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The Effects of a Structured Teaching Session on Perceived Self-Efficacy among Mental Health Nursing Supervisors

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Abstract

Background: Specific factors that contribute to nursing supervisors perceived self-efficacy remains unclear. Although several studies have examined the relationship between self-efficacy and mental health nursing supervision most have focused on the impact of client care. To date, there is a dearth of studies to assess the impact of a leadership focused teaching session on the perceived self-efficacy of mental health nursing supervisors. Equipping nurses who are responsible for the supervision of others with the skills needed to fulfill their role responsibilities has the potential to improve their job performance, the work satisfaction, and well-being of staff nurses they supervise as well as the overall performance of the organization.

Objectives: The aim of this study was to assess the impact of a teaching session on the perceived self-efficacy of mental health nursing supervisors.

Methods: This was a pilot study conducted as a pre-post design. Data from six nursing supervisors at Mohawk Valley Psychiatric Center (n=6) were analyzed pre-and-post intervention using the 5-point Likert New General Self-Efficacy (NGSE) scale. A nonparametric signed test was used to analyze whether perceived self-efficacy was different (P < 0.05).

Results: The asymptotic p-value for the Wilcoxon signed rank test showed that the observed difference between pre and post measurements was marginally significant (p=0.043). However, using the exact p-value, the null hypothesis could not be rejected at the 0.05 significance level (p=0.063).

Conclusions: Our findings revealed that a leadership focused teaching session has the potential to increase perceived self-efficacy among mental health nursing supervisors.
Background

Nursing leadership, at the organizational level or unit level, has a strong influence on the professional practice of nursing. Nurse leaders have the responsibility to disseminate organizational information, offer resources, and provide emotional support as needed. They are instrumental in buffering the effects of job stressors such as high role demands and workload (Chen & Bliese, 2002). How supervisors prioritize and value their role responsibilities within their role may influence their degree of self-efficacy. In a psychiatric setting, the quality of care nurses provide mirrors their ability to show empathy, listen effectively, and implement therapeutic use of self (Engin & Cam, 2009); skills equally important for strengthening the mental health supervisory nursing staff dyad (Buus, Cassedy, & Gon, 2013). It is clear that there is variation in supervisory practice (Schoenwald, Sheidow, & Chapman, 2009) among specialties. Milne (2016) argues that to be effective supervision needs structure and feedback. Cervone, Jiwani, and Wood (1991) attribute feedback as a motivator for increased learning among individuals with high self-efficacy, which in turn translates into greater performance. Gunasekara, Pentland, Rodgers, & Patterson (2014) argue that best practice is possible among mental health nurses only when nurses are self aware and able to manage their own mental health. Consequently, by improving self-awareness and the ability to give and accept feedback to and from others, as claimed essential for psychiatric nurses (Maccalum, 2002; Melrose, 2002) supervisors may experience a higher degree of perceived self-efficacy.

Perceived self-efficacy is concerned with one’s belief in their ability to produce given achievements (Bandura, 1997). Individuals vary in the development and cultivation of self-efficacy based upon altering environmental conditions (Bandura, 2006, p.311), including supervisory interactions. A recent study by Demerouti, Bakker & Fried (2012) showed that when
effective feedback from a supervisor (specific environmental condition) was provided, there was a significant increase in staffs’ reported enjoyment toward their work. Enjoyment, a subjective measure associated with well-being and defined as employee’s attitudes and feelings about their work context (Diener, 2000) has been reported to be congruent with organizational performance (Van De Voorde, Paauwe & Veldhoven, 2012). Dogan (2011) showed a positive significant linear path between self-efficacy and well-being. Extant evidence supports the use of organizational resources to promote supervisory self-efficacy and as a result, improve registered nurses (RN) well-being. Supervisor self-efficacy has been found to increase staff RNs and their patient’s participation in health promotion behaviors (Haas, 2000).

Historically, nursing supervisors control information, provide or withdraw support, advocate for professional development, and secure additional resources (Laschinger & Shamian, 1994). Such actions or lack thereof may or may not empower a staff RN. Since staff nurses interact with nursing supervisors, this interaction may exert considerable influence on the staff RNs practice. In addition, nursing supervisors (NS) are responsible for role modeling professional behaviors and must believe in their ability to do so. One potential moderator for consideration is an individual’s readiness to change. Bandura (1997) defines this motivational component as developmental efficacy, which increases as one successfully gains confidence in their ability to carry out specific skills. An individual’s belief in their ability to carrying out their role responsibilities within a leadership environment is crucial (Luthans, 2002). Ng, Ang & Chan (2008) informs us “leadership self-efficacy is a specific form of efficacy beliefs related to leadership behaviors, as a key motivational mechanism that links leader’s broad personality traits to leader effectiveness” (p.73). Leader self-efficacy is a specific domain of exercising leadership with the intent of providing team direction through organizational commitment (Luthans, 2002).
In fact, Edbrooke-Childs, Wolpert, & Deighton (2016) report a positive correlation between the use of defined measures and feedback with higher levels of self-efficacy.

**Problem Statement and Purpose**

Research findings that support a relationship between supervisory nurses’ perceived self-efficacy and their participation in a leadership focused teaching session is scarce, especially within a mental health setting. Given that organizations in the United States spend an estimated $10 billion on leadership development annually, the lack of evidence regarding program efficacy is surprising (Hannah & Avolio, 2010). Job demands, job control, and self-efficacy have a three-way interaction in the prediction of nurse strain therefore organizations should focus on interventions aimed to increase supervisory self-efficacy (Pisanti et al., 2015). Supervisory-subordinate collaboration among RNs requiring collaborative sustained energy and compassion has become increasingly more important toward ensuring a balance between a healthy work environment and optimal patient outcomes. Yancer (2012) argues the mental health supervisor and staff familiar RN dyad to be no exception. One way that this may be accomplished is through improved supervisory practices that enhance positive self-efficacy, specifically teaching. The purpose of our study is to address this gap in research. In theory, self-efficacy refers to people believing in their capability to carry out a task to achieve a desired outcome. Self-efficacy typically refers to self-perceptions about one’s ability to overcome obstacles such as performing a new task and resistance to change (Janssen, Van de Vliert, & West, 2004).

Some studies have shown that perceived self-efficacy of nurses can increase through appropriate education methods (Nicoll & Butler, 1996). In fact, Elliott, Ashton, Gerrard, & Cox (2003) inform us that training is a common intervention in healthcare for implementing new practices as it provides the opportunity to identify strategies for overcoming barriers. Based on
this information, we need to look at what happens after implementation of this process and its impact of perceived supervisory self-efficacy. Hence, the main purpose of our study is to determine the impact of a teaching session on perceived self-efficacy among mental health NSs.

**Aims of the Pilot Study**

1. To develop and conduct a 1-hour teaching session for mental health nursing supervisors based on principles of coaching, caring, and transformational leadership
2. To assess the impact of a teaching session on the perceived self-efficacy of mental health nursing supervisors

**Research Question**

1. What is the impact of a teaching session, characterized by principles of coaching, caring, and transformational leadership on the perceived self-efficacy beliefs of mental health nursing supervisors as measured by the New General Self-Efficacy Scale (NGSE)?

**Hypothesis**

Nursing supervisors working within mental health are more likely to experience improved self-efficacy after the completion of a one-hour teaching session characterized by principles of coaching, caring, and transformational leadership.

**Literature Review**

**Methodology of Search Strategy**

Computerized data bases included CINAHL, PsychINFO, and Ovid MEDLINE with key word phrases including self-efficacy, mental health nursing, psychiatric nursing, mental health services, nursing care, caring, coping, coaching, behavioral therapy, communication, teaching, leadership, transformational leadership, social support, acute mental health nursing,
occupational stress, supervisory relationship, supervisory strategies, supervisory skills, and Bandura’s social cognitive theory.

Our review of the literature reflects an examination of perceived self-efficacy among nurses in relationship to the defined variables operationalized by their supervisor as well as on perceived job demands. Self-efficacy refers to perception in ones capabilities to achieve a given outcome (Bandura, 1977).

There is a strong relationship between work-specific or task oriented self-confidence and self-efficacy (Delgadillo et al., 2014), especially in healthcare. Several studies illustrate a correlation with improved self-efficacy and greater task engagement and commitment (Mailbach & Murphy, 1995). These studies however fail to include whether any degree of supervisory or organizational support as having implications to the achievement of increased self-efficacy. An important concept to reiterate is that efficacy literature remains suggestive of self, team, and organizational efficacy beliefs being distinct yet interrelated (Borgogni, Russo & Latham, 2011).

Personal resources garnered by employees are important (Chana, Kennedy & Chessell, 2015) and encompass aspects of the job that may contribute to the achievement of goals. In fact, social support, as one specific resource garnered from an immediate supervisor, or co-worker, helps employees reduce the stress of job demands and increase personal development through intrinsic and inter collaborative motivational processes (Hentrich et al., 2017). Although postulated as a resource, individual RNs perception of supervisory resource support within any health care enterprise varies. One supervisory resource that has proven beneficial is coaching. To illustrate this point, a study by Moen & Skaalvik (2009) conducted on a sample of managers receiving executive coaching reported a link between coaching and self-efficacy beliefs.

Similarly, Evers, Brouwers, & Tomic (2006) conducted a quasi-experimental study among sixty
federally employed managers to evaluate the effectiveness of coaching as a resource for the improvement of outcome expectations and self-efficacy beliefs. Managers were divided in two groups: one group actively participated in a coaching program, the other did not. Self-efficacy beliefs and outcome expectancies were measured pre and post intervention. Results indicated that the coached group scored significantly higher than the control group on two variables, one of which was self-efficacy beliefs to set one’s own goals.

The data are suggestive of coaching as an effective resource for improving self-efficacy beliefs with respect to setting one’s own goals. The coaching sessions, intended to motivate each manager to state their goals more clearly, might have prompted an increase in each manager’s awareness to their goals. This is congruent with Bandura’s (1997) contention that one’s self-efficacy is enhanced through the success of new experiences. The theoretical significance of this study supports that coaching has the potential to enhance self-efficacy.

Although the previous studies reported the positive influence of coaching on client’s self-efficacy, they did not specifically answer the question of how the recipient’s self-efficacy was influenced during each coaching session. To gain a deeper understanding of the interactional processes leading to enhanced self-efficacy during coaching, Gessnitzer, Schulte, & Kauffeld (2016) conducted a study to examine the relationship between positive, supportive communication within a coaching model and its effect on perceived self-efficacy. Interaction-analysis methods were deployed in the examination of 93 coaching interactions of 31 dyads. The study focused on three coaching behaviors expected to trigger client’s self-efficient statements: posing open questions, providing support, and proposing solutions (p. 301). The findings of this study shed light on the importance of self-efficacy language between the coach and the client as well as the influence that communication can have on beliefs and behaviors. Results from the
study are suggestive of the purposeful use of effective communication strategies in order to enhance clients’ self-efficacy statements and lay the groundwork for a successful coaching process. Our study was designed to fill the gap in literature regarding these findings. Therefore, by teaching principles of coaching inclusive of positive self-efficacy communication statements we anticipated improvement in perceived self-efficacy among mental health NSs.

Following the assertion that supervisory coaching through the integration of self-efficacy language can be an accelerant for increased staff RN perceived self-efficacy an additional variable, of interest we pursued was caring. Cross, Bacon & Morris (2000) argue that when individuals feel positively connected to their boss, this correlates to an increase in motivation, positive actions, and engagement. It is important to realize that this positive association may increase how an individual perceives their self-effectiveness, which in turn determines the extent to which their self-efficacy is impacted. In a cross-sectional correlation study conducted among 102 nursing staff from an Acute National Health Service Trust defined were three objectives (Chana, Kennedy & Chessell, 2015). One aim of the study was to examine the correlation between nursing staff’s level of burnout, psychological distress as well as caring behaviors. Participants completed eight questionnaires. Data to determine transactional factors (coping responses) was garnered from the Occupational Coping Self-Efficacy Scale for Nurses (OCSE-N: Pisanti et al., 2008) and the Caring Behaviors Inventory-revised [CBI] (Wolf, Giardino, Osborne & Ambrose, 1994) tool was used to measure nursing staff’s quality of caring behaviors. Spearman’s Rho correlations were used for analysis. Due to the number of significant correlations, only those significant \( p < 0.01 \) were reported. Significant correlations were found between caring behaviors, coping strategies, and self-efficacy. Caring behavior was positively
correlated with self-attitude, support at work, and self-efficacy in coping with occupational burden.

There remains a dearth of evidence correlating specific resources provided by the supervisor to improve supervisor perceived self-efficacy. The specific facets of clinical supervision, which contribute to supervisors, improved self-efficacy remains unclear. For this reason, it remains difficult to determine which independent variables are responsible for a specific change, in a supervisor’s degree of perceived self-efficacy. Although supervisors within their leadership role have an opportunity to improve staff RN self-efficacy through coaching, positive communication and caring (Ebner, Schulte, Soucek, & Kauffeld, 2017), the impact of these behaviors surrounding self-efficacy perception among NSs remains undetermined.

Leadership style is another way in which NSs can influence healthcare outcomes. Transformational leaders are those who “broaden and elevate the interests of their followers, generate awareness and commitment of individuals and purpose and mission of the group, and they enable subordinates to transcend their own self-interests for the betterment of the group” (Seltzer, Numerof & Bass, 1989, p. 174). It has been argued that exposure to transformational leaders; employees have the capability for improving healthcare in the future (Thyer, 2003). Studies have shown, that positive outcomes can be achieved through the integration of transformational leadership styles during the implementation of interventions (Kelloway & Barling, 2010).

A study by Hentrich, Zimber Garbade, Gregersen, Nienhaus & Petermann (2017) was conducted to investigate the complex relationships between transformational leadership and employee health through the use of a multiple mediation model. Three proposed hypotheses were tested one of which included; transformational leadership relates positively to occupational self-
efficacy. Participants in the cross-sectional study were recruited from nursing and care provider training facilities as well as facilities for social and health services in Germany. Questionnaires, totaling 1,864 were distributed with 1,074 completed. Hypothesized multiple mediation model structural equation modeling (SEM) was used for statistical analysis. The use of full information maximum likelihood (FIML) with Huber-White robust standard errors was used as estimation method.

An association between transformational leadership, lower job demands, and higher occupational self-efficacy was revealed. In theory, this is suggestive of transformational leaders being able to change the way employees perceive work-related stress. Hence, if employees are encouraged to deal with threatening conditions, they might interpret and react differently to stressful situations (Kelloway & Barling, 2010).

In summary, the aforementioned studies theoretical contributions prove strongly suggestive of supervisor coaching, positive self-efficacy language, and an overall sense of caring among supervisors to be salient variables for the determination of RN’s perceived self-efficacy. Likewise, Braeckman et al. (2013) and Hahn, Binnewies, Sonnentag, & Mojza (2011) support that self-efficacy can be improved through training interventions that incorporate transformational leadership principles (Brewer et al., 2016).

The work of mental health nurses is different from that of other nursing specialties in that it has been reported to be a highly stressful occupation, requiring a unique nurse-patient interaction with clients who may exhibit challenging emotional and behavioral concerns (Jenkins & Elliott, 2004). The strength of the association between a supervisor with positive perceived self-efficacy is important as having potential for improved patient care as well as a decrease in staff burnout. In fact, Currid (2009) argues, “investment is needed in acute mental health settings
and in staff RNs who work in this area”, and that if this does not occur, the likelihood of service
deterioration will be high as well as the nurse’s health and well-being (p. 40).

**Significance**

Nurse self-efficacy at the supervisory level is critical for a number of interconnected reasons. Although a universally accepted definition of clinical supervision within the role of nursing supervisor has remained elusive over time, specific components have begun to emerge in commonality one of which is leadership styles. Leadership styles have been directly correlated with patient outcomes and complications across a wide-range of clinical settings including mental health (Wong, Cummings & Ducharme, 2013). For example, effective leadership styles have been linked to lower patient mortality (Cummings, Midodzi, Wong, & Estabrooks, 2010) as well as higher patient satisfaction ratings (Havig, Skogstad, Kjekshus, & Romoren, 2011). Transformational leadership has been found to be supportive in terms of nurse’s self-efficacy and workplace proficiency (Salanova, Lorente, Chambel, & Martinez, 2011).

Transformational leaders are those who “broaden and elevate the interests of their followers, generate awareness and commitment of individuals and purpose and mission of the group, and enable subordinates to transcend their own self-interests for the betterment of the group” (Seltzer, Numerof & Bass, 1989, p. 174). As posited by Thyer (2003) healthcare services will improve provided employers have increased exposure to transformational leaders. For this reason, concepts of transformational leadership warrant exploration within the context of the teaching session.

It has been argued that by increasing self-efficacy negative effects of job stress can be mitigated. These negative effects include low job satisfaction, high employee turnover, a decrease in organizational commitment (Jex & Bliese, 1999), exhaustion, and cynicism
(Schaufeli, Salanova, González-Romá & Bakker (2002) as well as employee burnout (Salanova, Peiro & Schaufeli, 2002). For this reason, it is suggested that well being may be enhanced through positive self-efficacy.

The profession of nursing has been found to be one of the most stressful occupations, especially within the specialty of mental health (Dreison et al., 2016) resulting in emotional exhaustion and depersonalization (Pisanti et al., 2015). Findings from Aiken et al (2002) demonstrated that 33-54% of hospital nurses experience burnout scores well above published norms for medical managers and that adequate staffing levels and support from managers aided in decreasing burnout and in improving quality of care. Likewise, a study by Sherring & Knight (2009) conducted among mental health nurses exploring several burnout factors, correlated an increase in RN job satisfaction with feelings of value and support as well as the perception of optimal quality and frequency of clinical supervision. In fact, the results from a single study conducted by Stetz, Stetz & Bliese (2006) were highly suggestive that interventions aimed to reduce stress through an increase in social support should take into consideration an individual’s self-efficacy (p. 55). These findings are suggestive of positive supervisory support as a powerful resource and include positive collaborative and effective communication, caring, resource allocation, as well as availability of self. Taken together, the results of these studies suggest that increased supervisory support through improved supervisor perceived self-efficacy might contribute toward improved quality care.

It is important to reiterate that perceptions of job situations, demands, and stress are not equal among NSs. Therefore, variables such as locus of control, optimism, coping strategies, being proactive, emotional stability and self-efficacy beliefs predicate a need for organizational interventions aimed at improving these inconsistencies in support of work place improvement.
These variables further supported our belief in the need to evaluate supervisory support for influencing perceived self-efficacy in this setting.

**Theoretical Framework**

The notion of testing “things” that can be seen and touched in a laboratory under controlled conditions through the manipulation of variables is a much easier task than comprehending relationships among people (Peplau, 1999). Theoretical foundations therefore, embedded within studies conducted purposefully for identifying influencing factors between relationships serve as a helpful resource in the understanding of such associations. The present study expands on the construct of perceived self-efficacy as described from Bandura (1977) to illustrate how a teaching session for NSs correlates as a predictive phenomenon in producing optimal patient outcomes.

Bandura (1977) broadly defined self-efficacy as an individual’s belief in his or her ability to produce an outcome. Thus, perceived self-efficacy is concerned with an individual’s belief that he or she has some sort of control over his or her own functioning or life (Bandura, 1994). Beliefs in personal efficacy result in a plethora of life choices such as one’s vulnerability to stress, level of motivation or resilience to adversity (p. 2). The theory of self-efficacy is widely known among a variety of disciplines. It is based upon four influential sources. These sources are defined as mastery knowledge, vicarious experiences, verbal persuasion, and emotional arousal (Bandura, 1977).

Mastery experiences are an effective way to create a strong sense of perceived self-efficacy. For instance, if an individual sets forth on a quest to achieve a goal and accomplishes said goal through hard work, perseverance, and overcoming obstacles, the gain is a sense of accomplishment. This success (mastery experience) establishes one’s sense of self-efficacy. Over
time, individuals translate this into the belief that “yes I can do it” regardless of adversity or setbacks. Another way of creating and strengthening perceived self-efficacy is through vicarious experiences provided by social models. Viewing others as role models performing competent activities without adverse consequences lends one to believing in their own success if they remain persistent in their efforts (Bandura & Barab, 1973). Verbal persuasion is a third way to positively influence a person’s beliefs that they have what it takes to be successful. People who are told they can achieve a goal, and more importantly, believe the narrative to be true are more likely to put forth greater effort regardless of ability (Townend, 2005). Lastly, affective arousal (emotion), generally elicited by stressful situations also has predictive value towards one’s self-efficacy beliefs. High arousal states that hinder performance have been associated with a decrease in one self-efficacy. Emotional arousal therefore, is a strong consideration for perceived self-efficacy particularly within a threatening situation (Bandura, 1977).

Steyne & Mynhardt’s (2008) early study, *Factors that Influence the Forming of Self-Evaluation and Self-Efficacy Perceptions* is a primary example of Bandura’s (1977) determinant of verbal persuasion and its impact on public service employees. The overarching aim of the author’s investigative research was to evaluate three contributing sources of information factors that influence self-efficacy perceptions. Information factors were defined as; subjective self-referenced information (little or no contact and communication or feedback from others), objective self-reference information (external feedback from a leader regarding achievement), and social comparison information (information compared among peers) (p. 565). Methodology included deployment of a 45-item questionnaire compiled through the combination of three valid and reliable tools one of which included the Self-Efficiency Scale or SES (Sherer et al., 1982). The participants involved were 1,723 South African police officers. Despite the specific aim of
the study to determine the cumulative effect of all three constructs on perceived self-efficacy, the objective self-referenced information is of interest to the current research proposal as it prompts the inquiry as to whether supervisory support has an impact on perceived self-efficacy.

The intervention inclusive of subjective self-referenced information resulted in maximum effects. Despite the limitations, specifically expectation bias based upon past and present self-efficacy experiences within an individual, the findings provide insight toward the influence of human variables on perceived self-efficacy, specifically within the determinant of verbal persuasion. The overall results support the contention that individuals must have a robust sense if efficacy to persevere and sustain effort to succeed. Although the information acquired through feedback from a leader (objective self-referenced information) was reported as having the least effects among those tested the cumulative effect of all three constructs on perceived self-efficacy proved to be significant. These results are suggestive of this type of information process from leader to subordinate as being beneficial toward ones perceived self-efficacy.

Since self-efficacy is likely to be associated with a registered nurses behavior, a deficit in any one of the determinants may possibly result in poor effort or poor performance over time. In turn, this may result in increased burnout among staff resulting in a lower retention and potentially a lower quality of care. Defining Bandura’s (1977) self-efficacy determinants as they relate to specific variables holds great meaning among health care providers, especially those working within mental health. Self-efficacy’s relevance for building confidence among providers in clinical practice commands importance (Delgadillo et al., 2014). Poor clinical practice translates to poor patient outcomes. To help mitigate the predictable effects of perceived poor self-efficacy among mental health supervisors, this study will use Bandura’s (1997) theory integrating specific mediating variables.
Identifying and Defining Variables

The New General Self-Efficacy (NGSE) Scale (Chen, Gully, & Eden, 2001) was the survey tool used to measure the dependent variable, perceived self-efficacy of the mental health supervisor (Appendix A). The NGSE Scale was used to measure overall perceived self-efficacy of the mental health NS pre and post intervention. Demographic data was analyzed and used for descriptive purposes only.

Description of Study

Research Design

This study was conducted as a Pre-test/Post-Test Pilot. Measures on the outcome variable for the primary hypothesis were obtained at two points: baseline and post-intervention. The primary goal was to assess whether the teaching session made an impact on supervisor’s perceived self-efficacy.

Measures

Nurses’ Demographic data Questionnaire (DDQ)

The Demographic Data Questionnaire (DDQ) used to collect data surrounding staff nurses' socio demographic characteristics (Appendix B). This form was used to aggregate nominal, confounding independent variable data pertaining to age, gender, educational level, and shift work. These variables although not intended for predictive analysis were taken into consideration during outcome analysis as important areas of consideration for future investigations because of the teaching session.

New General Self-Efficacy Scale

The New General Self Efficacy Scale (NGSE) was the tool used to measure the dependent variable (Chen, Gully, & Eden, 2001). According to the authors (p. 63), “general self-efficacy captures differences among individuals in their tendency to view themselves as capable
of meeting task demands in a broad array of contexts”. Pre-test and post-test assessment consisted of **eight questions** (Appendix A) with answers presented on a 5-point Likert scale where 1 means ‘strongly disagree’ and 5 means ‘strongly agree’. Instructions were given as follows: ‘General self-efficacy relates to “one’s estimate of overall ability to perform successfully in a wide variety of achievement situations, or to how confident one is that she or he can perform effectively across different tasks and situations. Please rate yourself on the following’. This allowed for a single score measure of overall perceived self-efficacy for each of the eight questions. Important considerations in choosing this tool included published validity and reliability ease of comprehension, and reasonable time to complete.

The NGSE Scale was developed through three studies to compare construct validity with that of the original 17-item general Self-Efficacy Scale (SGSE) developed by Sherer et al. (1982). In Study one, the authors revised the NGSE scale and compared its content validity to that of the SGSE scale. Study two and three further compared reliability and validity of the NGSE scale and the SGSE scale among various samples. This resulted in eight item questions retained. The test-retest reliability coefficients for the 8-item NGSE scale proved high (.62). Hence, the final eight NGSE items yielded a scale considered to be internally consistent, unidimensional, theory based and stable over time (Chen, Gully, & Eden, 2001).

The NGSE scale consistently yielded appreciably higher content validity and somewhat higher predictive validity compared with the SGSE scale. The NGSE scale (8 items) is shorter than the SGSE (17 items) which, together with the validity evidence makes it a more attractive measure for use in organizational research. In fact, given the fact that the research was conducted across two national cultures and among a variety of settings, this tool may help explain motivation and performance in a variety of work contexts including healthcare.
Sample, Power Analysis and Setting

There were six NSs recruited to participate in this study. The study team aware of minimum sample size as an important measure in being able to accept or reject the null hypothesis considered this when inferring significance of results. Given that the study was underpowered, we have included full disclosure in data analysis and reporting. Results were analyzed using a nonparametric sign test. All calculations were done using IBM SPSS Standard GrandPack 24 statistical software.

The target population included full-time NSs employed at Mohawk Valley Psychiatric Center (MVPC), located in upstate New York. MVPC, under the auspices of the Office of Mental Health (OMH) provides quality, individualized psychiatric inpatient treatment to promote recovery for children age 5-17 and is accredited by The Joint Commission and identified as a Joint Commission Top Performer for 2013 (New York State Office of Mental Health, n.d.). Operated as a nonprofit agency MVPC accepts patients regardless of income. Bed capacity is thirty with the Center being at full capacity nearly 100 percent of the time over the past three years. Employees of New York State are appointed to positions according to New York State Civil Service Law. Prospective RN employees are required to have a license and submit an application for scoring to the state of New York. Criminal background investigation and Justice Center review is mandatory. NSs in this study hold the position of Supervisor I or Supervisor II with difference in positions being length of clinical experience as well as percentage of experience spent among mental health patients.

Supervisors at MVPC range in age from mid-30 to late 60’s, predominantly Caucasian and mixed gender. Presently, MVPC employs two male NSs and four female NSs. Supervisors have varying levels of experience as well as years of employment within mental health,
increasing the likelihood of diversity. NSs eligible to take the NGSE Scale spoke English. Interpretation was not be required. The population of the study was not considered vulnerable.

Inclusion criteria included any licensed NS, any gender, working any shift regardless of length of employment. The definition of an NS for the purpose of this study was an RN who had eight to twelve hours accountability for the operations of one or more of the hospital wards. The NS position involves management of charge and staff nurses on each shift and accountability for those positions. To be eligible to participate in this study the NS was not restricted to any minimum number of years of experience. This decision was made to ensure adequate participants to administer the intervention. Ideally, a required year or more experience as an NS would have been optimal as inclusion criteria. This would help to ensure that the NS was not in the orientation or transitional stage of learning the role of management. The investigator is aware that lack of experience in the role could pose an external threat. Exclusion criteria included any NS who returned to work from extended sick leave or who was hired during the intervention period.

Recruitment

An email announcement was sent through the Office of Mental Health’s (OMH) secure email to each individual NS indicating the purpose of the study (Appendix C). A posting of the email message was also placed in the nursing supervisor office. These strategies were intended to increase the number of participants and received full approval from the chief nursing officer (CNO). Five of the six NSs responded affirmative to participating. One requested further information. The principle investigator met individually with the NSs who agreed to participate in the study to obtain signed consent and review available dates and times for intervention implementation. I also met with the outlying NS per request. After meeting with this participant,
RESEARCH PROPOSAL

consent was obtained rendering the total number of participants from recruitment to participation to six. Consent was obtained through the Institutional Review Board (IRB) Authorization Agreement between The Nathan Kline Institute (NKI) For Psychiatric Research and The George Washington University (GWU).

**Intervention**

The intervention was delivered as a 1-hour classroom-based teaching session. NSs participated in a scheduled teaching session conducted during working hours on all three shifts. The institution approved the use of a classroom for the intervention. The length of each teaching session was 60 minutes.

At the end of each teaching session, participants were able to:

- List three caring behaviors
- Discuss work life balance and its impact on the physical/emotional well-being of a staff nurse
- Identify how basic concepts of coaching can be used to influence the culture of the organization
- Describe three transformational leadership skills

NSs received pedagogy through the use of three specific interactive teaching and learning strategies: (a) case studies, (b) reflection, and (c) role playing.

**The Procedure, Analysis Plan and Time Line**

All subjects were randomly assigned a subject identification number. A master list of participants and their random identification numbers were kept separate from any documents summarizing responses or data. Only the Principle Investigator (PI) had access to the master list. The PI did not see the data until it has been de-identified. All data was collected using paper with a research number placed on it for collation purposes and all paper-collected data was entered into a data file. Data files were housed on an OMH computer that utilizes whole disk encryption
and password protection, and were accessible only to the PI. Hard copies of paper data completed by participants or researchers, with subject identification numbers on it in place of name were stored in a locked filing cabinet only accessible by the PI and separate from the master list identified above.

The data collection tool was the 8-item NGSE Scale. To avoid bias, subjects were not informed of the research question. The study was conducted in three phases. It is important to note that the decision was made for NSs to be offered the teaching session during available working hours on all three shifts with coverage provided to minimize a non-response rate of subjects.

During the first phase of the study, six NSs were provided a paper version of the pre NGSE Scale (Appendix B) as well as Nurses Demographic Data Questionnaire (Appendix A). A subject identification number code was assigned to enable pre-and post-teaching intervention analysis and ensure anonymity. The second phase of the study involved the PI and NS’s completing a series of teaching sessions. Enabling NSs to attend the teaching sessions during working hours assisted in retention. The third and final phase of the study included administration of the post-NGSE survey.

**Data Analysis**

The data were downloaded directly into SPSS once it was recorded for final analysis. Comparisons involving data were made using the Wilcoxon signed-rank test (Appendix D).

**Ethical Considerations**

The researchers followed NKI and GWU IRB approval procedures before recruiting participants. Study participants were voluntary. Each participant was fully briefed on their volunteer status. Informed Consent was given by all participants. They were also informed of
freedom to decline participation in the study without negative repercussion and participation remaining anonymous.

The researcher protected confidentiality of participants by coded identifiers. Every effort was made to maintain anonymity however, signing a consent form did present a minor risk. All paper hard copies were stored in a locked filing cabinet. The data was destroyed six months after study completion. The participants did not receive compensation for participation.

Results

Four female (80%) and 2 males (20%) participants were enrolled in this study. Ages ranged from 30 to > 60. Three of the six subjects worked during the day shift; two were employed during the evening shift with the remaining subject working the night shift. Five subjects were Caucasian (83%) and one was African American (16%). One participant had a Master’s degree (16%), three had a Bachelor degree (50%), and two had an Associate’s degree (33%).

The asymptotic p-value for the Wilcoxon signed rank test showed that the observed difference between pre and post measurements was marginally significant (p=0.043). However, using the exact p-value, the null hypothesis could not be rejected at the 0.05 significance level (p=0.063). Given the small sample size in this study, the exact test results might be a more reliable and suggestive indicator for a teaching session as a positive variable for increased perceived self-efficacy among mental health nurses.

Discussion

This study aimed to assess the impact of a teaching session on the perceived self-efficacy of mental health nursing supervisors. Given the small sample size, the results must be interpreted with caution. Nonetheless, it appears suggestive of our intervention having some positive impact
on supervisor perceived self-efficacy. The results revealed that NSs working within mental health are more likely to experience improved self-efficacy after the completion of a one-hour teaching session characterized by principles of coaching, caring, and transformational leadership.

Although the Wilcoxon signed rank test was used to assess overall perceptual changes pre and post NGSE, what we did not consider was the unique contribution of each variable; coaching, caring, and transformational leadership. Bono, Foldes, Vinson, & Muros (2007) inform us that transformational leadership behaviors are associated with employees’ sense of optimism, happiness, and perceived self-efficacy. A subsequent study by McKee, Driscoll, Kelloway & Kelly (2011) found that transformational leadership behaviors were associated with employees’ sense of optimism, happiness, and enthusiasm lending Kelloway & Barling (2010) to suggest for leadership training and development as a positive intervention among organizations. This provokes further reflection as to each variables impact toward our findings and invites us to question, how perceived self-efficacy can best be measured. Descriptive statistics may be one recommendation in order to evaluate overall patterns of relations among the tested variables. In addition, qualitative data, generated through interviews would prove beneficial with augmenting our findings.

Our study, with its provision of empirical evidence of a teaching session, may encourage the importance of a teaching session to positively change clinical practice. Educating mental health NSs not only has potential to impact individual NSs’ perceived self-efficacy, but it may also have organizational benefits. In light of this, mental health nursing supervisors should be exposed to teaching sessions. Nurse administrators must be aware of the importance of teaching sessions and their potential for improving perceived self-efficacy.
Our findings can play an important role for improving healthy work environments. Healthy work environments possess characteristics such as workplace culture, interprofessional collaboration, job satisfaction, and burnout linked to quality care (You et al., 2013; Van Bogaert et al., 2014) and influenced through positive perceived self-efficacy. Kupperschmidt, Kientz, Ward, & Reinholz (2010) inform us that healthy work environments are necessary for nurse’s well-being. Given the strong influential relationship between positive perceived self-efficacy and well-being, our results support a teaching session as an intervention to help achieve a healthy work environment.

Limitations

In a quantitative research using statistical analysis, a large sample size is preferable as it usually provides confidence in results. Study confidence was limited due to sample size and short intervention length. The results therefore should be interpreted with caution. As the sample size of this study was only 6 so too was the increase of a Type I error. Our study did not look at individual ranking of specific variables (coaching, caring, transformational leadership).

Recommendations

This is the first phase (pilot) of a multi-phase project. Next, we recommend the use of a larger sample size, measuring self-efficacy and its impact on actual supervisory skills. The final phase would include all previous steps and their association with patient outcomes. Moreover, we recommend further studies across various types of organizations. In addition, further research is needed to explore all factors that contribute to how efficacy beliefs are established. Our study did not consider the impact of teacher self-efficacy on learner outcomes. We did not take into account the perceived self-efficacy of the teacher. Therefore, it is reasonable to consider that the PI’s (teacher) perceived self-efficacy may have influenced the participants performance. Studies
suggest that student’s perceptions of a teachers motivational behaviors influence their self-efficacy (You, Dang & Lim, 2016).

Conclusions

To our knowledge, this is the first study examining the impact of a teaching session on perceived self-efficacy among mental health NSs. By offering this educational intervention to NS’s, we have contributed to the professional development of nursing within the organization. The results support that a teaching session could be a valuable resource for improving overall self-efficacy among mental health supervisors.
Reference


http://dx.doi.org/10.1080/02678373.2010.518441


Thyer, G. (2003). Dare to be different: transformational leadership may hold the key to reducing nursing shortage. *Journal of Nursing Management, 11*, 73-79.


Appendix A

New General Self-Efficacy Scale

General self-efficacy relates to “one’s estimate of one’s overall ability to perform successfully in a wide variety of achievement situations, or to how confident one is that she or he can perform effectively across different tasks and situations”. Please rate yourself on the following.

<table>
<thead>
<tr>
<th>Questions</th>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>Neutral</th>
<th>Somewhat Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I will be able to achieve most of the goals that I have set for myself</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2. When facing difficult tasks, I am certain that I can accomplish them.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. In general, I think that I can obtain outcomes that are important to me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. I believe I can succeed at most any endeavor to which I set my mind.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. I will be able to successfully overcome many challenges.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. I am confident that I can perform effectively on many different tasks.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Compared to other people, I can do most tasks well.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Even when things are tough, I can perform quite well.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Appendix B

Demographic Data Questionnaire (DDQ)

Please provide one response to each question by placing a check in the correct circle.

1. What is your age?
   - 18-30
   - 30-45
   - 45-60
   - > 60

2. What is your Gender
   - Male
   - Female
   - Other

3. What shift do you work?
   - 0700-1530
   - 1530-2130
   - 2130-0730

4. Race
   - White/Caucasian
   - Black/Indian/Native American
   - Other

5. What is the highest degree you have completed? If currently enrolled, mark the previous grade or highest degree received.
   - Associate degree (AAS)
   - Bachelor’s degree (BS)
   - Master’s degree (MS)
   - Doctorate degree (PhD, DNP)
Appendix C

Initial Email Script/Posting for NSs

Good day, my name is Pamela Fess. Most of you know me as a staff nurse working the day shift on the Willow Ward. I am a student at The George Washington University located in Washington D.C. I am studying perceived self-efficacy among supervisors in mental health. I am requesting your permission to participate in a 1-hour teaching session with me. The teaching session will involve principles of coaching, positive self-efficacy, caring behaviors, and transformational leadership. The teaching session will take place in the fall of 2017 during your shift at a time of your choice. The location of the teaching sessions will be room 208 at MVPC. Deb Ultsch, CNO will ensure operational coverage during the teaching session period if you choose to participate. In addition, I will be asking you to complete a Self-Efficacy Questionnaire before and after the teaching session as well as a Demographic Data Questionnaire.

All personal information will be coded and remain confidential. Thank you for your consideration to participate in this study. I look forward to your e-mail response by (date). If you choose to participate, I will be contacting you in person to obtain written consent and arrange for a date and time for the teaching session.

Very truly yours,
Pamela Fess, RN
Wilcoxon Signed Ranks Test

\textit{Test Statistics}^a

<table>
<thead>
<tr>
<th></th>
<th>pre - post</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z</td>
<td>-2.023b</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.043</td>
</tr>
<tr>
<td>Exact Sig. (2-tailed)</td>
<td>.063</td>
</tr>
</tbody>
</table>

\textit{a. Wilcoxon Signed Ranks Test}
\textit{b. Based on positive ranks.}

These results are representative of both the asymptotic Wilcoxon Signed Ranks Test (p=0.043) and the Exact test (p=0.063).

\textbf{Summary Scores}

<table>
<thead>
<tr>
<th>Treatment</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>pre</td>
<td>6</td>
<td>34.5</td>
<td>3.728</td>
</tr>
<tr>
<td>post</td>
<td>6</td>
<td>39.17</td>
<td>0.983</td>
</tr>
</tbody>
</table>