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# Transformational Leadership, Workaholism, and Safety Compliance among Health Care Workers

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# Abstract

This study examined the relationship of transformational leadership and workaholism with safety compliance. Using a cross-sectional design, 356 health care workers who completed measures of transformational leadership, workaholism, and safety compliance were selected through convenience sampling technique. Hierarchical multiple regression was used to analyse the data. After controlling for gender, marital status, employment condition, education, and age, the results supported the first hypothesis that transformational leadership was a significant positive predictor of safety compliance. It also supported the second hypothesis that workaholism was also a significant positive predictor of safety compliance for future research were offered.

Keywords: Transformational leadership, Safety compliance, Workaholism, HCWs

# Introduction

Workplace safety remains a critical issue of global importance especially in some developed economies of the world. Using the case of health care workers (HCWs) as example, HCWs are expected to ensure that the populace is healthy and also to effectively handle any situation that may threaten the health of the populace (Akinboro, Adejumo, Onibokun, & Olowokere, 2012). However, in the course of ensuring that the populace is healthy, they themselves are exposed to occupational hazards and injuries that constitute a threat to their own health. As a result, they constitute a group at risk of hazardous working environment such as exposure to human blood and body fluids, which makes them vulnerable to contracting blood-borne infections (BBIs) including hepatitis, tuberculosis, severe acute respiratory syndrome (SARS), and Human Immunodeficiency Virus (HIV) (Wilburn & Eijkemans, 2004). They are also exposed to hazardous chemicals including but not limited to disinfectants and sterilizing agents that could lead to dermatitis and occupational asthma, carcinogens such as hazardous drugs that affect the reproductive system, and physical hazards such as radiation (Wilburn & Eijkemans, 2004). According to Akinboro et al. (2012), even though the amount of vulnerability varies based on the number of infected patients as well as the

precautionary measures adopted by the HCWs in the course of their duties; protection of HCWs from such infections may not be easy to achieve. This follows the observations made by Akinboro et al. in the course of their study which indicate that in some health care settings in Nigeria, HCWs are mandated not to exceed the use of two pairs of gloves per day, and recycling of contaminated needles is a common occurrence. To make matters worse, some hospitals are overcrowded, and suffer from inadequate HCWs, insufficient or lack of basic safety equipment and poor knowledge of the risk of exposure to blood-borne pathogens (Kermode, Jolley, Langkham, Thomas, & Crofts, 2005).

Several startling and alarming observations have been made by researchers (e.g., Kermode et al., 2005) regarding the prevailing safety practices of HCWs outside Africa. The observations are: non compliance by many HCWs with universal procedures (UP); dearth of and rarely utilized post-exposure prophylaxis (PEP); blood and amniotic fluids-stained labour rooms; non-availability of personal protective equipment (PPE); lack of needles and sharps containers as these instruments were treated like any other hospital waste; recapping of non-sterile needles; scarcity of and rarely used injury log books; poor hand wash practices; inadequate and rarely used waterproof aprons; lack of safety glasses; non-wearing of gloves during many sessions such as male child circumcision, dressing of wounds, administering of injections, and incision and drainages of abscesses; delay in cleaning of blood and body fluids spillages and non-usage of disinfectants or usage of poor concentration of disinfectants. Other studies in Nigeria and sub-Saharan Africa also reported a high prevalence of poor safety practices among HCWs (e.g., Bolarinwa et al., 2012; Sagoe-Moses, Pearson, Perry, & Jagger, 2001). From the foregoing, it can be said that the nature of safety practices in Nigeria is comparable to that obtained in many Africa countries. For instance, in South Africa it was reported that 91% of junior doctors sustained needle-stick injuries in the previous 12 months, 55% of which emanate from patients with HIV (Rabbits, 2003). A report in Tanzania revealed that birth attendants use nylon bags to cover their hands as a protective measure against the risk of HIV during deliveries because of no gloves (Mfugale, cited in Sagoe-Moses et al., 2001). In Uganda, it was reported that the non utilization of all necessary PPE was related to increased risk for biological and non-biological hazards in government and private-owned hospitals (Ndejjo et al., 2015)

Therefore, given the importance of safety compliance in general, a key question then is, what factors can influence the safety compliance of HCWs. Hence, since leaders are usually entrusted with the responsibility of ensuring that their subordinates comply with established rules and regulations in an organization, the type of leadership style exhibited by such a leader may be crucial in Ý

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determining the extent to which subordinates comply with safety regulations. In that sense, we argue that transformational leadership, a style of leadership that has been touted as effective leadership (Bass & Riggio, 2006), would impact on subordinates' safety compliance.

Furthermore, given that the contemporary world of work is characterized by rapid globalization, increased competition, high-speed data connections and the corollary blurring of the boundary between work and personal life (Brough, O'Driscoll, & Biggs, 2009; van Wijhe, Peeters, Schaufeli, & van den Hout, 2011), of which health organizations are no exception, HCWs may thus be prompted to work harder beyond requirements. In short, they may become workaholics. Therefore, given that some researchers has conceived workaholism positively as behaviour inclination that involves high work motivation (e.g., Scott, Moore, & Miceli, 1997) and empirical evidence has also linked workaholism to positive organizational outcomes such as organizational commitment (Hakanen, Rodríguez-Sánchez, & Perhoniemi, 2012) and aspects of job performance (Gorgievski, Bakker, & Schaufeli, 2010), we can thus reason that workaholism would impact upon positive organizational construct such as the safety compliance of HCWs.

### Transformational Leadership and Safety Compliance

In recent times, interest in leadership as antecedent of employees' safety perceptions, attitudes and behaviour has increased, and transformational leadership, in particular, has attracted substantial research attention among leadership researchers and has been linked to workplace safety compliance and related outcomes (Clarke, 2013; Inness, Turner, Barling, & Stride, 2010; Mullen & Kelloway, 2009; Mullen, Kelloway, & Teed, 2011). Specifically, transformational leadership style refers to a type of leadership in which the leader encourage followers or subordinates to broaden and arouse their level of interest and generate awareness and acceptance of the goals of the group beyond their own self-interests for the overall benefit of the group (Bass & Riggio, 2006).

Transformational leadership is understood to operate through four related components of leader behaviour, which encourages subordinates to surpass expectations in terms of their own behaviour (Bass & Riggio, 2006). In terms of safety compliance (Zacharatos, Barling, & Iverson, 2005; Yukl, 2010): transformational leaders have a positive influence on safety by acting as safety role models and demonstrating a high concern for safety over other organizational goals (*idealized influence*). Further, transformational leaders will motivate employees to work towards achieving high standards of safety (*inspirational motivation*), and to seek out new ways of working safely (*intellectual stimulation*).

They will demonstrate a genuine interest for the well-being and safety of employees (*individualized consideration*).

Several studies have been conducted on the association between transformational leadership and safety outcomes. For instance, in a longitudinal experiment, Mullen and Kelloway (2009) found that safety-specific transformational leadership led to enhanced safety participation but no significant effects were obtained for safety compliance. Mullen and Kelloway concluded that safety-specific transformational leadership training was effective and results in better safety participation than both the general transformational leadership condition and control. Similarly, Inness et al. (2010) found a positive association between general transformational leadership and safety participation but not safety compliance. Further, Mullen et al. (2011) found that a transformational safety-specific leadership style was associated with improved safety compliance and safety participation in two samples in Canada who were long-term health care employees. In a recent metaanalysis involving 32 studies, Clarke (2013) also found that active transactional leadership which involves monitoring and correcting errors, predicted safety compliance beyond that of transformational leadership, while transformational leadership, predicted safety participation over and above that of active transactional leadership. Furthermore, the study by Griffin and Hu (2013) revealed that safety inspiring positively predicted safety participation but not safety compliance, whereas safety monitoring positively predicted safety compliance but not safety participation. Given the above, we expect that transformational leadership will engender safety compliance from subordinates because this style of leadership evokes changes in subordinates' value systems to align with organizational goals (Clarke, 2013).

*Hypothesis 1*: Transformational leadership will positively predict safety compliance.

### Workaholism and Safety Compliance

Workaholism refers to being overly concerned about work, obsessed by an uncontrollable work motivation, and allocating too much energy and effort on work that endangers interpersonal relationships, leisure-time activities and/or health (Andreassen, Griffiths, Hetland, & Pallesen, 2012). There is dearth of research linking workaholism to safety compliance. However, there are studies that have linked workaholism to several positive organizational outcomes with which we can perhaps, draw inference from in formulating our hypothesis.

For instance, Schaufeli, Taris, and Bakker (2006) conducted a study where job performance was assessed from three facets of Internet-based questionnaire (i.e.,

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in-role performance, extra-role performance, and innovativeness) while workaholism was measured on two facets (working excessively and working compulsively). Participants were Dutch employees from a wide range of companies and occupations. Schaufeli et al. found that working excessively and working compulsively were positively related to extra-role performance but not in-role performance. Working excessively was positively related to innovativeness. Similar findings were made by Gorgievski et al. (2010) who also found that working excessively was positively related to self-reported innovativeness for both self-employed and salaried employees. Furthermore, working excessively was positively related to self-reported contextual performance only for the self-employed. For the self-employed, working compulsively was negatively related to both self-reported contextual performance and innovativeness. For the salaried employees, working compulsively related negatively to self-reported innovativeness, but positively to self-reported contextual performance. Other studies have also linked workaholism to positive organizational outcome such as organizational commitment (e.g., Hakanen et al., 2012). In the light of the foregoing, we anticipate that workaholism will be related to increased levels of safety compliance. This is because safety compliance is very important for health HCWs considering the nature of their job. As such not adhering to safety regulations at work could put the lives of not only the patients in jeopardy but also that of the HCWs themselves.

Hypotheses 2: Workaholism will positively predict safety compliance.

# Method

# Participants

Data for this study were collected from a sample of 356 HCWs: 264 nurses, 29 medical doctors, and 63 medical laboratory technologists/scientists, from four hospital settings (both Federal –and private-owned, including teaching and nonteaching hospitals) in a State in the Southeastern part of Nigeria. The researchers sampled only those who had at least one year working experience as a health care worker in their present organization. This was done in order for them to have worked long enough to be able to respond to questions pertaining to their safety behaviours in their present organization. Their ages ranged from 20 to 60 years with an average age of 30.76 years (SD = 7.91). All the participants were of the Christian religion. They include both females: 236(66.2%) and males: 120(33.71%). Of these participants, 245 were married whereas 111 were single. In terms of employment condition, 267 were on full-time employment while 89 were employed based on contract. The minimum educational qualification of the

participants was Ordinary National Diploma (OND), while only 117 (32.87%) had at least a first degree.

### Instruments

Demographics

Participants completed a form that elicits demographic information such as gender, religion, age, marital status, highest educational qualification, and employment condition.

### Transformational Leadership

Transformational leadership was measured with the adapted one-dimensional version of the transformational leadership subscale of the Multifactor Leadership Questionnaire (AMLQ-TL; Ismail, Mohamad, Mohamed, Rafiuddin, & Zhen, 2010). The scale contains 10 items that assess the degree to which a supervisor engages in behaviours that are indicative of a transformational leader at work as observed by the subordinates. Items are rated from 1 (*strongly disagree*) to 7 (*strongly agree*). However, a 5-point response format was used for the scale in place of the original 7-point format used by Ismail et al., in order to make response easier. Each item is preceded with "My supervisor" Sample items include: "Instills pride in me" and "Listens to my concerns." A high score reflects a high level of transformational leadership. Ismail et al. reported Cronbach's alpha ( $\alpha$ ) reliability coefficient of .95 while we obtained .87 in the present sample.

### Workaholism

The 7-item Bergen Work Addiction Scale (BWAS), which was developed by Andreassen et al. (2012), was used to measure workaholism, which refers to one's self-reported tendency to become overly involved at work which may become detrimental to non-work activities. Each item is rated on a 5-point scale ranging from 1 (*never*) to 5 (*always*). Each item is preceded with "How often during the last year have you ...". Sample items include: "Thought of how you could free up more time to work?" and "Spent much more time working than initially intended?" The scale scores are the sum of the ratings of the items. A high score indicates high workaholism. The Cronbach's  $\alpha$  reliability coefficient for the BWAS in two samples were .84 and .80, respectively (Andreassen et al., 2012). We obtained a Cronbach's  $\alpha$  reliability coefficient of .72 in the present sample

### **Safety Compliance**

We measured safety compliance with the Compliance with Safety Behaviours (CSB) Scale, which was developed by Hayes, Perander, Smecko, and Trask (1998) to assess safe or unsafe work behaviours in the workplace. Respondents were asked to indicate how frequently they engage in the behaviour on their current job

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using a scale ranging from 1 (*never*) to 5 (*always*). Example of items include: "Wear safety equipment required by practice" and "Keep my work area clean". After reverse coding, high score reflects greater compliance with safe work behaviours. Hayes et al. obtained good Cronbach's  $\alpha$  reliability coefficient of .85. We also obtained acceptable level of Cronbach's  $\alpha$  reliability coefficient of .82 in the present sample.

# Procedure

The permission of the unit heads in the various hospitals where the study was conducted was sought and granted. The participants were selected based on convenience sampling technique. Anonymity and confidentiality of the data were emphasized in the instructions. The HCWs who agreed to participate voluntarily were requested to complete a questionnaire that comprises measures of transformational leadership, workaholism, safety compliance, and demographic data, and return them directly to the researchers. Few of the participants completed the questionnaire and returned them almost immediately to us, whereas it took majority of them up to five days to fill the questionnaire. We distributed 370 copies of the questionnaire to the participants. Out of this number, 356 copies were properly filled and returned which represent 96.22 percent return rate used for data analysis.

# **Research Design and Statistics**

The design of the study is cross-sectional. The data obtained from respondents were analyzed with the use of the Statistical Package for the Social Sciences (SPSS) version 20.0. First, we computed the internal consistencies (Cronbach's  $\alpha$ ), means, standard deviations (SDs), and correlations among the study variables (see Table 1). Second, to test the hypotheses, we conducted hierarchical multiple regression in which safety compliance was the dependent variable (see Table 2). In the first step of the equation, demographic variables including gender, marital status, employment condition, education, and age were entered in order to control for their impact on the outcome variable (safety compliance). In the second step, transformational leadership was entered while workaholism was entered in the third and final step of the equation.

### Results

	Variable	М	SD	1	2	3	4	5	6	7	8
1	Gender	_	_	_							
2	Marital status	_	_	.07	_						
3	Employment	—	_	03	.19***	_					
	condition										
4	Education	_	_	.22***	.39***	.30***	_				
5	Age	30.76	7.91	.14**	.54***	.13*	.38***	_			
6	Transformational	36.37	7.13	12*	09	11*	.01	13*	(.87)		
	leadership										
7	Workaholism	21.19	5.06	.02	.03	01	08	04	.06	(.72)	
8	Safety compliance	43.65	7.95	10	23***	11*	23***	42***	.18**	.15**	(.82)

Descriptive statistics and correlations among the study variables appear in Table 1. Hierarchical multiple regression analysis is reported in Table 2.

**Table 1**. Descriptive statistics, Cronbach's  $\alpha$  coefficients and correlations among the study variables

*Note.* N = 356, scale Cronbach's  $\alpha$  reliabilities are noted in parenthesis across the diagonal. \* = p < .05(two-tailed), \*\* = p < .01 (two-tailed), \*\*\* = p < .01 (two-tailed). The variables were coded such that: Gender (0 = female, 1 = male); marital status (0 = single, 1 = married); employment condition (0 = contract, 1 = permanent); education (0 = no degree, 1 = degree). Age, transformational leadership, workaholism, and safety compliance were coded such that higher scores indicated higher age, transformational leadership, workaholism, or safety compliance.

The results in Table 1 indicated that all the demographic variables: marital status (r = -.23, p < .001), employment condition (r = -.11, p < .05), education (r = -.23, p < .001), and age (r = -.42, p < .001) were significantly and negatively correlated with safety compliance except gender. Transformational leadership (r = .18, p < .01) and workaholism (r = .15, p < .01) were significantly and positively correlated with safety compliance.

		<u> </u>		
Variables	β	Adjusted R <sup>2</sup>	$\Delta R^2$	$\Delta F$
Step 1		.173	.184***	15.82***
Gender	03			
Marital status	.03			
Employment condition	05			
Education	07			
Age	40***			
Step 2		.202	.033**	7.45**
Transformation leadership	.13**			
Chair 2		220	020*	
Step 3	10*	238	.030	5.58
	. 12			

**Table 2.** Hierarchical multiple regression for predictors of safety compliance

*Note*. \* = p < .05, \*\* = p < .01, \*\*\* = p < .001. TL = transformational leadership.

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The results of the hierarchical multiple regression in Table 2 indicate that the demographic variables (gender, marital status, employment condition, education, and age) entered in step 1 of the equation, collectively explained 17.3% of the variance in safety compliance, with only age however making significant negative contribution to the prediction of safety compliance ( $\beta = -.40$ , p < .001). After entry at step 2, transformational leadership significantly and positively predicted safety compliance ( $\beta = .13$ , p < .01) and contributed an additional 3.3% of the variance in safety compliance. When included in step 3, workaholism significantly and positively predicted safety compliance ( $\beta = .12$ , p < .05) and further accounted for 3% of the variance in safety compliance.

### Discussion

This study examined the relationship of transformational leadership and workaholism with safety compliance. As expected, the results from the hierarchical multiple regression analysis revealed that transformational leadership was a significant positive predictor of safety compliance, thus providing support for the first hypothesis. This means that when subordinates at work have a supervisor who they can look up to as a role model, who inspires them to work towards achieving high standards, and seek out new ways of thinking and problem-solving, as well as shows a genuine interest for their wellbeing and contributions, then they are more likely to comply with safety regulations at work. This can further be explained on the grounds that supervisors occupy a position between the top-management and the shop floor and thus serve as a medium of interaction between them, since they are the ones who execute organizational goals and policies and communicate which part of the work processes that requires utmost attention. In this regard, supervisors who are transformational leaders may increase the likelihood of their subordinates engaging in safety compliance behaviours at work. Such finding, even though it is contrary to that of Inness et al. (2010) and Mullen and Kelloway (2009) who found that transformational leadership was associated with safety participation but not safety compliance, however corroborates previous literature (e.g., Clarke, 2013; Mullen et al., 2011) that found that safety-specific transformational leadership was associated with safety compliance.

The results also showed that workaholism was a significant positive predictor of safety compliance, which is consistent with our expectation. Thus, the second hypothesis was confirmed. This indicates that when health care workers are overly concerned about work, they are more likely to engage in safety compliance behaviours as well. Workaholic behaviours could thus increase the possibility of HCWs' safety compliance. This finding could draw support from the findings of Hakanen et al. (2012) that showed that workaholism was positively associated

with organizational commitment. Besides, because safety compliance is enforced (Neal & Griffin, 2006) and forms part of the requirements to ensure a safe working environment (Neal & Griffin, 2002), workaholics may thus see safety compliance as part of their job description which they need to perform along with other job duties. That is, their uncontrollable urge to work may further fuel safety compliance especially if engaging in safety behaviours are seen as an integral part of the job.

In addition, although we did not make specific hypothesis regarding any of the demographic variables that served as control in the analyses, we however, found that age was a significant negative predictor of safety compliance. This means that the older the HCWs, the lesser the likelihood that would engage in safety compliance.

### Limitations of Study and Recommendations for Future Research

This study has several limitations that need to be recognized. One potential limitation is that leader behaviours and safety compliance were both reported by participants themselves, thus creating common method bias (Griffin & Hu, 2013). However, attempt was made to minimize this problem by deliberately selecting self-report measures formulated in different terms, ensuring anonymity of respondents, and requesting that they are as frankly as possible in their responses (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Another related limitation concerns not accessing safety compliance beyond self-reported data. Although previous research suggest that self-reported safety behaviours predicted important safety outcomes (e.g., Griffin & Hu, 2013; Mullen et al., 2011), it is imperative for future research to examine additional measures of safety compliance such as supervisor ratings on safety behaviour, actual safety compliance records, available technology as well as the degree of hospital safety improvement and safety training programmes.

Furthermore, the present study utilizes a combination of correlation and crosssectional designs; therefore the relationships are correlation in nature, making causal inferences concerning the associations between variables difficult to establish. Future research should adopt a longitudinal and/or experimental design to reveal the causality of the relationships found in this study. Nevertheless, the study design is however consistent with current approaches (e.g., Griffin & Hu, 2013; Mullen et al., 2011).

#### Implications of Findings

There are several essential implications resulting from the present study. One of such is that generalized transformational leadership is an enduring leadership

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style and can be utilized by supervisors to accomplish considerable number of interpersonal and organizational objectives, including motivating employees to take further steps to make the work milieu safe (Inness et al., 2010). Thus, generalized transformational leadership training should be emphasized when achieving organizational goals, including safety compliance are the target. Mullen and Kelloway (2009) for example, have provided empirical evidence indicating that transformational leadership can be learnt through training. Further, by implication, workaholism may also have some positive underpinnings as indicated by the positive association it has with safety compliance. In this regard, some researchers have equally viewed workaholism from a positive paradigm (e.g., Scott et al., 1997). Thus, intervention designed by incorporating safety compliance as part of job task and daily work schedule so that employees will ordinarily engage in safety compliance without necessarily waiting for its enforcement may be beneficial. This is in recognition of the global enormity of occupational hazards, accidents, injuries, and deaths which calls for a need to develop policies and practices that always encourage safety practices (Parboteeah & Kapp, 2008).

In addition, as we earlier mentioned that the link between age and safety compliance was not part of our hypotheses, we however found that age had predictive value for poor safety compliance. The implication is that the management of health care organizations should consider hiring younger individuals in order to avoid the risk of poor safety compliance occasioned by higher age. However, we do not advocate for the firing of older workers because of poor safety compliance, rather they should be transferred to areas requiring less safety compliance behaviours.

## Conclusion

This study showed that transformational leadership is critical for safety compliance. Further, workaholism may also contribute to safety compliance among HCWs. This study has enhanced the safety literature by showing that workplace safety is not only based on simply workers' compliance with safety policies and procedures, but is also affected by the leadership style adopted. These findings can thus help organizations to better manage the dynamic interplay of leader behaviours in influencing employees' safety compliance.

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