
Beginning Teacher Burnout in Queensland Schools: Associations with Serious Intentions to Leave

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Abstract

In keeping with repeated calls to investigate high early career turnover within the teaching profession, the present study investigated the hypothesis that a significant positive association between burnout and turnover intention would be observed in teachers at the beginning of their careers. A sample of 112 Australian teachers working in their first or second academic year was surveyed in 2004. Respondents were administered the Maslach Burnout Inventory (MBI: Maslach, Jackson & Leiter 1996) and asked about serious intentions to leave their job and/or profession. Meaningful and significant associations between serious intentions to leave and all three MBI subscales were found. The findings suggest a realistic and straightforward explanation for the alarmingly high early career attrition rates that are now commonly reported for the teaching profession in a number of countries.

Introduction

Burnout is well accepted as a syndrome of physical, emotional and cognitive exhaustion that develops from sustained exposure to situations that are emotionally demanding and stressful (Maslach, Jackson & Leiter 1996). Prolific empirical and theoretical attention over more than three decades has confirmed specific markers for the syndrome as a sense of emotional exhaustion, depersonalizing behaviour targeted towards clients, students and/or co-workers and a reduced sense of personal accomplishment (Maslach, et al. 1996). Burke and Greenglass (1995) have succinctly summarised the accepted wisdom that 'Psychological burnout is an umbrella term which includes three components that are conceptually distinct but empirically related' (p.188).

It is well accepted that the burnout phenomenon is associated with significant adverse health implications for sufferers (Cordes & Dougherty 1993). Furthermore, a large body of creditable research has demonstrated that the implications of burnout extend well beyond the mental, emotional and physical health of the sufferer. For example, burnout is known to have a significant adverse influence on the effectiveness of employer organisations (Maslach & Leiter 1997, 1999), on turnover intention and actual turnover of afflicted staff (Drake & Yadama 1996, Geurts, Schaufeli & De Jonge 1998, Weisberg & Sagie 1999), and even client behaviour (Bakker, Schaufeli, Sixma, Bosveld & Van Dierendonck 2000). Clearly, these consequences have major implications for all organisations and institutions employing staff susceptible to the phenomenon, particularly those organisations and government departments responsible for delivering human services where significant incidences of burnout are known to occur, for example within the human service fields of public nursing, community mental health, general practice and in education.

It is burnout within the teaching profession that is the focus of the present study, where the phenomenon has frequently been investigated and has been well recognised as being problematic for teachers and the teaching profession globally (Cherniss 1995, Pierce & Molloy 1990). In their review of over three decades of teacher burnout research Guglielmi and Tatrow (1998) have noted that burnout has consistently been linked to poor physical and psychological health in teachers. Given the widespread recognition that 'teacher quality' is one of the most influential factors in determining student achievement (OECD 2005) then one could be forgiven for believing that amelioration of teacher burnout is set to become one of the most important areas of global educational policy interest in the future.

Another persistent organisational problem being experienced by the teaching profession is that of early career teacher turnover (Smith & Ingersoll 2004). Research that has focused on the beginning teacher experience also has been prolific and like burnout there is copious evidence to show that the transition from education student to professional teacher is often a difficult and stressful experience (Kelchtermans & Ballet 2002, Schonfeld 2001), one that is frequently associated with an early exit from the profession (Macdonald 1999). This literature as a whole demonstrates a widespread recognition of high turnover rates in beginning teachers globally, with researchers typically reporting turnover in the order of 25 to 30% within the first three years of employment (Committee for the Review of Teaching and Teacher Education 2003, Gold 1996, Gold, Roth, Wright & Michael 1991, Macdonald 1999, Ramsey 2000) and after 5 years as high as 50% in some teaching specialities (Smith & Ingersoll 2004). Most recently, the OECD analysis into global trends and developments in the teaching workforce across 25 countries identified retention of quality teachers as one of the main concerns for policy-makers world wide (OECD 2005, p. 4).

Interestingly, literature searches conducted with a combined focus on both beginning teacher turnover and beginning teacher burnout demonstrate that researchers have not extensively investigated a direct association between beginning teacher burnout and early career turnover or turnover intention. Perhaps this notable gap in the research literature reflects the fact that burnout research conducted within the teaching profession has overwhelmingly focused on established teacher populations, that is, the focus has been on relative stable populations of established and presumably resilient teachers relative to the less stable early career cohorts (Guglielmi & Tatrow 1998). Despite the lack of evidence pertaining specifically to *beginning* teachers, a relatively recent investigation of turnover in an established teacher population has reported a significant association between burnout and turnover intention (Weisberg & Sagie 1999). In their conclusions, these researchers hypothesised that the observed positive association was likely to be even more evident in teachers at the beginning of their careers (Weisberg & Sagie p. 338).

Serious examination of the proposition that high levels of beginning teacher burnout are associated with high beginning teacher turnover will obviously require research designs to focus specifically on beginning teachers, ideally prior to the exit of up to 30% of this target population during the first two years of their work. Such designs would monitor burnout either while simultaneously asking about serious turnover intentions or, ideally, would investigate burnout and turnover through prospective methodologies that are able to maintain periodic contact with all beginning teachers under investigation whether they stay in the profession or leave.

The Present Study

The present investigation addresses the dearth of literature focusing on beginning teacher burnout generally and has specifically investigated the hypothesis that a significant positive association between burnout and turnover intention would be observed in teachers who had only been employed for approximately one year. Turnover intention, rather than actual turnover, was investigated in the present study as direct access to beginning teacher subjects was limited by Queensland's privacy laws. Turnover intention has been shown to be indicative of actual turnover at a future time (Weisberg & Sagie 1999), and both turnover and turnover intention have shown positive associations with burnout in established teacher and other human service worker populations (Drake & Yadama 1996, Geurts, et al. 1998, Weisberg & Sagie 1999). If a significant and meaningful relationship between turnover intention and beginning teacher burnout is found by the present study, it will be reasonable to draw tentative support for the hypotheses that there are significant associations between beginning teacher burnout and the high incidences of actual early career turnover noted in a number of countries (OECD 2005). This investigation therefore addresses one of the Australian Government's key recommendations to investigate the

high incidence of beginning teacher turnover in Australia (Commonwealth Department of Education Science and Training 2002, p. 18), a phenomenon that is expensive and problematic not only for the various levels of Australian government involved in education but also particularly so for those teachers who leave the profession a short time after purchasing expensive tertiary degree qualifications in Education. Therefore the central hypothesis investigated by the present study is that beginning teachers who report that they are giving serious consideration to leaving their current employment will also have significantly higher burnout scores, indicated by higher levels of Emotional Exhaustion, higher levels of Depersonalization, and lower levels of Personal Accomplishment, than beginning teachers who indicate they are not giving serious consideration to leaving their current employment as a teacher.

Method

Participants

Participants were beginning teachers working in the Australian state of Queensland for either Education Queensland as teachers in the Queensland State Government school system or working for Catholic Education as teachers in the Catholic school system in Queensland. All participants were surveyed on one occasion by mail that was posted by the participants' employers. Education Queensland sent surveys to all of their employees who they considered were at the beginning of their career. Similarly, Catholic Education sent surveys to all beginning teachers who were working within the Brisbane diocese. In all, 450 teachers were approached and sent survey material with 121 indicating their consent to participate in the present study by returning a completed survey form anonymously and directly to the researchers in the stamped addressed envelope provided for this purpose. The responses of nine respondents (7%) were discarded as these respondents indicated that they had been teaching for more than 2 years, therefore the present study has based the following analyses on the 112 consenting respondents who had indicated that they were teaching in either their first or second academic year since qualifying as a teacher.

Instruments

Enthusiasm, Job Satisfaction, Job Expectations and Equity Beginning teacher ratings of their level of enthusiasm for and job satisfaction from their current teaching position were estimated by asking respondents to rate each of these constructs once on a five-point likert scale ranging from very low to very high.

Whether or not respondents' expectations about teaching had been realised by the activities associated with their current teaching position was assessed by asking two questions. The first question sought to assess the work demands of the respondent's

current job relative to pre-employment expectations (Actual question: *At the present stage of your teaching career do you find that you are required to work **less than, about the same as**, or **harder than** you had expected to work at the time you registered with the Board of Teacher Registration?*). The second question was hypothetical and sought to determine the extent to which respondents felt they had, after experiencing teaching work for several months, chosen the wrong profession (Actual question: *If you could begin your career again, would you choose teaching as your first choice?*). This question was also asked to assist in the estimation of the proportion of respondents who were regretting their choice of profession and therefore who were perhaps more likely to leave the teaching profession early in their career.

Perceptions of equity within the workplace were estimated by asking all respondents two questions. The first probed respondent perceptions about their current workloads relative to more experienced teachers employed at the same school (Actual question: *At present, are you finding that you are required to work **less than, about the same as**, or **harder than** more experienced teachers at your school?*), and the second asked about perceptions of the effort-reward balance in the respondents current work life (Actual question: ***In your opinion**, is the effort you put into your job; (i) greater than, (ii) about equal to, or (iii) less than the rewards you get back from doing your job?*). Frequency analyses determined whether or not significant numbers of beginning teachers believed their current workloads to be relatively equitable or inequitable.

Burnout Burnout was measured by the Educator Survey version of the Maslach Burnout Inventory (MBI; Maslach et al. 1996), which was included in the survey booklet sent to all potential respondents. This is a 22 item self-report instrument described in the literature as 'the most widely used operationalization of burnout' (Lee & Ashforth 1996, p. 124). The Educator Survey consists of three subscales: Emotional Exhaustion (EE: sample item, "I feel emotionally drained from my work"), Depersonalization (DP: "I feel I treat some students as if they were impersonal objects"), and Personal Accomplishment (PA: "I feel I am positively influencing other people's lives through my work"). Participants respond on a seven-point frequency rating scale, ranging from "never" (0) to "every day" (6). High scores on the EE and DP subscales and low scores on the PA subscale are characteristic of burnout. Reliability coefficients for the Educator Survey version of the MBI have been reported by several researchers (e.g., Pierce & Molloy 1990) and consistently demonstrate the reliability of this instrument. Previous research that has used the Educator Survey to estimate beginning teacher burnout has consistently reported reliability levels for Australian teachers in the range of .89 to .92 for EE, .68 to .81 for DP, and .78 to .88 for PA (Goddard & O'Brien 2003, Goddard, O'Brien & Goddard, in press). In the present study, the corresponding coefficient alpha scores were .90 for EE, .71 for DP, and .74 for PA.

Turnover Intention Turnover intention was investigated by asking respondents the following question: “*Are you seriously considering leaving your current job?*” All respondents who indicated a serious intention to leave their current job were also asked whether they would be seeking another teaching job (“movers”) or whether they would be seeking a non-teaching alternative (“leavers”).

Procedure

A sample of Queensland teachers employed in the first or second year of their career was contacted via mail with an invitation to participate anonymously in a single survey into beginning teacher well-being. Included with this invitation were a survey booklet that included the Educator Survey version of the MBI (Maslach, et al. 1996), and a questionnaire that asked participants about how they perceived their current working conditions and specifically about serious intentions to leave their job and profession as described earlier. Sealed envelopes containing these items, along with a stamped addressed envelope for the return of the survey direct to the researchers, were passed to two employer organisations, Education Queensland and Catholic Education (Brisbane Diocese), for the surveys to be mailed to a total of 450 beginning teachers employed by these institutions.

Results

Summary Data

One hundred and twelve (112) teachers who were in either their first academic year (70%) or second academic year (30%) of teaching indicated their willingness to participate in the present study by returning completed surveys directly to the researchers. The group mean duration of employment as a teacher was 7.17 months ($SD = 4.12$) and respondents estimated working an average of 44.48 hours ($SD = 13.19$) each week. The majority of respondents worked within the Queensland state government education system (88%) and all remaining respondents (12%) were employed within the Catholic Education system in the Australian state of Queensland. Forty-eight percent (48%) of respondents were primary school teachers, forty-one percent (41%) secondary teachers, six percent (6%) early childhood teachers, and four percent (4%) of respondents described a teaching position in special education. Thirty-seven percent (37%) of respondents indicated they were teaching in a rural location. The teaching qualification held by most respondents was the Bachelor of Education, although some respondents indicated their teaching qualification was the equivalent Bachelor of Learning Management, and all had gained their teaching qualifications at one of 10 universities located in either Australia or New Zealand. Thirty-seven percent (37%) of respondents indicated that they had changed residences to take up employment and eighty-five percent (85%) of respondents

indicated that their teaching appointments were permanent, subject to probation. Ninety-two percent (92%) of respondents described their teaching positions as a 'full-time' position. Summary scores describing age and gender were not available.

Beginning Teacher perceptions of Enthusiasm, Job Satisfaction and Equity

Beginning teacher respondents who indicated their level of enthusiasm for their current job on a 5-point likert scale ranging from very low to very high enthusiasm predominantly indicated high levels of enthusiasm for their current position. Seventy-seven percent (77%) of respondents indicated that their level of enthusiasm for their current teaching position was either high or very high. Only six percent of respondents rated their level of enthusiasm for teaching as low with the remaining respondents rating their enthusiasm as moderate. Respondents also rated their level of job satisfaction for their current job on a similar 5-point likert scale. Consistently with the results for enthusiasm, 65% rated their job satisfaction as high or very high, and only 11% of respondents indicated that they were experiencing low job satisfaction.

Responses to the series of questions investigating perceptions of the workload equity indicated that a significant proportion of the group of beginning teachers involved in this investigation considered that they were working under high work pressures relative to their colleagues and relative to their perceptions of job rewards. While almost half of all respondents (48%) indicated that they thought the effort they were putting into their job was about equal to the rewards they believed they were getting from doing the job, more than a third (39%) of respondents indicated that they thought the effort they were putting into their job was greater than the rewards that accompanied their teaching effort. Furthermore, when beginning teachers were asked to compare the effort they were putting into their work with the effort that they believed more experienced teachers at the same school were applying to their work, 63% of respondents indicated that they believed that they were required to work harder than their more experienced colleagues. Only 32% considered their workloads to be about the same as more experienced teachers and less than 5% of respondents thought that their workload was less.

Respondents were also asked to estimate whether the work effort required in their current position was approximately commensurate with what they had expected at the time of applying for teacher registration, that is after they had completed their pre-service teacher training. While half of all participants (50%) indicated that the work effort they were experiencing was about the same as they had expected, most of the remaining respondents (42%) indicated that their current workloads were higher than expected. Only eight percent (8%) considered that their current workloads were less than they had expected after they had completed all their tertiary training but before commencing their employment as a teacher.

Burnout

Mean burnout levels for beginning teachers participating in the present investigation were estimated by MBI summary scores and are presented in Table 1 where they are compared to the normative data published in the manual for this instrument. These norms are based on a large sample of experienced teachers working in America (Maslach et al. 1996). It was notable that the mean Emotional Exhaustion score for the beginning teachers of this study was significantly higher, signifying higher burnout, than the teacher norm for Emotional Exhaustion supplied by Maslach et al., $t(111) = 2.84, p < .01$. In contrast, beginning teachers reported significantly higher levels of Personal Accomplishment and lower levels of Depersonalization, both corresponding to significantly lower burnout than for the corresponding normative data, $t(111) = 9.70, p < .001$ and $t(111) = 8.21, p < .001$ respectively. While it has been noted by other researchers that mean Depersonalization levels for Australian teachers are typically lower than the American norms (Pierce & Molloy 1990), the significantly high levels of Personal Accomplishment are consistent with the high frequencies of Enthusiasm and Job satisfaction noted earlier. Therefore, this overall pattern of results is consistent with the conclusion that serious levels of emotional exhaustion had already developed significantly in the sample of beginning teachers investigated by the present study, however, for the majority of respondents this phenomenon had not dampened or effected high levels of enthusiasm, job satisfaction or the sense of personal accomplishment that can be associated with the first months in a new career.

Table 1: Comparison of Maslach Burnout Inventory Summary Scores for Beginning Teacher participants of the present study with Normative Data, One-Sample t-tests (2-tail significance)

	Beginning Teachers (<i>n</i> = 112)		Normative Data (<i>n</i> = 4163)		Test of Differences <i>t</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
MBI Subscales					
Emotional Exhaust.	24.09	10.57	21.25	11.01	2.84**
Depersonalisation	6.64	5.61	11.00	6.19	8.21***
Pers. Accomplishment	38.71	5.65	33.54	6.89	9.70***

Note ** $p < .01$. *** $p < .001$. MBI = Maslach Burnout Inventory

Intention to Leave

When asked whether they were 'seriously considering leaving their current job', 21% of respondents ($n = 24$) indicated that they were seriously considering this course of action at the time they were surveyed. All respondents who indicated a serious

intention to leave their current job were also asked whether they would be seeking another teaching job (movers) or whether they would be seeking a non-teaching alternative (leavers). There was almost an even split between 'movers' and 'leavers' with a slight majority of respondents with serious turnover intentions (54%, $n = 13$) indicating that they would be seeking a non-teaching alternative to replace their current employment activities. As an additional question to help estimate the proportion of respondents who might be likely to leave the teaching profession very early in their career, all respondents were asked if they could begin their career again whether they would choose teaching as their first career choice. Eighty percent ($n = 88$) indicated that they would again choose teaching as their first career choice if given the opportunity to choose their career path again while 19% ($n = 21$) indicated that they would not. Only one respondent indicated that they were undecided. Therefore, well within two years of commencing a teaching career 12% of respondents were indicating a serious intention to leave the profession altogether and almost one fifth of respondents were indicating that they had significant regrets about choosing to study education at university and to subsequently pursue a teaching career.

To determine whether there was any evidence of an association between early career burnout levels and turnover intention, mean burnout levels for respondents who indicated that they were seriously considering leaving their current job were compared to the mean burnout levels of the cohort of respondents indicating that they did not have a serious turnover intention. As hypothesised, significant differences on all three MBI dimensions were found in the expected directions, that is respondents indicating a serious intention to turnover had mean scores consistent with significantly higher burnout on all three dimensions of the MBI. These burnout comparisons are presented in Table 2 along with comparisons of group means for total weekly work hours, total time teaching and for school population estimates.

Two similar analyses were conducted to clarify these results. First, the above analysis was repeated for those 13 respondents who also indicated that they were seriously considering seeking a non-teaching job alternative to their present employment. Specifically comparisons were made on all three MBI subscales between those respondents (12% of all respondents) who after an average of 7 months teaching were clearly indicating that they had a serious intention to leave the profession without first attempting to teach at another school with the 88 respondents who indicated they were not seriously considering leaving their current job. Respondents indicating an intention to exit the profession reported significantly higher mean Emotional Exhaustion scores and significantly higher mean Depersonalization scores, corresponding to higher burnout, than those respondents indicating no turnover intention, $t(99) = 5.53, p < .001$ and $t(99) = 2.31, p < .05$ respectively. Respondents

with a serious turnover intention also scored lower on the Personal Accomplishment subscale, again corresponding to higher burnout, however the difference observed on this MBI subscale did not reach significance, $t(99) = 1.40, p > .05$. This analysis is summarised in Table 3.

Table 2: Comparison of Maslach Burnout Inventory Summary Scores for Beginning Teachers who indicated a serious intention to leave their current teaching job with those who indicated no intention to leave their current job, two-tail significance

MBI Subscale	<i>Seriously considering leaving current job?</i> YES ($n = 24$)		NO ($n = 88$)		Test of Difference
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>
Emotional Exhaustion	33.29	10.30	21.58	9.21	5.38***
Depersonalization	8.83	6.62	6.05	5.19	2.19*
Personal Accomplishment	36.17	6.00	39.41	5.38	2.55*
Demographics					
Students at current school	640	351.28	660	479.33	0.19
Average weekly work hours	47.73	14.82	43.63	12.69	1.30
Total months teaching	7.39	4.17	7.11	4.15	0.29

Note * $p < .05$. *** $p < .001$. MBI = Maslach Burnout Inventory

Table 3: Comparison of Maslach Burnout Inventory Summary Scores for Beginning Teachers who indicated a serious intention to leave their current teaching job for a non-teaching alternative with those who indicated no intention to leave their current job, two-tail significance

MBI Subscale	<i>Seriously considering leaving the teaching profession?</i> YES ($n = 13$)		NO ($n = 88$)		Test of Difference
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>
Emotional Exhaustion	36.38	7.40	21.58	9.21	5.53***
Depersonalization	9.77	6.93	6.05	5.19	2.31*
Personal Accomplishment	37.15	5.70	39.41	5.38	1.40

Note * $p < .05$. *** $p < .001$. MBI = Maslach Burnout Inventory

In the second follow-up analysis, mean MBI subscale scores were compared between those respondents who indicated that they *would* and those indicating that they *would not* choose teaching as their first career choice if they could hypothetically rewind the clock and start their university studies again. The group of teachers who reported that they would not choose to study to become a teacher again reported significantly higher mean Emotional Exhaustion scores, significantly higher mean Depersonalization scores and significantly lower mean Personal Accomplishment scores, all corresponding to higher burnout levels, than those respondents indicating that they would again choose to study for a teaching career, $t(108) = 4.90, p < .001$, $t(108) = 2.97, p < .01$ and $t(108) = 2.78, p < .01$ respectively. This analysis is summarised in Table 4.

Table 4: Comparison of Maslach Burnout Inventory Summary Scores for Beginning Teachers who indicated (i) that they would again choose to become a teacher with (ii) those beginning teachers who indicated that they would not again choose to become a teacher if they could hypothetically revisit their earlier choice to study teaching, two-tail significance

MBI Subscale	Would you choose to study teaching again?				Test of Difference <i>t</i>
	YES (<i>n</i> = 89)		NO (<i>n</i> = 21)		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Emotional Exhaustion	21.80	9.75	33.19	8.86	4.90***
Depersonalization	5.72	5.00	9.52	6.35	2.97**
Personal Accomplishment	39.60	5.27	36.00	5.60	2.78**

Note ** $p < .01$. *** $p < .001$. MBI = Maslach Burnout Inventory

Discussion

The present study has specifically investigated and found support for the hypothesis that there is a meaningful association between serious intentions to leave the teaching profession and burnout levels reported by teachers who are at the beginning of their teaching careers. The findings suggest a realistic and straightforward explanation for the alarmingly high early career attrition rates that are now commonly reported for the teaching profession in a number of countries (Macdonald 1999, OECD 2005, Smith & Ingersoll 2004). Furthermore, the results of the present study add to the weight of existing evidence (Elkerton 1984, Fimian & Blanton, 1987, Goddard et al. in press, Gold et al. 1991) demonstrating that the phenomenon of beginning career burnout is a very real, albeit deplorable phenomenon, one that demands further attention by researchers interested in understanding how burnout can be addressed *at all stages*

of a working life and one that demands urgent attention by policy makers serious about improving the quality of education that students experience.

These results have both practical and theoretical implications. Practically, it is expected that these results will encourage researchers and administrators to apply what is well known about burnout to the phenomenon of early career turnover. As burnout is known to be influenced by both work demands *and* by the levels of inner and outer resources that an individual can draw upon to address these work demands (Halbesleben & Buckley 2004, Maslach, et al. 1996), then the importance of all of these factors for comprehensive programs formulated to address beginning teacher turnover is now highlighted. The strong association observed between burnout and intention to leave in beginning teachers suggests therefore that (i) how workloads are applied during the teachers' first years of employment as well as (ii) how both inner and outer resources are developed for beginning teachers before and during their first years of service, may both be critical factors in the task of encouraging a new teacher away from seriously considering leaving their job after an average of only 7 months or so of teaching.

The theoretical implications of the results stem from the application of Hobfoll and Freedy's (1993) conservation of resources (COR) theory to the association between burnout and turnover. The COR theory proposes that job demands and the availability of resource (both inner and outer) predict the individual dimensions of burnout differently. Therefore, if the current research is extended and if, as a consequence, it becomes clear that burnout is an important mediating variable in the causation of turnover, then theoretically only those teachers who are experiencing high work demands *and* who are simultaneously experiencing the consequences of a lack of resources will be contemplating leaving their job. Clearly it will fall to far more complex research designs in the future to (i) demonstrate whether burnout is indeed a determining causative factor in the path between commencing a new teaching career and early career turnover, as is suggested by the results of the present study, and (ii) to test the straight-forward proposition that it is a combination of high work demands *and* lack of either inner and/or outer resources that determines whether a beginning teacher will seriously consider leaving their job.

The present study is limited by its cross-sectional nature. Consequently, therefore, the authors are mindful that only associations can be imputed from the data and the present study cannot stipulate that burnout is the mediating state between whatever causes significant proportions of new teachers to experience burnout and the possible consequence that these teachers begin to seriously contemplate leaving their jobs and their profession. Another limitation is the relatively small sample size, one that limits the investigation of complex relations to the exploration of large-scale main effects.

Although this investigation surveyed a large proportion of the beginning teacher population of Queensland in 2004 only a third of potential respondents elected to participate. To have the requisite power to conduct the more in-depth analyses that are required to fully understand more complex associations between various work demands and resources on one hand and the development of burnout on the other, subsequent investigations will need to have much larger sample sizes. Based on current response rates this requirement suggests that a national survey of beginning teachers will need to be commissioned to obtain the numbers to undertake the more in-depth analyses required to confirm and advance the results of the present study.

In conclusion, the present study provides evidence that all three dimensions of the burnout construct are significantly and meaningfully associated with early career turnover intention in teachers. These results suggest that burnout may provide a straightforward explanation of the high and worrisome attrition rates currently being observed in beginning teacher populations in many countries. The authors call for larger scale longitudinal studies into beginning teacher burnout to re-test the hypotheses that despite lengthy and expensive preparatory training regimes that include significant practicum experiences in schools, burnout is the lived experience of a large proportion of teachers at the commencement of their career and this burnout is emphatically associated with beginning teachers seriously contemplating leaving their jobs and their chosen profession. Furthermore, future studies should be designed so that respondents who actually go on to change their teaching jobs (movers) and those that actually leave the profession all together (leavers) can be resurveyed along with those beginning teachers who do not turnover from their initial teaching appointments so that the role of burnout as a potential cause of early career turnover can be determined definitively. The collection of such data on a national or even an international scale will significantly address the growing calls to conduct applied research that is directly relevant to the challenges of preventing beginning teacher turnover and informing education policy so as to ensure the quality and effectiveness of teaching into the future.

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