DEVELOPMENT OF THE SURVEY OF TRANSFORMATIONAL LEADERSHIP

FOR APPLICATION TO THE SUBSTANCE ABUSE TREATMENT FIELD

by

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

Development of the Survey of Transformational Leadership for

Application to the Substance Abuse Treatment Field

Over the past 5 years, outpatient programs within the substance abuse treatment field

have undergone major changes including: high program closure rates (Wells, Lemak, &

D'Aunno, 2005), treatment practices that negatively affect staff satisfaction and retention (e.g.,

rise in managed care, shifts in epidemiology of drug use, increased role of the criminal justice

system; Roman, 2005), high percentage of staff turnover (D'Aunno, 2006), and decreased

funding (Kimberly & McLellan, 2006). Furthermore, funding sources are encouraging the

implementation of evidence-based practices (EBPs). In an effort to manage these changes, it is

becoming increasingly important for treatment program leaders to search for outside resources,

support creativity in problem solving, and involve members in program decisions.

The involvement of front-line staff in problem solving and strategies for promoting

change represents a managerial shift toward transformational leadership. James MacGregor

Burns (1978) first conceptualized transformational leaders as those who mobilize their efforts to

reform organizations, in part by raising followers' consciousness to a point that is beyond their

personal interests and more in line with the organizational goals and vision. The process of

transformational leadership traditionally includes five components: idealized influence (i.e.,

leaders promote pride in themselves and present strong ideals), intellectual stimulation (i.e.,

leaders demonstrate and encourage creativity), inspirational motivation (i.e., leaders create and

promote the pursuit of organizational visions), individualized consideration (i.e., leaders support

and develop the individual), and empowerment (i.e., leaders delegate meaningful tasks and

expect excellence of their followers).

At the organizational level, transformational leadership practices are linked to strategic

organizational change (Waldman, Javidan, & Varella, 2004) and with altering perceptions of

EBPs (Aarons, 2005). At the individual level, transformational leadership is associated with lower turnover intentions (Bycio, Hackett, & Allen, 1995; Martin & Epitropaki, 2001; Vandenberghe, Stordeur, & D'hoore, 2002), higher staff satisfaction (Judge & Piccolo, 2004), higher intrinsic motivation (Bass & Avolio, 1990), more citizenship behaviors (e.g., sportsmanship, conscientiousness, civic virtue; Purvanova, Bono, & Dzieweczynski, 2006), higher unit cohesion (Bass, Avolio, Jung, & Berson, 2003), and lower stress and burnout (Seltzer, Numerof, & Bass, 1989).

The purpose of the current study is to develop a measure of transformational leadership designed specifically for the substance abuse treatment field that will represent a comprehensive approach, including both theoretical foundations (i.e., conventional measurement approaches) as well as contemporary issues surrounding the assessment of transformational leadership. The proposed measure, the Survey of Transformational Leadership (STL), examines the five conceptual domains that are traditionally part of transformational leadership, but also includes the potential to examine more specific themes in greater depth. The goal is to develop a reliable and valid instrument that will inform practice improvement initiatives within the field of substance abuse treatment.

The sections that follow provide a review of the theory of transformational leadership. In turn, the major theoretical elements serve as a foundation for developing the STL.

<center>Literature Review</center>

The need to promote reform is so widespread in today's business society that autocratic and authoritarian leadership techniques are no longer recognized as the norm (Bass & Riggio, 2006). Progressive organizations instead, involve leadership styles that are participatory, democratic, relations-oriented, and considerate.

In response to the need for a new type of leadership, Burns, a political scientist and social historian, in the late 1970's delineated a type of leadership that he labeled transformational, somewhat similar to charismatic and visionary styles (Howell, 1997). This paradigm of leadership revolves around the concept of change and examines the practices that impact followers' expression of emotion and motivations dealing with change.

Avolio and Bass (2004) conducted a review of several empirical studies (Avolio & Bass, 1988; Bass, 1985; Bass & Avolio, 1993; Hater & Bass, 1988; Howell & Avolio, 1993; Lowe, Kroeck, & Sivasubramaniam, 1996; Yammarino & Bass, 1990) in an effort to provide insight into which practices a transformational leader engages in to impact follower' emotions and motivations. These researchers found that leaders achieve their results by demonstrating one or more of the following leadership practices (p. 28):

- Transformational leaders become a source of inspiration to others through their commitment to those who work with them, their perseverance to a mission, their willingness to take risks, and their strong desire to achieve.

- Transformational leaders diagnose, meet, and elevate the needs of each of their associates through Individualized Consideration. They believe in promoting continuous people improvement.

- Transformational leaders stimulate their associates to view the world from new perspectives, angles, and informational sources. They question even the most successful strategies to improve them over time.

- Associates trust their transformational leaders to overcome any obstacle, because of their hard work, their willingness to sacrifice their self-interest, and their prior success.

The impact that transformational leadership has on members of an organization can be best examined by comparing it to transactional leadership, where leaders "approach followers

with an eye to exchanging one thing for another" (Burns, 1978, p. 3), for instance exchanging work on a project for a raise in compensation. Instead, a transformational leader mobilizes their followers toward reform by an appeal to values and emotions. Through this process, followers become more aware of the importance of valued organizational outcomes and the leader provides strategies for attaining those outcomes. The transition from performance based on rewards (i.e., transactional leadership) to performance based on purpose and vision (i.e., transformational leadership) has been termed a "higher order of change," because of the higher level of staff motivation and quality of performance that result (Avolio & Bass, 2004).

Maslow's (1954) hierarchy of needs serves as an analogy for the impact that these two leadership strategies can have on followers. Transactional leadership focuses on issues lower in Maslow's hierarchy, such as concerns for personal security and exchange of work for compensation, whereas transformational leadership focuses more on self-actualization (i.e., a desire for the betterment of the team or organization). Seltzer and Bass (1987) found a positive correlation between transformational-like behaviors (e.g., charisma) and self-actualization. Like transformational leadership, self-actualization 'augments' both the group and the individual's level of performance and professional growth (Avolio & Bass, 2004).

Finally, in addition to raising followers' needs above their own self-interests and re-focusing attention on valued organizational outcomes, transformational leaders foster autonomy, affiliation, and achievement within their followers. This shift in staff practices is termed the "cascading effect," where the leaders' transformational practices are seen to cascade down the organizational hierarchy to characterize followers and their evolving leadership role in the organization (Avolio & Bass, 2004). For instance, followers develop the perception of competency in leading tasks involving other organizational members.

Thus transformational approaches to leadership have a wide range of potential benefits. By providing a higher-order of change, staff member cascading leadership effects, or self-actualization leaders within the substance abuse treatment field might also achieve more with transformational strategies than without them. To begin generalizing the construct, the following section will address conventional conceptualizations of transformational leadership, as well as contemporary issues including critiques and alternative views on additional leader behaviors less commonly measured and content suggested for inclusion.

Existing Transformational Leadership Measures

In 1985, Bass developed the first measure of transformational leadership, the Multifactor Leadership Questionnaire (MLQ). The MLQ assesses four transformational leadership practices, including idealized influence, intellectual stimulation, inspirational motivation, and individualized consideration. Since the introduction of the MLQ, other instruments have been developed to measure the concept, each assessing perceived core components (Alimo-Metcalfe & Alban-Metcalfe, 2005; Carless, Wearing, & Mann, 2000; Castro, 1999; Conger & Kanungo, 1994; Kouzes & Posner, 1987; Podsakoff, MacKenzie, Moorman, & Fetter, 1990; Rafferty and Griffin, 2004; Sashkin & Sashkin, 2003).

Although there are now a variety of transformational leadership instruments available, they do not all contain the same behavioral practices. Leadership theorists agree on some facets and not on others. Furthermore, some instruments require an administration fee, making them impractical in certain situations. In a review of the literature, Podsakoff et al. (1990) reported that articulating a vision (i.e., inspirational motivation) receives fairly wide consensus on inclusion as a transformational leadership practice. However, intellectual stimulation, providing individualized support (i.e., individualized consideration), and demonstrating high performance expectations (i.e. empowerment) are not consistently included as transformational leadership

practices. Numerous researchers have contributed to discussions of how various transformational leadership components are related and many recommendations of additional core components of transformational leadership that should be included (Avolio & Bass, 2004; Bass & Avolio, 1995; Bass & Riggio, 2006; Kotter & Heskett, 1992; Kuhnert & Lewis, 1987; Tichy & DeVanna, 1986; Yukl, 1999). An overview of the theoretical and measurement work provides a basis for developing the new STL.

A fundamental point concerns whether transformational leadership should be represented with specific factors or a general one. Although idealized influence, intellectual stimulation, inspirational motivation, individualized consideration are generally described as separate concepts, there has been debate on whether transformational leadership should be examined as a single factor due to their large intercorrelations (Barling, Loughlin, & Kelloway, 2002; Bono & Judge, 2003; Purvanova, Bono, & Dzieweczynski, 2006; Shin & Zhou, 2003). Others view it as a model with highly correlated factors combined into second-order factors (Avolio, Bass & Jung, 1999; Podsakoff, et al., 1990), or as separate and distinct factors (Den Hartog, Van Muijen, & Koopman, 1997). Avolio, Bass and Jung (1999) reported a three-factor structure with inspirational motivation and idealized influence combined as the "charisma" factor. Intellectual stimulation and individualized consideration formed the second and third factors. Podsakoff et al. (1990) presented a four-factor model of transformational leadership. These researchers formed the "core" dimension by combining articulating a vision (i.e., inspirational motivation), providing an appropriate model (i.e., idealized influence), and fostering the acceptance of group goals. High performance expectations, individualized support, and intellectual stimulation represent their remaining three factors.

In support of retaining distinct domains, Den Hartog and colleagues (1997) stated that "distinguishing between different components of transformational leadership may remain useful,

particularly for training purposes" (p. 32). Likewise, Bass and Riggio (2006) suggest that "a leader can be inspirational – move followers toward common goals, provide meaning, and generate acceptance of missions – without necessarily being charismatic." Furthermore these researchers state that, "a leader can be a paragon of exceptional leadership, highly admired and imitated, but still lack the ability to inspire followers." (p. 229). Because the primary goal of the current study was to develop a new measure of transformational leadership for application to a field that has a potentially high need for leadership training, the study began by considering the domains separately. These appear in detail below.

Components and Themes of Transformational Leadership

Figure 1 presents the conceptual framework for transformational leadership, used in the study. It draws from the existing literature for the common components and general factor structure, but also reflects the conceptual themes within each common component. Specifically, within each of the four commonly-noted domains (i.e., idealized influence, intellectual stimulation, inspirational motivation, individualized consideration) additional themes were identified in order to examine transformational leadership in more depth. In addition; empowerment was added as a fifth domain, along with related themes; to capture a closely allied leadership behavior. Each domain and its related themes are reviewed below.

Idealized Influence. Idealized influence (i.e., charisma) is the most widely considered component of transformational leadership. Generally, charisma is composed of two overarching constructs, a leader exhibiting a model character and the followers identifying with the leader. Behaviorally, these constructs include (1) the followers idealizing their leader (including trust, respect, and pride in their leader), as well as the leaders demonstrating (2) self-determination and self-confidence, (3) sensible risk-taking, (4) ethical consideration, and (5) honesty and openness. Instead of using the term charisma, as first promoted by Weber (1947) and Burns (1978), Avolio

and Bass (1990) determined it was more fitting to call the domain "idealized influence," because of the connection to selfless "ideal" causes (i.e., altruism, courtesy, and conscientiousness.
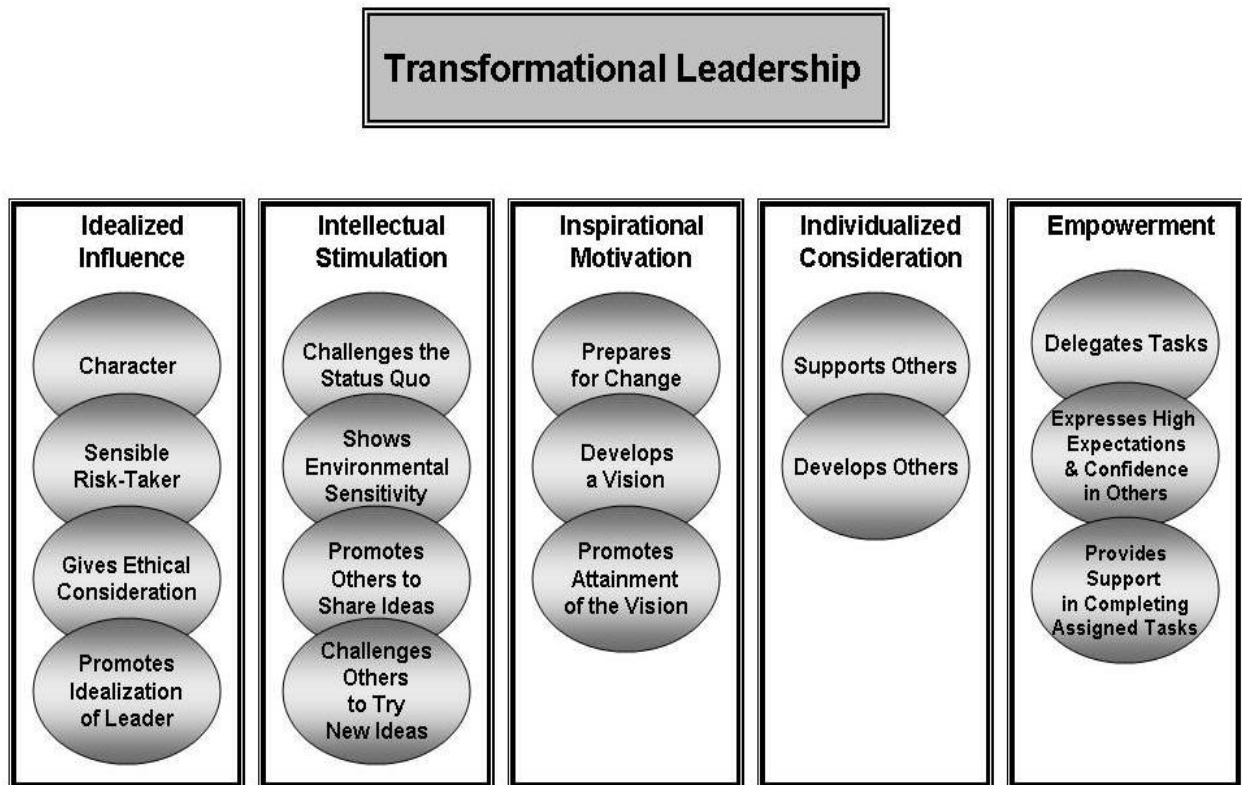
Figure 1: Conceptual Framework for Transformational Leadership

A leader's model character can be expanded to address expression of self-determination (House, 1977), honesty, and openness (Alimo-Metcalfe & Alban-Metcalfe, 2005), as well as sensible risk-taking when there is not a 100% likelihood of success (Conger & Kanungo, 1994; Sashkin & Sashkin, 2003). It has been found that followers paired with leaders that demonstrate sensible risk-taking reflect this characteristic by demonstrating their own sensible risk-taking (Chatman & Cha, 2003; Cummings & Huse, 1989; Hasenfled, 1983; King & Anderson, 1995), providing evidence of the cascading effect of transformational leadership. Furthermore, in addition to addressing whether the leader has and articulates strong ethical convictions, researchers have also called for the inclusion of whether the leader emphasizes the importance of

subordinates' beliefs and acts consistently by them (Bass & Avolio, 1990). Lastly, idealization of leader by gaining the trust of followers, beyond their respect and pride, has also been suggested as a feature of idealized influence (Sashkin & Sashkin, 2003; Yukl, 1999).

Whereas these components of idealized influence have widespread support, there are other dimensions of charisma that do not necessarily promote *positive* organizational change. Weber (1947) asserted that for charisma to exist, the setting must include "an extraordinarily gifted person, a social crisis or situation of desperation, a set of ideas providing a radical solution to the crisis, a set of followers who are attracted to the exceptional person and come to believe that he or she is directly linked to transcend powers, the validation of that person's extraordinary gifts and transcendence by repeated successes" (Trice & Beyer, 1986, p. 118-119). Other researchers disagree, however. First, creating a social crisis has not been found to be a critical antecedent for the cultural presence of charisma (Conger & Kanungo, 1988a, 1998; Shamir, House, & Arthur, 1993). Second, portraying a leader as heroic with "extraordinary" characteristics and "transcendent powers" is incompatible with the cascading effect of leadership and conflicts with transformational leaders priorities to empower and develop followers (Yukl, 1999). Furthermore, charisma, if coupled with self-serving or antisocial goals, may lead to what has been termed the dark side of charisma, with overly-loyal followership and little monitoring of value-consistent behavior (e.g.., Hitler and the Nazi regime). Shared leadership practices have been suggested as a way to combat this dark side of charisma. For instance, transformational leaders should delegate more authority to followers on important tasks, empower them to be self-confident and self-directed, and encourage constructive and supportive criticism from team members at all levels.

Overall, four themes emerged from the literature on idealized influence and were considered in the current study: character, sensible risk-taker, gives ethical consideration, and

promotes idealization of leader. The components elaborated by Weber (1947) were excluded as being inconsistent with other practices of interest.

While charisma or idealized influence is considered the most important component of transformational leadership (Bass, 1990), charisma alone is not sufficient by itself to account for the depth of the construct (Bass, 1985). Other components are considered in turn, along with additional means of countering the dark side of charisma.

Intellectual Stimulation. Creating intellectual stimulation is another important component of transformational leadership. In such environments, followers are included in identifying organizational goals and developing plans and procedures to attain those goals. To achieve this, leaders must create opportunities for innovation gathering and sharing among all individuals that have a vested interest in the organization. Generally, intellectual stimulation is composed of two interwoven parts that include the leader (1) demonstration of innovation through challenging the status quo and showing environmental sensitivity and (2) encouragement of innovation from followers by promoting others to try and to share new ideas.

The results of a study by Podsakoff et al. (1990) emphasize that it is important to encourage followers to challenge their own traditional ways of completing tasks and to include organization members in the process of finding solutions to common issues. Specifically, when followers are not included in finding innovative solutions to common problems, they perceive less emphasis on shared leadership. When followers perceive less sharing of leadership, they also experience less satisfaction with their leader and reduced trust. For these reasons, Yukl (1999) explicitly calls for the examination of whether leaders encourage followers to be creative problem solvers. Along these lines, Heifetz (1994) states that in order to promote innovation it is important to encourage dissenting views from followers. Therefore, leaders must include

followers not only in developing innovative ways to perform their own tasks, but also in moving the agency toward a culture of change and in improving the organization as a whole.

A leader's display of environmental sensitivity is an additional component of intellectual stimulation. Specifically, instead of the leader creating a crisis as would be recommended by Weber (1947), it is suggested that leaders evaluate the environment for innovative possibilities (Boal & Bryson, 1987; Conger & Kanungo, 1998; Yukl, 1999), including constraints and opportunities within and outside the organization (Conger & Kanungo, 1994). Through intellectual stimulation – rooted in leader knowledge of environmental opportunities and constraints, and demonstration and encouragement of innovation and creativity – followers are prompted to examine possibilities and contribute their own creative solutions to organizational problems (Avolio & Bass, 2004). In summary, four themes surfaced from the literature on intellectual stimulation: challenges the status quo, shows environmental sensitivity, promotes others to share ideas, and challenges others to try new ideas. Each of the four themes was considered within the current study.

Inspirational Motivation.   In addition to cultivating idealized influence and intellectual stimulation, transformational leaders also inspire others by articulating a vision for the organization's future. Providing a vision offers followers meaning and challenge to their individual organizational tasks (Bass & Riggio, 2006). With meaning, followers may internalize the values and goals of the organization (McClelland, 1975). With challenge, followers develop a variety of skills and become a part of the process of reaching organizational goals (Cascio, 1995). Articulating an organizational vision is one of the most consistently included components of transformational leadership. This component is associated with promoting innovation (Howell & Higgins, 1990; Pierson, 1994; Schin & McClomb, 1998) and positive employee attitudes (e.g., organizational commitment and satisfaction; Podsakoff, MacKenzie, & Bommer, 1996).

Articulating a vision is part of inspirational motivation, which also encompasses preparing followers for change and expressing optimism, enthusiasm, and confidence in reaching the vision (Avolio & Bass, 2004). Other theorists and researchers have addressed similar aspects of visionary leadership. First, it is important for the leader to express optimism in the organization's future and prepare followers for change by demonstrating a need for change (Kotter & Heskett, 1992), as well as being sensitive to the impact of change on followers (Alimo-Metcalfe & Alban-Metcalfe, 2005; Heifetz, 1994). Second, in addition to demonstrating confidence and enthusiasm for the vision, leaders should also express the vision with imaginative and emotion-provoking language (Cameron & Ulrich, 1986). Bennis and Nanus (1985) called the exciting presentation of the vision, "attention through vision." One way to promote a meaningful vision is by creating an image of how the organization will look once it has reached its all-inspiring goal(s) (Collins & Porras, 1994).

Once the stage is set for change and the broad vision established, the challenge of attaining the vision must be addressed. Research on transformational leadership describes several strategies for promoting attainment successfully. First, most successful visions are clear, strategically planned, and feasible. An unambiguous vision stimulates a common purpose, raising self-esteem in followers, and providing followers more clear direction toward the organizational goals (Hackman, 1986; Raelin, 1989). Likewise, if there are steps and strategies to reach the goals, followers can more readily participate in that pursuit (Kotter & Heskett, 1992). Additionally, it is important that goals be expressed in a workable mission that is challenging yet not impossible. Goals that are seen as unattainable decrease motivation (Cummings & Worley, 2001).

Second, transformational leaders can show their own commitment, and compel followers to embrace the vision, through their own actions. One way that leaders can show commitment is

by actively modeling the values that underlie the vision (Bennis & Nanus; 1985). Being an appropriate example greatly influences trust and reduces role conflict (Podsakoff et al., 1996). Commitment can also be demonstrated by building support for the organizational vision from outside sources (Roberts, 1988; Yukl, 2002). Leaders should network with external sources to obtain necessary resources, information, and cooperation, and to negotiate agreements in the interest of resolving potential conflicts (Yukl, 1999).

Third, transformational leaders should involve organizational members in the process of developing vision and then promote members' involvement in pursuing the shared vision. Including members of the organization in the change process is very similar to shared leadership. Not only are shared visions between leaders and followers more successful (Tichy & Devanna, 1986), they have other positive organizational correlates. Shared ideas of the future ensure that the needs of the members are being met and coincide with the projected goals and outcomes resulting in fewer reports of employee intentions to leave the job (Vancouver & Schmitt, 1991). Indeed, if the vision matches the values and morals of the followers, they will be more committed to the leader (King & Anderson, 1990) and to group performance (Barling, Loughin, & Kelloway, 2002). Likewise, a transformational leader should promote cooperation among organizational members (Bennis & Nanus, 1985; Podsakoff et al. 1990; Tichy & Devanna, 1986), which can be achieved through building group identification and collective self-efficacy (Yukl, 1999).

In summary, three themes emerged from the literature on inspirational motivation: prepares for change, develops a vision, and promotes attainment of the vision. All three were examined within the current study to explore this central aspect of transformational leadership.

Individualized Consideration. The preceding discussion focuses on components of transformational leadership that are aimed at the organization and collective functioning of the

members. But to be effective, leaders must also acknowledge the individual contributions of followers and take into consideration their needs, strengths, and limitations, in order to develop their potential and to most effectively utilize them to achieve organizational goals.

Individualized consideration is the final component of traditional conceptualizations. Its key aspects are (1) support and caring for followers and (2) promotion of followers' professional development. Overall supportive leadership is comprised of identifying needs, desires, and feelings of others, as well as treating them with respect and dignity. Developmental leadership builds strengths, provides learning opportunities, and offers coaching and training as needed.

Findings regarding individualized consideration have been mixed. In particular, supportive leadership (e.g. considerate of individual needs and desires) and developmental leadership (e.g. providing growth opportunities) appear to have different relationships to outcomes. Supportive leadership has only a weak effect on followers motivation (Bass, 1990; Yukl, 2002) and has not been found to be related to innovation (Schin & McClomb, 1998), affective or continuance commitment, self-efficacy, or helping behavior (Rafferty & Griffin, 2004). Other studies however have found a positive connection between supportive leadership and organizational factors, such as followers – expressed negative emotional reaction to organizational change. According to Rafferty and Griffin (2006), supportive leadership is associated with followers' expression of less frequent change, more planned change, and less psychological uncertainty.

In contrast to supportive leadership, developmental leadership receives wide approval because it has been associated with the enhancement of skills and expression of self-efficacy. This development is facilitated by coaching, training opportunities, and helping followers harness their strengths. Bass and Riggio (2006) believe that developmental opportunities enhance commitment and task competency. They suggest that development is "at the heart of

transformational leadership…with much of this occurring through effective empowering of followers by leaders" (p. 193). Based on the literature that suggests seemingly different correlates for supporting others and developing others, both themes were examined separately in the current study.

Empowerment. While empowerment is viewed by some as a core component of transformational leadership (Behling & McFillen, 1996; Kouzes & Posner, 1987; Podsakoff et al., 1990; Yukl, 1999), it is not consistently included in the conceptualization and measurement. Reluctance may stem from negative side effects presumed of empowerment, such as social loafing and groupthink. Such effects, however, can be offset by other positive transformational leadership practices. Specifically, the engagement of followers through intellectual stimulation (e.g., open-minded and inquisitive decision making) and inspirational motivation (e.g., vision development; Avolio & Bass, 2004) promote active dialogue on program change and improvement.

Empowerment is a middle position between authoritarian leadership on one end of a continuum and total relinquishment of power (laissez-faire leadership) on the other. Achieving this balance between power and autonomy involves monitoring follower progress continuously and providing appropriate support and redirection when needed. If an appropriate balance is maintained, empowerment can offset the potential effects of strong charismatic leadership by discouraging dependency and unquestioning loyalty (Kark, Shamir, & Chen, 2003). Once achieved empowerment helps to promote positive organizational outcomes, including higher innovation, organizational learning, and less turnover (Spreizer, 1995). Empowerment also relates to individual self-efficacy beliefs and intrinsic task motivation (Rafferty & Griffin, 2004).

As addressed by theorists and researchers, measures of empowerment can encompass (1) opportunities to engage in shared leadership tasks that are meaningful and promote learning, (2)

high performance expectations, along with trust and confidence in followers, and (3) support to complete the delegated tasks. More importantly, transformational leaders engage followers in shared leadership by delegating tasks. Consistent with the influence mechanism of transformational leadership (i.e., the internalization of tasks), empowering leaders take special care to delegate tasks that are important (Peters & Waterman, 1982), and meaningful (Bennis & Nanus, 1985; McClelland, 1975; Tichy & Devanna, 1986), and if possible confer tasks that enhance learning and facilitate growth within the organization (Kuhnert & Lewis, 1987).

Next, empowering leaders set high performance expectations for their followers, and encourage followers to initiate and pursue tasks on their own. Equally important is displaying confidence that followers can perform and complete tasks. Specifically, when leaders do not express confidence in their followers there is lower trust in the leader, even when high performance expectations are conveyed (Podsakoff et al., 1990).

Finally, leaders support the completion of delegated tasks. An empowering leader is one that shares power (i.e., resources, information, feedback, authority) and conveys support to the follower, whereas a laissez-faire leader is one that withholds or does not make necessary resources available and/or insufficiently monitors progress toward completion of delegated tasks. It is important for a transformational leader to make a behavioral distinction between a laissez-faire approach and empowerment. Empowerment is related to higher reciprocal trust and self-efficacy among followers, whereas laissez-faire leadership has an opposite effect (Bass & Riggio, 2006). In summary, three themes surfaced from the literature on empowerment, specifically, delegates tasks, expresses high expectations and confidence in others, and provides support in completing assigned tasks. Each of these themes was considered within the current study.

Current Study

Given the current standing of the substance abuse treatment field where there are rapid changes, it has become clear that there is a need for a type of leadership that will promote innovation, challenge the status quo, and empower followers to take on tasks and find creative solutions. Transformational leadership has been shown to create an environment that is willing to adapt, ready for change, and innovative. Transformational leadership can impact adoption and implementation of EBPs (Aarons, 2006), and other organizational outcomes such as staff turnover intentions (Bycio, Hackett, & Allen, 1995; Martin & Epitropaki, 2001; Vandenberghe, Stordeur, & D'hoore, 2002).

Transformational leadership has been explored within the substance abuse treatment field (Aarons, 2006; Edwards, Knight, Broome, & Flynn, 2007), but these studies do not provide examination of domains or themes within each domain. Responding to the need for a comprehensive measure of transformational leadership for application within substance abuse treatment settings, the current study developed the Survey of Transformational Leadership (STL). The STL supplements other related measures by including items aimed at addressing more specific conceptual themes within each leadership domain. Examination of themes within each domain enables closer examination of the extent to which leaders demonstrate specific transformational practices and allows for development of training protocols aimed at enhancing each leadership style within the field of substance abuse treatment.

Aims. Three specific aims were addressed within the current study. The first aim was to develop a comprehensive measure of transformational leadership with good validity and reliability. To ensure the comprehensiveness of the STL, item content was derived through the preceding literature review of major theories, instruments, and critiques. In order to establish the validity and reliability of the STL, two field studies were conducted: (1) a qualitative evaluation

was designed to determine instrument utility and (2) a quantitative evaluation was designed to examine the psychometric properties of the instrument, including tests of internal consistency and convergent validity. Findings from the qualitative study were used to modify the STL prior to implementation of the quantitative study.

The second and closely related aim was to examine potential distinctions among themes within key components of transformational leadership, and to examine it as a global construct. To accomplish this goal, two stages of analyses were conducted (1) a first-order analysis on each domain and (2) a second-order analysis on the resulting first-order factors.

The third aim was to gain insight into leadership practices commonly used within the substance abuse treatment field. The average scores for each of the scales established in the factor analysis was used to provide preliminary information on staff perceptions in how frequently leaders demonstrated transformational leadership themes.

Methods

Qualitative Study: Field Input

As part of the STL instrument development, 3 separate focus groups were conducted to evaluate item wording and utility of the STL for the substance abuse treatment field. Focus group 1 and 2 represented staff and leaders, respectively, from the same parent organization (different treatment sites under the oversight of the same parent organization) and focus group 3 represented leaders from another parent organization. Counseling staff and leaders were kept separate to ensure confidentiality of comments and commonality of organizational roles within groups.

Participants

Participants for the qualitative study included 6 staff members and 4 directors from 2 outpatient substance abuse treatment organizations in the Gulf Coast region. Focus group 1

consisted of 6 staff members representing two program sites within the same parent organization: 2 contractual counselors, 2 full-time counselors, and 2 administrative staff members. The program director and clinical director from this parent organization were interviewed in a separate meeting from the staff (focus group 2). Focus group 3 was held with the program director and clinical director from the second parent organization representing three program sites.

Procedure

Program directors from two parent organizations were contacted about possible participation in a field input study and received information on study aims, confidentiality, and incentives for participation. After agreeing to participate, three meetings were scheduled, one meeting with the program staff and two separate meetings with the directors from the parent organizations. Participants were told of the general purpose of the study: to examine the appropriateness and application of the STL in outpatient substance abuse treatment programs. Staff members were encouraged to share general issues facing the typical outpatient program regarding leadership style and were discouraged from discussing particular behaviors of their program leadership. Participants were assured that the comments made in the discussion would be addressed in a collective manner, no identifiable information would be presented in any scientific report, and no feedback report would be provided to any member of the program. Each participant completed a signed consent form (see Appendix B-1). Lunch and a tote bag were provided as compensation for participation. Staff members and directors provided (1) feedback on the utility of the STL within the field of substance abuse treatment, (2) information on which job positions (i.e., program versus clinical director) generally perform the leadership functions addressed in the survey (3) suggestions for clarifying survey item wording, (4) identification of

additional leader behaviors that should be added to the survey, and (5) preferences for methods of survey administration and compensation.

Qualitative Findings

First, participants were asked to provide their general thoughts on the use of the STL to assess program leadership within outpatient substance abuse treatment programs. The general consensus was that leadership practices should be measured within the field and that the STL could be used to address these behaviors. One director stated that the main determinant of whether or not staff members stay with a program is their interaction with program leadership. More specifically, program leadership practices set the organizational climate for the staff.

Second, focus group members were asked to note any leadership behaviors assessed by the questionnaire that are not performed by leadership in a typical program and to provide insight into which managerial staff member generally performs each of the behaviors (i.e., the program director, the clinical director, both the program and clinical director, or neither the program or clinical director). Overall, the focus group members reported that each survey item is performed by various leaders within outpatient treatment programs and that a majority of the items are performed by both the program and clinical director. In order to study staff perceptions of leadership style in a meaningful way, participants concluded that one leader should be identified from each program as the primary person to be rated. Members recommended designating the clinical director because, in the majority of programs, that individual has the most direct interaction with counselors. Owing to program variation in job titles, it was suggested that a job description (i.e., the person with direct supervision of clinicians/counselors) be used to help determine the specific leader to be rated rather than a job title (i.e., clinical director).

In the presence of a multi-layer management structure (i.e., potentially involving a parent organization leader, program director, clinical director, and lead counselor) performance of

leadership tasks may overlap and program leaders may involve other staff members in performing leadership functions. Focus group members expressed a need to determine if the individual performing leadership tasks was doing so in isolation or as a part of a leadership team. Based on this feedback, a scale was developed to examine staff involvement in performing leadership activities.

Third, the focus group members were asked to identify any survey item needing wording revision or clarification for the field of substance abuse treatment. Fourteen items were identified as needing potential revision, most involving minor changes. Four of the items included the term "risk," based on common terminology found in transformational leadership theories (Conger & Kanungo, 1987). "Risk" in the substance abuse treatment field has negative connotations including the suggestion of ethical violations and "risky" behavior associated with addiction. Subsequently, these 4 items were changed to state either "appropriate risk" or "personal chances."

Fourth, the participants were asked if any additional items/topics needed to be included in the survey. Three items were suggested for inclusion. Members of the focus group voiced the importance of program leaders modeling appropriate behaviors (2 items added) and including staff in identifying ways to implement new program goals (1 item added).

Finally, members were asked about projected time needed for survey completion, as well as preferences for survey administration and incentives. Members stated that 30 minutes would be ample time to complete the questionnaire battery. A general preference was voiced in completing the survey via paper-pencil rather than online. They also agreed that having an opportunity to enter a regional raffle would serve as a good incentive to participate. The protocol for field testing was modified based on feedback from the 3 focus groups.

Quantitative Study: Field Testing

Participants

Participants for the quantitative study were surveyed from substance abuse treatment programs currently involved in the Treatment Cost and Organizational Monitoring (TCOM) project. The TCOM project includes programs in 4 geographic regions, allowing for a diverse representation of Outpatient Drug-Free (ODF) Treatment within the United States. Programs are located in Idaho, Oregon, and Washington (Northwest); Louisiana and Texas (Gulf Coast); Florida (Southeast); and Illinois, Ohio, and Wisconsin (Great Lakes).

In total, 87 programs were contacted and asked to participate. Of the 87 programs, 16 (18%) chose to not participate due to previous commitments with other research endeavors or significant program changes. Of the 71 remaining programs, the research team felt that 4 should be consolidated with other programs within their same parent organization, due to an overlap in staff and leadership responsibilities between sites. An additional 10 programs (11%), although agreeing to participate initially, were unable to allocate time for staff to complete surveys. Therefore, a total of 57 programs participated in the current study, accounting for 70% of the eligible programs.

At the regional level, 9 programs participated (29 staff) from the Northwest, 16 programs (43 staff) from the Gulf Coast, 14 programs (49 staff) from the Great Lakes, and 18 programs (92 staff) from the Southeast. Overall, 213 staff forms were returned.

As indicated in Table 1, the staff members that participated were mostly female (64%), white (73%), had obtained a bachelor's degree or higher (64%), and averaged thirty-nine years of age. A majority reported working in the treatment field for a minimum of 3 years (65%) and

Table 1

Staff Characteristics (in Percent)   n = 213

Female	63.50
Race	
White	73.13
Highest Degree	
No high school diploma or equivalent	0
High school diploma or equivalent	2.86
Some college, but no degree	15.71
Associate's degree	16.19
Bachelor's degree	24.29
Master's degree	38.57
Doctorate degree or equivalent	1.43
Certification	
Not certified or licensed in addiction	23.90
Currently certified or licensed	61.46
Intern	12.68
Years in Addiction Field	
0-6 months	8.17
6-11 months	5.29
1 to 3 years	21.15
3 to 5 years	14.90
Over 5 years	50.48
Years in Present Position	
0-6 months	16.59
6-11 months	12.80
1 to 3 years	31.28
3 to 5 years	17.06
Over 5 years	22.27
Relative Rank to Leader	
Higher	4.64
Same	12.37
Lower	82.99
Leader's Management Rank	
Upper	51.56
Middle	41.15
Lower	7.29
Caseload	
0	6.80
1-30	61.16
31 or more	31.92
Average Age	39.32 (SD = 11.77)

within their current job position for at least 1 year (70%). Most staff members were currently certified within the addiction field (61%). Almost two-thirds had a caseload of 1 to 30 clients (61%) and almost one-third had 31 or more clients (32%). Staff members on average subjectively ranked themselves at a lower organizational level than their selected leader (83%) and perceived their leader as either holding an upper level management position (52%) or a middle management position (41%).

The selected leaders were asked to complete a background questionnaire. The leaders were predominantly female (61%), white (78%), had obtained an advanced degree (Master's or Ph.D.; 62%), and averaged 40 years of age. The selected leaders had been within the treatment field (89%) and in their current leadership position (44%) for at least 5 years.

Procedures

Agency primary contacts were asked via e-mail or phone about potential participation after receiving information on the data collection procedures and incentives. Once an agency opted to participate, the primary contact was asked to provide the specific title of the individual within the program that has "direct supervision of clinicians/counselors" and the number of staff members with direct client contact serving under that individual.

Staff members with direct client contact and the selected leader were mailed a packet including: a consent form, a cover letter and questionnaire, a raffle entry form, and separate postage-paid envelopes to return the completed survey and the raffle entry form. The passive consent form explained the general purpose, confidentiality, and voluntary nature of the study (Appendix A-2). Participants were asked not to place their name on the survey form. Furthermore, they were informed that the data would be analyzed in aggregate form, that no program or individual would be identified in any scientific report, and due to the exploratory nature of the study that no feedback report would be provided to the program. Participants also

were reminded of the study aims, specifically, "investigating leadership practices that are typically used within the outpatient substance abuse treatment programs."

Each staff member was provided a program specific cover letter that clearly identified, by title, the individual who would be rated. Because program leaders may hold multiple roles or serve in more than one program, participants were asked to limit the consideration of their responses to the leadership style demonstrated by the leader at the specific program and for the title identified on the cover page.

Respondents were then asked to complete a 152 item questionnaire with an average completion time of 30 minutes (determined by the qualitative field study). While leaders were asked to complete the survey, only their background information was used in the present study.

The questionnaire included the Survey of Transformational Leadership (STL; 84 items); the transformational leadership and contingent reward scales of the Multifactor Leadership Questionnaire (MLQ; 24 items; Bass & Avolio, 1997); the Behling & McFillen (1996) scales on assuring followers of competence and providing opportunities to experience success (6 items); the occupational burnout, job satisfaction, and staff background items from the Survey of Organizational Functioning (SOF; 26 items); the team leadership scale, and items on use of contingent reward (each 6 items). Each participant who completed the survey was entered into a raffle for a chance to win one of four $25 or one of two $50 gift certificates awarded by region. The raffle drawings were held at the survey deadline, 45 days after field distribution.

Measures

The current study examined only items from the STL, MLQ, ALBQ, team leadership scale, and background characteristic from the SOF. All other items will be considered in future studies.

Survey of Transformational Leadership (STL). Discussion from a number of empirical/literary sources, presented in the literature review, formed the foundations for the STL. The items were developed to best represent the substance abuse treatment field. In total, the STL began with 84 items representing 5 domains and that divide further into 16 total conceptual themes. Idealized Influence was comprised of 19 items and included 4 themes: character, sensible risk-taking, gives ethical consideration to actions, and promotes followers' idealization of leader. Intellectual Stimulation was comprised of 16 items and included 4 themes: challenges the status quo, shows environmental sensitivity, promotes others to share ideas, and challenges others to try new ideas. Inspirational Motivation was comprised of 24 items and included 3 themes: prepares for change, develops a vision, and promotes attainment of the vision. Individualized Consideration was comprised of 8 items and included 2 themes: supports others and develops others. Empowerment was comprised of 17 items and included 3 themes: delegates tasks to others, provides support in accomplishing assigned tasks, and expresses high performance expectations along with confidence in others.

Staff members responded to a stem stating, "The person I am rating" performs a certain leadership practice. Items were rated using a 5-point Likert scale indicating how frequently the selected leader engaged in the behavior in question; 0=not at all, 1=once in a while, 2=sometimes, 3=fairly often, and 4=frequently, if not always. Items phrased in the negative were reverse coded for analysis. A score of 0 implies that the leader does not demonstrate the leadership practice and a score of 4 suggests that the leader performs the action with great frequency, if not in most situations. Leaders that received scores above 3.0 are perceived by their followers as performing transformational leadership practices with great frequency.

Following factor analyses (see results), composite measures for each leadership domain and conceptual theme were created by taking the average score for the items by domain or theme. See Appendix B for the revised STL scoring guide.

Multifactor Leadership Questionnaire (MLQ). The MLQ 5X (Bass & Avolio, 1995) is a 36-item instrument addressing transformational leadership, transactional leadership, and passive/avoidant leadership. The present assessment battery included only the items within the 5 transformational leadership domains. A sample item for the Idealized influence (8 items) domain includes "goes beyond self-interest for the good of the group." A sample item for the Inspirational motivation (4 items) domain includes "talks optimistically about the future." A sample item for the Intellectual stimulation (4 items) includes "re-examines critical assumptions to question whether they are appropriate." A sample item for the Individualized Consideration (4 items) includes "spends time teaching and coaching." Avolio, Bass & Jung (1999) reported scale reliability scores at or above .79.

Respondents were asked to mark how frequently the statement fit the person indicated using a 5-point Likert scale (0= not at all, 1= once in awhile, 2= sometimes, 3= fairly often, and 4= frequently, if not always). A composite measure of each domain was created by taking the average score for the items by domain. The current version of the MLQ does not include items that examine themes within each domain.

Attributes of Leader Behavior Questionnaire. Two scales from the Attributes of Leader Behavior Questionnaire (ALBQ; Behling & McFillen, 1996) were also included. The first scale assesses whether the leader assures followers of competency (3 items, including "tells the follower that he/she believes in them"). The second scale evaluates the extent to which the leader provides followers with opportunities to experience success (3 items, including "gives followers opportunities to accomplish things on their own"). Behling and McFillen (1996) reported alpha

coefficients at or above .79. The rating scale and item stem were modified to match the STL and MLQ scales.

Survey of Organizational Functioning. The TCU Survey of Organizational Functioning (SOF; Lehman, Greener, & Simpson, 2002) measures background information, program resources, staff attributes, organizational climate, job attitudes, and workplace practices. Two job attitude scales (i.e., job satisfaction and burnout) were included in the assessment battery. However, only the background information was retained in the present study.

Items included age, gender, race, highest degree status, addiction field certification status, years of experience within the field and in the present position, and caseload. Three additional items were added to assess the participant's current job position(s), the management rank of the selected leader, and the relative rank of the staff member to the selected leader. See Appendix C for staff background items.

Team Leadership. Shared leadership is partially addressed within the inspirational motivation domain (i.e., "encourages staff feedback in choosing new program goals") and the empowerment domain (i.e., "provides opportunities for staff members to take primary responsibility over tasks"). But in response to feedback from the field input study, a more extensive measure of team leadership was developed and explored. Six items were written to examine the extent to which directors within the substance abuse treatment field perform leadership tasks in isolation versus as a part of team. They used a rating scale and item stem identical to the STL and MLQ scales. Sample questions addressed staff members perception of how frequently the selected leader "performs leadership functions as a part of a leadership team" and the extent to which the selected leader "involves other staff members in performing leadership actions."

Although the Multifactor Leadership Questionnaire for Teams (MLQT; Bass & Avolio, 1996) examines shared leadership, the focus is on providing a glimpse of the extent to which the team is practicing the dimensions of transformational leadership (e.g., inspiring, innovative, supportive), with the unit of analysis as the team (Avolio, Jung, Murry, Sivasubramanam, & Garger, 2002). The MLQT was not administered, because of the distinction in conceptual focus between the MLQT and the aim of the current study.

Analytical Procedures

Analysis of the STL occurred in two stages: (1) first-order analysis on the STL domains and (2) second-order analysis on transformational leadership, as a whole. Given the lack of consistency in the factor structure of leadership measures and the current aim of validating a new instrument, it was decided that exploratory factor analysis would be more appropriate than confirmatory factor analysis. Separate exploratory factor analyses were conducted within each of the 5 first-order conceptual domains. The decision to assess the 84 STL items by domain was based on the suggestion that for parameter estimation that the sample be 5 times the number of items (Bryant & Yarnold, 1995). The factor structure of each first-order and second-order factor was determined in two phases: (1) principle component analysis and (2) maximum likelihood factor analysis procedures.

Principle component analysis (PCA) was used to help establish the number of components extracted from the data. The most suitable solution for number of components extracted was based on (1) the Kaiser Criterion: requiring an eigenvalue greater than 1.00 and (2) interpretability with regard to transformational leadership theory.

Once the number of factors to extract was determined, maximum likelihood (ML) factor analysis was then performed separately on each first-order STL domain, in order to provide a better estimate of the parameters. ML factor analysis also provides additional statistical

information, including confidence intervals, a significance test to assist in determining the number of factors to retain, and the Tucker-Lewis (1973) goodness-of-fit index to measure how well the factor structure accounts for the sample variance and covariances. Because the chi-square test is sensitive to sample size (especially over 200; Joreskog & Sorbom, 1986; Marsh, Balla, & McDonald, 1988), the current study relied upon the TLI as the primary index of model fit. The resulting factor matrices were rotated to the Varimax criterion, which helped make the factors as distinctive as possible. An item was retained in the factor when (1) the confidence interval for the item covered a region of values larger than the specified criterion value (i.e., .4; SAS Institute Inc. 2004) and (2) the item was consistent with the conceptual meaning of the high loading items on the specified factor. Each factor needed to fulfill the recommendation that there be at least 3 items per factor (Kim & Mueller, 1978). The label for each of the first-order factors was determined by the content from the high-loading items in those factors.

Once the first-order factors for the STL were established, a second-order factor analysis was conducted to examine: (1) the relationship between the first-order factors and (2) the potential presence of a second-order factor in ratings of directors. The second-order factor loadings were estimated based on composite scores corresponding to each of the first-order factors. Following the factor analyses, reliability (using coefficient alpha) and validity (using correlations with MLQ and ALBQ scores) were examined for each of the measures developed.

Results

First-Order Analysis of STL Domains

In total, the 5 factor analyses resulted in 9 first-order leadership factors: a single component for Inspirational Motivation and a 2 component structure for the other four domains. Based on a confidence interval of .4 and item-factor meaningfulness, all items, except 1 from the intellectual stimulation domain, were retained in the development of the first-order factors. The

factors, along with item means, standard deviations, and factor loadings, are presented in Tables 2 – 6. The bold numbers represent the highest factor loading per item. Correlation matrices among the first-order factors appear in Appendix D.

Domains

Idealized Influence. The PCA identified two dimensions within idealized influence (eigenvalues 11.01 and 1.58); the ML factor analysis with two factors yielded a TLI value of .91 (Table 2). The first factor labeled Integrity accounted for 23% of the variance in the Varimax rotation of idealized influence (13 items). The second factor labeled Sensible Risk accounted for 15% of the variance (6 items). The overall pattern of results suggest that Integrity encompasses 3 themes of idealized influence: character, gives ethical consideration, and promotes idealization of the leader and that Sensible Risk reflects sensible risk-taking and promotion of program interests over personal interests (e.g., "performs tasks other than own, when necessary, to fulfill program objectives").

Intellectual Stimulation. The PCA identified two dimensions within idealized influence (eigenvalues 8.95 and 1.16); the ML factor analysis with two factors yielded a TLI value of .95 (Table 3). Eight items loaded on the first factor which was subsequently called Encourages Innovation and accounted for 16% of the variance. The second factor labeled Demonstrates Innovation accounted for 12% of the variance (7 items).

The decision was made to remove one item from the intellectual stimulation domain due to ambiguous meaning with respect to the factors, resulting similar loadings on both (i.e., .651 and .550). Specifically, "turns challenges into opportunities," was initially conceptualized as part of the Demonstrates Innovation factor but subsequently loaded on the Encourages Innovation factor as well. In summary, the Encourages Innovation factor accounted for 2 conceptual themes:

promotes others to share ideas and challenges others to try new things. The Demonstrates

Innovation factor represents challenging the status quo and showing environmental sensitivity.

Table 2
First-Order Factors for Idealized Influence

				Rotated Factor Loadings	
Item No.	Item	Mean	SD	Integrity	Sensible Risk
76	is someone that staff members are proud to be associated with.	3.29	1.01	**.788**	.433
69	is trustworthy.	3.48	1.02	**.783**	.339
73	behaves in ways that strengthens respect from staff members.	3.04	1.14	**.777**	.441
53	acts consistently with values shared by program staff members.	2.91	1.09	**.751**	.425
37	considers the ethical implications of actions.	3.41	.89	**.731**	.275
64	keeps commitments.	3.32	.95	**.718**	.380
42	expresses values shared by program staff members.	2.86	1.07	**.699**	.476
47	encourages staff behaviors consistent with the values shared by all members.	2.86	1.07	**.697**	.421
16	is approachable.	3.31	1.08	**.646**	.387
82	models behaviors other staff are asked to perform.	2.95	1.12	**.644**	.426
1	shows determination on the job.	3.58	.69	**.616**	.462
94	shows self-confidence.	3.51	.76	**.515**	.310
10	does not display honesty. (R)	3.40	1.22	**.491**	-.097
17	takes appropriate personal risks in order to improve the program.	2.71	1.17	.309	**.797**
21	takes personal chances in pursuing program goals.	2.22	1.32	.125	**.789**
27	is willing to personally sacrifice for the sake of the program.	2.60	1.30	.348	**.762**
31	makes bold personal decisions, if necessary, to improve the program.	2.50	1.25	.237	**.653**
92	seeks program interests over personal interests.	2.99	1.01	.548	**.561**
88	performs tasks other than own, when necessary, to fulfill program objectives.	2.92	1.15	.514	**.530**
Variance Accounted for by Factor				23%	15%

TLI = .91
Chi-Square with 134 degrees of freedom = 314.84, p <.0001
(R) denotes items that have been reverse coded

Table 3
First-Order Factors for Intellectual Stimulation

Item No.	Item	Mean	SD	Rotated Factor Loadings Encourages Innovation	Rotated Factor Loadings Demonstrates Innovation
2	attempts to improve the program by taking a new approach to business as usual.	3.16	1.08	**.879**	.457
54	encourages ideas other than own.	2.89	1.17	**.820**	.357
59	is respectful in handling staff member mistakes.	3.05	1.15	**.762**	.247
48	positively acknowledges creative solutions to problems.	2.99	1.07	**.746**	.447
70	encourages staff to try new ways to accomplish their work.	2.94	1.12	**.731**	.421
81	asks questions that stimulate staff members to consider ways to improve their work performance.	2.93	.98	**.622**	.540
77	suggests new ways of getting tasks completed.	2.88	1.09	**.615**	.577
95	does not criticize program members' ideas even when different from own.	2.78	1.26	**.518**	.206
84	takes bold actions in order to achieve program objectives.	2.65	1.10	.306	**.772**
86	searches outside the program for ways to facilitate organizational improvement.	2.65	1.14	.387	**.682**
79	challenges staff members to reconsider how they do things.	2.74	1.03	.342	**.585**
28	identifies limitations that may hinder organizational improvement.	2.70	1.02	.345	**.581**
22	seeks new opportunities within the program for achieving organizational objectives.	2.82	1.09	.518	**.576**
11	tries ways of doing things that are different from the norm.	2.13	1.09	.198	**.508**
7	accomplishes tasks in a different manner from most other people.	2.63	1.01	.193	**.472**
38	turns challenges into opportunities. *	3.05	1.01	.651	.550
	Variance Accounted for by Factor			16%	12%

TLI = .95
Chi-Square with 89 degrees of freedom = 166.62, *p* <.0001
* Item removed from scale development

Inspirational Motivation. The PCA identified a single dimension within inspirational motivation (eigenvalue 15.42); the one-factor ML analysis yielded a TLI value of .89 (Table 4). The single Inspirational Motivation factor accounted for 45% of the variance across items and represents 3 themes: prepares for change, develops a vision, and promotes attainment of the vision.

Individualized Consideration. The PCA identified two dimensions within individualized consideration (eigenvalues 4.82 and 1.06); the ML factor analysis with two factors yielded a TLI value of 1.00 (Table 5). The Develops Others factor represents 5 items and accounted for 10% of the variance among the individualized consideration items. The Respects Others accounted for 7% of the variance and was represented by 3 items. Overall, the Develops Others represents identifying and responding to others' needs and desires and the Respects Others represents supporting others in their individual diversity.

Empowerment. The PCA identified two dimensions within empowerment (eigenvalues 9.75 and 1.31); the ML factor analysis with two factors yielded a TLI value of .93 (Table 6). The Task Delegation factor represents 14 items and accounted for 20% of the variance among the empowerment items. The Expects Excellence factor accounted for 10% of the variance and is represented by 3 items.

The overall pattern of results suggested that the Task Delegation factor measures 2 themes of empowerment: delegates tasks and provides support in accomplishing assigned tasks. The Expects Excellence factor reflects the leaders' expression of high expectations. The item measuring whether the leader "conveys confidence in staff members' ability to accomplish tasks" was initially conceptualized for the Expects Excellence factor and following factor analysis was subsequently considered and accepted for the Task Delegation factor.

Table 4 First-Order Factor for Inspirational Motivation

Item No.	Item	Mean	SD	Factor Loadings
46	clearly defines the steps needed to reach program goals.	2.87	1.10	**.879**
41	displays confidence that program goals will be achieved.	3.07	.96	**.866**
43	expresses a clear vision for the future of the program.	2.91	1.13	**.866**
75	expresses confidence in staff members' collective ability to reach program goals.	3.12	1.05	**.854**
71	promotes teamwork in reaching program goals.	3.08	1.09	**.850**
52	helps staff members see how their own goals can be reached by pursuing program goals.	2.65	1.23	**.838**
91	behaves consistently with program goals.	3.28	.98	**.838**
49	Sets attainable objectives for reaching program goals.	2.88	1.04	**.826**
57	demonstrates tasks aimed at fulfilling program goals.	2.79	1.13	**.826**
36	displays enthusiasm about pursuing program goals.	3.10	1.02	**.820**
89	encourages staff to share suggestions in how new program goals will be implemented.	2.95	1.11	**.820**
63	obtains staff assistance in reaching program goals.	2.99	.99	**.819**
12	conveys hope about the future of the program.	3.16	.94	**.790**
29	develops new program goals.	2.73	1.06	**.787**
23	considers staff needs when setting new program goals.	2.80	1.17	**.780**
83	prepares for challenges that may result from changes in the program.	2.91	1.07	**.769**
39	uses metaphors and/or visual tools to convey program goals.	2.42	1.30	**.759**
15	communicates program needs.	3.12	.95	**.755**
26	encourages staff feedback in choosing new program goals.	2.62	1.20	**.747**
33	talks about goals for the future of the program.	2.79	1.18	**.730**
60	allocates resources toward program goals.	2.74	1.16	**.701**
3	makes staff aware of the need for change in the program.	3.22	.90	**.697**
66	secures support from outside the program when needed to reach program goals.	2.71	1.11	**.663**
19	identifies program weaknesses.	2.74	.99	**.661**
	Variance Accounted for by Factor			45%

TLI = .89

Chi-Square with 252 degrees of freedom = 522.62, $p < .0001$

Table 5
First-Order Factors for Individualized Consideration

| | | | | Rotated Factor Loadings | |
Item No.	Item	Mean	SD	Develops Others	Respects Others
61	takes into account individual abilities when teaching staff members	2.97	1.01	**.778**	.373
50	offers individual learning opportunities to staff members for professional growth.	2.92	1.17	**.742**	.289
85	recognizes individual staff members' needs and desires.	2.77	1.14	**.720**	.509
87	assists individual staff members in developing their strengths.	2.76	1.09	**.717**	.084
67	coaches staff members on an individual basis.	2.82	1.15	**.569**	.484
13	treats individual staff members with dignity and respect.	3.24	1.04	.501	**.740**
4	treats staff members as individuals, rather than as a collective group.	3.28	.99	.443	**.689**
34	does not respect individual staff members' personal feelings. (R)	3.25	1.14	.064	**.595**
	Variance Accounted for by Factor			10%	7%

TLI = 1.0
Chi-Square with 13 degrees of freedom = 14.1, p = .3672
(R) denotes items that have been reverse coded.

Table 6
First-Order Factors for Empowerment

Item No.	Item	Mean	SD	Rotated Factor Loadings Task Delegation	Rotated Factor Loadings Expects Excellence
20	delegates tasks that provide encouragement to staff members.	2.52	1.16	**.795**	.189
40	follows delegation of a task with support and encouragement.	2.75	1.13	**.789**	.293
96	helps staff members set attainable goals to accomplish work tasks.	2.88	1.07	**.785**	.297
25	delegates tasks that build up the organization.	2.50	1.19	**.745**	.226
62	provides information necessary for task completion.	3.03	1.05	**.744**	.429
51	provides requested support for task completion.	2.84	1.12	**.739**	.337
68	provides feedback on progress toward completing a task.	2.91	1.08	**.733**	.345
56	allocates adequate resources to see tasks are completed.	2.50	1.21	**.717**	.317
5	provides opportunities for staff to participate in making decisions that affect the program.	2.90	1.12	**.671**	.285
45	sees that authority is granted to staff in order to get tasks completed.	2.74	1.14	**.670**	.351
30	assigns tasks based on staff members' interests.	2.54	1.16	**.638**	.284
93	Conveys confidence in staff members' ability to accomplish tasks.	3.21	.99	**.636**	.533
9	provides opportunities for staff members to take primary responsibility over tasks.	3.20	.91	**.525**	.392
35	enables staff to make decisions, within contractual guidelines, on how they get their work done.	2.83	1.13	**.470**	.408
80	expects that staff members will give tasks their best effort.	3.45	.79	.255	**.837**
72	expects excellence from staff.	3.25	.92	.189	**.675**
78	expects that members of the staff will take the initiative on completing tasks.	3.27	.88	.383	**.672**
Variance Accounted for by Factor				20%	10%

TLI = .93
Chi-Square with 103 degrees of freedom = 216.67, $p < .0001$

Scale Scoring and Validation

Table 7 displays the means, standard deviations, and reliability for the 9 first-order

leadership factors. The possible range of scores on the STL is 0 to 4. Expects Excellence

represented the highest mean score of 3.32 (SD = .74) and Demonstrates Innovation had the

lowest mean score of 2.61 (SD = .78).

Table 7
Cronbach Alphas, Means, and Standard Deviations for First-Order Factors

Theme	Cronbach A	Mean	SD
Idealized Influence			
Integrity	.95	3.23	.80
Sensible Risk	.89	2.66	.99
Intellectual Simulation			
Encourages Innovation	.92	2.95	.89
Demonstrates Innovation	.86	2.61	.78
Inspirational Motivation	.97	2.89	.85
Individualized Consideration			
Respects Others	.78	3.26	.88
Develops Others	.89	2.85	.92
Empowerment			
Task Delegation	.89	2.81	.87
Expects Excellence	.95	3.32	.74

Internal Consistency. The reliability for all first-order STL factors met or exceeded

Nunally's (1978) recommendation of .70 for newly developed scales. The alpha coefficient

scores ranged from .78 (Respects Others) to .97 (Inspirational Motivation). The high coefficients

support the conclusion that the STL reliably measures the first-order transformational leadership

practices in the current form.

Convergent Validity.   The means, standard deviations, and reliability for the MLQ and

ALBQ factors are reported in Table 8. The reliabilities ranged between .92 (Inspirational

Motivation) and .88 (Individualized Consideration) for the MLQ factors and were .89 (Provides

Opportunities for Success) and .94 (Assures Competency) for the ALBQ factors, showing good

internal consistency for the validation measures.

Table 8
Cronbach Alphas, Means, and Standard Deviations for Validation Factors

Domain	Cronbach α	Mean	SD
MLQ			
Idealized Influence	.90	2.95	.84
Intellectual Stimulation	.89	2.73	.92
Inspirational Motivation	.92	3.02	.92
Individualized Consideration	.88	2.76	1.06
ALBQ			
Provides Opportunities for Success	.89	2.94	.98
Assures Competency	.94	2.87	1.09

The following is a list of the behaviors measured by the STL and in parentheses are the

factors of the MLQ and ALBQ which are similar in conceptual meaning: (1) Integrity (MLQ

Idealized Influence), (2) Sensible Risk (MLQ Idealized Influence), (3) Encourages Innovation

(MLQ Intellectual Stimulation), (4) Demonstrates Innovation (MLQ Intellectual Stimulation),

(5) Inspirational Motivation (MLQ Inspirational Motivation), (6) Respects Others (MLQ

Individualized Consideration), (7) Develops Others (MLQ Individualized Consideration), (8)

Task Delegation (ALBQ Provides Opportunities for Success), and (9) Expects Excellence

(ALBQ Assures Competency). Table 9 contains the correlations between the STL first-order

factors and the MLQ factors. The bold numbers represent the correlations between the STL

factor and the corresponding MLQ domain.

Table 9
Correlation Matrix for STL and MLQ Scales

	Idealized Influence	Intellectual Stimulation	Inspirational Motivation	Individualized Consideration
Integrity	**.862**	.766	.773	.855
Sensible Risk	**.831**	.790	.782	.694
Encourages Innovation	.848	**.864**	.781	.849
Demonstrates Innovation	.746	**.783**	.731	.613
Inspirational Motivation	.881	.867	**.882**	.789
Respects Others	.690	.646	.610	**.741**
Develops Others	.836	.846	.783	**.874**

All correlations significant at .001 level
Note: Correlations in bold represent the highest value per row.

In all cases the correlation between the STL factor and corresponding MLQ domain are higher than between the STL factor and the non-corresponding MLQ domain. The highest correlation was between the STL Task Delegation and the ALBQ Provides Opportunities for Success ($r = .86$); the lowest correlation was between the STL Expects Excellence and the ALBQ Assures Competency ($r = .50$). These correlations provide evidence of convergent validity for the STL first-order factors, with existing measures of the key constructs.

Second-Order Analysis of Transformational Leadership

Composite scores for each of the 9 first-order factors were used as the basis for conducting the second-order analysis. Principle components analysis extracted a single component (eigenvalue = 7.00), termed Transformational Leadership.

Maximum likelihood factor analysis was used to estimate the second-order factor loadings (Table 10). The total variance accounted for by the 9 first-order factors was 57% (TLI = .87). Factor loadings were used to indicate how the second-order factor contributes to each of the first-order factors. The factor loadings suggested that the second-order analysis contributed the most to interpretation of the Task Delegation (.98) and Inspirational Motivation (.96) factors and the least to the Expects Excellence factor (.67).

Table 10
Transformational Leadership Second-Order Factor

Theme	Factor Loadings
Task Delegation	.975
Inspirational Motivation	.956
Develops Others	.944
Encourages Innovation	.942
Integrity	.907
Sensible Risk	.839
Demonstrates Innovation	.795
Respects Others	.736
Expects Excellence	.668
Variance Accounted for by Factor	57%

TLI = .87
Chi-Square with 20 degrees of freedom = 267.198, $p <.0001$

The intercorrelations among the first-order factors were all consistently high (Table 11), suggesting their commonalities and further supporting the single second-order factor structure. A few of the correlations between the Task Delegation and other first-order factors were above the .90 correlation value: Inspirational Motivation ($r = .93$), Develops Others ($r = .92$), and Encourages Innovation ($r = .91$). The lowest intercorrelations were between the Expects Excellence factor and the other first-order factors. The smaller relationship of Expects Excellence to the other 8 factors accounts for the lower loading on the second-order factor.

Table 11
Correlation Matrix among the First-Order Factors

Themes	1	2	3	4	5	6	7	8	9
1. Integrity	---								
2. Sensible Risk	.737	---							
3. Encourages Innovation	.889	.765	---						
4. Demonstrates Innovation	.629	.820	.743	---					
5. Inspirational Motivation	.848	.831	.884	.830	---				
6. Respects Others	.809	.577	.754	.418	.647	---			
7. Develops Others	.853	.762	.887	.723	.886	.685	---		
8. Task Delegation	.864	.806	.912	.755	.934	.692	.924	---	
9. Expects Excellence	.630	.552	.611	.584	.660	.401	.627	.637	---

All correlations significant at .001 level

The scores on the single second-order factor had a possible range from 0 to 4 with an average score of 2.96 and a standard deviation of .75. The alpha coefficient value for the single Transformational Leadership second-order factor was quite high at .96, which provided support for the application of the STL as a reliable measure of Transformational Leadership.

Team Leadership

Program leadership within the substance abuse treatment field is potentially multilayered with a program and a clinical director at the site level, as well as leadership overseeing program functioning at the parent organization level. In consideration of organizational structure within the treatment field, items were added to evaluate the possibility of a team leadership function.

Principle components analysis extracted a single component (eigenvalue = 3.91), termed Team Leadership. Maximum likelihood factor analysis accounted for 11% of the variance (TLI = .94, Table 12). The item "involves other staff in performing leadership activities" received the highest factor loading (.909) and "creates staff groups to discuss defining new program goals" had the lowest loading (.648). Internal consistency was good at .82 with a scale mean of 2.82 (SD = .91). The highest item average score was "performs leadership functions as a part of a leadership team" (M = 3.20, SD = .99) and the lowest item average score was "involves other staff in performing leadership activities" (M = 2.32, SD = 1.33). See Appendix E for a correlation matrix of the Team Leadership items.

Table 12

Team Leadership Factor

Item No.	Item	Mean	SD	Factor Loadings
74	involves other staff members in performing leadership activities.	2.68	1.16	.909
65	shares leadership responsibilities with other staff members.	2.74	1.16	.831
58	wants staff members to encourage each other in their work.	3.14	1.03	.762
14	assigns individual staff members to lead the implementation of program objectives.	2.86	1.04	.723
6	performs leadership functions as a part of a leadership team.	3.20	.99	.680
55	creates staff groups to discuss defining new program goals.	2.32	1.33	.648
	Variance Accounted for by Factor			11%

TLI = .94

Chi-Square with 9 degrees of freedom = 30.40, p = .0004

Discussion

Transformational leadership is linked with the promotion of healthier organizational climates (Bass, Avolio, Jung, & Berson, 2003), innovation (Waldman, Javidan, & Varella, 2004), and a positive attitude toward evidence based practices (EBPs; Aarons, 2006). While there is significant need to promote these aspects in substance abuse treatment programs, the role of leadership has not been examined extensively within the treatment field. Additionally, while the process of transformational leadership is multifaceted, most studies have not systematically examined themes within each commonly-noted domain (i.e., encourages versus demonstrates innovation as a distinction within the intellectual stimulation domain). The aim of the current study was to develop and validate an instrument that would allow for assessment of transformational leadership within the substance abuse treatment field using a comprehensive approach to examining leadership practices.

Transformational Leadership Themes

The first-order factor analyses on each of the 5 leadership domains (i.e., idealized influence, intellectual stimulation, inspirational motivation, individualized consideration, and empowerment) resulted in 9 factors reflecting distinct themes of transformational leadership (Integrity, Sensible Risk, Encourages Innovation, Demonstrates Innovation, Inspirational Motivation, Respects Others, Develops Others, Task Delegation, and Expects Excellence). Eight of the themes are subcomponents of commonly measured transformational leadership dimensions.

The themes for the idealized influence, intellectual stimulation, individualized consideration, and empowerment domains resemble dimensions represented in other transformational leadership theories. Specifically, Sensible Risk and Demonstrates Innovation (i.e., environmental sensitivity and challenges the status quo) are similar to dimensions reported in Conger and Kanungo (1994), Expects Excellence is consistent with high performance expectations conceptualized in Podsakoff et al., (1990), and Task Delegation is similar to providing opportunities for success as measured by Behling and McFillen (1996). The other themes are consistent with measures currently represented in the MLQ: Integrity (idealized influence), Encourages Innovation (intellectual stimulation), and Respects Others and Develops Others (individualized consideration; Bass & Avolio, 1995).

While the current study distinguished among themes within the four domains above, factor analysis on the inspirational motivation items did not yield distinct themes. While it is possible that perceptions of leadership behavior may be consistent across these items, it is also possible that because most of the inspirational motivation items contained the words "program goals," participants failed to notice the conceptual distinction between the themes (i.e., prepares

for change, develops a vision, and promotes attainment of the vision) and subsequently maintained consistent ratings of their specified leader across the inspirational motivation items.

Psychometric analysis revealed that the 9 first-order factors have high internal reliability and good convergent validity with corresponding domains from validation instruments. The notably high alpha coefficients for Integrity (13 items, alpha = .95) and Inspirational Motivation (24 items, alpha = .97) can be tested in the future with the Spearman Brown Prophecy technique to determine if a short version would maintain good internal reliability.

The STL scale scores had a possible range of 0 to 4 with a score of greater than 3.0 reflecting a leader's more consistent exhibition of that leadership practice. The average scale score for each of the 9 first-order factors was moderately high, suggesting that the leaders sampled from the substance abuse treatment field on average demonstrate each of the 9 transformational leadership practices. However, the STL was able to discriminate between how consistently various leadership practices were performed. Integrity, Respects Others, and Expects Excellence had an average scale score at or above 3.0 and Encourages Innovation was reported at 2.95, demonstrating that leaders within the field exhibit these leadership practices more frequently than the other behaviors. Respondents gave lower ratings for Sensible Risk, Demonstrates Innovation, Inspirational Motivation, Develops Others, and Task Delegation. It is possible that followers may be more aware of some of the leader practices (e.g. Integrity, Encourages Innovation) than other practices (e.g. Sensible Risk, Demonstrates Innovation). For example, program leaders may engage in sensible risk when making decisions, but staff members are not necessarily involved. Future studies should examine the relationship between staff perceptions of leadership and self-ratings of leadership.

For practical purposes, the distinction between leadership themes has the potential to inform leader and/or staff training and development (Den Hartog et al., 1997). Specifically, the

STL can be used as a way to evaluate the extent to which a leader is perceived by followers to demonstrate each of the nine leadership themes and to target areas needing development. The STL can also assist in identifying individuals to spearhead new program initiatives (i.e., change agents). For example, if an organization member demonstrates transformational leadership by exhibiting each of the leadership styles, he/she might serve productively as a promoter of change and innovation.

The intercorrelations between the nine leadership themes are high, suggesting that the components are highly interdependent, so that if leaders demonstrate one specific leadership style (e.g., Respects Others), they would most likely demonstrate another as well (e.g., Expects Excellence). Analytically, consideration of any of the nine specific themes could be carried out best in separate targeted analyses in order to avoid the possibility of collinearity among the themes. The highly interdependent nature of the first-order factors also suggests the global construct of transformational leadership, based on the second-order factor, could be useful for prediction modeling.

Transformational Leadership as a Global Construct

The second-order factor analysis using composite scores from each of the 9 first-order factors revealed a global construct of transformational leadership. This factor structure is similar to previous studies conducted using the MLQ (Barling, Loughlin, & Kelloway, 2002; Bono & Judge, 2003; Purvanova, Bono, & Dzieweczynski, 2006; Shin & Zhou, 2003) and suggests that the STL can be used to capture the essence or extent to which leaders are perceived as generally transformational in their leadership approach.

All nine first-order factor loadings were high but showed differential influences from the single second-order factor. The factor loadings suggest that the second-order factor was mostly represented by Task Delegation (.97) and was least represented by Expects Excellence (.67).

Examination of the intercorrelations with the other first-order factors provides insight into these representations of the second-order factor. Mainly, Task Delegation was highly intercorrelated with many of the other first-order factors, whereas Expects Excellence had the lowest intercorrelations.

The lower loading for Expects Excellence could reflect subtle distinctions between the conceptual content of Expects Excellence and the other first-order factors. In contrast to the other dimensions of transformational leadership, high performance expectations can increase role conflict, decrease staff satisfaction (Podsakoff, MacKenzie, & Bommer, 1996) and decrease trust in the leader (Podsakoff et al., 1990). House (1977) hypothesized that expression of high expectations is only effective if it is accompanied with confidence in followers' ability to complete tasks. In the current study, the item addressing whether the leader expresses confidence in completion of tasks loaded on Task Delegation instead of Expects Excellence. Without the inclusion of expressing confidence, the Expects Excellence factor resembles more of a transactional leadership style, where a leader expects high performance of tasks but does not necessarily anticipate that the followers will meet the high expectations.

Like the scale for the first-order factors, the global construct of transformational leadership is represented by a 5 point-Likert scale with possible scores ranging from 0 to 4. A scale score of 3 or higher represented frequent demonstration of transformational leadership practices. Based on the current study, the average scale score for the single second-order factor was 2.96 (SD = .75) and indicates that followers perceived their leaders as engaging in transformational leadership practices on a fairly frequent basis, but not in every situation (as would be indicated with a scale score of 4). The standard deviation of .75 indicates that there is variability between staff members in ratings of their directors' display of leadership practices. The global measure of transformational leadership can be used as a guide for identifying leaders

that would benefit the most from training (leaders receiving a lower score) or those that would be the most beneficial in promoting program change (leaders receiving a high score).

Team Leadership

The design of the current study allowed staff members to reflect on a particular leader in a specific position (i.e., clinical director) within their program. Although the main focus was evaluating a particular leaders' style, in isolation, there was also an attempt to consider team leadership, such as might be driven by the organizational structure or demonstrated through shared or collective leadership. The team leadership scale was intended to describe the extent to which followers perceived their leaders as involving other members of the organization in fulfilling leadership tasks. On the one hand, the findings suggest there is a team approach to leadership, with leaders perceived as performing their functions as a part of a leadership team and encouraging cooperation among team members in project completion. On the other hand, leaders were rated to be less consistent in involving staff members in performing leadership activities, sharing leadership responsibilities with other staff members, and creating staff groups to discuss defining new program goals. These findings reflect the fact that 76% of the staff rated a leader serving as a part of a parent organization (i.e., part of a larger vertical network of leaders), but also may suggest that these leaders are not actively involving staff members in performing leadership tasks.

Future research should consider more closely the complex interrelations of organizational structure, teams, and transformational leadership practices in the substance abuse treatment filed. Regarding organizational structure, the transformational leadership process may be more a product of how a few leaders (i.e., clinical director, program director, and lead counselor) rather than how one leader (i.e., clinical director) impacts followers and organizational outcomes. Team leadership may be especially important within the drug treatment field where the clinical director

and program director potentially have different opportunities to demonstrate transformational leadership. Clinical directors may have more day to day contact with staff members allowing more opportunities to support and develop followers and expect excellence, whereas program directors may have a more distal overarching connection with staff allowing more opportunities to demonstrate innovation and show inspirational motivation. The team leadership aspect can also be examined in the future by determining the extent to which leadership is shared among all members of an organization, where staff members are encouraged to perform leadership tasks and take part in leadership decisions.

Limitations

One limitation of the current study is the relatively low ratio of participants to items. The restriction in sample size limited the factor analysis to examining the structure of items within each domain rather than conducting an overall factor analysis. Because the first-order analysis was divided conceptually into domains and subsequently into themes, the second-order analysis necessitated an examination of items at the theme level of analysis, rather than at the item level of analysis. An analysis of all items simultaneously might plausibly have produced a different factor structure.

Another limitation is that the sample for the quantitative analysis was not random. It is possible that programs experiencing shifts in leadership or where leadership practices were lacking chose not to participate, which may have inadvertently raised the mean score of leadership ratings.

Furthermore, the design of the current study did not assess the leadership practices in relation to outcome measures (e.g. job performance, extra effort). While this is a limitation, the main goal of the current study was to develop the STL and assess its internal consistency and convergent validity. Future studies will explore item reduction strategies aimed at reducing the

instrument's length, as well as relationships between transformational leadership and preliminary outcome measures such as satisfaction with the leader and an extra effort by followers. Univariate analyses relating these outcomes to the first-order factors would provide initial information about predictive validity.

Additionally, the current study did not address the distinction between transformational leadership and other mechanisms of leadership as addressed in the Full Range of Leadership Model (Avolio & Bass, 1991). Specifically, transactional leadership (e.g., reward or punishment based on performance) and laissez-faire leadership (e.g., absence of leadership) can show varying effects from transformational leadership on organizational outcomes. Examination of the rating scores represented by these different leadership styles could provide discriminant validity. For instance, transformational leaders tend to be rated as exhibiting less laissez-faire leadership. The instrument battery administered to participants in the current study included items on transactional leadership (e.g. use of contingent reward) and will be examined in future analyses.

Applications to the Substance Abuse Treatment Field

Changes affecting service provision within the field of substance abuse treatment are forcing program leadership to promote a work environment that is creative and responsive to innovation. An adaptive environment within the drug treatment system would include links to community agencies and other systems, responsiveness to the special needs of the community served, short- and long-term planning with common goals and objectives, and distribution of work among staff (Dowries & Shaening, 1993). These functions are incorporated in the TCU Program Change Model for planning and implementing innovations in treatment (Simpson & Flynn, 2007; Figure 2).
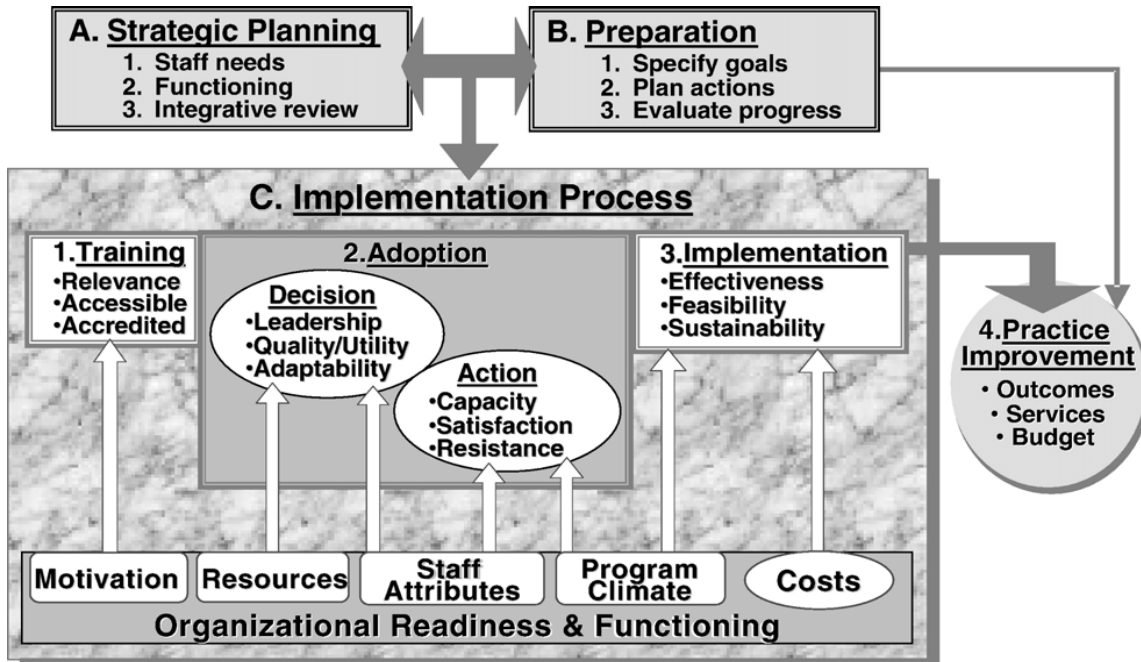
Figure 2: The TCU Program Change Model

The TCU Program Change Model portrays influences on innovation adoption and implementation, including strategic planning and preparation, which can be linked with transformational leadership themes. The strategic planning function can reflect Demonstrating Innovation through leader sensitivity to environmental constraints/opportunities and Develops Others through attention to staff needs. The preparation stage touches on Inspirational Motivation (e.g., formulation and articulation of a shared, but idealized goal) and Task Delegation (e.g., evaluation of progress). The implementation process of the model is characterized further by training, adoption (i.e., decision making and plan of action), and implementation. The training involved in the implementation process can reflect the transformational leadership theme of Develops Others through the building of skills and abilities needed to implement change. Further reflections of the STL themes can be mapped onto the TCU Program Change Model. The links provided here are only examples of some of the more

 prominent associations between the themes and influences on innovation adoption and implementation.

While strategic planning and preparation impact the early phase of the change process and implementation issues may arise later on, each of these early influences remains salient throughout the change process. If a leader does not consistently demonstrate one or more of these practices, the change process may be hindered. Specifically, fewer transformational leadership practices are related to more unfavorable organizational climates (e.g., more unit cohesion and less stress and burnout; Bass, Avolio, Jung, & Berson, 2003; Selzer, Numreof, & Bass, 1989) which are related to more negative attitudes toward change (Joe, Broome, Simpson, Rowan-Szal, 2007; Simpson, Joe, & Rowan-Szal, 2007).

In order to assist leaders within the substance abuse treatment field in their promotion of change and innovation, it is optimal for each of the themes included in the STL, to be addressed. For instance, if leaders are perceived as individuals that avoid risk they could receive training on the benefits of making informed, yet risky decisions, along with learning to calculate the odds of success in a new venture.

Conger and colleagues (Conger & Benjamin, 1999; Conger & Kanungo, 1988b) specified a number of core competencies that are consistent with the themes represented in the STL and these can help address targeted leader practices. Specifically, critical evaluation, problem detection, and building environmental sensitivity can assist with training Encouraging and Demonstrating Innovation, as well as Inspirational Motivation by helping to define a purposeful vision. Inspirational Motivation can also be enhanced by developing communication skills that help define and create enthusiasm for a vision. Impression management that involves forming an image of idealized behavior will bolster the leader's rating of Integrity. Leaders can also be trained on how and when to empower followers. In particular, leaders can learn how to assign

meaningful tasks and how to be supportive of task completion by removing constraints and providing resources. Training that sensitizes leaders to issues of diversity can be used to assist with building Respect for Others and Development of Others.

In addition to providing insight into leader and staff development, as well as selection of change agents, the STL themes allow for a closer examination of the relationship between transformational leadership and organizational structure and climate. Previous studies have noted that organizations in the public sector (Lowe, et al., 1996) and those that are non-profit (Thiagarajan, 2004) are more conducive to transformational leadership. More information on which components of transformational leadership are represented within these programs, as well as how these various components influence organizational climate and readiness for change could have the potential to help inform practice improvement initiatives.

Conclusion

Increasingly, substance abuse treatment programs are required to respond to funding reductions and negative staff attitudes, as well as make shifts in treatment practices. Although it is becoming increasingly important for leaders to respond to these changes, they often have a fixed set of norms and beliefs that can conflict with new practices and frequently lack the training, skills, and motivation needed to facilitate implementation (D'Aunno, 2006). Engagement in transformational leadership is one mechanism that can promote program change, yet it has not been examined extensively within the treatment field. While several measures of transformational leadership exist, there is variability in the specific domains that are addressed, and none measure all of the potentially important components.

The current study took an initial step in addressing these considerations by developing a new measure of transformational leadership that has good validity and reliability. It provides an examination of themes in each key domain and a detailed look at leadership within the substance

abuse treatment field. Using the instrument, staff from surveyed programs indicated their directors varied in how frequently they demonstrate transformational leadership themes. Such ratings might be used to identify leadership training needs and select change agents for new practices, with the potential to support long-term improvements for the treatment field.

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Appendix A

Participant Consent Form

Appendix A-1
TCU / Survey of Transformational Leadership

Field Input Study

Information Sheet for Informed Consent

PURPOSE:

The current study is part of a larger one aimed at investigating leadership practices within outpatient substance abuse treatment programs. The first step in this process is to develop a survey that is easy to understand and is valid. Your participation in this study will assist us in determining if instructions and terminology are clear, as well as whether the questions are applicable **to the treatment field. You will be asked to discuss issues such as (1) suggestions for clarifying terminology, (2) utility of the STL within the substance abuse treatment field, (3) which personnel (positions) typically perform the leadership functions presented in the survey (within a typical program), and (4) what additional leader behaviors should be added. You may share your views verbally in the group setting, privately in writing, or via both methods.**

The purpose of this study is to gain insight into general issues that treatment programs face regarding leadership. We are not interested in learning about the leadership behaviors of your particular program director, nor do we want to encourage complaints about leadership at your organization. Therefore, you will be asked to refrain from discussing particular behaviors of your program or clinical director.

BENEFITS:

Potential benefits include a better understanding of leadership within substance abuse treatment organizations, and identification of areas needing attention or improvement. Findings have the potential to improve management practices which impact staff turnover and job satisfaction. In addition, each participant will be provided with lunch and a tote bag.

RISKS:

No physical risks are involved in participation in this feedback study. Minimal risk of emotional discomfort may exist. It is possible that some of the discussion items could cause embarrassment or emotional discomfort. In order to improve the leadership questionnaire, we request that your feedback be as honest as possible; however, if you are uncomfortable addressing certain topics, you do not have to. Moreover, should you or your agency elect not to take part in this feedback study, no negative consequences will result.

CONFIDENTIALITY:

The confidentiality of your responses will be maintained. All responses will be assessed in aggregate form. This means no individual will be identifiable in any scientific report prepared by the research team. No feedback report will be provided to any member of your program.

PARTICIPATION IS VOLUNTARY:

If you do not wish to be involved in the feedback study, you may decline. **By signing this information sheet, you are indicating your willingness to participate in this study.**

If you have further questions, you may call or contact the following persons at Texas Christian University: Principal Investigator, Patrick M. Flynn, Ph.D., Associate Director, Institute of

Behavioral Research (Phone: 817-257-7226), or Timothy Hubbard, Ph.D., TCU Institutional Review Board (Phone: 817-257-7410). The address is: IBR/TCU, Box 298740, Fort Worth, Texas, 76129. Email: ibr@tcu.edu

I agree to participate in this study.

Name: _____ Date: _____

Thank you!

Appendix A-2
TCU/ Survey of Transformational Leadership

Field Testing

Information Sheet for Informed Consent—Staff Form

PURPOSE:
The research project in which you are asked to participate is being conducted by the Institute of Behavioral Research (IBR) at Texas Christian University (TCU), in collaboration with treatment programs across the country, and with funds provided by the National Institute on Drug Abuse. The purpose of this study is to investigate leadership practices that are typically used within outpatient substance abuse treatment programs. Staff members are being asked to complete the enclosed survey that contains questions describing their leadership's approach to issues such as the promotion of innovation, development of a vision, support of others, and delegation of tasks; along with questions evaluating their current work environment. Program leaders will also be asked to rate themselves on leadership practices.

BENEFITS:
Potential benefits include a better understanding of leadership within substance abuse treatment organizations, and identification of areas needing attention or improvement. Findings have the potential to improve management practices which impact staff turnover and job satisfaction. After sealing the envelope with your completed survey, you will have the opportunity to enter a raffle. Four $25 and 2 $50 raffle prizes will be awarded within each region (Southeast, Great Lakes, Gulf Coast, and Northwest). Each participant that completes the survey before the specified deadline will receive 1 ticket toward winning a raffle prize.

RISKS:
No physical risks are involved in this project. Minimal risk of emotional discomfort may exist. It is possible that some of the questions on the survey could cause embarrassment or emotional discomfort. We request that you answer all questions as honestly as you can; however, if you are not comfortable answering certain questions, you may skip over them. Moreover, should you or your agency elect not to take part in this survey, no negative consequences will result.

CONFIDENTIALITY:
The confidentiality of your responses will be maintained. Please DO NOT WRITE YOUR NAME ON THE SURVEY FORM. All data will be analyzed in aggregate form. This means no program or individual will be identifiable in any scientific report prepared by the research team. Because this is a pilot study, no feedback report will be provided to any member of your program. After completing the survey, you will have an opportunity to participate in a raffle (described above). If you choose to enter, you will have the option to either send your contact information to the investigators via e-mail or a postage-paid postcard. Your contact information will not be linked in any way to the survey you submit.

PARTICIPATION IS VOLUNTARY:
If you do not wish to be involved in the study you may decline at this time by simply not completing the survey. **By completing the questionnaire and submitting it, you are indicating to IBR/TCU your willingness to participate in this study**.
If you have further questions, you may call or contact the following persons at Texas Christian University: Principal Investigator, Patrick M. Flynn, Ph.D., Associate Director, Institute of Behavioral Research (Phone: 817-257-7226) or Timothy Hubbard, Ph.D., Chair, TCU Institutional Review Board (Phone: 817-257-7410). The address is: IBR/TCU, Box 298740, Fort Worth, Texas, 76129. Email: ibr@tcu.edu

Appendix B

**TCU Survey of Transformational Leadership
(Program Staff Version)***
Revised Scales and Item Scoring Guide

IDEALIZED INFLUENCE

Integrity

The person I am rating–
    1.   shows determination on the job.
    10. does <u>not</u> display honesty. (R)
    16. is approachable.
    37. considers the ethical implications of actions.
    42. expresses values shared by program staff members.
    47. encourages staff behaviors consistent with the values shared by all members.
    53. acts consistently with values shared by program staff members.
    64. keeps commitments.
    69. is trustworthy.
    73. behaves in ways that strengthens respect from staff members.
    76. is someone that staff members are proud to be associated with.
    82. models behaviors other staff are asked to perform.
    94. shows self-confidence.

Sensible Risk

The person I am rating–
    17. takes <u>appropriate</u> personal risks in order to improve the program.
    21. takes <u>personal chances</u> in pursuing program goals.
    27. is willing to personally sacrifice for the sake of the program.
    31. makes bold <u>personal</u> decisions, if necessary, to improve the program.
    88. performs tasks other than own, when necessary, to fulfill program objectives.
    92. seeks program interests over personal interests.

Scoring Instructions. Numbers for each item indicate its location in the staff version, in which response categories range from 0=Not at all to 4=Frequently, if not always. Scores for each scale are obtained by summing responses to its set of items and dividing the sum by the number of items included (yielding an average). The final scale scores range from 0 to 4 (e.g., 2 becomes the average response). (R) denotes items that have been reverse coded.

INTELLECTUAL STIMULATION

Encourages Innovation

The person I am rating–
2. attempts to improve the program by taking a new approach to business as usual.
48. positively acknowledges creative solutions to problems.
54. encourages ideas other than own.
59. is respectful in handling staff member mistakes.
70. encourages staff to try new ways to accomplish their work.
77. suggests new ways of getting tasks completed.
81. asks questions that stimulate staff members to consider ways to improve their work performance.
95. does not criticize program members' ideas even when different from own.

Demonstrates Innovation

The person I am rating–
7. accomplishes tasks in a different manner from most other people.
11. tries ways of doing things that are different from the norm.
22. seeks new opportunities within the program for achieving organizational objectives.
28. identifies limitations that may hinder organizational improvement.
79. challenges staff members to reconsider how they do things.
84. takes bold actions in order to achieve program objectives.
86. searches outside the program for ways to facilitate organizational improvement.

INSPIRATIONAL MOTIVATION

The person I am rating–
3. makes staff aware of the need for change in the program.
12. conveys hope about the future of the program.
15. communicates program needs.
19. identifies program weaknesses.
23. considers staff needs when setting new program goals.
26. encourages staff feedback in choosing new program goals.
29. develops new program goals.
33. talks about goals for the future of the program.
36. displays enthusiasm about pursuing program goals.
39. uses metaphors and/or visual tools to convey program goals.
41. displays confidence that program goals will be achieved.
43. expresses a clear vision for the future of the program.
46. clearly defines the steps needed to reach program goals.
49. sets attainable objectives for reaching program goals.
52. helps staff members see how their own goals can be reached by pursuing program goals.
57. demonstrates tasks aimed at fulfilling program goals.
60. allocates resources toward program goals.

63. obtains staff assistance in reaching program goals.
66. secures support from outside the program when needed to reach program goals.
71. promotes teamwork in reaching program goals.
75. expresses confidence in staff members' collective ability to reach program goals.
83. prepares for challenges that may result from changes in the program.
89. encourages staff to share suggestions in how new program goals will be implemented.
91. behaves consistently with program goals.

INDIVIDUALIZED CONSIDERATION

Respects Others

The person I am rating–
4. treats staff members as individuals, rather than as a collective group.
13. treats individual staff members with dignity and respect.
34. does not respect individual staff members' personal feelings. (R)

Develops Others

The person I am rating–
50. offers individual learning opportunities to staff members for professional growth.
61. takes into account individual abilities when teaching staff members.
67. coaches staff members on an individual basis.
85. recognizes individual staff members' needs and desires.
87. assists individual staff members in developing their strengths.

EMPOWERING

Task Delegation

The person I am rating–
5. provides opportunities for staff to participate in making decisions that affect the program.
9. provides opportunities for staff members to take primary responsibility over tasks.
20. delegates tasks that provide encouragement to staff members.
25. delegates tasks that build up the organization.
30. assigns tasks based on staff members' interests.
35. enables staff to make decisions, within contractual guidelines, on how they get their work done.
40. follows delegation of a task with support and encouragement.
45. sees that authority is granted to staff in order to get tasks completed.
51. provides requested support for task completion.
56. allocates adequate resources to see tasks are completed.
62. provides information necessary for task completion.
68. provides feedback on progress toward completing a task.

93. conveys confidence in staff members' ability to accomplish tasks.
96. helps staff members set attainable goals to accomplish work tasks.

Expects Excellence

The person I am rating–
72. expects excellence from staff.
78. expects that members of the staff will take the initiative on completing tasks.
80. expects that staff members will give tasks their best effort.

Appendix C

Staff Background Characteristics
(Program Staff Version)
Survey of Organizational Functioning

Today's Date: |___|___||___|___||___|___|
          MO   DAY   YR
                  Your Birth Year: 19 |___|___|

Are you: ○ *Male*   ○ *Female*   **Are you Hispanic or Latino?** ○ *No*   ○ *Yes*

Are you: [MARK ONE]
- ○ *American Indian/Alaska Native*   ○ *White*
- ○ *Asian*   ○ *More than one race*
- ○ *Native Hawaiian or Other Pacific Islander*   ○ *Other (specify):*
- ○ *Black or African American*

Highest Degree Status: [MARK ONE]
- ○ *No high school diploma or equivalent*   ○ *Bachelor's degree*
- ○ *High school diploma or equivalent*   ○ *Master's degree*
- ○ *Some college, but no degree*   ○ *Doctoral degree or equivalent*
- ○ *Associate's degree*   ○ *Other (medical assistant, RN, post-doctorate)*

Discipline/Profession: [MARK ALL THAT APPLY]
- ○ *Addictions Counseling*   ○ *Social Work/Human Services*   ○ *Nurse Practitioner*
- ○ *Other Counseling*   ○ *Physician Assistant*   ○ *Administration*
- ○ *Education*   ○ *Medicine: Primary Care*   ○ *None, unemployed*
- ○ *Vocational Rehabilitation*   ○ *Medicine: Psychiatry*   ○ *None, student*
- ○ *Criminal Justice*   ○ *Medicine: Other*   ○ *Other (specify)*
- ○ *Psychology*   ○ *Nurse*

Certification Status in Addictions Field: [MARK ONE]
- ○ *Not certified or licensed in addiction*   ○ *Currently certified or licensed*
- ○ *Previously certified or licensed, not now*   ○ *Intern*

How many years of experience do you have in drug abuse counseling?
○ *0-6 months*   ○ *6-11 months*   ○ *1 to 3 years*   ○ *3 to 5 years*   ○ *over 5 years*

How long have you been in your present job?
○ *0-6 months*   ○ *6-11 months*   ○ *1 to 3 years*   ○ *3 to 5 years*   ○ *over 5 years*

How many clients are you currently treating (i.e., your caseload)?
○ *0*   ○ *1-10*   ○ *11-20*   ○ *21-30*   ○ *31-40*   ○ *> 40*

Appendix D

Correlation Matrices among First-Order Factors

Table D-1
Correlation Matrix for Idealized Influence Items

Item No.	1	10	16	94	17	21	27	31	37	42	47	53	92	64	69
1	---														
10	.335	---													
16	.549	.276	---												
94	.460	.167	.347	---											
17	.546	.085	.528	.363	---										
21	.398	-.007	.392	.291	.696	---									
27	.589	.131	.478	.431	.707	.634	---								
31	.378	.026	.432	.377	.578	.634	.583	---							
37	.599	.393	.547	.502	.453	.323	.489	.339	---						
42	.556	.269	.669	.494	.603	.430	.570	.530	.646	---					
47	.577	.257	.601	450	.537	.399	.600	.487	.689	.747	---				
53	.564	.315	.663	.502	.552	.413	.579	.444	.686	.799	.835	---			
92	.652	.295	.606	.478	.599	.461	.662	.479	.516	.630	.601	.636	---		
64	.573	.283	.623	.485	.545	.373	.551	.387	.653	.664	.625	.690	.638	---	
69	.684	.415	.666	.476	.513	.394	.543	.422	.666	.639	.633	.706	.604	.772	---

Correlations ≥ .125 significant at .05 level, correlations ≥ .161 significant at .01 level, correlations ≥ .212 significant at .001 level
Note: The items are presented in conceptual order by factor.

(Table D-1, cont.)
Correlation Matrix for Idealized Influence Items

Item No.	1	10	16	94	17	21	27	31	37	42	47	53	92	64	69
73	.645	.316	.705	.500	.591	.441	.570	.453	.671	.732	.735	.790	.636	.711	.759
76	.671	.361	.671	.624	.564	.414	.587	.499	.673	.547	.473	.740	.660	.741	.808
82	.574	.296	.547	.553	.480	.443	.573	.450	.760	.601	.595	.688	.584	.640	.618
88	.578	.227	.615	.477	.577	.427	.587	.469	.680	.631	.539	.559	.636	.591	.522

Correlations ≥ .125 significant at .05 level, correlations ≥ .161 significant at .01 level, correlations ≥ .212 significant at .001 level
Note: The items are presented in conceptual order by factor.

(Table D-1, cont.)
Correlation Matrix for Idealized Influence Items

Item No.	73	76	82	88
73	---			
76	.811	---		
82	.713	.721	---	
88	.600	.619	.562	---

Correlations ≥ .125 significant at .05 level, correlations ≥ .161 significant at .01 level, correlations ≥ .212 significant at .001 level
Note: The items are presented in conceptual order by factor.

Table D-2

Correlation Matrix for Intellectual Stimulation Items

Item No.	2	7	11	84	22	28	38	96	48	54	59	95	70	77	79	81
2	---															
7	.388	---														
11	.451	.412	---													
84	.500	.398	.455	---												
22	.591	.462	.405	.567	---											
28	.410	.324	.309	.551	.561	---										
38	.682	.339	.323	.618	.637	.556	---									
86	.476	.344	.287	.683	.582	.590	.631	---								
48	.628	.340	.355	.531	.659	.518	.718	.573	---							
54	.606	.291	.273	.474	.541	.464	.657	.510	.763	---						
59	.564	.241	.204	.409	.519	.402	.610	.394	.672	.690	---					
95	.369	.229	.233	.332	.344	.353	.394	.241	.480	.575	.470	---				
70	.545	.336	.306	.541	.580	.456	.697	.581	.690	.729	.631	.444	---			
77	.564	.399	.426	.570	.613	.469	.685	.633	.702	.620	.530	.387	.732	---		
79	.368	.314	.360	.530	.563	.465	.523	.480	.542	.442	.330	.237	.506	.600	---	
81	.583	.390	.346	.590	.600	.485	.711	.584	.672	.653	.547	.366	.679	.740	.603	---

Correlations ≥ .125 significant at .05 level, correlations ≥ .161 significant at .01 level, correlations ≥ .212 significant at .001 level

Note: The items are presented in conceptual order by factor.

Table D-3
Correlation Matrix for Inspirational Motivation Items

Item No.	3	12	15	19	83	23	26	29	33	36	39	41	43	46	49	52	89	57	60
3	---																		
12	.530	---																	
15	.619	.611	---																
19	.544	.516	.605	---															
83	.511	.548	.629	.500	---														
23	.539	.546	.622	.498	.610	---													
26	.495	.568	.607	.519	.613	.716	---												
29	.604	.619	.573	.596	.585	.576	.621	---											
33	.486	.652	.579	.510	.497	.514	.604	.658	---										
36	.517	.712	.627	.501	.609	.549	.565	.654	.655	---									
39	.499	.580	.540	.496	.587	.618	.629	.649	.539	.676	---								
41	.507	.713	.689	.597	.641	.654	.638	.645	.609	.689	.686	---							
43	.614	.716	.658	.547	.644	.630	.643	.690	.655	.699	.688	.733	---						
46	.621	.664	.658	.603	.656	.636	.629	.669	.601	.605	.646	.747	.767	---					
49	.483	.586	.600	.562	.673	.667	.600	.626	.567	.628	.630	.702	.722	.749	---				
52	.506	.643	.603	.549	.632	.682	.639	.620	.609	.636	.684	.725	.744	.727	.719	---			
89	.561	.585	.630	.513	.654	.734	703	.602	.532	.616	.639	.693	.637	.697	.647	.658	---		
57	.482	.614	.575	.569	.628	.561	.578	.671	.621	.668	.591	.681	.725	.701	.708	.678	.611	---	
60	.445	.532	.472	.494	.490	.576	.514	.579	.459	.547	.572	.553	.631	.537	.616	.562	.608	.602	---

Correlations ≥ .125 significant at .05 level, correlations ≥ .161 significant at .01 level, correlations ≥ .212 significant at .001 level
Note: The items are presented in conceptual order by factor.

(Table D-3, cont.)
Correlation Matrix for Inspirational Motivation Items

Item No.	3	12	15	19	83	23	26	29	33	36	39	41	43	46	49	52	89	57	60
63	.508	.622	.604	.547	.576	.629	.580	.572	.532	.560	.562	.683	.690	.715	.671	.635	.664	.627	.544
66	.405	.529	.428	.514	.575	.440	.445	.596	.517	.521	.545	.565	.587	.574	.546	.568	.500	.527	.565
71	.566	.655	.617	.499	.612	.679	.590	.616	.548	.660	.611	.708	.675	.746	.670	.676	.719	.634	.560
75	.533	.666	.627	.523	.591	.599	.605	.590	.558	.673	.586	.736	.662	.736	.686	.636	.689	.671	.514
91	.544	.693	.660	.505	.591	.658	.591	.607	.592	.623	.564	.730	.686	.719	.637	.655	.650	.646	.525

Correlations ≥ .125 significant at .05 level, correlations ≥ .161 significant at .01 level, correlations ≥ .212 significant at .001 level
Note: The items are presented in conceptual order by factor.

(Table D-3, cont.)
Correlation Matrix for Inspirational Motivation Items

Item No.	63	66	71	75	91
63	---				
66	.567	---			
71	.731	.544	---		
75	.768	.512	.762	---	
91	.657	.508	.725	.713	---

Correlations ≥ .125 significant at .05 level, correlations ≥ .161 significant at .01 level, correlations ≥ .212 significant at .001 level
Note: The items are presented in conceptual order by factor.

Table D-4
Correlation Matrix for Individualized Consideration Items

Item No.	4	13	34	85	50	61	67	87
4	---							
13	.718	---						
34	.439	.490	---					
85	.686	.714	.369	---				
50	.541	.602	.243	.643	---			
61	.586	.679	.290	.766	.691	---		
67	.624	.646	.264	.675	.584	.321	---	
87	.386	.426	.089	.563	.577	.573	.412	---

Correlations ≥ .125 significant at .05 level, correlations ≥ .161 significant at .01 level, correlations ≥ .212 significant at .001 level
Note: The items are presented in conceptual order by factor.

Table D-5

Correlation Matrix for Empowerment Items

Item No.	5	9	20	25	30	35	96	40	45	51	56	62	68	72	78	80	93
5	---																
9	.548	---															
20	.620	.577	---														
25	.553	.465	.743	---													
30	.522	.413	.557	.570	---												
35	.384	.504	.391	.419	.408	---											
96	.583	.495	.641	.598	.498	.505	---										
40	.618	.488	.648	.655	.633	.481	.687	---									
45	.515	.593	.600	.647	.539	.623	.575	.591	---								
51	.575	.445	.569	.502	.571	.508	.678	.671	.615	---							
56	.545	.427	.635	.616	.531	.465	.684	.641	.574	.664	---						
62	.638	.544	.643	.562	.601	.556	.733	.721	.618	.703	.654	---					
68	.545	.537	.651	.557	.548	.431	.717	.719	.569	.710	.628	.706	---				
72	.309	.302	.256	.326	.304	.330	.38	.340	.345	.406	.310	.422	.390	---			
78	.416	.575	.457	.434	.410	.443	.439	.504	.516	.485	.496	.582	.536	.498	---		
80	.421	.464	.400	.401	.409	.470	.440	.462	.435	.482	.466	.554	.479	.639	.678	---	
93	.630	.589	.567	.489	.509	.479	.679	.642	.563	.662	.575	.688	.689	.503	.590	.594	---

Correlations ≥ .125 significant at .05 level, correlations ≥ .161 significant at .01 level, correlations ≥ .212 significant at .001 level

Note: The items are presented in conceptual order by factor.

Appendix E
Correlation Matrix among Team Leadership Items

Item No.	6	14	55	58	65	74
6	---					
14	.578	---				
55	.395	.522	---			
58	.587	.566	.519	---		
65	.540	.562	.494	.611	---	
74	.586	.640	.590	.679	.792	---

All correlations significant at the .001 level

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ABSTRACT

DEVELOPMENT OF THE SURVEY OF TRANSFORMATIONAL LEADERSHIP
FOR APPLICATION TO THE SUBSTANCE ABUSE TREATMENT FIELD

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Challenges inherent in implementing changes within the substance abuse treatment field can be offset by transformational leadership actions that promote innovation and attention toward individual needs and abilities. The current study developed and validated the Survey of Transformational Leadership (STL) for application in addiction treatment. Psychometric analyses confirmed nine STL themes, eight representing distinctions between commonly-noted leadership domains: Integrity, Sensible Risk (idealized influence); Demonstrates Innovation, Encourages Innovation (intellectual stimulation); Respects Others, Develops Others (individualized consideration); Task Delegation, Expects Excellence (empowerment); and Inspirational Motivation. The STL scales demonstrate good internal reliability and convergent validity when compared with scales from the Multifactor Leadership Questionnaire and the Attributes of Leadership Behavior Questionnaire. The nine themes can also be combined into a global measure of transformational leadership. Applications of the STL include informing training, selection of change agents, as well as examining relationships with organizational climate and structure.