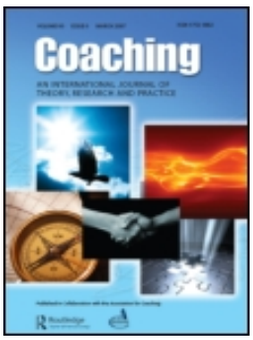

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Team effectiveness and team coaching literature review

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This paper provides a summary of team coaching literature and includes team effectiveness studies that can inform team coaching practice. Four team coaching models, four empirical studies and eight case studies are discussed. Key team effectiveness topics reviewed include communication, decision-making and conflict. Coaching the leader on team design and structure was identified as a key condition of effective team coaching, along with the benefits of individual coaching, peer coaching and team off-sites. The case studies highlight that team coaching resulted in interpersonal and communication benefits while the empirical studies indicated improved team performance. The authors recommend that future researchers should conduct more management and leadership team coaching studies in real work settings.

Keywords: team coaching; team coaching research; effectiveness; leader; leadership; organisation; literature review; team

Introduction

Teams are a key structural component in most businesses today, as evidenced by 82% of companies that have at least 100 employees reporting that they rely on teams (Gordon, 1992 as cited in Cohen & Bailey, 1997, p. 239). Additionally, teams are necessary for organisations to respond to the changing global, economic and workplace demands (Kozlowski & Ilgen, 2006). This confluence of factors has made teamwork one of the most common skills required in workplaces today (Cappelli & Rogovsky, 1994). Although teams are a common structure for getting work done in organisations, many leaders are unaware of how to best lead their teams to high performance, which is the team's ability to create a high quality output that consistently meets or exceeds the team's goals (Wageman, Nunes, Burruss, & Hackman, 2008). Klein describes the current knowledge gap between research and practice:

> Unfortunately, we've got a long way to go in professional, technical, information, and service-related environments when it comes to educating organizational decision makers regarding the wealth of knowledge we possess about managing work teams. (Klein, 2012, p. 53)

This review of the literature serves (1) to highlight some team effectiveness research that leaders and coaches can use to educate themselves and others about how to

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achieve greater performance, especially as it relates to team coaching and (2) to review the team coaching literature.

History of team coaching

Team coaching is distinct from individual coaching because in team coaching, the team as a whole is the client and collective performance is the goal, versus the individual focus of one-on-one coaching. Team coaching involves direct interaction with a team to help members effectively coordinate and make task appropriate uses of their collective resources to accomplish the team's work (Hackman & Wageman, 2005). The goal of team coaching is to foster team effectiveness and performance by coaching the team to enhance their effort, review or generate strategies, and consider how knowledgeable and skilled members are utilised to carry out their team tasks (Hackman & Wageman, 2005). The team coach provides an objective view of the team and facilitates conversations that enable the team to adjust their ways of working together in service of their goals.

Organisational team coaching grew out of a number of fields: group development (Tuckman, 1965), group process (Lewin, 1948), process facilitation (Schein, 1969), systems thinking (Argyris, 1990; Senge, Kleiner, Roberts, Ross & Smith, 1994), and developmental coaching (Kozlowski, Gully, Salas, & Cannon-Bowers, 1996). Katzenbach and Smith (1993) were early influential thought leaders who posited that teams need to rally around a common and compelling team purpose and have goals that link to performance results.

Several French coaches have published works on team coaching, including Devillard (2005) who wrote about team dynamics and whose work was the basis for Team-Scan, a team assessment tool. Cardon (2003) developed a systemic team coaching approach. Moral (Giffard & Moral, 2007; Moral, 2009) has developed a systemic and developmental approach to team coaching, in addition to an assessment framework for team coaching.

Two authors in North America, Hackman and Wageman, worked both separately and then together to develop a model of team effectiveness, a corresponding theory of team coaching and a Team Diagnostic Survey that can be used in team coaching (Hackman, 1983; Hackman, 2002; Hackman & Wageman, 2005; Wageman, Fisher, & Hackman, 2009; Wageman, Nunes, Burruss, & Hackman, 2008). Several books and articles have also been written to provide leaders and coaches with instructions and techniques for coaching teams and/or groups (Adkins, 2010; Britton, 2010; Brown & Grant, 2010; Dolny, 2009, Guttman, 2008; Hinkson, 2001; LaFasto & Larson, 2001; Lencioni, 2002; Meier, 2005; Mitsch & Mitsch, 2010; Niemela & Lewis, 2001; Thorton, 2010; Zeus & Skiffington, 2002). These books provide some practical field guidance to practitioners, although they require further study to determine the effectiveness of the various approaches used.

Selection of current team effectiveness and team coaching literature

Currently, there are over 130 different models of team performance or team effectiveness components (Salas, Cooke, & Rosen, 2008). The amount of research in team performance and effectiveness is so vast that a full review of this literature body is beyond the scope of this article.

We have chosen to highlight team effectiveness research and literature pertaining to leaders and team coaching practitioners who are working with or leading intact work teams in organisational and business settings. With this in mind, we selected the literature for inclusion based upon four key criteria:

(1) Meta-analytic reviews of team and group effectiveness and performance,
(2) Team effectiveness and performance studies based on categories listed in meta-analytic reviews and terms used frequently by prominent team coaches,
(3) Research papers and seasoned practitioner writings on team coaching,
(4) Studies on intact work teams in organisational contexts.

We systematically searched the research databases, PubMed, PsycInfo and Ebsco for all relevant papers, with a leaning towards English papers published in the last 15 years. We used the search terms 'coaching,' 'team coaching,' 'team development,' 'team effectiveness' and 'team' along with 'meta-analysis and/or review'. We also did a citation search based on the writings of Richard Hackman, Ruth Wageman, Peter Hawkins and David Clutterbuck since these authors have published some of the more well-referenced English guides to team coaching and reviewed international publications including well-known French authors. We stopped our search when we reached key topic area saturation. We then narrowed our topic list down to research pertaining to team coaching, intact work teams and key factors in team performance that were identified by meta-analytic reviews on groups and teams and within writings by these authors.

The following meta-analysis studies were consulted in the category of the meta-analysis reports, criterion one. We selected these studies because they were cited frequently and were large in the scope of literature they included.

- Cohen and Bailey (1997) on teams and groups in organisational settings,
- Kozlowski and Ilgen (2006) for team effectiveness research,
- Mathieu, Maynard, Rapp, and Gilson (2008) on team effectiveness,
- McGrath, Arrow and Berdahl (2000) on the history of group research,
- Mesmer-Magnus and DeChurch (2009) on team information sharing and decision-making,
- Salas et al. (2008) on teamwork and team performance.

For criterion two, these authors highlight comprehensive models of team effectiveness that reflect the complexity of team behaviours. There is an abundance of literature on specific factors that influence team performance. Specific factors were selected for this review based on their perceived impact and importance to team coaching. These factors included:

- Communication (incorporating cohesion, interdependency, feedback)
- Collective intelligence
- Decision-making and information sharing
- Team learning
- Team and interpersonal conflict
- Positive organisational behaviour

Additional team effectiveness topics were referred to in team effectiveness meta-analyses (Mathieu et al., 2008) but were deemed beyond the scope of this review, such as shared mental models (shared beliefs on the team), personality factors, and the role and influence of the team leader.

Also included is a review of the literature on team coaching theories and a summary of most of the team coaching case studies published to date. Currently, there is little research on team coaching and even less describing external team coaching versus the team manager/leader acting as the team's coach.

The literature most often refers to research on project teams or teams that are created for short time frames, sometimes only hours, for the purposes of research, and there is less research on intact work teams in organisations, criterion four. Unfortunately, the clear goals and time bound nature of project work is not necessarily generalisable to more functional or leadership teams who often have less-defined objectives. Cohen and Bailey (1997) provide one of the few meta-analysis studies that describes intact work teams in real organisations.

Comprehensive models of team effectiveness

One comprehensive model of team effectiveness based on real, intact leadership teams was outlined by Wageman et al. (2008). Wageman et al. (pp. 9–13) interviewed teams and stakeholders, and reviewed documents from more than 120 leadership teams to assess team effectiveness, which was defined as:

(1) the ability to create outputs and perform at a level that met or exceeded client and/or stakeholder standards and expectations,
(2) the ability to work together effectively in the present and build capacity for the team to work together interdependently in the future (i.e., the team is getting better), and
(3) whether the team experience contributed positively to individual team members' learning, well-being and development (i.e., the team members became more capable).

They discovered that 21% of the teams studied excelled at performance while 37% were mediocre, and 42% were poor performers (Wageman et al., 2008, p. 12). Similarly, about 24% of teams excelled at developing the team and the individual members while 33% were mediocre and 43% were poor at developing the team and individuals (Wageman et al., 2008, p. 12). Notably, each industry had an array of high and low performing teams; no industry was consistently higher in team performance compared to other industries.

Based on this data, the researchers created a model of team effectiveness that included three essential and three enabling conditions for leadership team effectiveness (Wageman et al., 2008). The three essential conditions included (1) a real team with clear membership and boundaries, (2) a compelling direction or purpose to guide the team's work, and (3) the right people with the knowledge, skill and experience to perform the team's requisite work. The three enabling conditions were (1) a solid team structure of less than 10 members who have a clear set of norms and agreements to guide how they get their work done, (2) a supportive organisational context that provides the information, time and resources to do their work, and

(3) competent team coaching to help the team grow individually and as a team, either provided internally from a team member or provided by an external coach or consultant.

Other studies have tested Wageman and Hackman's theories. For example, Wageman (2001) studied teams at Xerox and concluded that the team structure had more impact on team performance than coaching provided by the team's leader. Wageman (2001) also indicated that the teams that benefited most from coaching were well designed, while teams that were poorly defined at best did not benefit, or fared worse, if the coach was unskilled or focused on providing advice. Furthermore, Hackman and Wageman (2005) and Wageman et al. (2008) reinforced these findings and stated that 50–70% of the variation in team performance could be attributed to creating well-designed teams at the beginning of the team life cycle.

Other researchers have similarly found that adequate team design and structure are required for a team to succeed (Beckhard, 1972; Friedlander & Brown, 1974; Kaplan, 1979). Liu, Pirola-Merlo, Yang, and Huang (2009) used structural equation modelling with 137 research and development teams and confirmed some aspects of Hackman and Wageman's (2005) team coaching theory. Specifically, their results showed that team coaching had a positive effect on team effort and use of skills and knowledge. This in turn led to improved performance strategy, and ultimately, greater team effectiveness.

A different perspective on important team effectiveness factors was provided by Martin (2006) who used a qualitative, multi-case study design to study Hackman and Wageman's team effectiveness model. Martin (2006) found that team leaders thought that Hackman and Wageman's model was valid, but incomplete. Her participants believed that relationship building, communication, leadership personality and leader behaviour were important additional team effectiveness factors. Martin's study does indicate that relationship factors are important in the eyes of team leaders.

Given that there is more information on specific team effectiveness factors than overarching research-based models, this review covers the following team effectiveness factors in more detail: communication (incorporating cohesion, interdependency and feedback), collective intelligence, decision-making and information sharing, team learning, team and interpersonal conflict, shared leadership, and positive organisational behaviour.

Team effectiveness factors and conditions

Communication

Many studies suggest that the quality of team communication affects the level of interdependence and cohesion among the team members, which ultimately influences team effectiveness and performance.

For example, Barrick, Bradley, Kristof-Brown, and Colbert (2007) found that strongly interdependent teams who had high cohesion and good 'within team' communication had higher performance than highly interdependent teams with lower cohesion and poor communication. This finding aligns with at least one other study which has found higher performing teams of students working together for a semester demonstrate higher interdependence and cohesion (i.e., emotional commitment

to other team members), and greater tolerance for conflict than lower performing teams (Tekleab, Quigley, & Tesluk, 2009).

In another study related to effective team communication, Woolley, Gerbasi, Chabris, Kosslyn, and Hackman (2008) found that the teams who performed worst were those that had expert members (i.e., high content knowledge and capabilities) and did not receive a collaborative planning intervention. This finding aligns with other research which has found that communication about collaborative planning often does not occur unless there is leadership or instruction to do the collaborative planning (Hackman, Brousseau, & Weiss, 1976; Wittenbaum, Vaughan & Stasser, 1998).

More recently, Pentland (2012, pp. 65–66) found that team member energy and engagement in communication outside of formal meetings predicted one-third of the variation of team performance. As a result, he recommended four strategies for maximising performance, including (1) communicating frequently to team members, (2) having as much communication outside team meetings as in them, (3) exchanging ideas with everyone not just the team leader, and (4) bringing ideas from outside of the team into the team.

Collective intelligence

Woolley et al. (2010) studied the factors that enhance the *collective intelligence* of a team to understand how a group of people can be more intelligent performing tasks than the mere average of all of the individual team member's intelligence scores. They observed that ensuring each member takes a turn in discussions and that teams with more women in them are better at brainstorming, make better decisions and solve problems more effectively than teams that are made up of individuals who might have higher IQs. Woolley and Thomas surmised that women make better team members because they are often more socially perceptive and pick up cues on what others are feeling more than men typically do. These researchers also indicate that besides individual intelligence levels, there is little correlation between a group's collective intelligence and group satisfaction, cohesion, or motivation. Moral, Vallée, and Lamy (2011) further explored the connection between collective intelligence and the capability of a team to create systemic change. They identified that teams who drive change move from team preservation behaviours to more transformational modes of interacting.

Decision-making and information sharing

Decision-making is a key function of many teams and several studies have highlighted factors that support good team decision-making (Gardner & Kwan, 2012; Schippers, Den Hartog, Koopman & Wienk, 2003). The lesson from these studies is that teams need to remain conscious of ensuring they draw upon all of their collective knowledge.

Mesmer-Magnus and DeChurch (2009) did a meta-analysis of 72 independent studies that were conducted over 22 years on team information sharing and decision making. Their analysis revealed that a group's decision or outcome will often be better than any one of its members working on their own, especially if the group has diverse members. However, a common barrier to this synergy is that groups and

teams tend to spend most of their time discussing redundant information and far less time discussing unique information known only to one or a minority of members, particularly when diverse perspectives may be most needed. Furthermore, groups will have a tendency to perpetuate biases inherent in their shared understanding, rather than systematically consider other ways of viewing an issue. Therefore, having a strong structure for soliciting disparate perspectives is necessary for teams to make decisions most effectively.

Team learning

Gibson and Vermeulen (2003) define team learning as 'a cycle of experimentation, reflective communication, and knowledge codification' (p. 222). Teams need to take time to reflect between cycles of action, and this is not something teams tend to build in and do on their own (Hackman, 2003). These pauses to reflect as a team generate both incremental learning and innovative learning (Edmondson, 2002). Other researchers have also validated the importance of taking time to discuss shared knowledge to further team learning (Clutterbuck, 2007; Stasser, Stewart, & Wittenbaum, 1995) or to network outside of the team and introduce new ideas back to the team (Ancona & Bresman, 2007).

Teams can miss important learning opportunities, especially when there are new or returning team members, since teams can tend to under-utilise new team members' ideas (LaFasto & Larson, 2001). This reinforces that it is all too easy for teams to lose and/or not use fresh insight that becomes available to them when team learning is left to chance (Gruenfeld, Martorana, & Fan, 2000).

Thus, team coaching can be leveraged to support team members to structure their work and conversations to communicate well, make decisions and ensure outlier information and perspectives are welcome. Furthermore, team coaches can be integral to support team learning, as noted in this quote:

> We found very few teams that were able to decode their successes and failures and learn from them without intervention from a leader or another team coach. (Wageman et al., 2008, p. 161)

Team and interpersonal conflict

In Tuckman's (1965) classic four stage team development model, conflict is the cornerstone of a healthy storming stage through which a team differentiates, becomes more authentic and fosters greater cohesion. Other researchers describe how moderate task conflict can enhance performance because it evokes multiple perspectives, a result of team members sharing unique information that could be helpful for the team (Hackman, 2011; Mesmer-Magnus & DeChurch, 2009).

Some authors contend that certain relationship conflicts are best managed not through resolution but by agreeing to disagree (De Dreu & Beersma, 2005). Furthermore, it may be that in some circumstances, the conflict could be a result of a significant performance issue that would be most effectively dealt with at an individual level. Felps, Mitchell, and Byington (2006) concur, noting that there are three primary styles of ongoing, dysfunctional behaviours: (1) withholding effort, (2) expressing negative affect and (3) violating agreed upon norms (p. 181). The team

as a whole may react to these dysfunctional behaviours and become negative, distrusting and defensive. Thus, dealing with these dysfunctional behaviours on an individual basis can help support greater team performance.

Another perspective, held by researchers like Beckhard (1972) and Hackman and Wageman (2005) holds that we tend to not see how interpersonal issues are embedded in the structure and context within which a team works. So in this structural view, conflict is usually a sign of higher order process issues, such as unclear roles, goals, or direction, and it is these issues that set the stage for interpersonal conflict.

Thus, this brief review reveals that conflict can be productive sometimes, and not at other times. Although conflict may be a result of structural issues, there may still be a role for leaders and coaches to address relationship dynamics after the underlying structure and design features have been well addressed.

Positive organisational behaviour

The literature on Positive Organisational Behaviour (POB) has grown significantly since Seligman and Csikszentmihalyi (2000) first wrote in the field about efficacy, optimism and resilience. Team POB researchers hope to identify best practices in organisations through the study of well-functioning teams versus dysfunctional teams. Fredrickson and Losada (2005) expanded the POB approach through researching the connection between team effectiveness and positive and proactive team member behaviours. These researchers coded team member interactions according to three dimensions: (1) positivity versus negativity, (2) inquiry versus advocacy and (3) other versus self-focus. They discovered that in the highest performing teams, the ratio of positive to negative comments was 5.6:1 (Fredrickson & Losada, 2005, p. 681). Ratios between inquiry/advocacy (asking questions versus making comments), and other/self (focusing on others versus focusing on self-interests) were both equal. In contrast, low performance teams communicated positive to negative comments at a ratio of 0.4:1, tended to advocate for themselves, and barely considered outside views. Even worse, the researchers found that over time, these lower performing teams show a smaller range of behavioural flexibility and were less able to change (Fredrickson & Losada, 2005, p. 681).

Summary of team effectiveness factors and conditions

Clearly it is important to be cognizant of these many team effectiveness factors when coaching a team, however that is not enough. We need to explore how we actually coach the team when we are in the room with them.

Team coaching

Team coaching is becoming more prevalent, but it is still relatively new in the workplace. A survey completed by Sherpa Coaching (2012) reveals that 30% of the companies they surveyed had team coaching programmes in place, 34% did not have a programme, and 12% of the respondents did not know if their company had any team coaching programmes.

Team coaching models

There are four key team coaching models that relate back to the team effectiveness literature and provide guidance to team coaches. The authors of the models, in order of date, are as follows: Hackman and Wageman (2005), David Clutterbuck (2007), Hawkins (2011) and Moral (2009).

Hackman and Wageman

Hackman and Wageman (2005) proposed a useful, overarching theory of team coaching based on their literature review of team coaching and team effectiveness. Others (Heimbecker, 2006; Liu et al., 2009; Buljac-Samardžić, 2012) have studied Hackman and Wageman's team effectiveness and team coaching models, along with their Team Diagnostic Survey (TDS; Wageman, Hackman, & Lehman, 2005).

Hackman and Wageman (2005) propose in their theory of team coaching that coaching is only effective when the conditions for team effectiveness have been properly set up. Their theory focuses on the functions and goals of a team, not the interpersonal dynamics in isolation, and coaching is tailored to the timing that matches the team's task and work cycle. They identified that once the team ensures the right structural elements are in place, a competent team coach can provide support to help the team align their knowledge, effort and performance strategies to accomplish their collective tasks.

Wageman et al. (2005, p. 5) provided some suggestions for coaching as it relates to each of these three aspects of (1) motivation, (2) performance strategy and (3) talent or knowledge and skill development, as noted in Table 1. Potential coaching interventions or actions include creating and holding the team accountable to agree upon norms or working agreements, acknowledging and reinforcing productive discussion and communication behaviours, and pausing discussions to allow for team reflection (Wageman, et al., 2008, p. 163). Coaches also ensure that the team fully utilises and enhances the knowledge and skill it possesses.

Thus, the Hackman and Wageman (2005) theory of team coaching states that when the enabling structural and contextual conditions are appropriately in place, competent team coaching that is provided (1) at the right time, and that (2) focuses on the task, can affect team performance. Hackman provides a succinct summary of

Table 1. Summary of Hackman and Wageman's (2005) theory of team coaching.

Team effectiveness performance processes	Coaching functions	Team cycle timing	Conditions for team effectiveness (Wageman et al., 2008)
Effort	Motivational	Beginning	(1) Real team
Performance strategy	Consultative	Middle	(2) Compelling purpose
Knowledge and skill	Educational	End	(3) Right people
			(4) Solid team structure
			(5) Supportive organisational context
			(6) Competent team coaching

the impact of team coaching, based on his extensive research and study over the last 40+ years. He states that:

> Our research suggests that condition-creating accounts for about 60% of the variation in how well a team eventually performs; that the quality of the team launch accounts for another 30%; and that real-time coaching accounts for only about 10%. (Hackman, 2011, p. 1)

Clutterbuck

Team coaching specialist, David Clutterbuck (2007), classifies different types of teams (e.g., project, management, virtual teams, etc.), and provides suggestions for coaching each kind. He notes that there has been little research done on team coaching so he provides case-study descriptions from practitioners as a starting point and sees the role of the team coach as a catalyst to stimulate open dialogue in the team. His fluid, directional model suggests that a team coach can discuss and provide support for the team to define its purpose and priorities, understand the environment, identify barriers to performance, create a team learning plan, develop confidence and internalise coaching.

Hawkins

A recent overview of the history of team coaching, team coaching literature and approaches to team coaching was published in 2011 by Peter Hawkins. Hawkins has

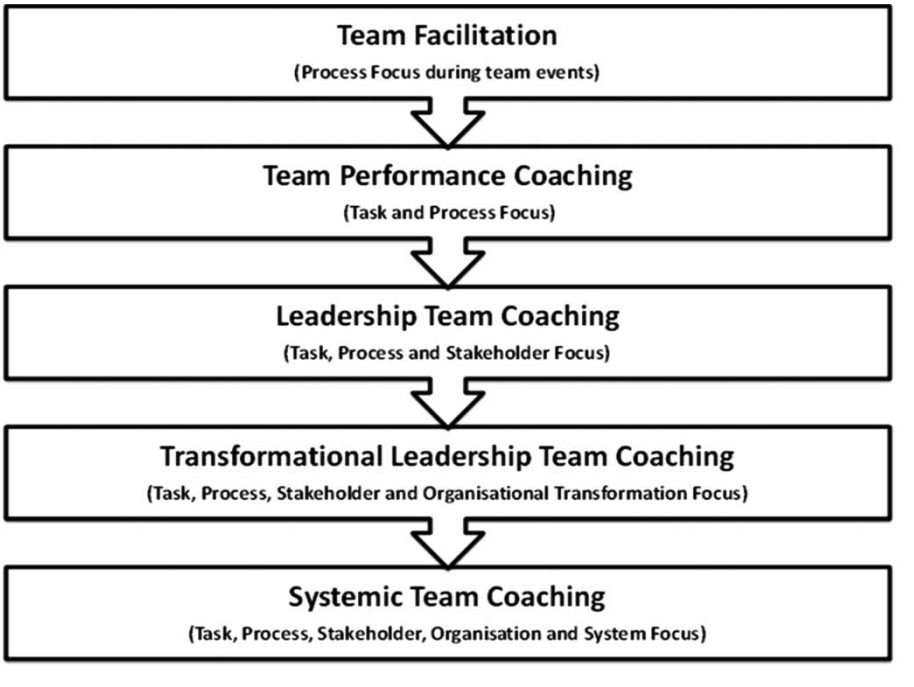

Figure 1. Continuum of team coaching.
Source: Adapted from Hawkins (2011, p. 62).

identified a continuum of team coaching ranging from team facilitation to systemic team coaching (Hawkins, 2011, p. 62) as summarised in Figure 1.

Hawkins proposes that systemic team coaching balances an internal focus on the team's functioning with a focus on the external stakeholder relationships and performance expectations. This belief aligns with the research by Wageman et al. (2008) who also found that the highest performing senior leadership teams were led by leaders who had as much of an external focus as internal.

Once team coaching begins, Hawkins (2011, p. 85) advises following systemic team coaching practices, derived from his five disciplines of high-performing teams. He defines a five-C coaching model that is based on the team balancing task and process with an internal versus external focus. Hawkins' model offers a clear and cyclical approach that practitioners can easily follow. The five Cs are: (1) commissioning and re-commissioning, (2) clarifying, (3) co-creating, (4) connecting and (5) core learning (Hawkins, 2011, pp. 86–99).

Moral

Michel Moral (2009) describes his team coaching methodology and offers some case descriptions to guide practice. His model is akin to action research. Observation feedback is key to his approach, with a focus on determining what slows team momentum and prevents transformative change. Moral developed a team maturity level assessment that informs what team coaching approach to use. For instance, newer teams might benefit from team building exercises whereas more mature teams need a clear focus on performance. Moral is interested in fostering collective intelligence, and how the whole team achieves a greater impact than the sum of the individuals. He also frames coaching according to one of three typical needs that clients have: to increase understanding, create new solutions or products, or execute action plans.

Moral uses experiential exercises, observation and team assessment to highlight patterns of how team members work together. The team leader and team are active in the assessment and debrief so that the coach is not perceived as the expert.

Team coaching studies

There have been relatively few academic studies completed on team coaching, with many of the studies reported being case descriptions of team coaching and the outcomes. The academic literature has not grown much since Grant's annotated bibliography in 2009, at which time there were only 6 studies out of 518 total coaching studies that specifically had the term 'team coaching' in their description.

Four general academic studies have concluded that team coaching does have a positive impact on a team's performance (outputs), and/or processes, as noted in Table 2. Improved outputs included better written products (Heimbecker, 2006), team effectiveness (Liu et al., 2009), innovation (Buljac-Samardžić, 2012) and safety (Buljac-Samardžić, 2012). Additionally, processes that improved were effort, skills, knowledge (Liu et al., 2009) and learning (Buljac-Samardžić, 2012). Furthermore, Liu, Lin, Huang, and Lin (2010) found that increased trust and openness among the team leader and team member enhanced the effect that the leaders' coaching had on the team, and thus team effectiveness. This finding aligns with other studies that have

Table 2. Impact of team coaching based on key academic studies.

Researcher (date)	Type of study	Subjects (country)	Team coaching impact
Heimbecker (2006)	Quantitative – experimental	8 curriculum writing teams (USA)	Products/outputs
Wageman et al. (2008)	Mixed qualitative and quantitative methods	120 senior leadership teams (worldwide)	Customer satisfaction Financial results Team and individual development
Liu et al. (2009)	Quantitative – structural equation modelling of TDS[a] survey results	137 research and development teams (Taiwan)	Effort Skills Knowledge Team effectiveness
Liu et al. (2010)	Quantitative – structural equation modelling of TDS[a] survey results	47 research and development teams (Taiwan)	Team effectiveness
Buljac-Samardžić (2012)	Quantitatively based opinion survey includes TDS[a] questions	152 long-term care teams (the Netherlands)	Innovation Safety Learning
Henley Business School and Lane4 (2010)	Quantitatively-based opinion survey	243 managers (UK, Asia primarily; 88% Europeans)	Engagement Trust Productivity Innovative solutions

[a]TDS survey is the team diagnostic survey by Wageman et al. (2005).

identified trust and openness as factors that impact team effectiveness (Felps et al., 2006; Kozlowski et al., 1996).

Wageman et al. (2008) found that 'outstanding teams had significantly more coaching, both from leaders and from one another, than did mediocre and struggling teams' (pp. 160–161). Although this study involved only internal team leaders and team members as coaches, team coaching was again identified as a key contributing factor to team performance.

Hackman and Wageman's (2005) work was reviewed once again when Liu et al. (2009) created a study to empirically test whether leader-led team coaching impacts team performance. Liu et al. (2009) confirmed that team coaching had a positive effect on team effort, skills and knowledge, and this in turn led to improved performance strategy, and ultimately, greater team effectiveness.

Buljac-Samardžić (2012) did a cross-sectional survey of long-term care teams in the Netherlands to understand how to create healthy, high-performing teams that deliver safe, innovative programmes and services. Buljac-Samardžić (2012) concluded that team coaching by managers helped unstable teams with low cohesion and low self-management build shared commitment, and opened doors for these teams to have constructive discussions, leading team members to feel more empowered. In

both stable and unstable teams, team coaching also helped teams to innovate, especially on unstable teams.

Team coaching case studies

Recently, practitioners have contributed some valuable case studies to the team coaching literature (Carr & Peters, 2012; Haug, 2011; Woodhead, 2011). Other case studies (Anderson, Anderson, & Mayo, 2008; Blattner & Bacigalupo, 2007; Clutterbuck, 2007; Kegan & Lahey, 2009; Mulec & Roth, 2005) would more accurately be termed case descriptions in that they do not fully explain their methodology, nor are they peer reviewed. Results from these studies are outlined in Table 3, and highlights of these case studies are described next.

All eight case studies documented a team coaching process and reported outcomes from the perspective of the team members. Notably, only one study (Anderson et al., 2008) reported an objective business result; this was an increase in the employee engagement results for the participating leadership team's division. The other studies identified many benefits of the team coaching, as assessed by the team coaching participants. The outcomes that were described most often included learning, decision-making, information sharing, communication, improved positive regard for each other, and individual contributions.

A comparison of the practitioner-based case studies with the academic team coaching studies shows that the case study participants most often focused on the interpersonal relationships and communication benefits they experienced. The findings of the academic studies more frequently reported team performance outcomes, not just interpersonal outcomes, except for two studies. Buljac-Samardžić (2012) reported changes in innovation, learning and safety, and Liu et al (2010) discussed the importance of the team leader and team member relationships for team effectiveness.

Team coaching case studies commonly include individual coaching for the team leader and team members. In contrast to what appears to occur in the actual practice of team coaching, the team coaching models described earlier (Clutterbuck, 2007; Hackman & Wageman, 2005; Hawkins, 2011), place less emphasis on coaching individual team members, except for Clutterbuck's model (2007). Wageman et al. (2008) and Hawkins (2011) do recommend in their models that it may be beneficial to coach the leader, though, as part of the team coaching intervention, especially to support the development of the team leader's coaching skills.

Additionally, four of these coaching case studies detailed the inclusion of one or more full day events near the beginning of the team coaching process (Anderson et al., 2008; Blattner & Bacigalupo, 2007; Carr & Peters, 2012; Clutterbuck, 2007). At these events, the team coach supported creating and/or renewing foundational team elements like purpose, goals, roles, working agreements, etc. This approach aligns with the idea that coaching interventions are best matched for the times when the coaching can make the most difference: the beginning, middle or end of a team's work (Gersick, 1988; Wageman et al., 2009). Furthermore, Hackman (2011) and Wageman (2001) agree and point out that there is value in focusing on team design and holding a team launch event because these two elements together can impact up to 90% of team effectiveness (Hackman, 2011).

Table 3. Comparison of team coaching case studies (Common team coaching results in *italics*).

Researcher/ practitioner (date)	Subjects	Detailed approach	Primary team coaching approach[a]	Team coaching results as described by participants
Clutterbuck (Sonja Daugaard) (2007)	Top management team of nine members	Yes	Leadership team coaching	Dialogue *Learning*
Mulec and Roth (2005)	Two product development teams	Yes	Leadership team coaching	Change capacity *Communication* Innovation Creativity *Decision-making* *Learning* Meeting efficiency *Information sharing*
Blattner and Bacigalupo (2007)	Management team	Yes	Leadership team coaching with some systemic focus	Cooperative/ collaborative Focus Openness Positive team climate *Productivity* Trust
Anderson et al. (2008)	Senior leadership team of 10 members	Yes	Transformational team coaching	Coaching others *Communication* *Decision making* Employee engagement Team effectiveness Teamwork
Haug (2011)	Cross-functional team of five	Yes	Team coaching	Goal achievement *Individual contributions*
Woodhead (2011)	Multidisciplinary leadership team of three	Yes	Leadership team coaching	Clarity of shared goals Commitment Sustainability *Communication* *Decision making* *Improved relationships* *Information sharing* *Regard for each other*

Table 3 (*Continued*)

Researcher/ practitioner (date)	Subjects	Detailed approach	Primary team coaching approach[a]	Team coaching results as described by participants
Carr and Peters (2012)	Multi-case study of one government and one corporate team	Yes	Leadership team coaching with some systemic focus	*Collaboration and productivity* *Improved relationships* Personal *learning* and change *Communication and participation* Impact beyond the team

[a]Primary team coaching approach based on Hawkins' (2011, p. 62) continuum of team interventions, in order from (1) facilitation, (2) team coaching, (3) leadership team coaching, (4) transformational leadership team coaching, and (5) systemic team coaching.

Selected practice guidelines for team coaches

Based on this literature review, there were a few key guidelines that stand out as important best practices in team coaching. First, team coaches may best assist leaders to reprioritise their focus towards more front-end team design and launching their team, rather than trying to refocus a team once it is underway (Hackman, 2012). Other advice is to time interventions to coincide with the beginning (motivational coaching), middle (consultative coaching), and end (educational coaching) of a team cycle (Fisher, 2007; Hackman & Wageman, 2005). Third, it is important to hold a team launch but to be careful not to overdesign the group or provide excessively detailed guidance during the initial team launch session so the group can have latitude to figure out the way forward (Hackman, 2012).

Furthermore, one study showed that peer coaching has one of the strongest correlations to team effectiveness compared to any other team intervention (Hackman & O'Connor, 2005). Thus, team coaches would be wise to suggest that teams invite team members to take an informal coaching role within their team to initiate, motivate, and encourage their colleagues to bring forward their full contribution.

Team coaching, while focused on the team, can also include some specific, individual coaching of the team's leader. Many of the team coaching approaches described here also included individual coaching of the team members as a component of the team coaching (Anderson et al., 2008; Blattner & Bacigalupo, 2007; Carr & Peters, 2012; Clutterbuck, 2007; Haug, 2011; Mulec & Roth, 2005; Woodhead, 2011).

Summary of the team coaching literature

Overall, this review of the team coaching body of knowledge reveals that much of the literature is practitioner based. Additionally, the team performance focus of general academic studies contrasts with the interpersonal focus of practitioners and participants in many case studies. Thus, it appears that practice may not have caught up to theory and/or theory is not adequately reflecting practice. Alternatively, it is possible that results are shaped by the research methodology used and the lens of the researcher.

Implications for future research

In reviewing what the team effectiveness and team coaching literature contributes to date, it is important to consider what is needed now to move the team coaching field forward.

First, most of the team effectiveness studies have focused on project and/or analytic teams, not management and leadership teams. There is benefit in exploring how team coaching can impact the effectiveness of senior leadership since these teams have great impact on employees, external stakeholders, the environment, and the global social and economic community at large.

A second observation is that far more research is needed on real teams in real work settings, rather than simulated teams working for short periods together in laboratory environments. This was the same observation made by Edmondson (1999) over 13 years ago.

Third, a considerable amount of research has been done on individual factors that influence team effectiveness versus a more holistic, comprehensive view that captures the growing complexity of challenges that teams face, and the factors that influence their effectiveness, in the real world. Some of the new more sophisticated research methodologies like nonlinear dynamic modelling may support this more complex understanding (Fredrickson & Losada, 2005).

There is also an opportunity for more evidence-based practice, and opportunities for research on team coaching approaches that are well informed and well constructed. Currently, most team coaching case studies do not explicate links between their approach and team effectiveness theory or models. Furthermore, Fillery-Travis and Passmore (2011) note that the field of coaching generally needs more rigorous, large-scale quantitative studies. As team coaching matures and moves beyond theory generation, larger scale studies will be important.

Conclusion

Overall, this review provides a summary of the general academic and case study research for team coaching, with reference to key team effectiveness literature. At this point, the academic literature is still exploratory, and mainly indicative of directions and implications for future research. Team coaching studies could better extend their research questions and findings to provide clear guidance and implications for effective practice.

And finally, there is an opportunity for team coaches to play a pivotal role in bringing the team effectiveness literature to organisational teams who want and need to enhance their team performance to meet the demands of their stakeholders. As Klein has noted:

> It's no longer a question of whether the science can inform team effectiveness best practices. It can, and it does. The question is how we can make this information more accessible to organizational practitioners? (2012, p. 53)

Thus, there is an opportunity to better merge team coaching research and practice such that each community is enhanced by the learning from the other.

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