



The Employee Wellness and Employee Engagement Relationship in a Parastatal

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ABSTRACT

This article reports on an ethically cleared investigation into the relationship between employee wellness and employee engagement in the context of a parastatal organisation in South Africa. "Employee wellness" and "employee engagement" are fundamental concepts for organisations seeking optimum performance and wishing to remain sustainable and competitive in highly demanding environments. A cross-sectional, quantitative research approach was used in which data were collected from a random probability sample through an electronic questionnaire. Significant correlations were observed between the work engagement scales and the wellness scales, indicating the existence of a significant direct positive relationship between employee wellness and employee engagement. The results of the empirical study could practically influence behaviours at an organisational level and may make a positive contribution to existing literature on employee wellness and employee engagement within a parastatal.

Key phrases

Employee engagement; employee wellness; human capital; job demands and resources and parastatal

1. INTRODUCTION AND BACKGROUND

The aim of this study was to investigate the relationship between employee wellness and employee engagement in the context of a parastatal organisation in South Africa. Globally, the provision of energy and electricity for demanding economies and populations has been the main drive for energy policymakers (Batchelor, Brown, Scott & Leary 2019:1591; (World Economic Forum (WEF) 2019:2). In South Africa, this global drive is supported by the Household Electrification Strategy. While the energy sector is bending under the weight of the demands made by various role players, the challenge for the last decade has been to ensure that employees are not only physically at work but also mentally and emotionally engaged in their work (Gerber 2014:8-14; Tadić, Bakker & Oerlemans 2015:702). Organisations that are striving for improved performance invest in employee wellness to sustain employees as an investment in their most valuable assets - their human capital (Burke & Richardsen 2014; Roslender, Stevenson & Kahn 2006:48-64). It is to the advantage of organisations to have engaged and healthy employees; and it can be deduced that successful organisations focus on engagement and wellness in order to achieve optimal results.

This article is structured as follows. The first section explores the corpus of literature and provides a brief overview of the theory pertaining to each concept and the objectives of the study. The research methodology is then described followed by the findings of the study. The final section of the article deals with the limitations of the study, the conclusions and possible future areas of research.

2. LITERATURE REVIEW

High-performing organisations that seek to achieve optimal business outputs and a sustainable competitive advantage nowadays discuss the complex and important concept of engagement at individual and organisational level (DeAscentis 2016). The most widely cited scholarly definition of employee engagement is that it is a positive, fulfilling, work-related state of mind characterised by vigour, dedication and absorption (Schaufeli, Martinez, Pinto, Salanova & Bakker 2002:73). Employee engagement is also defined as a conscious and informed decision by an employee to add value to the organisation by expressing passion, knowledge, skill, experience and intellectual abilities in task performance (Kumar 2019:15; Nienaber & Martins 2015:402). Disengagement further represents an immense liability for

organisations in the form of loss of profitability, lower productivity levels, poor safety measures, increased mental health issues, higher turnover and increased unethical behaviour, like fraud and corruption (South African Board for People Practices (SABPP) 2014:1). Disengagement is the behaviour that causes employees to distance themselves from their work role, causing them to disconnect from their work responsibilities in an attempt to protect themselves physically, mentally and/or emotionally from real or perceived threats (Byrne, Manning, Weston & Hochwarter 2017).

Wellness is a holistic and self-driven process comprising of multi-dimensions of wellbeing (Mayol, Scott & Schreiber 2017:338), ultimately promoting an optimal, purposeful and improved quality of life (Maxwell, Day & Casey 2013:58). Botha and Brand (2009:2-6) developed a six-dimensional wellness model, which comprises emotional, intellectual, physical, social, occupational and spiritual wellness focus on the individual's overall wellness. Phale (2008) added a seventh dimension, namely, environmental wellness. According to Burke and Richardsen (2014), the benefits derived from employee wellness for organisations include lower absenteeism; fewer occupational accidents; lower healthcare costs; lower employee turnover; increased employee performance and productivity; improved employment relations; adherence to legislative requirements; higher profitability; improved employer brand and improved employee health.

3. AIMS AND OBJECTIVES OF THE STUDY

The literature mentioned above suggests a relationship between employee engagement and employee wellness within the context of a parastatal in South Africa. The following objectives were set to achieve this goal:

- to determine the extent of employee engagement as perceived by employees who participated in the study;
- to determine the extent of employee wellness as perceived by employees who participated in the study;
- to examine the correlation between the level of employee wellness and the level of employee engagement; and
- to study the differences between selective demographic groups in respect of employee wellness and employee engagement.

4. RESEARCH METHODOLOGY

Flowing from a positivist research philosophy and utilising a deductive research approach, a quantitative mono-methodological approach was adopted.

4.1 The sample framework

The empirical study took place among a sample population within a business unit of the South African parastatal, which has a high rate of absenteeism. A business unit is a specific operating unit within an organisation that ultimately links up with the entire value chain. A random probability sample (n=210) was drawn from the total population (n=463) of operational and support staff at all levels of the organisation by means of a random number table. Of the original 208 responses received, 65 cases were excluded due to incomplete values. A total of 143 questionnaires yielded a usable response rate of 68%. According to the literature, a response rate of 68% has the propensity to yield highly reliable results (Hiebl & Richter 2018:59-79).

4.2 Data-collection method and measuring instruments

An electronic questionnaire consisting of four sections was distributed to the research participants. These four sections were as follows: (1) a demographic questionnaire; (2) the 9-factor Utrecht Work Engagement Scale (UWES-9), (Schaufeli, Bakker & Salanova 2006:74); (3) the PWS (Adams, Bezner, Garner & Woodruff 1998); and (4) the JD-R model (Strydom, Mostert & Rothmann 2006; Demerouti & Bakker 2011:1-9). A validation of the UWES-9 (Rothmann & Hamukang'andu 2013:15) reported alpha coefficient values of 0.82 and 0.78 for the two subscales of the UWES in a study in Zambia. A validation of the PWS by Rothmann and Ekkerd (2007:40) produced acceptable alpha coefficients of the two factors of the PWS, ranging between 0.81 and 0.74. Hu, Schaufeli and Taris (2011:188) validated the additive and joint effects of the JD-R model and the results showed sufficient reliability and construct validity with alpha coefficients ranging between 0.69 and 0.94. Following the protocol after university ethical permission was granted, the organisation nominated a human resource gatekeeper who sent an e-mail containing details about the study to all prospective respondents selected by means of a random number table and invited them to take part in the study (Seymour 2015) via a hyperlink to the web-based online survey. In keeping with a cross-sectional research design where data are collected at the same time, the survey was distributed to all willing participants simultaneously (Creswell 2012). Most participants were males (67.1%) aged between 18 and 34 years (36.4%) who completed 6-10 years of service (45.5%) and had a post-matric or below-degree (53.4%) qualification. Absent values were replaced by the mean of the demographic indicator.

5. DATA ANALYSES AND RESULTS

5.1 Statistical analysis

Initially, exploratory factor analysis (EFA) was conducted using SPSS (version 24) to assess the discriminatory validity of the instrument, after which Cronbach's alpha coefficients were calculated to assess the reliability of the different dimensions. The Cronbach's alpha values were all above the recommended threshold of 0.7 (Pallant 2011) for exploratory research. All the constructs showed the survey to be internally consistent (reliable). Pearson product-moment correlation coefficients and analysis of variance (ANOVA) were employed to explore the relationships between the variables and the demographics of the participants. The data were analysed to further explore whether the perceived employee wellness variables significantly explained or predicted employee engagement.

5.2 Respondents profile

The data were processed by means of descriptive, correlational and inferential statistics and the reliability of the UWES, the PWS and JD-RS was confirmed. Statistically significant positive relationships were observed between employee wellness (independent variable) and employee engagement (dependent variable). The empirical data displayed slight variations in the demographic scores (age, gender, highest qualification and tenure). The findings of the study suggested that demographics made no significant difference as far as employee wellness and employee engagement were concerned.

5.3 Exploratory factor analysis

Using exploratory factor analysis (Pallant 2011), Harman's single-factor test and internal consistency reliability, it was possible to calculate a single measurement of the constructs for each of the instruments. The assessment of the measuring instrument included using conceptual modelling to distinguish the relationships among the X (employee wellness) and Y (employee engagement) variables and analyse the interrelationships between these constructs in the study. The analysis also confirmed that the items of the scales used were representative of the study.

The analysis process started by assessing the measurement by means of an exploratory factor analysis (EFA) - a technique for exploring the factorial structure of the UWES and identifying the underlying relationships between the variables measured. The Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) value of 0.884 was greater than the recommended threshold of 0.6 (Pallant 2011). Bartlett's test of sphericity of significance ($p=0.000$) indicated that a meaningful factor analysis with a statistical significance of $p<0.05$

could be interpreted for this study. According to Kaiser's criterion or the eigenvalue rule, factors with eigenvalues greater than 1.0 are significant for investigation (Pallant 2011). The scree plot for the UWES with eigenvalues greater than 1.0 is shown in Table 1.

Table 1: Exploratory factor analysis of the UWES

Kaiser-Meyer-Olkin Measure of sampling adequacy		0.884
Bartlett's test of sphericity	Approx chi-square	1025.255
	Df	26
	Sig	0.00

Source: Calculated from survey results

The preliminary results indicated that the data were factorable with a .884 KMO and the Bartlett's score of sphericity χ^2 of 1025.252, 36 freedom degree and 0.000 significance level. Principal axis factoring was performed on the nine items of the scale to determine the number of extractable factors in order to explain the total variance, using Harman's single-factor test (Table 2).

Table 2: Harman's single-factor test of the UWES

Total variance explained						
Factor	Initial Eigen values			Extraction sum of Squared loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.820	64.667	64.667	5.484	60.938	60.938
2	0.877	9.745	74.412			
3	0.620	6.892	81.304			
4	0.502	5.577	86.880			
5	0.429	4.769	91.649			
6	0.267	2.970	94.619			
7	0.220	2.440	95.059			
8	0.183	2.032	99.091			
9	0.082	0.909	100.000			

Source: Calculated from survey results (Extraction method: Principal axis factoring)

Table 2 is divided into two subsections, namely, initial eigenvalues and extraction sums of squared loadings. The extraction sums of squared loadings were used for the purpose of analysing and interpreting the data. The results of the study showed a single-factor structure for the UWES where the eigenvalue was greater than 1.0. The analysis identified a single factor with an eigenvalue of 5.484, which explained 60.938% of the total variance in the model. Although the literature mentioned three dimensions of the UWES (vigour, dedication and absorption), this study provided insight into the overall construct, namely, engagement. Based on the assessment, it was recommended that the UWES be presented as a single construct representing engagement.

Correlations focus on the strength and direction of the relationship between two data sets (Gerber 2014). In this study Pearson's product-moment correlation coefficient (r) was used for calculating the strength of the relationship between the variables *employee wellness* and *employee engagement by means of* the principal axis factoring (PAF) method of data extraction.

Regarding the PWS, a meaningful factor analysis was interpreted where the KMO value of 0.797 and Bartlett's test of sphericity were significant ($p=0.000$). The results indicated that a meaningful factor analysis with a statistical significance of $p<0.05$ could be interpreted for this study. According to Kaiser's criterion or the eigenvalue rule, factors with eigenvalues greater than one are significant for investigation (Pallant 2011). In respect of the subsection "initial eigenvalues", the nine factors with eigenvalues above one were extracted. The first four factors showed significantly higher values than the remaining five factors. The eigenvalues from factor 10 onwards were below one and were therefore considered insignificant for this study. Focusing on the subsection "extraction sums of squared loadings", it was evident that a single factor of 6.998 accounted for 20.582% of the variation for the PWS. The composite scores for the subscales "emotional" (0.703), "physical" (0.737) and "spiritual" (0.810) were acceptable; while those for the subscales "psychological" (0.612), "social" (0.683) and "intellectual" (0.520) were below the recommended threshold. Although items 46 and 50 were removed from the subscale "intellectual", the alpha coefficient value (0.522) further decreased to 0.520. The respondents were perceived to be optimistic and as having a positive outlook on life. Item 25 had the highest mean score ($M=5.31$; $SD = 0.834$), signifying that the respondents acknowledged that their lives had a real purpose.

Although item 2, "I rarely count on good things happening to me" seemed to be the lowest mean score ($M=.24$; $SD =1.395$), it was reverse-coded and fell into the category "slightly agree" on the scale, suggesting that the respondents did not completely agree with that item. Seven of the items had a mean value of more than 5 (item 8, $M = 5.16$; item 11, $M=5.05$;

item 13, M=5.03; item 15, M = 5.07; item 16, M=5.23; item 25, M=5.31; item 31, M=5.09). This resulted in the overall average mean score for the PWS being M=4.65; SD=0.509. Although there were six constructs, they were not dealt with individually. It looked as if all the constructs were accepted, but all six averages were added for the analysis in order to report on a new average. The respondents were perceived to be positive that family members could approach them for support while their family members, in turn, supported them and friends could confide in them. The respondents were perceived to be confident and emotionally secure. According to Phale (2008), optimal wellness is a combination of wellness of body, mind and soul/spirit. The respondents indicated wellness of body (physical), soul (spiritual) and mind (psychological). The items of the PWS therefore seemed adequate for measuring the perceived wellness of the respondents in this study.

The investigation into the JD-RS commenced with an exploratory factor analysis and Harman's single-factor test followed by a study of the internal consistency reliability of each subscale by means of Cronbach's alpha coefficients. The KMO value of 0.840 and Bartlett's test of sphericity were significant ($p=0.000$). Both indicated the appropriateness of a factor analysis with a statistical significance of $p<0.05$. Based on the Kaiser Eigenvalue criterion of eigenvalues greater than one, nine factors were identified by the EFA. Those nine factors accounted for 69.871% of the total variance. It was decided to exclude items 34, 35 and 36 from the analysis. The EFA was therefore conducted on the remaining 39 items. The representation of the eigenvalues against each factor revealed that the graph levelled off at the ninth factor. As indicated by the results of Harman's single-factor test (table 3), a single factor was responsible for 27.52% of the variance in the variables, implying that 72.48% of the variance could be made up of other underlying variables. Although nine factors with eigenvalues greater than one were considered to be significant, the first four factors reflected considerably higher scores. The alpha coefficient values for each subscale were above 0.70 after three items (85, 86 and 87) of the subscale "Job insecurity" had been deleted. The items of the scale were a good fit as could be seen from the composite values for each subscale. The JD-RS was therefore reliable for the purpose of the intended study.

Table 3: Cronbach's alpha coefficient values for the JD-RS

Construct	#Items	Alpha	Items removed	#Items	Alpha
JD-RS – Work overload	8	0.806	-	8	0.806
JD-RS – Growth opportunities	7	0.849	-	7	0.849

Construct	#Items	Alpha	Items removed	#Items	Alpha
JD-RS - Organisational support	18	0.926	-	18	0.926
JD-RS – Advancement	9	0.675	Q85,Q86,Q87	6	0.816

Source: Calculated from survey results

The two lowest mean scores analysed on the JD-RS were in respect of item 33 ($M=2.31$; $SD=1.201$), inferring the respondents' perception of not having a direct influence on the organisation's decisions; and item 42 ($M=2.31$; $SD=1.182$), inferring the respondents' perception of their job not giving them the opportunity to be promoted. Item 23 had the highest mean score ($M=.32$; $SD =0.756$), suggesting that the respondents knew exactly what they were responsible for. Item 20 ($M=4.26$; $SD=0.853$) and item 31 ($M=4.03$; $SD =1.034$) further indicated an enhanced positive perception of a healthy work relationship with the supervisor among the respondents. Furthermore, according to the information gained from the items on the JD-RS, the respondents had confidence in the overall support given by the organisation, although they had little opportunity for directly influencing decisions made by the organisation. While the respondents could cope with work overload, advancement ($M=2.95$) was a factor to be considered, specifically opportunities for promotion ($M=2.31$; $SD=1.182$). According to Parvaiz and Ahmed (2016), it is of utmost importance that competent employees in an organisation be recognised as far as career development is concerned.

Pearson product-moment correlation coefficients for the subscales in respect of work engagement (UWES) and job demands (JD-RS)

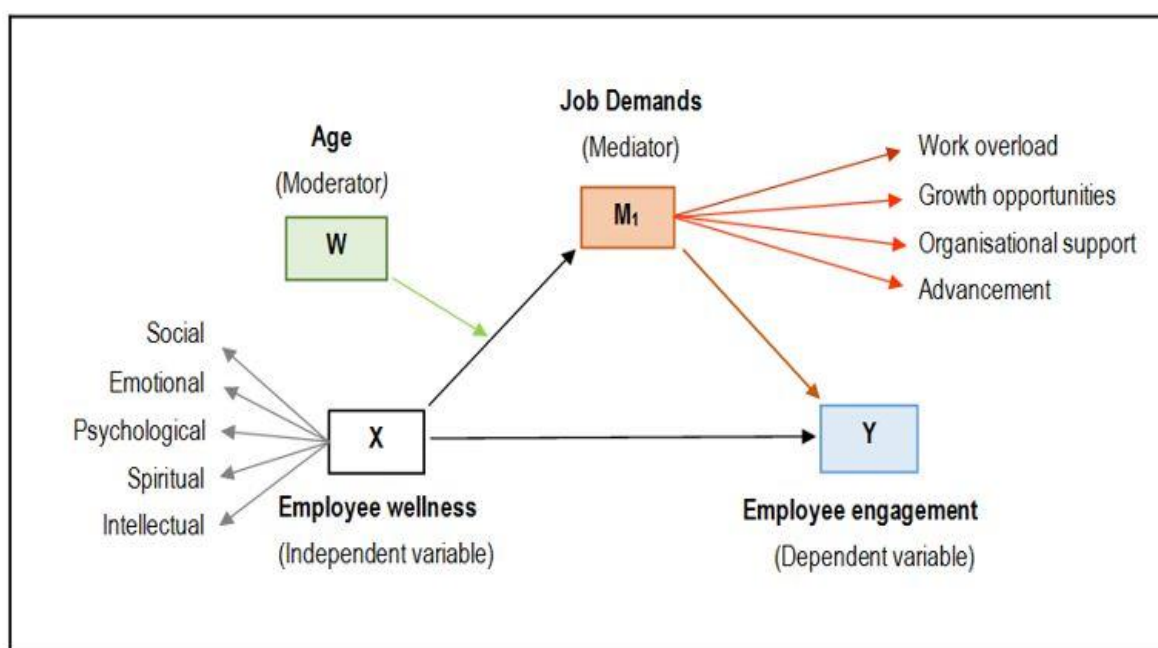
There were statistically strong positive correlations between the JD-RS and the UWES ($r =0.545$; $p<0.01$). The subscales "growth opportunities" ($r =0.607$; $p\leq 0.01$) and "organisational support" ($r =0.521$; $p\leq 0.01$) had a large effect, implying that there was a strong positive relationship between the UWES and the JD-RS. There was not a significant correlation ($r=0.058$) between the UWES and the JD-RS subscale "work overload".

Pearson product-moment correlation coefficients for the subscales in respect of perceived wellness (PWS) and job demands (JD-RS)

There was a significantly positive correlation between the PWS and the JD-RS ($r=0.317$, medium effect; $p<0.01$). Correlations with a medium effect ($p<0.01$) were noted between the subscale "growth opportunities" and the subscales "psychological" ($r=0.338$), "emotional" ($r=0.420$), "social" ($r=0.320$), "spiritual" ($r =0.316$) and "intellectual" ($r=0.479$).

This study examined the correlations between variables X and Y through a mediator, M (job demands-resources). In line with the views of Bakker and Demerouti (2017), several components of job demands and resources regarding health impairment and work engagement were found in the literature. The study also sought to examine relationships in the model by introducing a moderator, W (age), as observed in research by Ruslan, Islam and Noor (2014). Figure 1 below is a simple conceptual model depicting the independent variable, X , the dependent variable, Y , the mediator, M and the moderator, W .

Figure 1: Proposed conceptual model linking employee wellness, employee engagement, job demands-resources and age



Source: Kumar 2019

In this figure employee wellness is represented by the independent variable, X . Wellness is a key variable, since in this study it was found to be the driver of engagement. The PWS (Adams et al 1998) was used for measuring wellness according to the six dimensions of employee wellness, namely, social, emotional, psychological, spiritual, physical and intellectual wellness. An increase in the levels of wellness was found to result in an increase in the levels of engagement.

There was no causality, but there was a significant positive relationship between wellness and engagement in that the respondents who had higher scores on the PWS also tended to have higher scores on the UWES, implying that wellness is vital for sustainable engagement (Crous 2015). The relationship was therefore depicted by the direction of the conceptual model, wellness being the driver of engagement. Employee engagement is represented by

the dependent variable, Y. Schaufeli *et al* (2006:705) investigated employee engagement by means of the UWES, specifically reporting on three subconstructs that contribute to engagement, namely, vigour, dedication and absorption. Job demands resources were considered a mediator to be explored because a positive correlation seemed to exist between the PWS and the JD-RS. Employee wellness was largely dependent on the positive resources available (Schaufeli & Salanova 2011:39-46; Schaufeli & Taris 2014) which, in turn, led to positive outcomes for the organisation through engagement. The job demands, represented by work overload in this study, had an adverse effect on wellness and were shown to have no significant correlation with engagement. A moderator is a variable that affects the strength of the relationship between an independent and a dependent variable (Baron & Kenny 1986:1173). The moderator, *W*, represented age which was the demographical variable in this study in line with other studies that considered the moderating effect of age (Mauno, Ruokolainen & Kinnunen 2013:411; Van Der Westhuizen, Horn & Viljoen 2015:9). The approach was to investigate the extent to which age moderated the relationship between wellness and job demands resources. The findings with regard to the research questions were as follows:

Research question 1: What is the extent of employee wellness as perceived by the employees who participated in the survey study? This study revealed that the PWS, which measured wellness, had a relatively high mean score ($M=4.65$; $SD=0.509$), implying that the employee wellness of the respondents was at an optimal level. This finding was consistent with what was found by Sieberhagen, Els & Pienaar (2011:14).

Research question 2: What is the extent of employee engagement as perceived by the employees who participated in the survey study? This study indicated that the respondents were engaged when they were at work ($M=4.28$; $SD=1.158$), implying that work related tasks were carried out with due vigor, dedication and absorption.

Research question 3: Is there a correlation between the level of employee wellness and the level of employee engagement as measured in the study? A significant positive relationship was found between employee wellness and employee engagement. The study showed that resources, such as growth opportunities and organisational support, have significant positive correlations with wellness and engagement. Job demands were found to be statistically insignificant in an analysis of work overload.

Research question 4: Are there significant differences between selective demographic groups in relation to the mean scores of the construct measures of employee wellness and employee engagement? The mean scores of the construct measures in the study identified

age as the only demographic variable, showing a significant difference. The older respondents (45+) had higher levels of wellness and engagement than those in the two younger age groups. No significant differences were observed among the selective demographic groups of gender, highest qualification and tenure with regard to employee wellness and employee engagement.

6. CONCLUSION AND IMPLICATIONS

The aim of the study was to investigate the relationship between employee wellness and employee engagement in the context of a parastatal organisation in South Africa. A significant direct relationship was found between employee wellness and employee engagement by means of correlation and regression analysis. The demographic variables did not reflect significant differences in the mean scores of the construct measures other than age.

7. CONTRIBUTION OF THE STUDY

The contribution of this study revealed a relationship between the variables *employee wellness* and *employee engagement* in a specific parastatal. There is evidence that the benefits achieved by encouraging wellness strategies in the workplace supersede and outweigh the losses incurred when no wellness practices exist (Burke & Richardsen 2014; Sieberhagen *et al.* 2011). Literature has demonstrated that there is a positive relationship between employee wellness and engagement. It is further stipulated that wellbeing is vital for sustainable engagement, implying that higher levels of wellness result in higher levels of engagement (Crous 2015). In addition the study examined if there is a difference between these variables (employee wellness and employee engagement) and demographic variables. The results suggested that, although employee wellness and employee engagement are two different concepts, they offer similar benefits to an organisation, irrespective of different demographic variables. The study may potentially add to the extant research literature on employee engagement and employee wellness in the South African context.

8. LIMITATIONS OF THE STUDY

Academic literature on similar studies carried out in parastatal organisations, especially in the South African context, was not readily available for comparison. Moreover, the combination of the questionnaires amounted to 92 questions, which may have impacted on the response rate to an extent.

9. POSSIBLE FUTURE AREAS OF RESEARCH

The study investigated the relationship between employee wellness and employee engagement in a parastatal organisation in South Africa. Future studies could focus on establishing the relationship between employee wellness and employee engagement in different sectors of the parastatal organisation. Another unexplored future research area could be to investigate whether sick leave abuse, as a specific factor, that determines employee wellness is an emerging factor for high levels of absenteeism.

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