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Perceived transformational leadership and core self evaluations as antecedents of safety compliance among health workers

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Abstract
This study investigated perceived transformational leadership and core self evaluations as predictors of safety compliance among health workers. Two hundred and fifty (250) health workers comprising one hundred and forty (140) males and one hundred and ten (110) females participated in this study. Participants were randomly selected from two government owned hospitals in Enugu State. Their ages ranged from 20 to 67 years with a mean age of (M = 36.70, SD = 7.91). The study was cross sectional in which core self evaluation scale, transformational leadership sub-scale of the adapted multifactor leadership questionnaire and compliance with safety behavior scale were administered for data collection. Hierarchical multiple regression was used for data analysis. The results indicated that transformational leadership was a significant positive predictor of safety compliance while core self evaluations was also a significant positive predictor of safety compliance among health workers. The implication and recommendations were further discussed.

Keywords: Transformational Leadership, Core Self Evaluations, Safety Compliance, health safety, health sector.

Introduction

Workplace safety is a significant issue among safety researchers due to the frequency of outbreak of infections and magnitude of work-related injuries and deaths that occur globally especially in the health sector. Safety compliance especially among healthcare workers is important due to the calamitous consequences lack of adherence may have on the healthcare workers and patients as studies have shown that most on-the-job injuries tend to result from employees' unsafe deeds (Didla, Mearns, & Flin, 2009). Safety compliance refers to those fundamental activities that need to be performed by employees according to occupational, safety and health requirements to ensure a safe working environment (Neal & Griffin, 2002). It also entails engaging in required behaviours that maintain workplace safety such as following safety procedures and wearing personal protective safety equipment (Didla et al., 2009; Neal & Griffin, 2002). When health workers engage in safety compliance, they take precautionary measures based on the stipulated policies while carrying out work-related activities such as following blood and body fluid precautions in health care environments. Healthcare workers

are exposed to different sources of hazard and infections that may be transmitted through blood, body fluids, air, respiratory secretions (e.g., coughing, sneezing etc) or by direct contact with other infectious materials in the course of discharging their duties. For example, pharmacists, nurses, physicians, operating room personnel and home healthcare workers are some of the healthcare workers identified by the National Institute for Occupational Safety and Health (2013) as being exposed at work to hazardous drugs and infections that predisposes them to skin disorders, reproductive disorders, and certain kinds of cancer which can occur through skin contact, inhalation, ingestion, or injection through needle stick. Protection against these hazards by way of safety compliance is therefore of utmost importance for all healthcare workers who are at risk of developing one type of ailment or the other because of the nature of their job. Numerous studies have identified factors that can elicit safety compliance behaviours and it is plausible to reason that transformational leadership could have substantial impact on workplace safety (Andoh, 2013; Clarke, 2013). Transformational leadership style refers to a type of leadership in which the leader encourages subordinates to accept the goals of the group beyond their own self-interests for the overall benefit of the group (Bass, 1985, 1998; Bass & Riggio, 2006). Transformational leaders are charismatic, extraverted visionaries that encourage individual development of the followers and give priority to supportive leadership (DuBrin, 2010). This type of leader submits to greatness, espouses a long-term perspective, develops trust, focuses resources where change is paramount and can inspire followers to a higher level of ethical reasoning and to engage in more beneficial behavior (Andoh, 2013) such as compliance to safety. On the grounds of the transformational leadership and safety literature, there are strong reasons to assume that transformational leaders may elicit safety compliance from subordinates especially in a safety-critical organization like a hospital. The transformational leader is likely to act as a role model by demonstrating a high concern for safety over other organizational goals, motivate employees to work towards achieving high standards of safety and seek out new ways of working safely. They also will demonstrate a genuine interest for the wellbeing and safety of employees. This view is widely supported by findings from investigations, such as that of Conchie, Taylor, and Donald (2012) who found transformational leadership to result to a better understanding of safety issues and improved communication. Consistent with this reasoning, Yukl (2010) stated that transformational leadership style entails that leaders take an active role in safety and exhibit behaviors, such as articulating a safety vision for the organization and elucidating how it can be achieved, acting as a safety role model and exemplifying the importance of safety in both words and actions, showing concern for employees' welfare and respond and act promptly on their safety issues.

Transformational leadership style also stresses the importance of the leader not turning a blind eye to safety procedures through participation and concern for safety compliance of subordinates. Thus, it would be envisaged that transformational leadership would probably lead to safety compliance because this style of leadership evokes changes in subordinates' value systems to be in accord with organizational goals (Clarke, 2013) such as adherence to safety rules. Previous research indicated that core self-evaluations (CSE) relates to individual's health and safety compliance (Mroczek, Spiro, & Turiano, 2010). Core self-evaluation (CSE) is a fundamental assessment people make about their wellness, competence and capabilities, which then go on to influence their perceptions, beliefs, attitudes, decisions, and actions (Judge, Bono, Erez, & Locke, 2005). CSE as a latent personality construct comprise of neuroticism, self esteem, self efficacy and locus of control (Judge, Locke, Durham, & Kluger, 1998). Neuroticism refers to the tendency to focus on negative aspects of the self (Watson, 2000). Studies (e.g. Mroczek, Spiro, & Turiano, 2010) have shown that people high on neuroticism are more likely to engage in harmful health practices and less likely to comply with safety rules. Self-esteem is the overall value that one places on oneself as a person (Harter, 1990). Generalized self-efficacy, an evaluation of how well one can perform across a variety of situations (Locke, McClear, & Knight, 1996). Locus of control refers to beliefs about the causes of events in one's life. Locus is internal when individuals see events as being contingent on their own behaviour (Rotter, 1966). E.g. individuals who believe they have control over their schedules will be more likely to engage in safety behaviours since they are always responsible and are known to bear the brunt of their actions. Health workers with positive CSE appraise themselves in a consistently positive manner across situations. Such individuals exposed to transformational leadership will see themselves as capable, worthy, and in control of their lives which has the power to predict positive work outcomes, specifically, safety compliance.

Hypotheses

H1: Perceived transformational leadership will significantly predict safety compliance among healthcare workers

H2: Core self evaluation will significantly predict safety compliance among healthcare workers.

Method

Design/Statistic

The researchers adopted cross sectional design. Pearson's correlations and hierarchical multiple regression was used to analyze the data. All statistical analyses were carried out using SPSS® version 23.0.

Participants

The participants comprised two hundred and fifty (250) healthcare workers (Nurses, Medical Doctors & Medical Lab Scientists) drawn from two government hospitals in Enugu State namely: University of Nigeria Teaching Hospital (UNTH) and Enugu State University of Science and Technology (ESUT) Teaching Hospital Park Lane, Enugu. Multi stage (balloting & systematic) sampling technique was used to select hospital units and participants. Age ranged from 20-60years (M= 36.70, SD = 7.91).

Setting

The study location is Enugu which is a city in South East Nigeria with high concentration of Igbos and people of other ethnic groups in Nigeria. Hence, two of the major government hospitals in Enugu formed the settings for data collection - University of Nigeria Teaching Hospital (UNTH) and Enugu State University of Science and Technology (ESUT) Teaching Hospital Park Lane, Enugu. The choice of the two selected hospitals is based on their strategic importance to the people of Enugu, South Eastern Nigeria, and Nigeria at large. The hospitals have a good number of health workers with interesting demographic information, thereby giving credence to her choice for the study. Following the large population of health workers in the selected hospitals, and the high number of patients that visit the hospitals, as well as their strategic location in Enugu city, it is expected that issue of safety compliance becomes crucial to the health workers.

Instrument

Data collection was through a self administered questionnaire that had two components. The first was designed to specifically collect demographic information such as participants' age, rank, educational attainment and marital status.

The second component comprising Judge, Erez, Bono and Thoresen (2003) 12-item core self evaluation scale, Hayes, Perander, Smecko, and Trask, (1998) 11-item compliance with safety behaviors scale and Ismail et al. (2010) transformational leadership subscale of the adapted multifactor leadership questionnaire were administered. Judge et al. (2003) obtained an average reliability of .84. The researchers administered the 12-item core self evaluation scale in a pilot

study, and obtained an internal reliability coefficient Cronbach's alpha of .77. Hayes et al. (1998) obtained cronbach coefficient of .85, while the researchers after administering 11-item compliance with safety behavior scale in a pilot study obtained a cronbach's alpha coefficient of .74.

Transformational leadership subscale of the adapted multifactor leadership questionnaire developed by Ismail et al. (2010) yielded a Cronbach's alpha of .95, while the researchers obtained a Cronbach alpha coefficient of .87.

Procedure

All the units in both hospitals formed clusters and from each cluster three (3) units were randomly selected using balloting for each of the hospitals. The units selected from ESUT Teaching hospital are as follows; Children emergency unit, male medical ward and surgical outpatients unit while medical out patients unit, maternity ward and general outpatients unit were selected from UNTH. Ward clerks were recruited and trained as research assistants to administer and collect copies of the questionnaire in all of the selected units. Using systematic sampling technique every second person in the duty roaster for each unit was selected and copies of questionnaire administered. Participants who consented to be a part of the study were encouraged to take the questionnaire home, study the items carefully, complete and return to their ward clerks within a week. All the participants were informed that participation is voluntary and the information about their data would remain confidential. Out of 300 copies of the questionnaire distributed to the participants, 250 copies were properly filled and returned while 42 were returned but not properly completed and 8 were not returned. Therefore, the 450 copies properly completed and returned were used for analysis and testing of the hypotheses.

Results

Table 1: Table of mean, standard deviation, correlations of demographic variables, transformational leader, core self evaluation, and safety compliance among health workers

Variables	M	SD	1	2	3	4	5	6	7	8	9
1 SC	84.74	19.92	-	.17**	.08**	.01*	.09**	.07	.03	-.01	-.25***
2 Co Self -Eva	28.66	5.19		-	.17**	.32	.13	.02*	.50	.03*	.50
3.Transf. Leader	80.47	15.44			-	.32	.01**	.10	.39	.25	.41
4 Gender	1.72	.45				-	-.27***	-.14*	-.23**	-.06	-.13*
5 Age	36.70	7.91					-	-.21**	.12	.08	.31***
6 Mari Stat	1.52	.60						-	.04	.01	.04
7 Religion	1.02	.14							-	.25***	-.11
8 How Long	1.20	.65								-	.09
9 Educ Level	3.69	.90									-

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

Table one above showed the means and standard deviations of the studied variables and demographic variables. Correlation result indicated that the demographic variables gender (r = .01, p< .05), age (r = .09, p< .01), and educational level (r = -.25, p< .001) have significant relationship with health worker's safety compliance. Result of correlation coefficient also showed that core self-evaluation was positively significantly associated with worker's safety compliance (r = .17, p< .01). Similarly, transformational leadership have significant association with worker's safety compliance (r = .08, p< .01).The findings of the two variables imply that both core self evaluation and safety compliance play good roles as antecedents of safety compliance among health workers.

Table 2: Hierarchical multiple regression predicting worker's safety compliance from core self evaluation, and transformational leadership.

	R	R^2	$R^2\Delta$	B	Beta(β)	T
Step 1	.14**	.02**	.02**			
Gender				.53	.11*	.73
Age				.47	.05**	.70
Marital Status				-.40	-.09	-1.35
Religion				1.56	-.02	-.213
How Long				-.32	.08	.68
Highest Education				-.45	-.06*	-.87
Step 2	.35***	.15***	.15***			
Core Self Eval.				.11	.27***	4.11
Step 3	.49***	.24***	.45***			
Trans Leader				.32	.43***	6.55

***p< .001

The regression result above showed the prediction of worker's safety compliance from core self evaluation, and transformational leadership. However, controlling for the demographic variables (gender, age, marital status, religion, ethnic group, and highest educational qualification), regression coefficient result showed that core self evaluation (β = .27, t = 4.11, p<.001) entered in step 2 of the model significantly predicted worker's safety compliance. It however accounted for statistically significant 15% variance as a predictor of worker's safety compliance (R = .15, p< .001). Thus, workers with high core self evaluation appear to engage more in safety compliance. Also, core self evaluation proves to be implicated in making some workers see the need for safety compliance. Like core self evaluation, transformational leadership (β = .43, t = 6.55, p< .001) entered in model 3 was shown to be a significant predictor of worker's safety compliance. It however accounted for statistically significant 45% variance as a predictor of worker's safety compliance (ΔR^2 = .45, p< .001). This could mean that when workers are under a transformational leader it positively influences their approach to work safety and compliance. This finding equally implies that presence of transformational leader enables workers not to jeopardize safety at work place.

Discussion

The research focused on perceived transformational leadership and core self evaluations as predictors of safety compliance. The findings of this study revealed that transformational leadership was a significant positive predictor of safety compliance, thus the first hypothesis was confirmed. This finding is contrary to that of Inness, Turner, Barling and Stride (2010) who found that transformational leadership was associated with safety participation but not safety compliance. Based on this finding, when subordinates at work have a supervisor who does not turn a blind eye to safety and stands as a role model, these health workers tend to imitate their supervisor and perform beyond expectations in order to adhere to safety procedures. Transformational leaders tend to show genuine interest in the safety and well-being of their subordinates thus, inspiring and obliging them to comply with safety regulations at work.

The findings of this study also indicated that core self evaluations is a positive significant predictor of workers safety compliance. This result corroborates with the findings of Salajegheh, Sheikhy and Askaripoor (2015) who reported that core self-evaluations correlated with safety and quality of work. This finding implies that CSE may indirectly affect outcomes by influencing actions individuals engage in such as complying with safety procedures. It is also certain that positive evaluations about one self enhances pleasant affective states, which in turn yields desirable organizational safety outcomes.

Implications of the findings

The study, therefore, to a practical extent provides a platform upon which it is evident that health workers with high core self evaluations and transformational leaders adhere to safety procedures more than their counterparts. Practically, employers, Industrial/Organizational Psychologists, Human Resource Managers and Ministry of Health will learn from the findings of this study that in order to achieve its objectives in terms of safety compliance, health workers with high core self evaluations are needed in hospitals to drive such aims into reality. Transformational leadership training should be emphasized and upheld in health institutions and supervisors encouraged to adopting transformational leadership styles, so as to accomplish considerable number of interpersonal and organizational objectives, including motivating subordinates to take further steps to make the work milieu safe.

Conclusion

This study sheds further light on the importance of transformational leadership and core self evaluations in explaining safety compliance behaviors among healthcare workers. The findings provide valuable guidance for researchers and practitioners trying to identify ways through which they can improve safety among healthcare workers.

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