

Readiness for organisational change among general practice staff

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Accepted 9 August 2009
Published Online First
1 March 2010

ABSTRACT

Background Increasing demands on general practice to manage chronic disease may warrant organisational change at the practice level. Staff's readiness for organisational change can act as a facilitator or barrier to implementing interventions aimed at organisational change.

Objectives To explore general practice staff readiness for organisational change and its association with staff and practices characteristics.

Methods This is a cross-sectional study of practices in three Australian states involved in a randomised control trial on the effectiveness of an intervention to enhance the role of non-general practitioner staff in chronic disease management. Readiness for organisational change, job satisfaction and practice characteristics were assessed using questionnaires.

Results 502 staff from 58 practices completed questionnaires. Practice characteristics were not associated with staff readiness for change. A multilevel regression analysis showed statistically significant associations between staff readiness for organisational change (range 1 to 5) and having a non-clinical staff role (vs general practitioner; $B = -0.315$; 95% CI -0.47 to -0.16 ; $p < 0.001$), full-time employment (vs part-time; $B = 0.175$, 95% CI 0.06 to 0.29 ; $p < 0.01$) and lower job satisfaction ($B = -0.277$, 95% CI -0.40 to -0.15 ; $p < 0.001$).

Conclusions The results suggest that different approaches are needed to facilitate change which addresses the mix of practice staff. Moderately low job satisfaction may be an opportunity for organisational change.

To meet the increasing demands and complexity of caring for patients with chronic conditions, general practices have to change how they organise and provide healthcare. Previous studies have described many barriers and facilitators of organisational change in primary care.¹ To successfully implement changes in care organisation and delivery, practices need to address barriers to change that might be present at the level of individual providers and staff, or in the organisational and social context of care provision.^{2–5} Multiple strategies are likely to be needed.⁴ In the UK, practices have changed in response to facilitation, funding and capacity development as part of the introduction of the new framework for primary care.⁵ In Australia, although funding is still largely fee for service based, new arrangements have been developed to support care planning and multidisciplinary care.⁶

Individual readiness for organisational change is an important motivational factor for successfully

implementing any organisational change.⁷ It encompasses the individual's attitudes and beliefs about change and their perception of the need for change.⁸ Low readiness for change can operate as barrier to implementing change.⁹

The degree of control staff hold over their jobs, their contribution to the change and self-efficacy have been found to be related to staff readiness for organisational change in a hospital setting.¹⁰ Studies in non-clinical settings show that readiness for change is related to social relationships at the workplace, job satisfaction and job performance.^{11 12}

This study explores the differences in staff readiness for organisational change within a sample of Australian general practices.

METHODS

This paper analyses the baseline data from a randomised controlled trial evaluating a practice-based intervention to enhance the role of non-general practitioner staff in chronic disease management.¹³ It examines readiness for organisational change of practice staff and its association with staff and practice characteristics. The study was approved by the University of New South Wales Human Research Ethics Committee.

Participants

A total of 155 practices from 16 Divisions of General Practice in NSW, Victoria and the Australian Capital Territory expressed interest and were invited to participate; 58 completed the study. Details of the practice recruitment have been published elsewhere.¹⁴ All staff members of the participating practices were invited to participate in the study.

Instruments

Readiness for Organisational Change Scale

All general practice staff were asked to complete the Readiness for Organisational Change Scale developed by Cunningham *et al.*¹⁰ This was adapted from the transtheoretical model proposed by Prochaska and Di Clemente,¹⁵ which suggests that change occurs over five stages. At the precontemplative stage, the need for change is not recognised, whereas at the contemplative stage, change is considered but not initiated. Planning for change happens at the preparatory stage, followed by engaging in the process of change (action stage); and at the maintenance stage, change is being sustained. According to the theory, an individual moves through the stages by weighing potential risks of the change against potential benefits of the change.

Each item of the six-item scale refers to one of Prochaska's stages and is rated on a five-point Likert

scale from “strongly disagree” (1) to “strongly agree” (5). A higher overall mean score indicates higher readiness for organisational change.

Team Climate Inventory

The Team Climate Inventory (TCI)¹⁶ was used to assess team climate, which has been shown to be related to organisational readiness for change as well as to team work.^{17 18} Respondents are asked to rate on a five-point Likert scale how much they agree with statements about their team in regard to communication and innovation, objectives and task style. The TCI is scored by calculating the mean of participants' responses across all 44 items. The subscales were also scored by calculating the mean over the relevant subscale items. A higher mean score means a better team climate.

Job Satisfaction Scale

Practice staff also completed the Warr–Cook–Wall Job Satisfaction Scale,¹⁹ which has been adapted for use with medical practitioners. The scale has nine questions that relate to different aspects of a job, and respondents are asked to rate them on a seven-point Likert scale from “extremely dissatisfied” (1) to “extremely satisfied” (7). A higher overall mean score indicates higher job satisfaction.

Practice characteristics

Practices were asked to fill in a pre-visit questionnaire that assessed descriptive information about the practices including the number and type of practice staff, work hours of staff, number of patients on the book, use of information technology systems, type of appointment system, billing system, accreditation, skill level of reception staff and practice's registration in chronic disease initiatives.

Data analysis

Because the readiness for change scale used in this study has not been applied widely, its construct validity was analysed using factor analysis. The method of estimation used was principal axis factoring; factor loadings smaller than 0.3 were suppressed.

The TCI is intended to be used at an organisational level; thus, individual scores were aggregated into practice mean scores. The distribution of the TCI practice scores was skewed towards higher team climate scores with a median of 3.8. To differentiate between practices of high and low team climate, only practices above the 75th percentile were classified as having high or good team climate. Practices with TCI scores at or below the 75th percentile were classified as having low team climate. The same categorisation of TCI scores was used in our previous research.²⁰

The distribution of the individual job satisfaction scores was also skewed towards the higher end of the scale with a median of 5.7. To differentiate between high and low job satisfaction, scores at or below the 75th percentile were classified as low job satisfaction and score above the 75th percentile were classified as high job satisfaction.

Unilevel analysis

The mean change readiness scores were compared between different subgroups of staff characteristics (age, sex, staff role, full time, job satisfaction) and practice characteristics (size, location, overall team climate, team climate subscales) using one-way analysis of variance (SPSS V.15).

Multilevel analysis

To adjust for cluster effects of staff (level 1) within practices (level 2), a multilevel regression analysis was conducted with

readiness for change as the continuous dependent variable and practice and staff characteristics as the independent variables. The models were fitted in MLwiN software V.2.0.²¹ Parameter estimates of fixed effects (regression coefficients) were tested by the *t* value, determined by dividing the estimated coefficients by their standard errors. Model fitting was assessed by change in -2 log likelihood and the significance of the random parameter variance estimates was assessed using the Wald joint χ^2 test statistic.²¹

RESULTS

Participants

Sixty practices were recruited to the study. Staff from 58 practices completed the questionnaires at baseline. Equal numbers of practices were from urban and rural areas. Eleven practices were solo-general practitioner practices, 12 had two or three general practitioners, and 35 had four or more general practitioners.

A total of 502 staff or 62% of all invited practice staff participated in the study. Of these 166 (33%) were general practitioners, 192 (38%) were receptionists, 84 (17%) were practice nurses, 46 (9%) were practice managers, 6 were allied health professionals, and 8 were administrative and accountant staff. For further analyses, reception and administrative staff, and practice managers were grouped together, as were practice nurses and allied health providers.

Table 1 shows characteristics of the participating practice staff.

Construct validity of Readiness for Organisational Change Scale

Most of the items were mildly correlated and all were suitable for inclusion in the factor analysis. Cronbach's α coefficient for the six items was 0.540, which indicates low internal consistency.

Principle axis factoring resulted in one factor; the factor matrix (table 2) shows items 5 (action) and 6 (maintenance) with factor loadings of less than 0.3. These items were excluded from the scale. The reduced scale had a Cronbach's α of 0.683, which indicates a higher internal consistency of the reduced scale compared with the original scale.

In all further analyses, the total score for readiness for organisational change is based on the reduced four-item scale.

Practice and staff characteristics and readiness for organisational change

Staff readiness for organisational change was not associated with practice size (small or larger practices) or practice location (urban or rural practice) (table 3). Change readiness was significantly higher for staff from practices with low overall practice team climate (TCI) when compared with staff from practices with high overall team climate. No difference was observed in the subscales of the TCI (table 3).

Readiness for organisational change scores of general practitioners, nurses and allied health professionals were significantly higher than the scores of administrative/reception staff and practice managers. Male staff had significantly higher scores

Table 1 Characteristics of the 502 general practice staff respondents

	All staff (n=502)	General practitioners (n=166)	Nurses and allied health staff (n=90)	Administrative/ reception staff/practice manager (n=246)
Female	400 (79.7%)	75 (45.2%)	88 (97.8%)	237 (96.3%)
Full-time*	182 (36.9%)	75 (46.0%)	26 (29.2%)	81 (33.6%)

*Full-time is defined as 32 h or more. Information on work hours was missing for nine cases.

Table 2 Factor matrix for final factor analysis of Readiness for Organisational Change Scale*

	Item description	Factor loadings
1	The program or area in which I work functions well and does not have any aspects which need to change‡	0.510
2	There's nothing that I really need to change about the way I do my job to be more efficient.‡	0.532
3	I've been thinking that I might want to help change something about the program or area in which I work.	0.773
4	I plan to be involved in changing the program or area in which I work.	0.580
5	I am working hard to help improve aspects of the program or area in which I work.	0.192†
6	We are trying to make sure we keep changes/improvements my program/area has made.	−0.171†

Extraction method: principal axis factoring.

*One factor extracted. Thirteen iterations required.

†Item was reverse coded before analysis.

‡Item excluded because factor loading is <0.300.

than female staff and full-time staff had significantly higher scores than part-time staff (table 4). Staff with low job satisfaction had significantly higher readiness for organisational change scores than those with high job satisfaction (table 3).

A multilevel multivariate regression analysis was conducted to adjust for clustering and confounding effects. In this analysis the associations between readiness for organisational change and staff type remained significant (table 4). Administrative and reception staff had significantly lower readiness for organisational change when compared to general practitioners or other clinical staff. Furthermore, full-time staff had significantly higher readiness for organisational change scores compared to part-time staff. Lastly, job satisfaction was negatively correlated with readiness for change, with staff with low job satisfaction having higher change readiness scores (model 1).

None of the practice characteristics showed significant differences in staff readiness for change (model 2). TCI had no association with readiness for change after adjustment for other covariates (table 4). Readiness to change was also unrelated to the number of years the general practitioner had been working in the practice.

DISCUSSION

The purpose of this research is to inform interventions aiming at improving quality of care in general practice by better understanding the readiness for organisational change of staff in general practices. However, individual staff readiness to change is only one factor influencing change. The organisational change required in general practice to improve chronic disease management relies on building teamwork and systems in the practice where all staff play an active role in structured care.²²

The results show that organisational characteristics of a practice and the number of years that the general practitioner worked in the practice were not associated with the level of individual readiness for organisational change. Although previous research showed an association between team climate and organisational readiness for change,¹⁷ in this study lower team climate was associated with greater readiness to change, but there was no relationship after adjusting for clustering. This may have been related to the generally high levels of team climate scores in these practices.

Staff characteristics explained 14% of between-staff variance of readiness for organisational change. Clinical staff were more ready for change when compared to administrative staff.

However, no difference was found between different types of clinical staff such as nurses and general practitioners. Administrative and reception staff may have less control over their jobs. Less control over job tasks has been shown to be negatively related to readiness for change.¹⁰ This suggests that different strategies may be required to engage both clinical and non-clinical staff in organisational change.

Table 3 Mean and standard deviation of readiness for change for subgroups of characteristics of practices and staff (number of practices=58, number of practice staff=502)

Variable (definition)	Number of staff		Readiness for change Mean (SD)
	n	%	
Characteristics of practices			
Practice size			
1 to 3 general practitioners	113	(22.5)	3.18 (0.68)
Four or more general practitioners	389	(77.5)	3.27 (0.63)
Location of practice			
Urban	258	(51.4)	3.26 (0.62)
Rural	244	(48.6)	3.23 (0.66)
Overall team climate in practice			
High team climate†	115	(22.9)	3.12 (0.63)
Low team climate‡	387	(77.1)	3.29 (0.64)*
Team climate subscales:			
Participative safety			
High§	124	(24.7)	3.17 (0.63)
Low¶	378	(75.3)	3.28 (0.65)
Support for innovation			
High§	120	(23.9)	3.14 (0.64)
Low¶	382	(76.1)	3.29 (0.64)*
Team vision			
High§	122	(24.3)	3.26 (0.66)
Low¶	380	(75.7)	3.25 (0.64)
Task orientation			
High§	121	(24.1)	3.19 (0.63)
Low¶	381	(75.9)	3.27 (0.65)
Characteristics of practice staff			
Sex			
Male	102	(20.3)	3.48 (0.68)
Female	400	(79.7)	3.19 (0.62)***
Age			
18 to 39	126	(26.3)	3.23 (0.55)
40 to 55	279	(58.2)	3.30 (0.68)
56 to 70	74	(15.4)	3.14 (0.60)
Staff type			
General practitioner	166	(33.1)	3.46 (0.66)
Nurse/allied health§§	90	(17.9)	3.27 (0.62)*
Admin/receptionist /practice manager¶¶	246	(49.0)	3.10 (0.59)*
Work hours			
Full-time	182	(36.3)	3.36 (0.61)
Part-time	311	(63.1)	3.19 (0.65)**
Job satisfaction			
High††	122	(24.3)	3.01 (0.59)
Low‡‡	380	(75.7)	3.33 (0.64)**

Information for age was missing for 23 cases; information for work hours is missing for nine cases.

*p<0.05, **p<0.01, ***p<0.001.

†Practices with TCI scores above the 75th percentile.

‡Practices with TCI scores at or below the 75th percentile.

§Practices with TCI subscore above the 75th percentile.

¶Practices with TCI subscore at or below the 75th percentile.

††Staff with job satisfaction score above the 75th percentile.

‡‡Staff with job satisfaction score at or below the 75th percentile.

§§Significantly different from administrative/reception staff.

¶¶Significantly different from general practitioners and nurses/allied health.

Table 4 Estimates of regression coefficient (and standard errors) of multilevel multivariate regression analysis for practice and staff characteristics

Parameters (reference category)	Readiness for change	
	Estimate of the main model	
	Model 1	Model 2
Staff main effect		
Male staff (female)	0.048 (0.090)	0.052 (0.090)
Age, years		
40 to 55 (18 to 39)	0.052 (0.065)	0.059 (0.065)
>56 (18 to 39)	−0.087 (0.090)	−0.078 (0.090)
Staff type		
Nurse/allied health (general practitioner)	−0.113 (0.092)	−0.101 (0.060)
Administrative/reception/practice manager (general practitioner)	−0.315 (0.077)***	−0.310 (0.077)***
Full-time employed (part-time employed)	0.175 (0.060)**	0.187 (0.060)**
High job satisfaction (low job satisfaction)	−0.277 (0.065)***	−0.255 (0.068)***
Practice main effect		
Size 4 or more general practitioners (1 to 3 general practitioners)		0.090 (0.087)
Rural (urban)		0.085 (0.072)
High team climate (low team climate)		−0.093 (0.141)
Variance components		
Staff variance	0.337 (0.023)***	0.335 (0.023)***
Practice variance	0.018 (0.011)	0.013 (0.010)

*p<0.05, **p<0.01, ***p<0.001.

Although work satisfaction levels were generally high, staff who were less satisfied with their job were more ready for change. This is consistent with evidence on readiness for change in non-clinical organisations.¹² This suggests that work dissatisfaction may be a useful focus for organisational change within practices. Conversely, an enhanced role for nurses and other practice staff to work in chronic disease management has the potential to increase job satisfaction. But only if it does not itself add to job stress.²³

Being in part-time employment was also related to lower readiness for change. Part-time staff may be less involved and committed to the practice, which corresponds to research suggesting a link between higher organisational commitment and higher change readiness.¹¹ Again this indicates the need to consider different approaches to facilitating change within the mix of practice staff.

There are limitations that need to be acknowledged in this study. Only 58 of the original 155 selected practices participated in the whole study. These practices tended to have high staff satisfaction and team climate, and this may have created a ceiling effect in examining the association with readiness for change. Only two thirds of the staff within these practices agreed to participate and complete the various questionnaires. The scale used for measuring individual readiness for organisational change has been validated, although two of the items were dropped after the factor analysis, which showed poor internal consistency. More specific research into readiness for organisational change in this specific context might be needed to capture perspectives of all practice staff that are expected to vary according to the staffs' roles and responsibilities.

Acknowledgements The authors would like to thank all practices and their staff who participated in this study and participating Divisions of General Practice. We would like to acknowledge everyone on the General Practice Teamwork study group who made this work possible, including: Justin Beilby, Patrick Crookes, Geoffrey Meredith, Deborah Black, Elizabeth Patterson, David Perkins, Gawaine Powell Davies, Matt Hanrahan, Barbara Booth, Mahnaz Fanaian, Corinne Opt' Hoog, Pauline Van Dort, Linda Greer, Anita Schwartz, Shane Pascoe, Leigh Cantero, Sunshine Bustamante, Lucio Naccarello, Oshana Hermiz, Peta Sharrock. A/Prof Proudfoot is grateful for salary support from NHMRC program grant 510135.

Competing interests None.

Funding The study was funded by the National Health and Medical Research Council.

Ethics approval This study was conducted with the approval of the University of New South Wales Human Research Ethics Committee.

Provenance and peer review Not commissioned; externally peer reviewed.

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