Research Article

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Authentic leadership, organizational climate stress and wellbeing in healthcare workers

Abstract

Purpose: The concept of a resilient workforce is of growing interest in a changing and economically challenging context. This study aimed to explore the role of authentic leadership and organisational climate as a model for resilience in the workplace.

Method: A questionnaire survey assessed authentic leadership, organisational climate, and work stress / wellbeing in 747 staff working in health care.

Findings: Findings showed that organisational climate and authentic leadership are predictive of work stress and wellbeing.

Practical implications: It appears that the combined effects of organizational climate and authentic leadership might underpin an approach to building resilience in the workforce.

Originality: The study brings together the constructs of authentic leadership and organisational climate as a positive psychology model underpinning stress and wellbeing in the workplace.

Keywords: authentic leadership, organisational climate, stress, wellbeing

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Introduction

"Work stress refers to the process of job stressors, or stimuli in the workplace, leading to strains, or negative responses or reaction".[1] The concept of stress is extremely complex and generally involves demands placed on the person by external or internal pressures in a process that can be either motivating or damaging or both. To avoid this complexity in this study it is limited to demands that produce strain and has a negative psychological impact. It is operationally defined in terms of the measure used.[2] As far back as 1969 it was identified that the absence of negative affect does not equal to positive affect.[3] In general research on work stress suggests that strain or negative affect is experienced by anything up to 40% of workers. This means that 60% or more do not experience negative affect. Unfortunately, many studies seem to ignore the Bradburn and Noll dichotomy and do not include a measure of positive affect. It often seems that there is an unwritten assumption that the absence of negative affect equates to positive affect. Two factors that have been shown to impact on work stress are leadership and organisational climate. These have generally been investigated separately and don't seem to have been considered in conjunction with each other.

Leadership research since the mid-nineteenth century has moved away from a singular focus on the characteristics of the leader to models that explain effective leadership as a process of interaction between the leader and their followers.[4] Authentic Leadership theory[5] is defined as, "*a pattern of leader behaviour that draws upon and promotes both positive psychological capacities and a positive ethical climate, to foster greater self-awareness, an internalised moral perspective, balanced processing of information and relational transparency on the part of leaders fostering positive self-development*".[6] Authentic leadership has been associated with greater job satisfaction,[7] psychological wellbeing,[8] lower levels of sickness absence[9] and more resilient workers.[10,11] Organisational climate comprises the perceptions employees share about the environment in which they work.[12] Important shared perceptions include a sense of autonomy, cohesion, support, pressure, innovation, fairness, trust, and recognition.[13] Organisational climate affects worker attitudes, motivation, satisfaction, and behavior.[14]

Stress is a major problem for healthcare workers[15–17] and as well as affecting the health of healthcare workers also has a major impact on patient care and wellbeing.[18,19] Hall et al.,[18] demonstrated that the highest stress-rated occupations in the UK were those with greatest 'emotional labour', which included health and social services jobs (e.g. ambulance drivers, social workers). There is a significant proportion of the workforce engaged in health care in the UK.[20] There is some evidence that stress in health professionals is linked to negative organisational climate.[21] Organisational climate and leadership style would seem to be inextricably linked and climate is translated to workers through leadership.[22] These authors identify a professional – supportive style of leadership which is associated with a more positive climate and more worker engagement and satisfaction. Professional and supportive behaviour is the essence of authentic leadership. The brief review above suggests that authentic leadership, and positive organisational climate, are linked to lower stress and better health and wellbeing at work. However there has been no research looking at how all three interact in the process even though one could intuit that there may be a combined effect. The aim of this study was to explore the relationships between authentic leadership, organisational climate, and perceived stress / wellbeing in healthcare workers. Based on the extant and emerging literature a model of the relationship is proposed and this model was tested using path analysis (Figure 1).
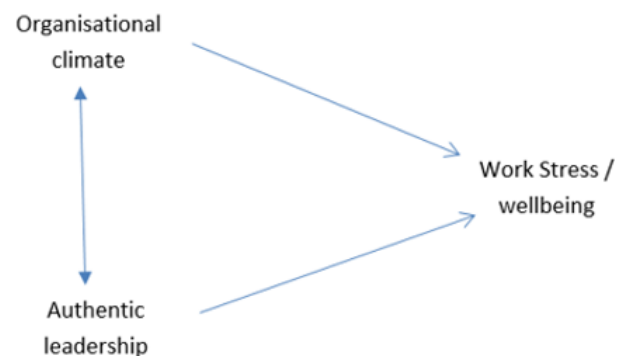

Figure I Proposed path model of the relationship between organizational climate, authentic leadership, stress and wellbeing.

Method

Design

The current study used a quantitative survey with questionnaire data collection to explore the relationships between organisational climate, authentic leadership, and work stress / wellbeing in healthcare workers.

Participants

There were 747 participants (594 females and 153 males) who accessed and completed an online survey asking for respondents currently working in healthcare in the UK. Participants were predominately female (79.5% female, 20.5% male) as is typical of the health and social care sector generally. Age range distribution was 21-29 = 180, 30-39 = 333, 40-49 = 135, 50-59 = 72, and 60 plus = 27. Overall, 90 held a managerial role while 657 were engaged in direct service delivery. Length of tenure with the company ranged from less than 2 years = 162, 2-5 years = 306, 6-10 years =189, and over 10 years = 90.

Measures

The survey comprised a short biodata section asking for age, sex, work role, and length of time in the job. This was followed by 4 standard measures as described below. Current level of work stress was measured using the *Workplace Stress Scale*.[2] This is an 8-item scale designed to provide a quick and valid measure of stress levels in the workplace. The scale had very good internal reliability in this data (α= .89). Wellbeing was measured using the *Warwick Edinburgh Mental Well-being Scale-short form*[23] which is made up of seven positively worded items that relate to the different aspects of positive mental health. Each item was rated based on the experience of the respondent over the past two weeks, with items being ranked on a 5-point Likert scale ranging from 1 = *None of the Time* to 5 = *All of the Time*. The summed item scores were used to determine the level of positive mental well-being, with a higher score indicative of a higher level of positive mental well-being. The Cronbach's alpha for the scale in this study is 0.93. Leadership style was measured by the 16 item *Authentic Leadership Questionnaire*.[24] 5 items measure transparency (α = .71); 4 items measure the moral/ethical component (α = .83; 3 on balanced processing (α = .69) and 4 items self-awareness (α = .88). Each statement is rated on how frequently it fits the style of the respondent's leader (0 = not at all to 4 = frequently, if not always). Authentic leadership has been shown to have predictive validity for important work-related attitudes and behaviours (e.g. α = .91).[25,26] Organisational Climate was measured by the short *Organisational Climate unidimensional scale* developed by Peña-Suárez et al.[27] This is a 15-item scale which combines the eight key dimensions of sense of autonomy, cohesion, trust, pressure, support, recognition, impartiality, and innovation.[13] The scale has good internal consistency α = .94).

Procedure

Requests for participants were posted on social media sites with a requirement that respondents should be currently working in healthcare in the UK. The post was repeated every two weeks over a period of three months. There was also a request to repost to friends. A total of 747 participants (594 females and 153 males) completed the survey. Participation was voluntary and as no names or identifying features were included, they were assured of anonymity. The survey was 63 short items plus some biographical questions and would have taken no more than 15 minutes to complete. Two exclusion criteria were applied. Those working for less than 6 months with the current employer were not included to ensure the responses reflected a reasonable experience of the impact of the working conditions both internally and externally. This replicates the timeframe applied by other researchers.[28] Those in non-service delivery positions were also excluded from the sample (e.g. administration staff) as the sources of stress for these staff may be substantially different.

Ethical considerations

Ethical approval for the study was granted by the University Ethics Committee prior to commencement of the study.

Results

The aim was to test the relationship between authentic leadership, organizational climate, and work stress / wellbeing. The Workplace Stress Scale provides some definitions of levels of stress based on scale scores as follows.

Score of 15 or less low level where stress is not much of an issue.

Score of 16 to 20 fairly low stress levels where coping should not generally be a problem.

Score of 21 to 25 moderate levels of stress which might challenge coping ability.

Score of 26 to 30 severe stress levels which involve difficult in coping generally.

Score of 31 to 40 suggested as dangerous levels of stress with serious implications for health.

In the current sample the following range of stress scores were reported. Scores of 15 or less = 24%; 16-20 = 20%; 21-25 = 20%; 26-30 = 24%; and 31-40 = 12%. So 36% of this sample reported above the severe cutoff, and 12% reported dangerously high stress levels. For the main analysis the first stage involved calculating correlations, firstly between the global variables and secondly the separate dimensions of leadership (Table 1 & 2).

Table 1 Correlations between study work stress, organizational climate, and authentic leadership

	1	2	3
1. Work stress			
2. Wellbeing	-.31**		
3. Organisational climate	-.52**	.50**	
4. Authentic leadership	-.73**	.23**	.39**

**. Correlation significant at the 0.01 level (2-tailed).

Table 2 Correlations between work stress, organizational climate, and dimensions of authentic leadership

	1	2	3	4	5	6
1. Stress						
2. Wellbeing	-.31**					
3. Organisational climate	-.52**	.50**				
4. Transparent leadership	-.67**	.22**	.35**			
5. Ethical leadership	-.73**	.28**	.44**	.76**		
6. Balanced leadership	-.59**	.19**	.33**	.71**	.73**	
7. Self-aware leadership	-.63**	.13**	.29**	.79**	.78**	.73**

**. Correlation significant at the 0.01 level (2-tailed).

There were significant, large, inverse relationships between authentic leadership, organizational climate, and work stress. Furthermore, the pattern of significant inverse correlations between

the individual dimensions of authentic leadership, and work stress indicate that all dimensions contribute to the variance explained. Organizational climate was significantly positively correlated with authentic leadership. The correlations between authentic leadership and wellbeing were positive and significant but smaller than stress. Similarly for the correlations between organizational climate and wellbeing. Essentially what the correlations show is that authentic leadership and positive organizational climate coincide with lower levels of stress. For well-being the opposite is true. Authentic leadership and positive organizational climate are linked to wellbeing. Authentic leadership and positive organization climate are significantly related to each other. Hierarchical multiple regression analysis (HMRA) was then used to identify the predictive relationship between authentic leadership, organizational climate, and work stress / wellbeing and the results are shown in Table 3 & 4 below.

Table 3 The predictors of work stress from HMRA

Model 1	B	SE B	b	DR2
sex	-0.191	0.086	-0.081	.007*
Model 2				
sex	0	0.075	0	.267***
Climate	-0.686	0.041	-.523***	
Model 3				
sex	-0.039	0.056	-0.016	.323***
Climate	-0.365	0.034	-.279***	
Authentic leadership	-0.544	0.022	-.618***	
Total R2 = .59***				

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

Table 4 The predictors of wellbeing from HMRA

Model 1	B	SE B	b	DR2
age	0.073	0.035	0.075	.006*
Model 2				
age	0.11	0.033	.113***	.146***
Climate	0.523	0.047	.379***	
Model 3				
age	0.06	0.027	.062**	.425***
Climate	0.204	0.042	.148***	
Authentic leadership	0.536	0.028	.578***	
Total R2 = .43***				

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

In the first analysis (Table 3) stress was the dependent variable. Age, sex, and length of time in the job were entered on the first step, Sex was the only one to account for a significant percentage of variance (p< .05), but the beta value failed to reach significance. On step 2 organizational climate was added and accounted for 26.7% of the variance in work stress (b = -.523. p<.001). On step 3 authentic leadership added a further 31.3% to variance explained (b = -.618. p<.001), bringing the total variance accounted for to 59% overall. As this is cross sectional data the order of entry of variables is arbitrary and the order of entry here was intuitively logical. In the second analysis (Table 4) wellbeing was the dependent variable. Age, sex, and length of time in the job were entered on the first step, This time age was the only one to account for a significant percentage of variance (p< .05), but the beta value failed to reach significance. On step 2 organizational climate was added and accounted for 14.6% of the variance in work stress (b = .379. p<.001). On step 3 authentic leadership added a further 28.4% to variance explained (b = .578. p<.001), bringing the total variance accounted for to 43% overall. As

this is cross sectional data the order of entry of variables is arbitrary and the order of entry here was intuitively logical.

The final stage in analysis was to construct path models from the HMRA output as shown in Figure 2 & 3. Both organizational climate and authentic leadership account for significant portions of the variance in work stress and wellbeing. Because the data is cross sectional it could either be that authentic leadership mediates the impact of organizational climate on the outcome variables, or that organizational climate mediates the impact of authentic leadership the literature would suggest that the former is more likely.
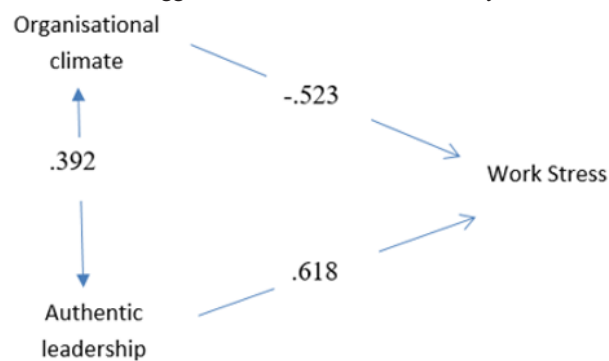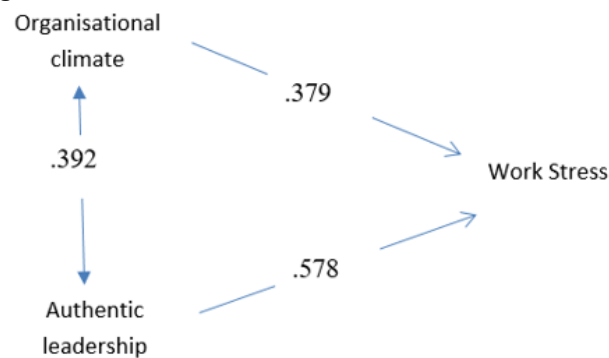

Figure 2 Path Model of stress from HMRA.

Figure 3 Path Model of wellbeing from HMRA.

Discussion

This study aimed to add to existing theory and research on factors associated with work stress and consequently to inform the design of support tailored to promote a resilient workforce in challenging times. In essence the results of this study show that authentic leadership is significantly related to organizational climate and both work stress and wellbeing. The proposed model was a good fit and suggests that both organizational climate and authentic leadership mediate and moderate work stress and wellbeing. The present findings fit well with the growing literature on positive organizational behaviour which suggests that the core of any effective organization is a resilient workforce. However there has been a trend to focus on the workforce as the centre of stress and health research at work which means that in some way the causes for ineffective and unhealthy organizations lie in the individual and that interventions should focus on enabling workers to cope better. Linking authentic leadership with organizational climate provides us with a more multilevel model of how a resilient workforce can be developed. It indicates intervention at organizational levels to ensure that the leadership style empowers workers, while work contexts enable the development of wellbeing. The interdependent link proposed here between authentic leadership, and organizational climate suggests a mechanism through which resilience in an organization may be achieved. This study is limited

by its cross-sectional design though it did have a large sample. It does provide a tentative base for the utility of considering organizational factors and leadership style together. It also suggests the importance of considering both wellbeing and negative affect jointly which fits with the philosophy of positive organizational behaviour.

Conflicts of interest

The authors declare that there is no conflict of interest.

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