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**DOING WELL WITH EXECUTIVE COACHING:
PSYCHOLOGICAL AND BEHAVIORAL IMPACTS**

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ABSTRACT

Executive coaching is a popular intervention in organizations. Large amounts of money are spent on programs designed to have positive personal and professional outcomes, but there is as yet little systematic empirical evidence to support its effects. The current study addresses this gap by exploring the effects of executive coaching on leaders' psychological states and transformational leadership behavior. Participants were taking part in a year long leadership training program, of which executive coaching was one component. To delineate the effects of executive coaching from the other training interventions, participants were randomly assigned to training and control groups. Measures of self-efficacy, developmental support, positive affect, openness to new behaviors, developmental planning, and transformational leadership were collected after the training group completed executive coaching to enable us to compare the impact of executive coaching on these measures. The data supported our hypotheses - leaders who had completed executive coaching reported higher self-efficacy, developmental support, openness to new behaviors, and developmental planning than leaders who had not completed coaching. In addition, team members gave higher ratings of transformational leadership behavior to leaders who had completed executive coaching than to leaders who had not completed executive coaching.

Keywords: Executive coaching, transformational leadership, leadership training

INTRODUCTION

Executive coaching has been identified as a multibillion dollar enterprise (Ennis, 2004), the media describes it as the second fastest growth industry, and there are reports some organizations are spending up to \$15000 a day on coaching programs (Berglas, 2003; Wasylyshyn, 2003). There is no doubt, executive coaching is a popular individualized approach to enhancing performance. It is centered on a confidential relationship between a leader and a coach which focuses purposively on the leaders' professional development needs whilst also attending to leaders' well-being on a personal and professional level. The goal of executive coaching is usually to improve leadership performance or assist with personal development (Hall, Otazo, & Hollenbeck, 1999; Smith & Sandstrom, 1999). Despite this substantial growth, anecdotal evidence is the driving force behind its popularity, with leaders who have experienced executive coaching, and coaches who have delivered executive coaching, generally reporting benefits (Byrd, 2001; Hall et al., 1999; Olesen, 1996; Olivero, Bane, & Kopelman, 1997; Popper & Lipshitz, 1992; Smith et al., 1999; Thach, 2002; Thach & Heinselman, 1999; Wales, 2003).

Most publications about executive coaching merely identify the types and processes of executive coaching or provide a general discussion on coaching and its applications (Grant, 2005; Judge & Cowell, 1997; Kilburg, 2001; Thach et al., 1999). These studies have been consistent in finding that leaders appreciate the opportunity to receive feedback from an executive coach, and generally report that executive coaching was beneficial for their self development. Most of these studies though, have relied on self-report data, and rather than seeking to explore the psychological or behavioral effects of executive coaching, they have focused on the perceived benefits of executive coaching, drawing on descriptions of what occurs during the coaching relationship (Judge et al., 1997), identifying the key elements in a model of coaching

effectiveness (Kilburg, 2001) or measuring the change in productivity after coaching (Olivero et al., 1997). The exceptions are two studies, one by Thach (2002), and another by Smither, London, Flautt, Vargas and Kucine (2003) which are described in detail below, because they obtained non-self report data from which to evaluate the impact of executive coaching, and, in the case of Smither et al., (2003), used a quasi-experimental pre-post control group design to measure the effects of executive coaching.

The study by Thach (2002) evaluated a six month program involving a combination of 360 degree feedback and executive coaching. The sample consisted of 281 executives from a telecommunications organization. A combination of quantitative and qualitative data were used to demonstrate the overall impact of executive coaching on leadership effectiveness. The results indicated an average increase in leadership effectiveness of 60% as judged by others. The qualitative data revealed that the participants found executive coaching useful for a number of reasons, including receiving feedback from the coach and having the coach to provide accountability and support during the developmental process. Thach (2002) concluded that the study supports executive coaching as a tool for improving leader effectiveness.

Smither et al. (2003) also assessed the effectiveness of executive coaching in combination with 360 degree feedback in a quasi-experimental, pre-post control group (executive coaching vs. no executive coaching) study in which 404 of the 1361 senior managers participating in the study received executive coaching. All managers received 360 degree feedback as part of a broader company-wide feedback program. Then some supervisors required all senior managers in their team to work with an executive coach, other supervisors declined to participate in the program, therefore none of their team worked with an executive coach, and some supervisors made the process optional whereby the senior managers decided whether they wanted to work with an

executive coach. The senior managers who worked with an executive coach received approximately two or three in-person meetings with their executive coach.

Smither et al., (2003) were interested in determining whether the senior managers who worked with an executive coach were more likely than other managers to set specific goals and solicit ideas for improvement from their supervisors. Secondly, they were also interested in investigating whether managers who worked with an executive coach improved more than other managers in terms of direct report and supervisor ratings on the post 360 degree feedback tool. These aims were addressed by measuring changes in 360 degree feedback surveys from pre coaching to post coaching, and also with an online self-report coaching effectiveness survey completed by 286 of the 404 senior managers participating in executive coaching. Their hypotheses were supported, in that managers who worked with an executive coach were more likely than other managers to set specific (rather than vague) goals and to solicit ideas for improvement from their supervisors. Managers who worked with an executive coach also improved more than other managers in terms of direct report and supervisor ratings, but the effect sizes were reported as small to modest (Smither et al., 2003). Despite the small effect sizes (which may have been due to the fact that participants only received 2 to 3 coaching sessions), the authors support further research into this burgeoning field. However, they warn that their results should be interpreted with caution, as the 360 degree feedback reports were shared with the recipient's supervisor who could use the information to influence compensation, promotion benefits etc. This may have increased recipients sense of accountability to respond to the feedback irrespective of the executive coaching (Smither et al., 2003).

These studies are important in informing future research in this field. Firstly, the study by Thach (2002) provides more objective data from which to evaluate the effects of executive coaching, but also has identified limitations; the study did not include a control group, which

lessens our ability to make causal attributions about the changes that were observed. Although Smither et al., (2003) adopted a pre-post control group design, participants were not randomly assigned to the groups, so we cannot be sure that differences between the training and control group were due to coaching. Furthermore, in both of these studies executive coaching was delivered in combination with 360 degree feedback or the 360 degree feedback was used to influence compensation and promotion decisions. Although executive coaching is commonly used in combination with 360 degree feedback, this represents a limitation when effects can not be separated, because 360 degree feedback is known to have an impact on leadership effectiveness (Atwater, Roush, & Fischthal, 1995; Hazucha, Hezlett, & Schneider, 1993; Kluger & DeNisi, 1996; Smither, London, Reilly, & Millsap, 1995). Thus, the improvements documented in these studies could be attributed to the 360 degree feedback rather than the executive coaching. Smither et al., (2003) identify this limitation and suggest that future research examine the impact of executive coaching in an environment where accountability to act upon the 360 degree feedback is low. They conclude that given the large investments demanded by executive coaching, both in terms of time and money, more rigorous investigation of the effects of this process is needed (Smither et al., 2003).

Clearly, there is a lack of research which provides systematic data on the effectiveness of executive coaching, both as a way for organizations to support, develop and retain employees, and as an intervention for improving leadership effectiveness. This research aims to address these issues; in the current study, we used an experimental design where leaders were randomly assigned to the training and control group, and additionally, randomly assigned to an executive coach. We designed the study so that the only factor differentiating the experimental and control groups was their exposure to executive coaching. In doing so, we were able to establish whether executive coaching had an impact on self-efficacy, developmental support, positive affect,

openness to new behaviors and approaches to developmental planning. We also investigated whether executive coaching produced noticeable differences in the leaders' transformational leadership as judged by leaders, their team members, and supervisors.

Undertaking this research, however, presents difficulties. The coaching process is time intensive (typically being carried out over months) and both the coach and leader must be willing to participate in the research and provide data for the research. Previous executive coaching research has faced barriers to obtaining large sample sizes and has been forced to work with small numbers (Olivero et al., 1997; Thach, 2002; Wales, 2003). Similarly, this research is relying on a small sample consisting of 23 participants. Whilst a limitation, this must be balanced against the high quality data collected in this research program and the contribution it makes in this emerging area.

Before the program is discussed, we will review the theoretical grounds and empirical evidence for expecting executive coaching to have an impact on the psychological states and leader behavior examined.

Executive Coaching

Executive coaching involves a collaborative, individualized relationship that aims to bring about sustained change in leadership behavior (Tobias, 1996; Zeuss & Skiffington, 2000). It offers ongoing, continuous learning, providing support, encouragement and feedback as new behaviors are practiced (Tobias, 1996). It can be distinguished from other forms of coaching such as life coaching, corporate coaching and business coaching, because it is specifically concerned with leader development within an organizational setting (Zeuss et al., 2000).

The executive coaching process generally involves a coach and a coachee (the leader), is carried out over multiple sessions (usually weekly or fortnightly), is action oriented and incorporates elements of goal-setting, feedback and support with the focus on the individual's performance of work related leadership behaviors (Stephenson, 2000). Executive coaching assists leadership development by maintaining a continual growth edge which helps the executive challenge and extend his or her own potential and confront resistance (Tobias, 1996). A close relationship is developed during executive coaching which potentially could lead to dependency upon the coach by the leader (Withers, 2001). To help avoid this, ownership of ideas and results remains with the leader; the coach's role is to assist the leader to identify opportunities and plan to overcome obstacles.

Below, we identify how these characteristics of executive coaching are likely to have positive psychological and behavioral effects on participants.

Self Efficacy

Self efficacy is described as an individual's belief that he or she is capable of performing a task (Bandura, 1977; Gist & Mitchell, 1992; Robbins, Bergman, Stagg, & Coulter, 2003). Popper and Lipshitz (1992) discuss coaching as a form of empowerment, whereby the coach strengthens the coachee's self-efficacy. Building confidence through executive coaching was also identified by Wales' (2003) research. Popper et al.,(1992) further argue that self-efficacy is the key psychological variable in coaching and identified several features of executive coaching which support this proposition. First, executive coaching provides participants with a safe environment which allows them to practice new skills, receive feedback, and achieve success (Bernthal, Cook, & Smith, 2001). The coach provides positive communication and feedback,

expressing confidence in the leader's ability to succeed (Hall et al., 1999; Kampa-Kokesch & Anderson, 2001; Thach et al., 1999). Furthermore, the long-term nature of executive coaching (as compared with other forms of professional development such as lectures, seminars and workshops) offers greater potential for participants to achieve mastery. Additionally, in executive coaching, learning is mostly done through ongoing performance, but performance goals are broken down into small achievable steps, so the leader can experience success. Coaching is therefore likely to increase leader self-efficacy by supporting performance accomplishments (Popper et al., 1992).

Developmental Support

Developmental support is defined as the leader's experience of being encouraged towards, and held accountable for their personal development. Through coaching, the leader has regular access to a coach who is attentive and committed to the leader's success. The coach supports the leader developmentally by expressing confidence in the leader's ability to accomplish his or her goals, assisting the leader to break goals down into smaller, achievable steps, listening and reflecting on the leader's experiences, holding the leader to his or her commitments, and encouraging the leader to reach his or her developmental goals (Thach, 2002). Executive coaching also creates a sense of accountability for progress which develops through the ongoing, regular relationship established between the leader and the coach, where the coach can monitor the actions of the leader.

Positive Affect

Positive affect reflects the extent to which a person feels enthusiastic, active, energetic and alert (Watson, Clark, & Tellegen, 1988). Positive affect represents a state rather than a trait,

and it therefore changes in response to events and experiences (Clark & Watson, 1988). Executive coaching should have an impact on positive affect both during and after the coaching relationship, for two reasons. As has been discussed, the leader receives support from his or her coach, in the form of encouragement, constructive feedback, structure and accountability, and this in itself should foster the leader's enthusiasm. Furthermore, the coaching relationship is characterized by performance achievements which are known to induce positive affect (Andriopoulos, 2001; Erez & Isen, 2002; Isen, Daubman, & Nowicki, 1987). Consistent with this hypothesis, previous research by Smither et al., (2003) suggests that senior managers generally had favorable reactions to the coaching process and, Hall et al., (1999) reported that clients most frequently rated the overall effectiveness of their coaching experiences as "very satisfactory". However, neither of these studies specifically measured feelings of positive affect. The current research will examine the more specific feelings of enthusiasm, excitement, happiness and delight experienced by the leader at work.

Openness to New Behaviors

Openness to new behaviors refers to the leader's willingness to consider different approaches to managing, communicating and behaving with his or her team. Executive coaching is an action-oriented development process (Stephenson, 2000). It focuses around encouraging the leader to search for alternatives and trial new behaviors, rather than continuing to do more of what has been done in the past. The coach plays an important role in this process. During executive coaching, the coach sets the leader up for small wins by encouraging the leader to experiment with new behaviors and seek feedback on the outcomes. After achieving small successes, the leaders become more open to identifying a range of new behavior options as they seek to achieve mastery (Wakefield, 2006). The executive coaching relationship represents a

partnership with the leader who, over time, becomes more willing to identify a range of new approaches to effective leadership behaviors (Kampa-Kokesch et al., 2001). Thus, we predict that executive coaching will foster greater openness to new behavior in participants.

Developmental Planning

Developmental planning, which we define as the leader's ability to conceptualize what it is he or she is trying to improve, and how he or she plans to achieve that improvement should also be affected by executive coaching. Executive coaching places a high degree of emphasis on planning for the future. One of the key techniques underlying executive coaching is to assist leaders in setting developmental goals that are aligned with the 'SMART' characteristics of goal setting theory (i.e. goals are formulated to be specific, measurable, agreed, challenging yet realistic and time oriented) and provide feedback (Locke & Latham, 1984; Thach, 2002). The research by Smither et al., (2003) identified that managers who worked with an executive coach set more specific goals. We predict that as a result of working with the coach to set developmental goals and identify sources of feedback in the work environment, leaders will experience greater clarity about their developmental goals and how they plan to achieve their goals.

Importance of these Measures

Executive coaching might have other psychological effects for participants, but we chose to focus on these measures in particular because they should contribute to positive outcomes in terms of leaders' behavior and well being. Self efficacy has been shown to be an important predictor of behavioral learning in training situations (Bandura, 1977; Wood & Bandura, 1989), and affects performance (Locke & Latham, 1990b). Similarly, the experience of support in the

work environment has been shown to be associated with improved transfer of learning (Burke & Baldwin, 1996; Cromwell & Kolb, 2004; Pidd, 2004). There is much evidence showing that the experience of positive affect tends to be associated with higher performance and effectiveness (Castro, Douglas, Hochwarter, Ferris, & Frink, 2003; George, 1991; Williams & Shiaw, 1999). Developmental planning (with its focus on establishing goals and identifying actions) should also be associated with behavioral change (Locke et al., 1984; Locke & Latham, 1990a; Seijts, Latham, Tasa, & Latham, 2004). Finally, being open to trying out new behaviors is also likely to be an important precondition for change in behavior to occur (Wakefield, 2006). Furthermore, these psychological effects should be experienced regardless of the specific developmental goal that the leader chooses to focus on, in that they directly reflect the processes underlying executive coaching.

Transformational Leadership

Executive coaching has already been associated with improving leadership effectiveness, as demonstrated by Thach (2002). However the impact of executive coaching on transformational leadership behavior has not been examined. Transformational leadership is a style of leadership that induces high performance and other positive organizational outcomes in team members (Barling, Moutinho, & Kelloway, 1998; DeGroot, Kiker, & Cross, 2000; Howell & Avolio, 1993; Howell & Frost, 1989; Kirkpatrick & Locke, 1996; Lowe, Kroeck, & Sivasubramaniam, 1996; Sosik, Avolio, & Surinder, 1997). Empirical data supports the relationship between the leader's use of transformational leadership behaviors and subordinates satisfaction (Hater & Bass, 1988; Koh, Steers, & Terborg, 1995), commitment to the organization (Barling et al., 1998; Barling, Weber, & Kelloway, 1996; Bycio, Hackett, & Allen, 1995; Koh et al., 1995), trust in management (Barling et al., 1998), and organizational citizenship behaviors

(Koh et al., 1995). The transformational leadership model has been demonstrated to be useful for training leaders and bringing about improvements both in leader behavior, and follower outcomes, (Bass, 1999; Bass & Avolio, 1990; Bycio et al., 1995; Kelloway & Barling, 2000), and these goals are consistent with those of executive coaching.

Transformational leadership starts with transactional leader behaviors such as clarifying task requirements, recognizing and rewarding team members when they perform well, and correcting any breakdowns in performance. While transactional behaviors generally ensure adequate performance, transformational leaders go further, by developing, stimulating, and inspiring their team members (Mason & Burton, 2004; Robbins et al., 2003).

Four components of transformational leadership are typically identified, namely inspirational motivation, idealized influence, intellectual stimulation and individualized consideration (Bass, 1985). Firstly through *inspirational motivation* leaders provide followers with challenge, purpose and an understanding of mutual objectives (Bass, 1985). They also motivate and inspire followers by building trust through personal commitment (Conger, 1989; Kotter, 1990). Secondly, transformational leaders demonstrate *idealized influence* by establishing high standards and goals that followers seek to emulate (Bass, 1985). Leaders then model the behaviors for the followers (Kouzes & Posner, 1995). Thirdly, transformational leaders are *intellectually stimulating*, creating possibilities for followers by encouraging them to question the way things are done, develop their own solutions to work issues, think for themselves and generally empowering followers to achieve the shared vision (Conger, 1989; Kent, Graber, & Johnson, 1996). Finally, transformational leaders provide *individualized consideration* through individual support and attention, accepting follower's differences, (Bass, 1985) and encouraging commitment in followers (Conger, 1989). These behaviors can convince

and motivate followers without relying on the typical exchange relationship which characterizes transactional leadership (Kuhnert & Lewis, 1987).

One of the stated aims of executive coaching is to foster improved leader effectiveness (Stephenson, 2000; Zeuss et al., 2000). In the current study, the executive coaching was carried out in the context of a leadership training program which specifically sought to increase leaders' transformational leadership behaviors. Thus, leaders were encouraged to work with their coaches to identify how they might improve their transformational leadership behavior. In this context, we expected the behavioral effect of executive coaching to be an improvement in participants' transformational leadership behavior.

Apart from the fact that transformational leadership behavior was a specific focus of our coaching program, we also expected executive coaching to have an impact on transformational leadership behavior because executive coaching shares characteristics of the transformational leadership approach. For example, executive coaching stimulates leaders to experiment with new behaviors and motivates them to continue to pursue alternatives by conveying confidence in the leader, providing support, and establishing feedback channels. The coach also encourages the leader to question the way things are done and challenge pre existing methods rather than continuing to do more of what has been done in the past (Kampa-Kokesch et al., 2001), in doing this, leaders often develop their own solutions. Additionally, being an individualized approach customized to the leader's specific developmental needs, executive coaching helps leaders explore innovative approaches to develop to their full potential in a safe environment (Nyman & Thach, 2002). Finally, throughout the coaching sessions, the coach demonstrates absolute acceptance of the leader without passing judgment, practices effective communication, provides feedback, and encourages excellence, acting as a role model for the leader to copy in interactions with their own team.

Thus, the experience of executive coaching exposes participants to transformational leadership behaviors, at the same time as encouraging leaders to practice these behaviors within their own teams. Therefore, we also tested the possibility that executive coaching would have a general impact on participants' transformational leadership behavior.

Hypotheses

In summary, the hypotheses tested in this study were that:

H1: Leaders who participated in executive coaching would report higher self efficacy, developmental support, positive affect, openness to new behaviors, and developmental planning compared with leaders in the control group who had not received executive coaching.

H2: Leaders who participated in executive coaching would show greater transformational leadership behavior as rated by leaders, their team members, and supervisors, compared with leaders in the control group who had not received executive coaching.

METHOD

Sample

This study was conducted in a large public sector organization with approximately 1900 employees. This study formed part of a year long transformational leadership training program (which is described in more detail by Mason, Parker and Griffin, 2005). Executive coaching was a voluntary option presented to leaders after they had received their 360 degree feedback and attended a two day transformational leadership workshop. A total of 23 leaders volunteered to

commence executive coaching initially, however only 21 leaders completed the program. The 21 participants who completed the executive coaching were senior level managers; there were 14 males and 7 females, ranging in age from 29 years to 55 years. Participants' tenure in their current roles ranged from 1 year to 18 years, with an average tenure of 1 year (23.8%). Approximately 43% of participants had Masters level qualifications, indicating a high educational level.

Procedure

The 23 study participants were randomly allocated to one of two groups. The first group (called the training group), consisted of 11 leaders who commenced coaching immediately after receiving 360 degree feedback. The second group formed the control group and consisted of 12 leaders. Leaders in the training group were randomly assigned to one of 9 executive coaches. This experimental design provided the opportunity to distinguish the effects of executive coaching from the effects of 360 degree feedback and compare the two groups at the same point in time (after the training group had received executive coaching) to establish whether executive coaching had an impact on the psychological and behavioral measures. Both the psychological and behavioral measures were collected through questionnaires. The psychological questionnaire was emailed to leaders in the training and control groups to complete. We received 20 usable returns representing an 87% response rate for the psychological measures. A short version of the 360 degree feedback questionnaire measuring the behavioral items was mailed to all leaders in the program, their supervisors, and 5 team members. Data was returned from 23 leaders, 23 supervisors, and 110 supervisors, one leader did not receive any team member feedback; this represents a 97% response rate for the behavioral data. The major data collection stages are presented in figure 1.

Insert Figure 1 about here

Measures

Self efficacy. Self efficacy was measured with the transformational leadership self efficacy scale developed by Mason, Parker, & Griffin (2005). This 11-item scale assesses the leader's confidence that he or she can perform transactional and transformational leader behaviors. The authors reported an internal reliability above .90 for this measure, and found that it correlated with both self and team members' ratings of the leader's transformational leadership. A sample item was "How certain are you that you can get your team to consistently perform above what is typical?" These items were measured on a scale ranging from 0 'Totally Uncertain' to 10 'Totally Certain'.

Developmental support. Developmental support was measured with 5 items, developed specifically for this study. This scale was designed to measure the amount of support the leader perceived was available during the developmental process and the extent to which the leader felt accountable for reaching his or her developmental goals. An example item was "I feel supported in my development efforts". This variable was measured on a 5 point Likert scale where 1 represented 'Strongly Disagree' and 5 represented 'Strongly Agree'.

Positive affect. Positive affect was measured using Mason, Parker and Griffin's (2005) positive affect scale which they report as having an internal reliability of .75. In this scale, respondents are asked to report how often they had felt "energized" (for example) at work over

the past month. These items were measured on a 5 point Likert scale where 1 represented ‘Not at All’ and 5 represented ‘All the Time’.

Openness to new behaviors. Openness to new behaviors was measured with 4 items, developed for this study. The items assess the extent to which leaders examine their current approaches and search for alternative ways of behaving. A sample item is “I explore alternative ways of behaving with my team”. This variable was also measured on a 5 point Likert scale where 1 represented ‘Strongly Disagree’ and 5 ‘Strongly Agree’.

Developmental planning. The measure assessing leaders’ developmental planning was also specifically designed for this study. The items measured leaders’ perception that they had specific and challenging developmental goals, for which they could identify a source of feedback. The scale consisted of 5 items, a sample item being “I know what information I will use to determine whether I am achieving my development goals”. These items were measured on a 5 point Likert scale ranging from 1 ‘Strongly Disagree’ to 5 ‘Strongly Agree’.

Transformational leadership. A twenty item measure of transformational leadership behavior was used to assess leaders’ transformational leadership behavior. These twenty items represented a subset of the 96 item transformational leadership questionnaire used for the 360 degree feedback survey designed by Mason, Parker and Griffin (2005). It was considered necessary to use a shortened form of the survey to reduce the amount of data being collected from participants, their team members, and supervisors.

Owing to the small sample size and the exploratory nature of this research, an alpha criterion of $p < .10$ was adopted, as it is deemed acceptable under such circumstances (Nardi, 2003).

RESULTS

The small sample size ($n = 23$) meant that it was not possible to test the factor structure of the study measures, but examination of the diagonal elements of Table 1 demonstrates that all of the study measures showed acceptable internal reliability, with alpha coefficients above .70. The correlations reported in this table also support the discriminant validity of study measures in that correlations were only moderately strong.

Insert Table 1 about here

Hypothesis Testing (H1) - The Impact of Executive Coaching on the Psychological Measures

The first hypothesis predicted that the training and control groups would differ in their level of self-efficacy, developmental support, positive affect, openness to new behaviors and developmental planning after the training group completed executive coaching. Prior to testing for these differences we conducted a series of independent groups t-tests to confirm that the training and control groups did not differ on the psychological measures before the coaching intervention. The results of these analyses revealed that the training and control groups did not differ significantly on any of the measures, specifically, self efficacy, $t(20) = .89, p > .10$; developmental support, $t(20) = .30, p > .10$; positive affect, $t(20) = -.56, p > .10$; openness to new

behaviors, $t(20) = .28, p > .10$; and developmental planning, $t(20) = .50, p > .10$. The hypothesis was then tested using an independent groups t-test, reported in Table 2. The independent groups t-test indicated that the two groups differed significantly in self efficacy, $t(18) = 2.00, p < .10$; their experience of developmental support, $t(18) = 2.16, p < .05$; openness to new behaviors, $t(18) = 4.24, p < .01$; and developmental planning, $t(18) = 5.41, p < .01$. However, the groups did not differ significantly in their reported levels of positive affect, $t(18) = .88, p > .10$. Thus, Hypothesis 1 received partial support.

Insert Table 2 about here

Hypothesis Testing (H2) - The impact of Executive Coaching on Transformational Leadership Behavior

Hypothesis 2 proposed that leaders in the training group who had completed executive coaching would exhibit higher levels of transformational leadership behavior compared with leaders in the control group who did not receive executive coaching. An independent groups t-test, reported in Table 3, indicated that training group did receive higher ratings of transformational leadership behavior from their team members, as compared with the control group, $t(20) = 1.74, p < .10$. However, there was no significant difference in ratings of transformational leadership behavior for the training and control groups when we looked at ratings provided by supervisors, $t(21) = .74, p > .10$, and the leaders themselves, $t(21) = -.03, p > .10$. Thus, the results partially support Hypothesis 2.

Insert Table 3 about here

DISCUSSION

There were two aims for this study. First, this study was designed to examine the effect of executive coaching on the leaders' psychological states. A training and control group design was used to ensure the results could be solely attributed to executive coaching. Second, this study provided much needed non-self report data showing the impact of executive coaching on leaders' transformational leadership behavior.

The study showed effects of executive coaching on four of the five psychological states, namely self efficacy, developmental support, openness to new behaviors and developmental planning. Furthermore, the study found that leaders who had participated in executive coaching were rated higher in transformational leadership behavior by their team members compared with leaders in the control group. However, effects of executive coaching on positive affect, and self, and supervisor ratings of transformational leadership behavior were not significant.

These findings are consistent with the idea that more long-term interventions such as coaching should improve developmental outcomes (Tobias, 1996). They demonstrate that executive coaching helps leaders in their developmental efforts and improves their confidence as a leader. Furthermore, the leaders who participated in executive coaching were more open to trialing new behaviors. As previously argued, executive coaching shares characteristics of the transformational leadership approach and by, for example, stimulating leaders to experiment with

new behaviors they are focusing on continual improvement and innovation (Howell et al., 1993; Jung, Chow, & Wu, 2003).

The results suggest that executive coaching is a good training tool for leaders; however they do not generalize to positive affect, which is more generally concerned with affect at work. It should be recognized that during the time of this study, the organizational environment was in upheaval from a number of public investigations and centralized mergers. Under these conditions leaders may not report enthusiasm or excitement about the organization.

This study also found that executive coaching had an impact on leaders' transformational leadership behavior, as rated by the leaders' team members. This is an important finding for a number of reasons. Firstly, the design of this study means that these effects can be attributed to executive coaching rather than the combination of executive coaching and 360 degree feedback. Secondly, because the team members are working most closely with the leaders they are in a good position to notice such change. The team members are also most likely to benefit from these changes in their leaders as previous research has demonstrated that transformational leadership induces high performance and other positive organizational outcomes, for example, satisfaction (Hater et al., 1988; Koh et al., 1995), commitment to the organization (Barling et al., 1998; Barling et al., 1996; Bycio et al., 1995; Koh et al., 1995), trust in management (Barling et al., 1998), and display of organizational citizenship behaviors (Koh et al., 1995) for team members. Transformational leadership is also associated with higher follower and organizational performance (Barling et al., 1998; Howell et al., 1993; Howell et al., 1989; Kirkpatrick et al., 1996; Sosik et al., 1997).

However, the effects of executive coaching on participants' transformational leadership behavior were not evident when supervisor and self ratings were used to measure transformational leadership behavior. In retrospect, this finding is not entirely surprising as most

of the items in the mini 360 degree feedback questionnaire were examining leader behavior with their team members. As team members' work most closely with the leaders, they have more opportunity to observe such change in leaders' behavior. Conversely, the supervisors do not interact with the leaders as frequently and therefore have less chance of seeing change in leader behavior (Morgenson, Mumford, & Campion, 2005; Pfau & Kay, 2002). Additionally, as team member feedback is the average of 5 independent sources, rather than the supervisor and self feedback, which is based on one person's perception, results are also more reliable and thus more likely to show effects (Atkins & Wood, 2002). Leaders did not report improvements in their self ratings of transformational leader behavior. This is consistent with previous research which has demonstrated that as leaders become more self aware, they tend to be more critical of their development (Kluger et al., 1996; Luthans & Peterson, 2003; Thach, 2002). An appreciation of this by organizations and coaches is important for leaders as they progress through their development.

Theoretical and Practical Implications

The use of executive coaching as a personal and leadership development tool presupposes that it has an impact on leaders' psychologically and behaviorally. This study has begun the process of delineating those effects by utilizing training and control groups. The input from this study therefore is important as much of the previous executive coaching research could not clearly separate the effects of executive coaching from other training interventions (Olivero et al., 1997; Thach, 2002) or requirements of the training program (Smither et al., 2003). Practically this research helps provide information to organizations about the usefulness of executive coaching. The results demonstrate that executive coaching does indeed improve leaders' confidence, perceptions of support, willingness to experiment with new behaviors, and

approaches to developmental planning. Previous research has linked these outcomes to increased commitment to and retention in, the organization, well-being, transfer of learning (Bandura, 1977; Cromwell et al., 2004; Natale & Diamante, 2005; Pidd, 2004; Wood et al., 1989), development (Thach, 2002), and performance (Choi, Price, & Vinokur, 2003; Gist et al., 1992; Tannenbaum, Mathieu, Salas, & Cannon-Bowers, 1991). Organizations now have evidence that executive coaching has an impact on these desirable psychological states.

Further, the non-self report results contribute significantly to the development of theory in this area. Non-self report data has legitimacy and influence because it overcomes some of the potential limitations associated with self-reporting techniques (Jaramillo, Carrillat, & Locander, 2005). Additionally, it is an important source of feedback which demonstrates the flow on effects of executive coaching for developing leaders' transformational leadership behaviors. This should be beneficial to organizations as existing evidence supports positive outcomes for team members as a result of developing leaders' transformational leadership behavior (Bass, 1999). Thus, transformational leadership is beneficial for the organization, the team members, and of course the leader (Hater et al., 1988). Therefore, organizations seeking a transformational leadership development approach now have empirical evidence to demonstrate the utility of executive coaching.

Limitations

The design of this study, incorporating both self-report and non-self report measures, an experimental design, and a field setting, meant that this study offered a rigorous evaluation of the effects of executive coaching. However, there were two limitations associated with this study. Firstly, the small sample size limited the statistical power of the analyses, and while we still found significant effects for executive coaching, some of our non-significant results might be

attributed to the low sample size. A larger sample collected outside the current organization would be desirable to establish the reliability and generalizability of our findings.

Additionally, with respect to the non-self report results, the leaders' team members knew whether the leader was in the training or control group when they completed the leaders' mini 360 degree feedback questionnaire. This prior knowledge may have influenced their responses as they may have felt compelled to acknowledge the effort the leader was demonstrating irrespective of observing any actual change in leader behavior or they may have feared repercussions (even though the responses were confidential) from providing negative feedback about their leader.

Further research

Given that executive coaching research is in its infancy, there are many opportunities for additional research. Flowing directly on from this research, a longitudinal investigation of the impact of executive coaching would be useful. This would include collecting data across a number of time points including a period of time after the leaders have completed executive coaching to identify any sustained impact. Additionally, there is an opportunity to explore the relationship between the psychological and behavioral effects of executive coaching. That is, it would be useful to know which of the psychological measures mediate the effects of executive coaching on leader behavior. It would also be worthwhile re-testing the impact of executive coaching on positive affect with a larger sample and a more specific measure which examines the leaders' enthusiasm and happiness with the executive coaching specifically, rather than with the organization in general. Opportunities also exist to compare effects of executive coaching with effects of goal setting, which is an important component of executive coaching. It would be beneficial to demonstrate whether the effects of executive coaching extend beyond goal setting

training. Following on from this, research could also determine the impact of executive coaching on turnover, job satisfaction, productivity, and organizational commitment.

Finally, it may be useful to collect qualitative data which could provide a richer source of information about executive coaching. Through this, a deeper understanding of how executive works could be gained and also confirmation of the impact of executive coaching on the psychological measures could be made to support the quantitative results.

CONCLUSION

To conclude, executive coaching is increasingly being used to develop leadership skills. However until now, there has been very little evidence to evaluate the effectiveness of executive coaching. The experimental design of this study enabled differentiation of the effects of executive coaching from the effects of the other developmental techniques. The results supported the proposed hypotheses; significant effects were demonstrated for four of the five psychological measures, providing a strong indication of the impact of executive coaching on self-efficacy, developmental support, openness to new behaviors, and developmental planning. Additionally, significant effects from the non-self report data were demonstrated with leaders who had participated in executive coaching receiving higher ratings for their transformational leadership behavior from their team members compared with leaders in the control group. These new findings contribute to the development of empirical research in this burgeoning area.

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TABLE 1
 Training Group and Control Group (at Time 2)
 Correlations and Alpha Coefficients for the Major Measures

	Variable	Mean	s.d.	1	2	3	4	5	6	7	8
1	Self Efficacy	3.58	.87	(α .96)							
2	Support	3.79	.75	.42	(α .77)						
3	Positive Affect	3.47	.56	.36	.20	(α .89)					
4	New Behaviors	3.75	.73	.62**	.52*	.50*	(α .90)				
5	Developmental Planning	3.50	.92	.64**	.66**	.38	.78**	(α .77)			
6	Transformational Leadership (Team Member rated)	3.55	.48	.35	-.17	.22	.38	.25	(α .98)		
7	Transformational Leadership (Supervisor rated)	3.68	.56	.30	.00	-.09	.22	.23	.43	(α .95)	
8	Transformational Leadership (Self rated)	3.84	.43	.24	-.17	-.08	-.02	-.03	.31	.43	(α .94)

^a $n = 20$.

* $p < .05$

** $p < .01$

Two tailed tests.

TABLE 2
 Training Group and Control Group (at Time 2)
 Psychological Measures - Means, Standard Deviations and T-Test Statistics ^a

Variable	Training group		Control group		<i>t</i>	<i>df</i>
	Mean	s.d.	Mean	s.d.		
Self Efficacy	3.95	.61	3.22	.97	2.00*	18
Support	4.12	.44	3.46	.86	2.16**	18
Positive Affect	3.58	.61	3.36	.50	.88	18
New Behaviors	4.25	.60	3.25	.44	4.24***	18
Developmental Planning	4.20	.40	2.80	.72	5.41***	18

^a *n* = 20.
 * *p* < .10
 ** *p* < .05
 *** *p* < .01
 Two tailed tests.

TABLE 3
 Training Group and Control Group (at Time 2)
 Transformational Leadership - Means, Standard Deviations and T-Test Statistics ^a

Variable	Training Group		Control Group		<i>t</i>	<i>df</i>
	Mean	s.d.	Mean	s.d.		
Transformational Leadership (Team member rated)	3.73	.31	3.38	.55	1.74*	20
Transformational Leadership (Supervisor rated)	3.79	.63	3.62	.44	.74	21
Transformational Leadership (Self rated)	3.87	.44	3.88	.46	-.03	21

^a *n* = 23.

^a *n* = 22 (team member ratings)

* *p* < .10

Two tailed tests.

FIGURE 1
Study Design and Measures

