

## **Inductions buffer nurses' job stress, health and organizational commitment**

Caroline Kamau<sup>1</sup>

&

Asta Medisauskaite<sup>2</sup>

&

Barbara Lopes<sup>3</sup>

<sup>1</sup>Department of Organizational Psychology, Birkbeck, University of London

<sup>2</sup>St Christopher's Hospice, London

<sup>3</sup>Faculty of Health and Life Sciences, De Montfort University

<http://doi.org/10.1080/19338244.2014.891967>

## **Abstract**

Nurses suffer disproportionate levels of stress and are at risk of sickness-absence and turnover intentions but there is a lack of research clarifying preventions. This study investigated the impact of inductions (job preparation courses) about mental health for nurses' job stress, general health and organizational commitment. Data from 6,656 nurses were analyzed using structural equation modeling (SEM), showing that mental health inductions increase nurses' job satisfaction, which reduces their occupational stress and improves their health. SEM showed that these occupational health benefits increase the nurses' commitment to the organization. Job satisfaction (feeling valued, rewarded) also had a direct effect on nurses' intentions to continue working for the organization. Mental health inductions are therefore beneficial beyond job performance: they increase occupational health in the nursing profession.

## INTRODUCTION

Nurses are at risk of tiredness, ill-health, sleep disruption, stress, burnout, sickness-absence, job dissatisfaction and eventual withdrawal from the organizations they work for. For instance, hospital nurses have been found to use absenteeism as a mechanism of coping with stress.<sup>1</sup> We propose that these negative outcomes are interconnected and can be prevented by an appropriate induction (a job preparation course). This is because induction programs have been found to reduce nurses' stress levels and to improve their general health.<sup>2,3,4</sup> Inductions and other sorts of training programs could help in reducing a nurse's intention to leave the organization they work for, considering the importance of staff development in nursing<sup>5</sup> and the benefits of training opportunities for nurses' commitment toward a hospital.<sup>6</sup> However, previous research<sup>2-6</sup> has focused on nurses' health *or* organizational commitment but we propose that the two effects are interconnected.

Previous research found that training improves feelings of job satisfaction among nurses and increases their commitment toward continuing with work in a specific hospital.<sup>6</sup> Other research shows that job satisfaction is the strongest predictor of nurses' commitment to a specific hospital<sup>7</sup> and that job satisfaction is connected to occupational stress in nursing.<sup>8</sup> Occupational stress is a serious problem affecting nurses<sup>9</sup> and research shows that this is connected with absence from work<sup>1</sup> and intentions to quit a hospital.<sup>8</sup> Inductions – particularly those connected with mental health – have the potential to help nurses cope with challenging workplace experiences and to self-reflect about their own cognitive responses at work. Our first hypothesis was that inductions increase nurses' job satisfaction.

We propose that job satisfaction is the key to explaining the connection between inductions

and occupational health as well as organizational commitment. Inductions concerned with learning cognitive techniques have been found to reduce nurses' stress levels;<sup>2,3</sup> therefore, inductions about mental health could be pivotal to nurses' health at work and their organizational commitment. In line with previous literature,<sup>2,3,4</sup> we anticipated that inductions reduce nurses' job stress and increase their general health. As a step beyond previous literature, our second hypothesis was that inductions benefit occupational health because of job satisfaction.

Nurses' feelings of job satisfaction could also determine the effect of induction programs on organizational commitment because job satisfaction involves feeling valued, rewarded and compensated. Such feelings of being rewarded are important in shaping people's sense of group belonging<sup>10</sup> and they strongly predict organizational commitment in nursing.<sup>7</sup> Our third hypothesis was that inductions increase nurses' intentions to continue working for their organization because of job satisfaction. Previous research<sup>1,8</sup> leads us to anticipate that stress predicts absence and withdrawal among nurses therefore our fourth hypothesis was that nurses' job stress and health predict their organizational commitment. To extend previous evidence,<sup>1-8</sup> we investigated the connection between induction programs, occupational health and organizational commitment. Our fifth hypothesis was that inductions increase nurses' job satisfaction, which reduces their job stress and increases their general health; this subsequently increases their organizational commitment.

## METHODS

The data we used for correlation analysis and *t*-tests (using SPSS software) and structural equation modeling (using EQS 6.1 software) were from 6,656 nurses who took part in the 2011 NHS National Staff Survey.<sup>11</sup> We focused on 6 induction programs connected with mental health, in line with previous literature about the usefulness of psychological training in nursing.<sup>3</sup> The inductions were as follows.

- I. Care program Approach (CPA) inductions help staff learn about the contribution of nonclinical factors (such as employment, personal fulfillment and social support) to a patient's mental wellbeing, recovery and social inclusion. They help staff learn about how to create a holistic, multidisciplinary care plan. There were 3,828 nurses who completed CPA inductions and 2,828 nurses who did not.
- II. Carer support inductions promote an understanding of the psychosocial difficulties experienced by relatives or workers who serve as patient carers. The inductions instill knowledge about promoting the carer's wellbeing. They encourage staff to convey knowledge to carers about early warning signs, treatment and crisis handling. There were 3,233 nurses who completed carer support inductions and 3,423 nurses who did not.
- III. Dual diagnosis inductions help staff learn about risk assessment of patients involved in alcohol or drug misuse. The inductions also instill knowledge about how to recognize and respond to a substance misuse emergency, how medications interact with alcohol/drugs, available pharmacotherapies and the contribution of motivational

factors toward recovery. There were 3,048 nurses who completed dual diagnosis inductions and 3,608 nurses who did not.

- IV. Mental health risk assessment inductions help staff learn about how to evaluate the extent to which a patient poses a risk of violence or harm to themselves or others in the short- or long-term. Staff learn about how to interpret assessment tools and manage risks, including the risk of the patient self-neglecting, absconding from treatment, being victimized or victimizing someone. There were 4,214 nurses who completed mental health risk assessment inductions and 2,442 nurses who did not.
- V. Psychological therapy inductions help staff learn about one or more therapeutic approaches in mental healthcare, such as cognitive behavioral therapy, as well as gaining an overview of therapy services available. There were 2,807 nurses who completed psychological therapy inductions and 3,849 nurses who did not.
- VI. Suicide risk assessment inductions train staff about how to identify a patient at risk of suicide or serious self harm. They learn about interpreting assessment tools, managing the risks identified and the services available to help with suicide prevention. There were 3,860 nurses who completed suicide risk assessment inductions and 2,796 nurses who did not.

We 'dummy coded' each of these induction variables, meaning that a value of '1' represented completion of that particular induction in the past (in the past 12 months or before) and '0' non-completion. The other variables we analyzed from the dataset were the nurses' job satisfaction (the mean of 8 items, e.g., satisfaction with "*The recognition I get for good*

*work*”, “*The extent to which my Trust values my work*”, “*Level of pay*”); the nurses’ job stress (mean of 2 items, e.g., “*In general, my job is good for my health*”); the nurses’ general health (1 item denoting health in the previous 4 weeks); and the nurses’ organizational commitment (mean of the 3 items after reverse coding each: “*I often think about leaving this Trust*”; “*I will probably look for a job at a new organization in the next 12 months*”, “*As soon as I can find another job, I will leave this Trust.*”

## RESULTS

Correlations among the variables (see Table 1) were in the direction expected. *T*-tests showed that there was a significant difference between inducted and non-inducted nurses in the majority of mental health inductions. In most comparisons (see Table 1), inducted nurses presented significantly higher job satisfaction, lower job stress, better health and higher organizational commitment than nurses who were not inducted.

We tested a structural equation model (see Figure 1) beginning with a latent factor which we labeled ‘Inductions’. This factor was underpinned by the 6 induction variables. Figure 1 shows the standardized solution beta values. Mental health inductions increased the nurses’ job satisfaction, which then decreased their job stress, which subsequently increased their health and increased their commitment to continuing work in the NHS Trust. The nurses’ job satisfaction also increased their organizational commitment. The model fit the data well, with a Bentler-Bonett Normed Fit Index (BBFI) and Comparative Fit Index (CFI) higher than the threshold of .90, which shows a good fit, and the threshold of .95, which shows an excellent fit; BBFI = .95, CFI = .96. The Root Mean Square Error of Approximation (RMSEA) was lower than the threshold of .10; RMSE = .07. The standardized solutions were: [job

satisfaction =  $.18 * \text{inductions} + .98E$ ]; [stress =  $-.34 * \text{job satisfaction} + .94E$ ]; [health =  $-.33 * \text{stress} + .94E$ ]; [organizational commitment =  $.57 * \text{job satisfaction} + .11 * \text{health} + .80E$ ]. *R*-squared values from the standardized solutions showed that the structural equation model successfully predicted 3.1% of the variance in job satisfaction, 11.7% of the variance in stress, 11.1% of the variance in health and 35.7% of the variance in organizational commitment.

## COMMENT

Confirming our first hypothesis and extending previous evidence, inductions are beneficial to nurses' job satisfaction. Confirming our second hypothesis and contributing to existing literature about the problem of occupational stress in nursing<sup>2,3,4,9</sup> inductions reduce nurses' job stress and increase their health. The results extend previous evidence<sup>3,5</sup> in showing that inductions are beneficial to occupational health because of job satisfaction. Confirming our third hypothesis, inductions increase nurses' intentions to continue working for their NHS Trust. This extends previous evidence about the effects of training opportunities on nurses' job satisfaction and intentions to quit.<sup>5,6,7,12</sup> Extending that evidence and confirming our fourth hypothesis, the nurses' intentions to continue working for their organization can be explained by not just job satisfaction but also by the benefits of inductions for occupational health. Better occupational health meant more commitment to the organization. Supporting our fifth hypothesis and extending previous evidence<sup>5,6</sup> the results were that inductions increase nurses' job satisfaction which buffers occupational health and this increases organizational commitment. This extends previous evidence about the central role of job satisfaction as a determinant of nurses' intentions to quit<sup>12</sup> by showing that inductions are an antecedent of job satisfaction. We also extend previous evidence<sup>1,6,7</sup> by showing that a nurse's



occupational health is an antecedent of their intention to continue working for an organization.

The conceptual reason for these results is that job costs and gains are central to occupational stress in nursing.<sup>13</sup> Inductions can reduce the psychological costs of nursing work because they can shape positive cognitive interpretations and reactions to difficult workplace experiences. This can explain why inductions predict nurses' job satisfaction. Inductions about mental health risk assessment, suicide risk assessment and dual diagnosis instill knowledge about triggers and symptoms, thus benefiting nurses' stress and health because they can help them monitor their own mental wellbeing and prevent triggers of stress. Psychological therapy inductions can also help nurses develop adaptive coping responses and to interpret negative events adaptively. Other inductions can help nurses learn about the connection between work factors and health: CPA inductions can help nurses learn about the impact of work and other nonclinical factors on health, while carer support inductions can raise awareness about how to mitigate the psychosocial risks of working in healthcare. This was why inductions had an indirect effect on occupational health. Inductions, through job satisfaction, can also improve nurses' expectations about the future psychological costs of working in a specific organization, therefore making them more likely to continue working there.

Our results are innovative in clarifying the occupational health benefits of inductions. In short, without inductions, nurses feel more dissatisfied with their job and that creates a number of stressors which increase the risk of absence, withdrawal and disengagement from their NHS Trust. Future research should identify other stressors created by absent or insufficient inductions – for example, maladaptive coping strategies. Future research should

Kamau, C., Medisauskaite, A., & Lopes, B. (in press). Inductions buffer nurses' job stress, health and organizational commitment. *Archives of Environmental and Occupational Health*. DOI:10.1080/19338244.2014.891967 (<http://doi.org/10.1080/19338244.2014.891967> )

also analyze the role of the nurse burnout correlates identified in previous literature,<sup>10</sup> such as gender, work load and job role certainty.

*Acknowledgements by the authors: Copyright of the data analyzed belongs to the Care Quality Commission. The Care Quality Commission bears no responsibility for the content of this article.*

## References

1. Hackett, R, Bycio P. An evaluation of employee absenteeism as a coping mechanism among hospital nurses. *J Occup Organ Psych* 1996; 4: 327-338
2. Lee, S, Crockett, MS. Effect of assertiveness training on levels of stress and assertiveness experienced by nurses in Taiwan, Republic of China. *Issues Ment Health Nurs* 1994; 15:419–432.
3. Razavi, D, Delvaux, N, Marchal, S, Bredart, A, Farvacques, C, Paesmans, M. The effects of a 24-h psychological training program on attitudes, communication skills and occupational stress in oncology: a randomised study. *Eur J Cancer* 1993; 29:1858–1863.
4. Tsai, SL, Crockett, MS. Effects of relaxation training, combining imagery, and meditation on the stress level of Chinese nurses working in modern hospitals in Taiwan. *Issues Ment Health Nurs* 1993; 14:51–66.
5. Johnson, A, Hong, H, Groth, M, Parker, SK. Learning and development: promoting nurses' performance and work attitude. *J Adv Nurs* 2011; 66:609-620.
6. Bartlett, KR. The Relationship between training and organizational commitment: A study in the health care field. *Hum Res Dev Quart* 2001; 12: 335-352
7. Price, JL, Mueller, CW. A causal model of turnover for nurses. *Acad Manag J* 1981; 24: 543-565.
8. Lu, H, Alison, E, While K, Barriball L. Job satisfaction among nurses: a literature review. *Int J Nurs Stud*, 2005; 42:211-227.
9. Wu, S, Li, H, Wang, X, Yang, S, Qiu, H. A comparison of the effect of work stress on burnout and quality of life between female nurses and female doctors. *Arch Occup Environ Health* 2011; 66:193-200
10. Kamau C. What does being initiated severely into a group do? The role of rewards. *Int J Psychol* 2013; 48:309-406
11. Care Quality Commission and Picker Institute Europe. National Health Service National Staff Survey, 2011 [computer file]. Colchester, Essex: UK Data Archive [distributor], February 2013. SN: 7203, <http://dx.doi.org/10.5255/UKDA-SN-7203-1>.
12. Shields, AM, Ward, M. Improving nurse retention in the National Health Service in England: the impact of job satisfaction on intentions to quit. *J Health Econ*, 2001; 20: 677-701.
13. Fillion, L, Tremblay Y, Truchon M, Cote,D. Job satisfaction and emotional distress among nurses providing palliative care: evidence for an integrative occupational stress model. *Int J Stress Manag* 2007; 14:1-25.

*Table 1.*

*Correspondence<sup>+</sup> between inductions and nurses' job stress, organizational commitment, job satisfaction and general health*

	Nurses'			
	Nurses'			health in
	Nurses'	organizational	Nurses' job	the past
	job stress	commitment	satisfaction	4 weeks
Nurses' job stress	$r = 1$			
Nurses' organizational commitment	$r = -.36^{**}$	$r = 1$		
Nurses' job satisfaction	$r = -.38^{**}$	$r = .58^{**}$	$r = 1$	
Nurses' health in the past 4 weeks	$r = -.38^{**}$	$r = .30^{**}$	$r = .33^{**}$	$r = 1$
Sum of mental health inductions	$r = -.05^{**}$	$r = .11^{**}$	$r = .18^{**}$	$r = .05^{**}$
No induction in CPA	$M = .41^{**}$ ( $SD = .50$ )	$M = 3.17^{**}$ ( $SD = 1.12$ )	$M = 3.28^{**}$ ( $SD = .71$ )	$M = 4.15$ ( $SD = 1.23$ )
Induction in CPA	$M = .37^{**}$ ( $SD = .48$ )	$M = 3.37^{**}$ ( $SD = 1.07$ )	$M = 3.47^{**}$ ( $SD = .68$ )	$M = 4.19$ ( $SD = 1.17$ )
No induction in mental health risk assessment	$M = .40^*$ ( $SD = .49$ )	$M = 3.16^{**}$ ( $SD = 1.13$ )	$M = 3.27^{**}$ ( $SD = .70$ )	$M = 4.12^{**}$ ( $SD = 1.23$ )
Induction in mental health risk assessment	$M = .38^*$ ( $SD = .48$ )	$M = 3.36^{**}$ ( $SD = 1.07$ )	$M = 3.46^{**}$ ( $SD = .68$ )	$M = 4.20^{**}$ ( $SD = 1.17$ )
No induction in suicide risk assessment	$M = .40$ ( $SD = .49$ )	$M = 3.19^{**}$ ( $SD = 1.12$ )	$M = 3.29^{**}$ ( $SD = .70$ )	$M = 4.14$ ( $SD = 1.22$ )
Induction in suicide risk assessment	$M = .38$ ( $SD = .49$ )	$M = 3.36^{**}$ ( $SD = 1.07$ )	$M = 3.47^{**}$ ( $SD = .68$ )	$M = 4.19$ ( $SD = 1.18$ )
No induction in carer support	$M = .42^{**}$ ( $SD = .49$ )	$M = 3.17^{**}$ ( $SD = 1.11$ )	$M = 3.27^{**}$ ( $SD = .70$ )	$M = 4.10^{**}$ ( $SD = 1.21$ )

Induction in carer support	$M = .36^{**}$ ( $SD = .48$ )	$M = 3.42^{**}$ ( $SD = 1.07$ )	$M = 3.52^{**}$ ( $SD = .67$ )	$M = 4.25^{**}$ ( $SD = 1.18$ )
No induction in dual diagnosis	$M = .41^{**}$ ( $SD = .49$ )	$M = 3.21^{**}$ ( $SD = 1.11$ )	$M = 3.31^{**}$ ( $SD = .70$ )	$M = 4.12^{**}$ ( $SD = 1.21$ )
Induction in dual diagnosis	$M = .36^{**}$ ( $SD = .48$ )	$M = 3.38^{**}$ ( $SD = 1.07$ )	$M = 3.49^{**}$ ( $SD = .69$ )	$M = 4.24^{**}$ ( $SD = 1.17$ )
No induction in psychological therapy	$M = .39$ ( $SD = .49$ )	$M = 3.21^{**}$ ( $SD = 1.11$ )	$M = 3.30^{**}$ ( $SD = .70$ )	$M = 4.15$ ( $SD = 1.21$ )
Induction in psychological therapy	$M = .38$ ( $SD = .48$ )	$M = 3.39^{**}$ ( $SD = 1.06$ )	$M = 3.52^{**}$ ( $SD = .68$ )	$M = 4.21$ ( $SD = 1.18$ )

<sup>+</sup>Approx.  $N = 6,656$  nurses (less if pairs of values missing). The values within the first five rows (marked  $r$ ) are Pearson's 2-tailed correlation coefficients. The values within the remaining rows are means and standard deviations ( $M$  and  $SD$  respectively). Significant correlations are marked with  $**$  at  $p < .01$  and  $*$  at  $p < .05$ .  $T$ -tests calculated the significance of the difference between the nurses who were inducted and those who were not, within each row. Significant differences are marked with  $**$  at  $p < .01$  and  $*$  at  $p < .05$

*Figure 1 Caption: Structural equation model explaining the effect of mental health inductions on nurses' job satisfaction, occupational health and organizational commitment. The values between arrows are the beta values from the standardised solutions.*

