rather than a control variable (Spector et al., 2000), and appears particularly relevant in psychological contract and justice research. While not typically included in psychological contract and organisational justice research, this study supports the inclusion of NA in future research of a similar nature.

A number of limitations should be taken into consideration when evaluating the current research. First, the research was cross-sectional in design. For a more thorough analysis, longitudinal data collection is recommended. Given the data were self-reported at one point in time; common
method variance may also have influenced the statistical results (Podsakoff et al., 2003), although recent literature (e.g. Spector, 2006) suggests that there is limited scientific evidence to suggest that self-report data is likely to produce biases. Finally, the data provide information from allied health professionals working at only one organisation. Future researchers are encouraged to analyse samples from multiple institutions.

**Conclusion**

The results of this study suggest that perceptions of the psychological contract and organisational justice are linked to attitudinal and health outcomes among allied health professionals. The study also supports the inclusion of NA in research regarding self-report of perceptions of fairness, finding associations between NA and each of the outcomes. Although there is a need for further research before conclusions can be drawn, this study suggests that better staff outcomes, and in turn, better organisational outcomes, will occur if allied health professionals feel they are sufficiently informed regarding decisions occurring in the organisation, and the obligations of the psychological contract are not breached.

**References**


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