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RELATIONSHIP BETWEEN HEALTHCARE LEADERS' EMOTIONAL INTELLIGENCE AND STAFF WORK ENGAGEMENT DURING TRANSFORMATIONAL CHANGE

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ABSTRACT

The 21st century healthcare industry requires a new leadership capacity to prepare for a multidimensional shift and establish an architecture that comprehensively transforms healthcare delivery to include collaboration across disciplines, sectors, and organizations. Research has shown that such efforts will require conscious change from leaders in order to remove blind spots and co-create a new economy in collaboration with an engaged frontline staff. This study attempted to examine the integrated and coordinated capacity of healthcare leadership and workforce to successfully lead from the emerging new future's healthcare reality by investigating the association between healthcare leaders' emotional intelligence and their staff's work engagement during transformational change. Designed as a non-experimental, descriptive and correlational research, the study establishes that healthcare leaders' emotional intelligence predicts their performance outcomes which positively and significantly predict their staff's work engagement behaviors during times of transformative change. The direct association between the healthcare leaders' emotional intelligence and staff work engagement during transformational change showed a trend toward the positive. The study's practical implications for today's healthcare organizations and suggestions for future research are discussed.

Keywords: *Transformational Change, Emotional Intelligence, Leadership, Work Engagement, Healthcare Leadership*

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1. INTRODUCTION

The 21st century healthcare industry is undergoing an unprecedented change that cannot be successfully steered by the healthcare leaders' restricted competence in leading clinical and medical organizational system components (Gharajedaghi, 2011). The industry's continuing state of change is heavily influenced by the regulatory environment, which deeply permeates through structure, process and function in output. At the same time, it demands balance between cost effective, higher quality care and access for all (Halm, 2011). Unfortunately, the leaders of this transformative shift maintain a paternalistic control approach that disconnects them from the workforce they must partner with to achieve breakthrough improvement (Gharajedaghi, 2011; Roberts, Hacker, & Beigel, 2010, Scharmer & Kaufer, 2013).

Structural disconnects between institutional leadership and staff comes with an enormous price as witnessed by the industry's growing workforce engagement gap and a perpetual increase in the number of disengaged workers in healthcare (The Advisory Board, 2012; Scharmer & Kaufer, 2013). While healthcare institutions are strategizing to enact multiple measures facilitating the evolution of a new healthcare economy; efforts are restricted to addressing only the externalities of the change (Scharmer, 2013). A quantum shift of this type requires a leadership initiative addressing healthcare leaders' leading from the emerging future to develop eco-system economies in order to stop further widening of the workforce engagement gap (Scharmer, 2013). Examination of existing research on healthcare organizations' change initiatives indicates that the dimension of emotional intelligence as a core competence of the 21st century healthcare leader and its relative significance in driving staff's work engagement behaviors to achieve shared success during change has not been empirically studied and leveraged. Fundamental to the success of such endeavor is an understanding of how to shift the inner place from where the healthcare leader operates (Scharmer & Kaufer, 2013). Thus, understanding the emotional capabilities of healthcare leaders related to their own self-awareness and self-mastery, as well

as comprehending the influence of their self-awareness on building an engaged workforce that works with leadership to move the organization to a new place becomes so critical.

The 21st Century Change in Healthcare and Leadership

The design specifications for the new healthcare system recommended by Gharajedaghi's (2011) Systems Theory are represented by an architecture that comprehensively includes identification of the value chain, critical dimensions and providers of the healthcare system. The author asserts that implementation of such architecture requires a leadership which is savvy enough to enable the *social interventions* so critical to bring such design transformation to life. Advocating a well balanced approach to the system design for today's healthcare delivery, the author recommended undertaking the risk of *social experimentation* for the major overhaul that the healthcare industry of the 21st century requires.

The imperative need for the 21st century healthcare leadership to change also finds emphasis in Scharmer's (2013) paradigm of economic thought which highlights the gap between healthcare leaders' individual consciousness and the collective impact of the commons. Scharmer (2013) asserted that most transformational change dialogues discuss the *externalities* of the economic framework at length, while completely ignoring the *consciousness.* The externalities are merely the visible symptoms of the problem. Consciousness indicates the underlying systemic issue that needs to be addressed for coordinating silos of individual transformational efforts in a wholistic manner.

With a focus on understanding how transformational change occurs in healthcare organizations, Lee, Weiner, Harrison and Beldon (2013) examined the results of 13 empirical studies. The review reiterated the challenges associated with institutional embeddedness and multi stakeholder relationships as significant roadblocks of the healthcare transformation process. There is certainly a growing consensus that the path to successful transformational outcomes in today's healthcare environment is carved out and led by the quality of its leadership (Gabel, 2012; Lega, Prenestini, & Spurgeon 2013; McAlearney & Sinioris, 2010; Salanova, Lorente, Chambel, & Martinez, 2011; Taplin, Foster, & Shortell, 2013). With an in-depth analysis of 37 studies on the importance of leadership in improving performance of healthcare systems, Lega et al. (2013) identified high correlation between hospital performance and leadership characteristics, management practices and cultural attributes associated with managerial values. The research explicitly highlighted that a significant differentiator between high and low performing hospitals was their approach to leadership and management orientation.

Agreement on the significance of social system awareness for a healthcare leader in today's changing environment has generated growing interest in the deeper state of a healthcare leader's own awareness. It is increasingly emphasized that the healthcare industry needs a new breed of leaders who are willing to serve with a high level of mindfulness (The Advisory Board Company, 2014; Arroliga, Huber, Myers, Dieckert & Wesson, 2013). Introducing the concept of *conscious change leadership*, Anderson and Anderson (2011) emphasized that the traditional methods of change management and project management may have proven effective for transitional and developmental change. However, they are insufficient for most of the 21st century change which requires the leaders to modify the way they perceive reality and interact with their staff. The authors accentuated the necessity of *conscious change leadership* to achieve breakthrough results by emphasizing the nonlinear nature of the 21st century change which requires engaging people in the vision and strategy of the change process even before the content solution is conceived.

The competencies professed by emotional intelligence models are analogous to the concept of conscious change leadership due to their grounding in the deeper state of awareness that offers the potential to understand and address the various disconnects created by *self.* Healthcare literature is witnessing a growing interest in examining models of emotional intelligence in the context of change (Akerjordet & Steverinsson, 2008; Erkutlu & Chafra, 2012; Leggat & Balding, 2013; O'Neill, 2013; Venkatesh, Balaji, Thenmozhi & Balasubramanie, 2013). The positive implications of utilizing emotional intelligence to uncover the blind spot of healthcare leadership potentially offer a framework to build a leadership

potential capable of bridging the ecological, social and spiritual divides in collective partnership with all stakeholders.

Leadership, Emotional Intelligence and Work Engagement in Healthcare

A landmark proclamation of the significance of emotional intelligence to leadership was made by Goleman (1998) who asserted that emotional intelligence is the *sine qua non* of leadership. In his seminal article "What Makes a Leader?" Goleman said "most effective leaders are alike in one crucial way; they all have a high degree of what has come to be known as *emotional intelligence*. It's not that IQ and technical skills are irrelevant. They do matter, but mainly as "threshold capabilities"...emotional intelligence is the sine qua non of leadership. Without it, a person can have the best training in the world, an inclusive analytical mind, and an endless supply of smart ideas, but he still won't make a great leader" (p. 94).

The deeper skills related to human emotion awareness, and the lack of established association of the emotional intelligence construct with healthcare professionals competencies supports the empirical examination of emotional intelligence in healthcare (Shanta & Connolly, 2013; Smith, Profetto-McGrath, & Cummings, 2009; Venkatesh & Balaji, 2013). Research on emotional intelligence in healthcare can be found spread across three primary categories: emotional intelligence in relationship to the nursing profession, impact of emotional intelligence on employee outcomes such as team performance, job satisfaction and workplace stress, and emotional intelligence for clinical leadership and training programs. While the evaluation of emotional intelligence as a key nursing competency has gained considerable acceptance, study of the value of emotional intelligence competencies as the *consciousness* dimension of the modern economic thought is rarely found (Scharmer, 2013).

Smith et al. (2009) conducted a comprehensive review of literature on emotional intelligence in relationship to nursing education, nature of the nursing profession, nursing leadership and nursing research. The review revealed that while the published enquiry and reflection about emotional intelligence and nursing is on the rise, many assumptions about the impact of emotional intelligence in nursing may be based on uncorroborated assertions. The U.S. healthcare literature shows more contemplation than action on examining and utilizing the emotional competence of healthcare leadership to drive organizational performance, especially during times of large-scale change. Moreover, commentaries and theoretical papers that advocate for incorporating emotional intelligence in healthcare leadership development programs are restricted to discussion around clinical leadership competence (Leggat & Balding, 2013; Renaud, Rutledge & Shepherd, 2012; Stoller, Taylor, & Farver, 2013). Restricting the examination of emotional intelligence to clinical leadership leaves a significant amount of administrative and non-clinical leadership potential untapped.

The work engagement construct's specific significance to the 21st century evolving healthcare environment is associated with its grounding in the principles of positive psychology that emphasize on human strengths rather than weaknesses (Bargagliotti, 2011). The construct's conceptualization as a positive opposite of the burnout model of engagement carries special significance for the transforming healthcare industry where increasing burnout amongst clinical workers is creating more resistance to organizational change and becoming a threat to overall employee well-being (Van Bogaert, Clarke, Willems & Mondelaers, 2012).

With the aim to gain more conceptual clarity on work engagement in nursing, Bargagliotti (2011) assessed the work engagement construct utilizing the eight-step concept analysis model of Walker and Avant (2010). While validating the positive fulfilling psychological state of mind and the three dimensions of the work engagement construct, the results of the concept analysis also identified trust and autonomy as the antecedents of work engagement during adverse situations, such as change. Higher level of work engagement showed a decrease in hospital mortality rates, higher financial profitability and higher level of personal initiative by employees.

It is evident that healthcare research and practice is in need of new ideas to build the collective leadership capacity for the future. Integrating the literatures of 21st century change in healthcare, emotional intelligence and leadership, and work engagement, this study took an innovative approach in examining the potential of today's healthcare leaders emotional intelligence as the enabler of forming the new social and economic reality through developing highly engagement staff for transformational change.

2. RESEARCH DESIGN AND METHODOLOGY

The study was designed as non-experimental, descriptive, and correlational research to investigate the relationship between healthcare leaders' emotional intelligence and their staff's work engagement during institutional change. Adopting the Six Seconds' model of emotional intelligence, the independent variable of healthcare leaders' EQ was defined as the leaders' ability to recognize the meaning of emotions and to reason and problem solve on the basis of them. Based on Schaufeli and Bakker's (2004) construct, the dependent variable of staff's work engagement was defined as a positive, fulfilling work-related state of mind characterized by vigor, dedication, and absorption.

Instrumentation

Two well-established, valid and commercially available instruments utilized in previous scholarly research were used to collect data for the current study. Administered through a web link by the Six Seconds organization to all leader participants, the first instrument, SEI Emotional Intelligence Assessment (SEI Assessment), is a 120 item self-report measure of emotional intelligence based on the Six Seconds model of emotional intelligence. The SEI Assessment has been designed to measure and help people put emotional intelligence into action to create positive outcomes at work and in personal lives.

Based on the leading research of Mayer and Salovey's (1997) ability based four-branch construct of emotional intelligence, the SEI Assessment consists of eight fundamental emotional skills divided into three pillars including (a) know yourself, (b) choose yourself, and (c) give yourself. The eight fundamental competencies, include Enhance Emotional Literacy (EEL), Recognize Patterns (RP), Apply Consequential Thinking (ACT), Navigate Emotions (NE), Engage Intrinsic Motivations (EIM), Exercise Optimism (EO), Increase Empathy (IE), and Pursue Noble Goals (PNG). The competencies across the three pillars were measured on a five point rating scale ranging from the self-report participant's disagreement to agreement on 120 statements. There are five performance zones for emotional intelligence skills including vulnerable, emerging, functional, skilled and expert.

The second instrument used in this study was the Utrecht Work Engagement Scale-17 (UWES-17), administered by the research assistant to all staff workgroup participants through survey monkey. This instrument is composed of 17 items measuring three primary dimensions of work engagement: vigor, dedication and absorption. Table 1 shows the primary dimensions of UWES-17.

TABLE 1: UWES-17 DIMENSIONS AND DEFINITIONS

	Definition
Vigor	High levels of energy and mental resilience while working, the willingness to invest effort in one's work, and persistence even in the face of difficulties
Dedication	Strong involvement in one's work and experience of a sense of significance, enthusiasm, inspiration, pride and challenge
Absorption	Full concentration and happy immersion in one's work, whereby time passes by quickly and one has difficulties detaching oneself from work

Data Collection and Analysis

The study was undertaken in an academic medical center undergoing rapid transformational change dictated by the Patient Protection and Affordable Care Act (PPACA), the launch of a new electronic medical records system, EPIC, and the transition from the ICD 9 to ICD 10 coding system. A stratified random sampling approach was adopted to recruit participants and ensure equal representation from clinical and non-clinical healthcare leaders and their work groups. A total sample of 199, with 32 healthcare leaders and 167 staff members, participated in the study. The sample size for this study was considered sufficient for a one-tailed test and the results may provide insights when applied to a larger population.

The raw data from the SEI were converted to a normed score for composite emotional intelligence based on eight competencies in the areas of Know Yourself, Choose Yourself, and Give Yourself. In addition, aggregate scores for the six outcomes in the SEI were compiled. The raw data from the UWES-17 for each staff work group participant were computed and aggregated with the unit's responses to yield an aggregate work engagement score for minimally five respondents. Aggregate scores for the dimensions of vigor, dedication and absorption were also calculated.

The purpose of the study was to understand the magnitude and the direction of the relationship between two continuous variables measured on an interval scale utilizing a parametric correlation design. The desired confidence level for this study was 95%, with a +/- 5% confidence interval, assuming a normal distribution. Pearson's Product Moment Coefficient was utilized to test the relationship between the independent variable of healthcare leaders' emotional intelligence and the dependent variable of staff work engagement.

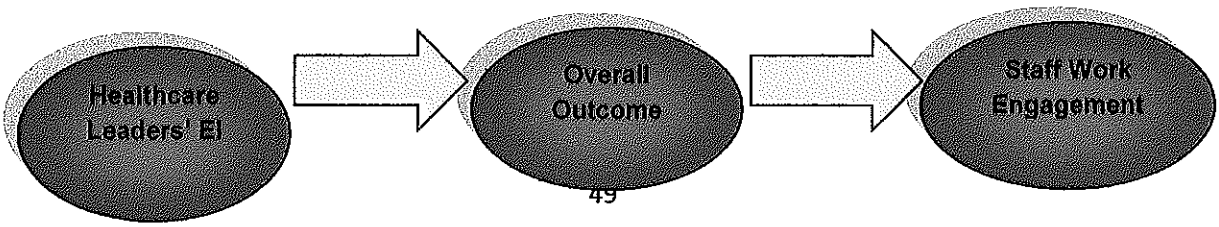
SPSS was utilized to run the Pearson Product Moment correlation analysis. Complete case analysis and listwise deletion was used to address missing data for the IV of healthcare leaders' emotional intelligence. This resulted in removing the healthcare leaders with missing data along with their staff workgroups from the statistical analysis due to the inability to draw any correlation in absence of IV data. In instances where only DV data on staff work engagement was less than five responses, the entire group was deleted from the analysis.

Aggregate scores for both surveys were calculated in Excel along with descriptive statistics including mean, standard deviation, and min and max values. Correlations were run between the composite score for leader's SEI scores and their staff work groups' aggregate work engagement scores. Additionally, separate correlations were run between the leaders' composite SEI score and aggregate staff scores on the sub-scales of UWES-17, and between leaders' normed scores for the each of the three SEI factors, eight leadership competencies and the three sub-scales of UWES-17.

3. RESULTS

As shown in figure 1, the results of the Pearson Product Moment Correlation (p-value < .05) showed that healthcare leaders' emotional intelligence significantly predicts their own performance outcomes, which positively and significantly predict their staff's work engagement during times of change (r = .33).

FIGURE 1: RELATIONSHIP BETWEEN HEALTHCARE LEADERS' EI AND THEIR OVERALL OUTCOMES PREDICTS STAFF WORK ENGAGEMENT DURING TRANSFORMATIONAL CHANGE



There were several positive and significant correlations established for various dimensions of healthcare leaders' emotional intelligence and staff work engagement during transformational change (Table 2). The overall outcome (OO) score for healthcare leaders showed a positive, significant correlation with staff work engagement ($r = 0.33$).

TABLE 2: INTERCORRELATIONS BETWEEN STAFF WORK ENGAGEMENT DIMENSIONS AND HEALTHCARE LEADER'S OUTCOME SCORES DURING TRANSFORMATIONAL CHANGE

Outcome Scores	UWES-17	Vigor	Dedication	Absorption
OI	0.26	0.17	0.24	0.25
ODM	0.32*	0.21	0.24	0.36*
OE	0.36*	0.26	0.25	0.39*
OR	0.32*	0.16	0.35*	0.32*
OQL	0.08	0.09	0.14	0.01
OH	0.16	0.10	0.12	0.18
OO	0.33*	0.23	0.31*	0.31*

*p-value < .05

Among the six outcome categories, healthcare leaders' scores on decision-making (ODM), effectiveness (OE), and relationships (OR) showed significant positive relationship with overall staff work engagement, with values of 0.32, 0.36, and 0.32, respectively.

TABLE 3: INTERCORRELATIONS BETWEEN HEALTHCARE LEADERS' OVERALL EMOTIONAL INTELLIGENCE AND THEIR POUTCOME SCORES DURING TRANSFORMATIONAL CHANGE

	Total EI	OI	ODM	OE	OR	OQL	OH	OO
Total EI	1.00*	0.63*	0.78*	0.59*	0.71*	0.54*	0.40*	0.72*

*p-value < .05

These findings reinforce the predictive connection between EQ competencies and performance and suggest that leaders who seek to improve their outcomes to drive higher workforce engagement should concentrate on enhancing their emotional intelligence. A positive association between the healthcare leaders' emotional intelligence and staff work engagement during transformational change was found, although such relationship did not emerge as statistically significant ($r = .18$).

It is noteworthy that all correlations between healthcare leaders' outcome scores and staff work engagement across all dimensions showed positive relationships. Ten out of 28 correlations were significantly positive. Healthcare leaders' outcomes related to quality of life (OQL) and health (OH) did not seem to influence or predict staff's work engagement across the overall UWES-17 or the three dimensions of vigor, dedication and absorption. The UWES-17 dimension of absorption showed significant positive relationship with the same four outcome measures as the overall UWES-17 scores. The dimension of dedication showed significant positive relationships with two measures, overall outcome score ($r = 0.31$) and relationships ($r = 0.35$), while staff vigor did not have a statistically significant correlation to any of the outcome scores.

These findings suggest that healthcare leaders' strong decision-making abilities, perceived effectiveness, and focus on relationships have the potential to influence their staff's engagement levels in a significant manner. Furthermore, these same strengths increase the extent to which their staff is immersed in their work during transformational change.

Correlations between the UWES-17 subscales and SEI assessment pillars and competencies found a significant positive relationship between the healthcare leaders' emotional intelligence dimension of Give

Yourself and UWES-17 subscale of Absorption (r = 0.32). Of the eight SEI competencies, those showing significant positive relationship with UWES-17 overall score included Apply Consequential Thinking (r = 0.32), Engage Intrinsic Motivation (r = 0.32), and Increase Empathy (r = 0.34).

While the UWES-17 subscale Vigor was positively correlated with Increase Empathy (r = 0.29), Dedication did not show a significant relationship with any of the eight competencies. The subscale of Absorption correlated significantly with the three emotional intelligence competencies of Apply Consequential Thinking (r = 0.39), Engage Intrinsic Motivation (r = 0.38), and Increase Empathy (r = 0.34).

A detail review of the descriptive statistics for both measures utilized in the study revealed that the scores obtained by the sample participants of this study were higher than the normative sample mean scores. Mean for the emotional intelligence scale was 115.16 with a standard deviation of 13.14 on a scale of normed data scores ranging from 50 to 150. The SEI mean for participants of this study is slightly higher than the score of 109.71 for the normative sample (SEI Technical Manual, 2011). On a scale of zero to six, mean score for the work engagement scale was 4.49 with a standard deviation of 0.40. Thus, the participants for this study showed higher work engagement levels than the normative sample which had a mean score of 4.10 with a standard deviation of 1.11.

With higher mean scores and significantly lower standard deviations, tight clustering of scores was evident on the upper end of both measures which indicated high emotional intelligence in the participant healthcare leaders, and high work engagement levels of the participant staff groups. Thus, although not completely linear, the association tends to be on the positive side. These scores are indicative of a restriction of range issue with the scores obtained for the sample participants. Restriction of range of the predictor variables is a common problem in correlation analysis (Wiberg & Sundstrom, 2009), and is typically indicative that the correlation obtained for the sample participants is an underestimate of the correlation for the population (Henriksson & Wolming, 1998). An alternative perspective for interpreting these results is provided by Chen and Popovich (2002) who state that "...the lack of an association in research probably offers more information regarding the hypothesis of a causal relationship than does the presence of a high correlation" (p. 5). This implies that the null correlation between the two primary variables does not rule out the possibility of causality in this relationship, which was not studied by this research design.

4. DISCUSSION AND IMPLICATIONS

A plausible explanation of high scores for both groups of sample participants could be attributed to the timing of the study, and the absence of any mediating or moderating variables measurement in the design of the study, which could have potentially impacted the self-report responses of sample participants. The data collection for this study was done within the first 60 days of the enterprise-wide launch of a new electronic medical record system, EPIC, and this transformational change was extremely successful. Hospital leaders from both the clinical and non-clinical strata of the organization had undergone extensive leadership training to ensure the success of the project. The organization had a huge emphasis on keeping multiple channels of communication open for keeping the organization's staff apprised of its change management plan. With voluntary participation clause, and the criteria for inclusion in the study contingent on joint participation of leaders and their direct report staff group, it is well possible that only leader-staff groups that had positive experiences related to the change agreed to participate, thus resulting in very positive responses on the surveys they took.

The non-significant relationships between healthcare leaders' emotional intelligence competencies of Pursue Noble Goals and Exercise Optimism are perhaps suggestive that too much optimism and nobility exhibited during time of transformational change portrays the leader as untouched with the challenging realities of the transformation. Such perception may influence the staff's confidence in their leader's capability to lead the transformational change effort in a realistic manner.

Another important finding of this study was the significant and positive association between staff work engagement and healthcare leaders' Outcome scores suggesting that healthcare leaders' decision making abilities, effectiveness and focus on relationships influence staff work engagement in a significant way during the 21st century transformational change. Significant positive correlations of staff's dedication and absorption with the healthcare leaders' Outcome scores emphasize the significance of a healthcare leader's results orientation during transformational change. Further, a healthcare leader's performance outcomes during transformational change were found to be strongly related to their overall emotional intelligence. This clearly indicates that a healthcare leader's emotional intelligence predicts the outcomes that they may achieve during transformational change, which in turn influences the work engagement levels of their staff positively.

The design of this study was limited to a correlational study which is inadequate to examine all components of healthcare system's relationships. However, the correlations examined by this study can be utilized for better insights into healthcare leaders' abilities to build highly interdependent social systems by application of their consciousness and emotional intelligence competencies during transformational change (Gharajedaghi, 2011). The healthcare leaders and staff who participated in this study show high emotional intelligence levels and high work engagement levels, respectively. However, lack of evidence for a significant relationship between the two at a macro level perhaps is indicative of the fragmented and isolated functioning of two very significant social groups of this transformational change. And yet, at the micro level several healthcare leaders' competencies influenced specific engagement dimensions of staff. Such observations support Gharajedaghi's (2011) assertion that today's healthcare organizations need purposeful shift of paradigm from a uni-minded to a multi-minded system where synergy creates holistic and collective thinking, and participants of a transformational change initiative move from the stage of independent to interdependent contributions.

The study has several practical implications for the healthcare industry during times of 21st century transformational change. One of the practical implications is that multiple level emotional intelligence competency approach may be more useful than a comprehensive emotional intelligence quotient for delineating the link between work engagement dimensions and specific leadership competencies. As much as it highlights for practitioners that an emotionally intelligent healthcare leader is an outcome based leader, this study also extends the exploration of links between a healthcare leader's emotional intelligence and transformational leadership as it pertains to influencing the energy, dedication and resilience of their staff during times of 21st century transformational change. This study strongly implies that empathy is a key component for a healthcare leader's success and effectiveness and their impact on their staff's enthusiasm and involvement, as well as their full immersion in work despite the challenges of the change process.

5. LIMITATIONS

This study has several limitations. Although this study utilized a stratified random sampling approach, the inclusion criteria for the study required minimum of five staff responses for any leader-staff group to participate. This mandated that staff groups with less than five responses be excluded from the study. Although critical to the study's design to ensure measuring aggregate unit level work engagement, this inclusion criteria may have excluded leader-staff groups that had some engagement challenges and staff reluctance to participate and self-disclose their feelings and thoughts. There was also an unequal representation of male and female participants in the study. Although not a design flaw, the over-representation of females has the potential to pull the scores obtained towards the higher end of the measurement scale (SEI Technical Manual, 2013).

This study utilized self-report measures which are subject to limitations associated with the response validity and reliability of reported data. Another limitation was to collect the data from only one hospital. Although the sampling frame was diverse enough to allow for equal representation of clinical and non-

clinical strata, the generalizability of these results is not assured unless similar results are demonstrated at other hospital settings.

The context of this study was transformational change in a hospital setting. However, the study design did not include measuring the relationship between a healthcare leader's emotional intelligence and their staff work engagement alongside the success or failure of the transformational change. This study restricted the correlation examination to a direct association between the healthcare leader's emotional intelligence and their staff's work engagement. The study design did not account for the influence of any confounding variables such as organizational culture, the transformation strategy, or other inter-organizational relationships. Healthcare transformations have multiple stakeholders and large-scale transformational changes are multi-dimensional (Lee et al., 2013). In such complex environment of transformational change, the results of this study may have shifted if the design included measurement of other variables in an experimental design setting.

6. RECOMMENDATIONS

Beyond mitigating the flaws of this study's research design, future studies could build on the study's findings in multiple ways. For example, scholars could measure the broader construct of transformational leadership in conjunction with emotional intelligence to assess the differences in the predictor influence of both constructs. It may be speculated, for example, that healthcare leaders who measure high on transformational leader's abilities of individualized consideration and inspirational motivation have higher emotional intelligence and can influence work engagement behaviors more positively during the current 21st century transformational change.

Recent scholarly work has empirically established that different generations respond differently to strategies and predictors of work engagement, and tenure is a negative predictor of work engagement (Havens, Warshawsky & Vasey, 2013). Exploring the predictor strength of healthcare leaders' emotional intelligence is in conjunction with demographic differences may reveal attributes of healthcare leaders and staff that can be leveraged or need mitigation during transformational change.

The current study was conducted utilizing a quantitative, non-experimental correlation research. The mere context of organizational transformation generates multiplicity of factors affecting the complexity of social interactions, both positively and negatively (Lee et al., 2013). Application of a mixed-methods research design inclusive of a parallel qualitative approach may offer new insights into the findings of this study and expand the understanding of the dynamics of a healthcare leader-staff relationship during transformational change.

7. CONCLUSION

As the healthcare industry contemplates innovative ways to strengthen its preparedness for the 21st century transformation, the findings of this study suggest that the healthcare industry leaders and workforce need to go beyond their past mental models of dealing with transformational change, and lead from the emerging future by activating their co-sensing and co-creating capabilities. The study establishes that leadership success and staff work engagement behaviors during the 21st century change have an outcome dependency on healthcare leader's own emotional intelligence. While the lack of significance for the positive association found between the primary variables did not allow for any firm conclusions on the direct link between healthcare leaders' emotional intelligence and their staff's work engagement, the findings contribute to new knowledge regarding significant relationships between specific conscious change leadership elements of healthcare leaders emotional intelligence as a potential influencer on staff's energy levels and resilience during times of 21st century transformational change. A healthcare leader's ability to apply consequential thinking, engage in intrinsic motivation and increase empathy showed significant positive relationship with their staff's work engagement and absorption levels during

transformational change. This research also substantiates the significance of achieving outcomes for healthcare leaders during transformational change. By examining the relationship between healthcare leaders' emotional intelligence and their performance outcomes and its consequent influence on staff work engagement, this study provides a new lens to interpret the role of healthcare leaders' emotional competencies during 21st century transformational times. While highlighting the importance of relationship management and decision-making abilities of a healthcare leader during transformational change, this study challenges the scholarly world to continue exploration and reach definitive conclusions on the implications of healthcare leaders' emotional abilities to develop a collective capacity with staff for successfully sensing and actualizing the emerging future.

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