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Applying transformational leadership theory to coaching research in youth sport: A systematic literature review

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Abstract

There is growing recognition that Transformational Leadership theory (TFL) holds significant potential for coaching research in youth sport. While the existing literature offers insight into the types of athlete outcomes that are associated with TFL, studies evaluating how these outcomes can be acquired are limited. The purpose of the present study was to synthesise and integrate research across a variety of disciplines (e.g. organisational psychology, health care and promotion, education, and sport and exercise psychology) examining the processes by which TFL influences followers' (i.e. employees, students, patients, athletes, etc.) psychosocial development. A systematic search was conducted of six electronic databases covering a wide range of disciplines. Peer-reviewed, original studies published in English were included in this review. The initial search yielded 2077 papers, of which 151 met the selection criteria and were retained for analysis. A descriptive, content analysis-based approach was used to assess emerging patterns in research design and study findings. Results revealed numerous processes at the intrapersonal, interpersonal, and environmental levels that contributed to the relationships between TFL and follower development. A conceptual model of these processes is proposed, along with recommendations for future coaching research in youth sport.

Sport provides a fertile context for facilitating Positive Youth Development (PYD; Fraser-Thomas, Côté, & Deakin, 2005). Proponents of this perspective contend that engagement in quality sport programmes that build on youth's strengths and abilities can foster the acquisition of a wide range of positive developmental outcomes (Holt & Neely, 2011). Previous research consistently highlights that sport does not automatically translate to positive development; rather, the outcomes of sport participation are dependent upon the complex interaction of several social and contextual factors. One aspect of the sport environment that is critical to the realisation of positive developmental outcomes is the coach (Petitpas, Cornelius, & Van Raalte, 2008). There is consequently a need for researchers and practitioners to continue investigating how coaches can most effectively foster positive sport experiences for youth.

A central tenet for coaches adopting a PYD approach is that the desired outcomes of youth sport participation encompass not only higher levels of performance (i.e. sport expertise) and participation (i.e. lifelong participation), but also enhanced personal development (i.e. psychosocial outcomes, such as initiative and leadership skills). Researchers have expressed concern, however, that the processes by which coaches can cultivate personal development in sport are not fully understood (Côté, Bruner, Erickson, Strachan, & Fraser-Thomas, 2010). Additionally, since the majority of youth sport coaches are volunteers, coaches have received very little training relating to athlete development (Holt & Neely, 2011). Furthermore, the vast majority of training received by youth sport coaches tends to focus on practice design and skill development, rather than on the promotion of PYD-based outcomes (Evans, McGuckin, Gainforth, Bruner, & Côté 2015). In an effort to enhance our understanding of how coaches can positively contribute to PYD, the coaching literature may benefit from the adoption of novel theoretical approaches that emphasise the importance of fostering personal growth and development.

One framework that has the potential to aid researchers in their exploration of how coaches can influence PYD is Transformational Leadership theory (TFL; Bass, 1998). TFL involves behaviours that are designed to empower, inspire, and challenge followers to enable them to reach their full potential (Bass & Riggio, 2006). The term followers is intended to be used as a broad term to capture those individuals whom a transformational leader is trying to develop. As such, this term may refer to employees, recruits, patients, students, or athletes, depending on the context in which the research is conducted. TFL theory is well established within the organisational psychology literature as research within organisational settings has consistently found positive links between TFL and follower outcomes, including well-being (e.g. Arnold, Turner, Barling, Kelloway, & McKee, 2007) and motivation (e.g. Piccolo & Colquitt, 2006). Despite being successfully applied in contexts such as health care, the military, and education, studies investigating the applicability of TFL theory within sport are limited (Vella, Oades, & Crowe, 2013). Nonetheless, there is increasing recognition that the TFL framework holds significant potential for coaching research (Rowold, 2006).

One of the most commonly used conceptualisations of TFL suggests that it is comprised of four dimensions: (a) Idealised influence (leaders behave as role models and gain their followers' trust and respect), (b) inspirational motivation (leaders hold high expectations and communicate a compelling vision of the future), (c) intellectual stimulation (leaders encourage their followers to consider different perspectives and empower them to contribute novel ideas), and (d) individualised consideration (leaders display genuine care and concern for their followers by recognising their individual needs; Bass & Riggio, 2006). A key tenet of TFL theory is the distinction between transformational and transactional leadership behaviours. Transactional behaviours include offering rewards or punishments for followers' task execution and monitoring follower behaviours (Bass & Riggio, 2006). According to the augmentation hypothesis, transactional behaviours represent the necessary foundation for effective leadership, but are insufficient for optimal follower development (Bass, 1998). TFL can thus build upon this foundation to achieve superior levels of achievement and well-being.

While the TFL framework represents one of the most prominent positive leadership theories, it is important to acknowledge other examples of strength-based approaches to leadership, including authentic, spiritual, and servant leadership (Mills, Fleck, & Kozikowski, 2013). Authentic leadership refers to a style of leadership that is centred on a leader's self-awareness of their moral values and their devotion to behaving in line with those values, whereas spiritual leadership centres on cultivating a culture of values by creating inspirational visions for followers. Similar to TFL, servant leadership is highly focused on follower development and is comprised of five dimensions, including altruism, emotion, wisdom, persuasive mapping, and organisational stewardship (Barbuto & Wheeler, 2006).

Although each of these theories offers valid, yet distinct paradigms for contemporary leadership, TFL may be particularly relevant for examining coaches' influence on PYD in sport for several reasons. First, TFL is broadly concerned with enabling followers' to reach their full potential and by helping to transform followers into future leaders (Avolio, 1999). TFL thus nicely complements a PYD approach to sport, which aims to build on youth's strengths and abilities to enable them to effectively contribute to society as youth and ultimately, as adults. Furthermore, previous research indicates that leadership is often viewed as a critical life skill that should be fostered through sport (e.g. Gould, Voelker, & Griffes, 2013). If leadership skills can indeed be fostered through sport, it is likely that youth can learn these behaviours both experientially and vicariously through their interactions with influential social agents, namely coaches. As such, TFL theory may be eminently useful in exploring how sport may help to cultivate youth's leadership skills.

Second, previous research indicates that TFL can be developed through training interventions and that such training can be effectively applied in a variety of settings (e.g. Barling, Weber, & Kelloway,1996; Beauchamp, Barling, & Morton, 2011). The lessons learnt regarding TFL can

consequently help to shape the design, implementation, and evaluation of coach education programmes that extend their focus beyond practice planning and skill acquisition to the promotion of interpersonal behaviours that emphasise youth development. The potential to effectively teach and develop TFL behaviours represents a key distinction between TFL and other influential theories of leadership, as there is limited existing evidence to suggest that such leadership styles can be developed through training interventions.

Additionally, TFL offers a unique vantage point from which to study coaches' abilities to foster PYD in sport since it complements several elements of other influential coaching models. For instance, similar to the Motivational (Mageau & Vallerand, 2003) and Mediational (Smith & Smoll, 2007) models of coaching, TFL involves behaviours such as providing athletes with meaningful choices, offering athletes support, and acknowledging athletes' feelings and concerns. TFL nevertheless represents a novel approach because it both integrates these elements into a single leadership style and encompasses components that are not explicitly addressed in existing coaching models (e.g. the moral and ethical components represented in idealised influence dimension of TFL).

Lastly, an extensive body of literature demonstrates consistent associations between TFL and positive outcomes, even across different contexts and cultures. Conversely, researchers caution that paradigms such as authentic, servant, and spiritual leadership may benefit from further empirical support (Mills et al., 2013). Coaching researchers can therefore build upon and extend the line of TFL research.

Consistent with this contention, previous studies have explored the utility of the TFL model in the sport environment with promising results. Evidence exists to suggest that coaches' use of TFL behaviours is linked with positive psychosocial outcomes, including athlete satisfaction, effort, motivation, and group cohesion (Arthur, Woodman, Ong, Hardy, & Ntoumanis, 2011; Callow, Smith, Hardy, Arthur, & Hardy, 2009; Charbonneau, Barling, & Kelloway, 2001; Rowold, 2006). Of particular relevance to PYD research, Vella et al. (2013) demonstrated that TFL may foster youth's personal development as higher ratings of coach TFL behaviours were associated with the development of personal and social skills, cognitive skills, goal setting skills, and initiative. The effectiveness of TFL within sport thus appears to parallel its influence in other contexts.

Although the existing literature offers some preliminary insight into the types of athlete outcomes that may be associated with coaches' use of TFL behaviours, there is a paucity of studies evaluating how these outcomes can be acquired. This is a particularly important limitation to acknowledge given that TFL behaviours primarily influence follower outcomes indirectly (Avolio, 1999). As such, an important question for coaching researchers moving forward is not necessarily whether transformational coaching works, but rather why and how it works. In order to fully illustrate how TFL theory can be employed as an effective framework for investigating and potentially

facilitating positive coaching behaviours, it is crucial for researchers to have a thorough understanding of the processes by which TFL exerts its influence on follower outcomes.

Accordingly, the overall aim of this paper is to illustrate how TFL theory may be a salient framework for understanding coaches' influence on youth's development in sport. To this end, this paper synthesises TFL literature from several fields and disciplines closely allied with sport and exercise psychology, such as organisational psychology, health care and promotion, and education. Although synthesising research across multiple fields may appear to be a daunting task, it is an important step for researchers hoping to apply TFL theory in youth sport. Indeed, an understanding of the interdisciplinary connections in the TFL literature may enable scholars to better situate their research agendas and to understand their work within the broader context of leadership research. On a more practical level, an awareness of the overlaps between different disciplines may encourage coaching researchers to engage in interdisciplinary projects. Such endeavours can offer coaching researchers a unique opportunity both to share knowledge and resources and to meaningfully promote positive outcomes for youth, whose development is often shaped by factors that stretch across disciplinary boundaries.

A secondary aim of this review is to provide concrete recommendations for researchers and practitioners wishing to apply TFL theory in the youth sport context. Drawing upon the results of the review, this paper seeks to identify future research opportunities for investigating how transformational coaching behaviours may be linked with youth's development. It is hoped that this paper will help guide researchers interested in uncovering how TFL can most effectively be used by coaches to promote positive development. Overall, in order to effectively demonstrate how TFL could be potentially applied within the youth sport context, this review will provide a critical assessment of the nature and extent of knowledge on TFL. Furthermore, this review will present a conceptual model that can be used to guide and understand TFL research in sport.

Method

Eligibility criteria

The general inclusion criteria for this review required that studies were: (a) Published in English, (b) original research or reports published in peer-reviewed journals, (c) evaluated direct leader– follower relationships (i.e. studies where leaders had direct, frequent contact with their followers), and (d) conducted with field-based samples (i.e. relationships were not hypothetical or artificial, such as vignette studies). Criteria (c) and (d) were included since the findings from laboratory-based or indirect leadership studies may not be applicable to the realities of the coach–athlete relationship. Further inclusion criteria stipulated that studies: (e) presented data that addressed

the mechanisms or processes by which TFL may influence followers' psychosocial outcomes, and (f) examined mechanisms and/or outcomes which would be relevant to the youth sport context.

Identification of papers

A systematic search of six electronic databases was conducted, including ABI Inform/Global, ERIC, MEDLINE, PsycINFO, SPORTDiscus, and Web of Science. These databases were selected since they covered a wide range of disciplines that have employed TFL theory, such as organisational psychology, health, education, and sport and exercise psychology. To search these databases, a combination of keywords and search terms were employed. These keywords and search terms constituted two groups: (a) "transformational leadership" AND (b) process OR mechanism OR mediation or moderation, with each database search combining the keywords from both groups. The truncation symbol was added to the most basic word stem for each keyword to ensure that all associated terms were included in the search. To supplement the database searches, the reference lists of all extracted articles were scanned to identify any additional relevant studies.

Study screening/selection

Screening of the potential studies was conducted in three phases. Citations and abstracts were screened in Phase I, with studies unrelated to TFL being excluded immediately. In Phase II, the remaining citations and abstracts were screened against the full set of inclusion and exclusion criteria. Phase III consisted of obtaining and reviewing the full text of articles of potentially relevant studies and scanning them to ensure that they adhered to the selection criteria. The review and selection of articles was constantly audited throughout the search process. The authors met on multiple occasions to review the search criteria, discuss the articles retrieved, and examine the inclusion/exclusion of variables related to leadership processes and youth sport. Any debates regarding the selection of studies were resolved through discussion between the authors.

Data extraction

Data were extracted from the selected studies using a standardised form. The extracted data included: (a) Sample size, (b) sample characteristics (i.e. gender, age range), (c) study design, (d) study context (i.e. education, etc.), (e) country, (f) interpretation of TFL, (g) measures of TFL, (h) psychosocial processes and outcomes under investigation, and (i) key results in relation to the processes by which TFL influences followers' psychosocial outcomes. Collectively, these variables enabled the researchers to assess the state of the current evidence base and to provide directions for future research.

Quality review

Each selected study was reviewed for methodological quality using an adapted quality assessment tool that has previously been used in systematic reviews of leadership literature

(Cummings et al., 2008; Cummings et al., 2010), as well as criteria that were based on the systematic review guidelines proposed by Downs and Black (1998). This tool assessed four key elements of each study: Research design, sampling, measurement, and statistical analysis. The tool was comprised of 15 items and a total of 16 points could be assigned to each study. Fourteen items were scored as either zero (*not met, unable to determine, or not applicable*) or one (*met*) and one item that indicated leadership measurement was scored as zero (*not met*), one (*self-report*) or two (*observed*). A total quality score was computed for each study ranging from Low (0–5 points), to medium (6–10 points), or high (11–16 points).

Analysis

Using a descriptive approach, the leadership studies were analysed in two ways. In order to synthesise the literature regarding the mechanisms by which TFL influences followers' psychosocial outcomes, the processes were sorted into thematic categories based on their common characteristics. The methodological patterns within the literature were also explored, such as sample characteristics, research designs, and measures employed.

Results and discussion

The results of the literature search are depicted in Figure 1. Overall, the initial search yielded 2077 papers. Several studies were retrieved from more than one of the six search engines and after removing such duplicates, 1290 studies remained. Based on the preliminary review of the article abstracts and titles, 381 papers were identified as potentially relevant for review and the full-text copies of these studies were subsequently obtained and reviewed. Following the rigorous application of the inclusion/exclusion criteria, 144 unique studies were included in the systematic review. Primary reasons for exclusion were: (a) Examining a leadership framework other than TFL (i.e. authentic leadership, etc.), (b) solely investigating the relationship between TFL and a particular outcome, (c) targeting a process or outcome that was not relevant to youth sport (i.e. processes such as HR practices or outcomes such as financial gains), and (d) not containing original data (i.e. review papers, theoretical models). After scanning the reference lists of the 144 included studies, an additional 7 papers were included, leading to a total of 151 studies retained for review.

Content analysis

Process variables

Of the 151 studies reviewed, 122 investigated possible mechanisms through which TFL indirectly exerts its influence on followers' outcomes. Broadly, the review revealed that the processes through which TFL affects follower development can occur at three different levels, the: (a) Intrapersonal, (b) interpersonal, and (c) environmental levels (see Figure 2 for a conceptual model of these results). The results presented below focus first on the key mechanisms at each of these levels

that may help to explain how TFL behaviours can promote youth's positive psychosocial development in sport.

Intrapersonal level mechanisms: results

Twenty-eight different variables, examined in 71 (n = 47%) studies, were found to be situated at the intrapersonal level. At this level, TFL appeared to be linked with positive psychosocial outcomes by changing followers' perceptions of their tasks, themselves, and their emotions.

FIGURE 1

Figure 1 caption: Stages of study selection

FIGURE 2

Figure 2 caption: A proposed conceptual model linking transformational leadership behaviours to follower outcomes.

Task perceptions.

Firstly, 25 (n = 17%) studies found that TFL exerts its influence on development by changing followers' perceptions of or attitudes towards their tasks. This theme related to how TFL indirectly contributed to followers' psychosocial outcomes by enhancing followers' commitment, engagement, and satisfaction with their tasks, as well as by positively shaping their perceptions of their job characteristics. Rather than emphasising the exchange of between tasks and extrinsic rewards, results indicated that TFL leaders encouraged their followers to discover meaning and value in the activities themselves.

For instance, studies reported that the relationships between TFL and follower outcomes could be partially or fully accounted for by changes in followers' commitment, motivation, engagement, and satisfaction in relation to their tasks, as well as by changes in followers' perceptions of their job characteristics (e.g. Piccolo & Colquitt, 2006). One of the most commonly explored mechanisms with regard to task perceptions was the meaning of work (n = 8, 5%). Results indicated that TFL enhanced followers' enthusiasm for their tasks and inspired them to view their tasks as more significant, important, and rewarding. Studies suggested that the meaning of work was an important mechanism linking TFL and several outcomes, such as satisfaction and well-being (e.g. Arnold et al., 2007).

Several studies (n = 24, 16%) also examined how TFL may exert its influence on follower development through motivation-based mechanisms. Findings revealed that TFL can positively shape psychosocial development by facilitating followers' perceptions of empowerment, motivation, needs satisfaction, flow, psychological capital, and autonomy. For example, results indicated that an important process variable was follower empowerment. Results from these studies suggested that

empowerment acted as a key mechanism in the relationships between TFL and various outcomes, such as innovativeness, organisational citizenship behaviours, and well-being (e.g. Krishnan, 2012).

Self-perceptions.

A second important category at the intrapersonal level related to how TFL influenced followers' perceptions of themselves. Specifically, 18 studies (n = 11%) explored how TFL can positively contribute to psychosocial development by enhancing followers' sense of self, identity, and perceptions of their abilities. The most commonly examined mechanism in this category was followers' self-efficacy (n = 12, 7%). Results indicated that changes in one's selfefficacy was a significant pathway by which TFL can influence a variety of outcomes, such as followers' well-being and commitment (e.g. Nielsen, Randall, Yarker, & Brenner, 2008). Collectively, findings suggested that TFL may help followers develop and strengthen their sense of self, which may ultimately lead to positive outcomes.

Emotions.

A third category at the intrapersonal level focused on the role that followers' emotions play in the relationships between TFL and psychosocial development. This category was comprised of three variables, including followers' positive and negative emotions/affect/moods, emotional intelligence, and emotional (affective) commitment, that were explored in seven separate studies. For instance, Tsai, Chen, and Cheng (2009) revealed that changes in followers' positive moods was a key mediating factor in the association between TFL and followers' helping behaviours. Conversely, Rowold and Rohmann (2009) found that TFL can indirectly influence followers' satisfaction and extra effort by preventing the experience of negative emotions, such as sadness, jealousy, anger, and contempt. Collectively, these results suggest that promoting positive and reducing negative emotions among one's followers may be one underlying mechanism by which TFL can positively shape development. While such studies provide some initial insight into the potential role followers' emotions may play in the association between TFL and psychosocial development, it is important to recognise that this category is based on a small body of evidence and further research in this area would thus be beneficial.

Intrapersonal level: discussion

There are several ways in which youth sport researchers can build upon and extend the research on these intrapersonal processes. While task perceptions for various sport activities tend to be quite positive, there are some aspects that may not be inherently rewarding (e.g. conditioning, repetitive drills, bench player positions). Athletes' motivations for such activities are thus more likely to be externally driven. By enhancing their athletes' perceptions of the meaning and value of such tasks and roles, transformational coaches may help to facilitate positive development. Indeed, coaches who exhibit transformational behaviours may increase the likelihood that their athletes' motivations

for engaging in sport are internally driven and reduce the likelihood that their motivations are undermined by external forces (Shamir, House, & Arthur, 1993; Sheldon, Turban, Brown, Barrick, & Judge, 2003). The practical importance of this process is underscored by previous research demonstrating that meaningful and intrinsically motivating sport experiences are associated with a variety of psychosocial outcomes, such as enjoyment and commitment (e.g. Garcia-Mas et al., 2010). As such, researchers may wish to explore how self-determined task perceptions are fostered through the application of transformational coaching behaviours.

Second, the findings suggest that a key means by which TFL shapes development is by enhancing followers' perceptions of their own abilities. For instance, by encouraging their followers to solve problems and take initiative, transformational leaders convey a sense of trust in their followers' abilities, which positively shapes their perceptions of competence. Accordingly, transformational coaches may positively shape athletes' self-efficacy by fostering factors such as vicarious experiences, personal mastery experiences, and verbal persuasion. Transformational coaches who engage in idealised influence serve as role models for their followers and may thus indirectly affect athletes' beliefs that they too can engage in such behaviours. Transformational coaches may also foster perceptions of self-efficacy by providing opportunities for athletes to experience success and by providing intellectually stimulating, inspiring, and individualised feedback (Shamir et al., 1993).

Given that relatively few studies have explored the role that coaches play in promoting self-efficacy or the influence of increased self-efficacy on personal development outcomes (Feltz & Lirgg, 2001), the study of how TFL behaviours may enhance athletes' positive self-perceptions may be a worthwhile direction for future research. For instance, researchers could explore how transformational leaders' use of instructional and feedback behaviours may foster positive self-efficacy beliefs. Lastly, the examination of emotion-based variables as possible mediators between TFL behaviours and athletes' development represents an exciting new avenue for coaching research. Specifically, researchers may wish to investigate how transformational coaching may influence athletes' affective states, such as contentment or disappointment, and how such affective responses may in turn shape athletes' positive developmental outcomes.

Interpersonal level: results

With regard to the interpersonal level, the literature indicated that TFL appears to work through two key mechanisms, by changing followers' perceptions of their relationships with: (a) their leader or (b) their group.

Leader–follower relationship quality.

This category was comprised of processes related to the quality of followers' relationships with their leader, including trust, Leader–Member Exchange (LMX), identification, and value

congruence (n = 35, 23%). The most commonly studied process in this category was trust in one's leader (n = 14, 9%). Trust reflects the degree to which followers are willing to be vulnerable to their leaders, with the expectation that the leaders will behave in a manner that is valued by the followers. Results highlighted the significant role that trust played in the association between TFL and various follower outcomes, including satisfaction, commitment, and well-being (e.g. Kelloway, Turner, Barling, & Loughlin, 2012).

Another frequently examined process variable in this category was LMX. While LMX is often treated as a leadership theory in its own right, several studies (n = 10, 7%) explored the possibility that the quality of a leader–follower dyad's exchanges might actually mediate the effects of TFL. Findings demonstrated that LMX may be an important mechanism by which TFL can influence followers' organisational citizenship behaviours (e.g. Wang, Law, Hackett, Wang, & Chen, 2005). There was mixed support for the notion that TFL indirectly influences followers' innovative behaviours through LMX (e.g. Lee, 2008; Shunlong & Weiming, 2012).

Group processes.

Several studies (n = 31, 21%) also posited that the effectiveness of TFL may lie in its influence on followers' relationships with their peers, workgroup, or team. Indeed, studies explored how TFL can shape psychosocial development by promoting group processes such as team cohesion, team learning, communication, and a sense of community. The most commonly examined mechanism in this category was identification with the group (n = 6, 4%), which refers to the extent to which an individual experiences the team as an extension of themselves. Findings revealed that TFL may be successful in promoting positive developmental outcomes such as organisational citizenship behaviours (e.g. Tse & Chiu, 2014) because it enhanced followers' level of identification with the team.

Another frequently explored variable in this category was collective efficacy (n = 4, 3%). Results indicated that collective efficacy significantly contributed to the relationships between TFL and various outcomes, such as creativity and self-efficacy (e.g. Kurt, Duyar, & Çalik, 2012). As such, these studies revealed that TFL may enhance followers' confidence in their group's abilities, their expectations for the group's performance, and their willingness to contribute to the group's mission.

Collectively, the results highlighted that TFL can foster positive outcomes by giving followers the opportunity to feel a stronger connection to their team. By emphasising shared goals and a collective mission, TFL enabled members to believe in their group's potential and to build stronger relationships with their teammates. This enhanced sense of connection is mirrored by other variables in this category, including a willingness to share knowledge, increased similarity among followers' teamwork-based cognitions, and the adoption of favourable interpersonal norms.

Intrapersonal level: discussion

Findings from this section thus revealed that an important avenue by which transformational leaders gain their influence on follower development is through enhancing the quality of their interpersonal relationships (Wang et al., 2005). For instance, results highlighted that a key mechanism by which TFL positively shapes follower development was by fostering followers' trust in their leader (e.g. Gilstrap & Collins, 2012). While the role of trust has been investigated within the organisational domain (e.g. Bartram & Casimir, 2007), the influence of trust on the quality of coach–athlete relationships has received relatively little empirical attention and may be a beneficial avenue for future research.

By adopting a TFL style, results suggest that coaches may also foster athletes' personal identification with the coach. Identification with a leader relates to the extent to which youth respect, emulate, and embrace similar attitudes and beliefs as their leader. In particular, coaches who embody the dimension of idealised influence by discussing their values and modelling prosocial behaviours may facilitate athletes' identification with their coach, which may then lead to positive psychosocial outcomes. Furthermore, this identification process may encourage athletes to manifest TFL behaviours themselves when interacting with their peers. Consequently, identification may be a significant mediator to explore with regard to the development of youth's leadership skills.

The results of this section also highlighted that TFL may exert its influence by enhancing the quality of one's relationships with their peers or group. Findings revealed that variables such as team norms, group identification, cohesion, and communication were all processes by which transformational leaders appeared to foster positive outcomes. As such, TFL theory may hold significant potential for understanding how coaches can positively contribute to team dynamics and facilitate psychosocial development at the group level. For example, previous research suggests that the social identities youth form through their membership on sport teams may significantly contribute to youth's participation and personal development outcomes (Bruner, Boardley, & Côté, 2014). Further research exploring the relationship between TFL and group-based variables, such as youth's social identities in sport, is thus strongly encouraged.

Environmental level: results

Finally, numerous studies (n = 23, 15%) suggested that TFL contributes to follower's psychosocial development by influencing the overall environment. In examining different environment-based constructs, including the degree to which the environment fostered perceptions of fairness, justice, innovation, goal clarity, and safety (both physical and psychological), some common elements emerged. Studies highlighted that transformational leaders can positively influence follower outcomes by creating environments which: (a) Encourage followers' autonomy and initiative, (b) state clear goals or expectations, (c) support new ideas, (d) recognise followers' contributions and

achievements, (e) enable open communication, and (f) facilitate supporting, trusting, or honest relationships among team members. As such, TFL can positively influence followers' work engagement, quality of life, and organisational commitment, as well as reduce negative outcomes such as bullying (e.g. Nielsen, 2013).

Environmental level: discussion

Findings indicated that transformational leaders may influence development by altering followers' perceptions of their environment. Interestingly, several of the common elements that emerged (e.g. encouraging autonomy and recognising followers' achievements), share similarities with the concept of motivational climate (Duda & Hall, 2001). Previous research suggests that transformational leaders value learning from challenging situations and are thus more likely to have a learning orientation, which focuses on learning from the task, rather than a performance orientation, which emphasises demonstrating competence to gain positive reviews (Bass & Bass, 2008). Given the parallels between the constructs of a task climate and a learning orientation, researchers could explore whether transformational leaders are more likely to foster a task-focused motivational climate, and how this may influence youth's psychosocial development.

Boundary conditions

In addition to exploring the processes of TFL, several studies focused on understanding the conditions under which the effects of TFL can be enhanced or inhibited. These variables shape the relationships between TFL and followers' psychosocial development and thus create boundary conditions for the effects of TFL. In line with the results of the process variables, these moderating variables could be divided into three categories: Follower characteristics/perceptions, relationship characteristics, and contextual characteristics. First, follower characteristics/perceptions were sub-divided into five categories: (a) Self-perceptions (e.g. self-efficacy), (b) task perceptions (e.g. significance), (c) motivational factors (e.g. autonomy), (d) values/beliefs (e.g. cultural values), and (e) emotions (e.g. affect). Second, relationship-based characteristics related to either leader–follower relationship variables (e.g. LMX, identification, or humour) or group processes (e.g. team identification, collective efficacy, and cohesion). Lastly, contextual variables referred to features of the environment (e.g. change frequency) that either strengthened or weakened the influence of TFL on psychosocial development.

It is important to note that several variables were investigated as both process variables and boundary conditions. There is consequently significant overlap between the contents of the process categories and the moderator categories. The existence of this overlap suggests that it would be crucial for further research to clarify the role of these variables in the relationships between TFL and follower development. Moreover, given that several conflicting findings were reported in relation to

these boundary conditions, more research is needed to understand the role that moderators may play in the association between TFL and psychosocial development.

As indicated above, the review revealed numerous follower, relationship, and contextual-based characteristics that moderated the influence of TFL on follower development. Extending the exploration of these variables into the sport context may involve investigating the role of followers' personality or cultural values, relationship duration, or the number of athletes per team. For instance, this review highlighted that leaders' use of humour enhanced the effectiveness of transformational leaders' behaviours (Hughes & Avey, 2009). Similarly, humour has been proposed as an effective method to promote positive relationships and athlete outcomes (e.g. Cushion & Jones, 2001). Researchers can build upon these findings by examining how certain behavioural aspects of coach–athlete relationships may moderate the association between TFL and followers' psychosocial development. Given the current paucity of research in this area, there are numerous fruitful avenues for future study.

Methodological considerations

Study characteristics

The vast majority of studies were cross-sectional in nature (n = 135, 89%). The sample sizes of the studies reviewed ranged considerably from 42 to over 3000 participants. In general, participants in these studies were adult volunteers recruited from workplaces; however, three studies investigated TFL processes among participants under 18 years of age. Two of these studies were conducted in the sport context and one was conducted within the physical education environment.

The studies used a variety of interpretations of TFL to guide the research (e.g. Bass, 1998; Callow et al., 2009; Podsakoff, MacKenzie, Moorman, & Fetter, 1990), and these interpretations often informed the measurement instruments that were used in the research. All of the included articles utilised quantitative questionnaires to explore the processes by which TFL may influence followers' psychosocial development. The most commonly used questionnaire was the Multifactor Leadership Questionnaire (MLQ; Bass & Avolio, 1990), which was used in 65% of the studies (n = 98). It is important to note that several studies employed modified versions of this instrument or had the scale translated into other languages.

Future directions

Results from this review revealed that the current literature has predominantly assessed the influence of TFL on adults' psychosocial development. As such, there is a significant need for research examining how transformational leaders may facilitate positive development among youth. Followers who are at different ages may have different expectations or preferences for particular types of leadership behaviours as a result of their individual stage of development. This is consistent with

Côté and Gilbert's (2009) proposition that coaching practices should be aligned with the changing needs of athletes across the developmental spectrum. Examining possible differences with regard to age and/or stage of development might help practitioners to appropriately tailor their leadership style to suit the evolving needs of their athletes as they progress through the various stages of athlete development.

There are several avenues for future research that would enhance the quality of the TFL literature in sport. First, longitudinal studies may help shed light on the dynamic and evolving nature of interpersonal processes over time. Youth sport may provide a unique and valuable context in which to conduct such longitudinal studies. Given the relatively short nature of the sport season (as compared to the work-year), sport may provide an ideal environment to explore the development of transformational leaders' relationships with their followers over time.

Another worthwhile avenue for future research relates to the prominent use of questionnaires to measure TFL. For instance, in spite of its extensive use within the literature, several concerns have been raised regarding the validity and reliability of the MLQ (Barling, Christie, & Hoption, 2010). The development and refinement of sport-specific evaluation tools may thus be a beneficial avenue for future research. Moreover, while such questionnaire-based methods can offer several advantages to researchers, it is important to acknowledge that the overreliance on this particular method may restrict the ability of researchers to fully capture the complex and dynamic nature of TFL's association with follower outcomes. There is thus a need for researchers to expand their methodological repertoires. Indeed, qualitative and observational methods may serve to complement quantitative-oriented research. For example, the development of observational tools to evaluate coaches' real-time TFL behaviours may help to demystify the leadership process.

Lastly, there is a need for intervention studies investigating how TFL-based education and training may shape the relationships between leaders' behaviours and followers' psychosocial development. This may be particularly valuable as there is currently a dearth of research testing and evaluating theoretically driven, interpersonal-focused, coaching interventions in youth sport. Researchers should carefully construct and implement coach education interventions to assess the extent to which TFL training may lead to changes in coaches' behaviours, key mediating and/or moderating variables, and ultimately, athletes' outcomes.

Limitations and conclusions

It is important to recognise the limitations of the present review. First, this review did not include grey literature, such as conference proceedings. Consequently, this review could be limited by a potential reporting bias since the published literature has been criticised for over-reporting positive and significant findings. The exclusion of non-English language articles may have led to the under-

appreciation of specific, culturally based factors that influence the association between TFL and development. In addition, the reviewed studies included a wide range of aims, measurement tools, process variables, and boundary conditions. This diversity of focus thus precluded the use of meta-analysis techniques and required the present paper to focus on broader themes. Future research can build upon these findings by examining particular sub-sets of process variables, boundary conditions, or follower outcomes. Moreover, future research could examine the links between the particular dimensions of TFL and positive outcomes to shed light on the specific TFL behaviours that are responsible for facilitating youth development.

Considerable efforts have been made to understand the black box of TFL. The present paper provides an overview of some of the key mechanisms and boundary conditions through which TFL influences follower development. Overall, results suggested that TFL indirectly exerts its influence by helping followers to think more positively about themselves and their tasks, by enhancing the quality of their relationships, and by creating environments that are fair, respectful, and supportive. TFL theory offers an exciting framework for investigating how coaches can best facilitate positive development in youth sport. It is hoped that this paper will spark increased research interest in this important topic.

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*Indicates that reference was a part of the literature review. The full reference list of articles contained within this review can be obtained by emailing the primary author.

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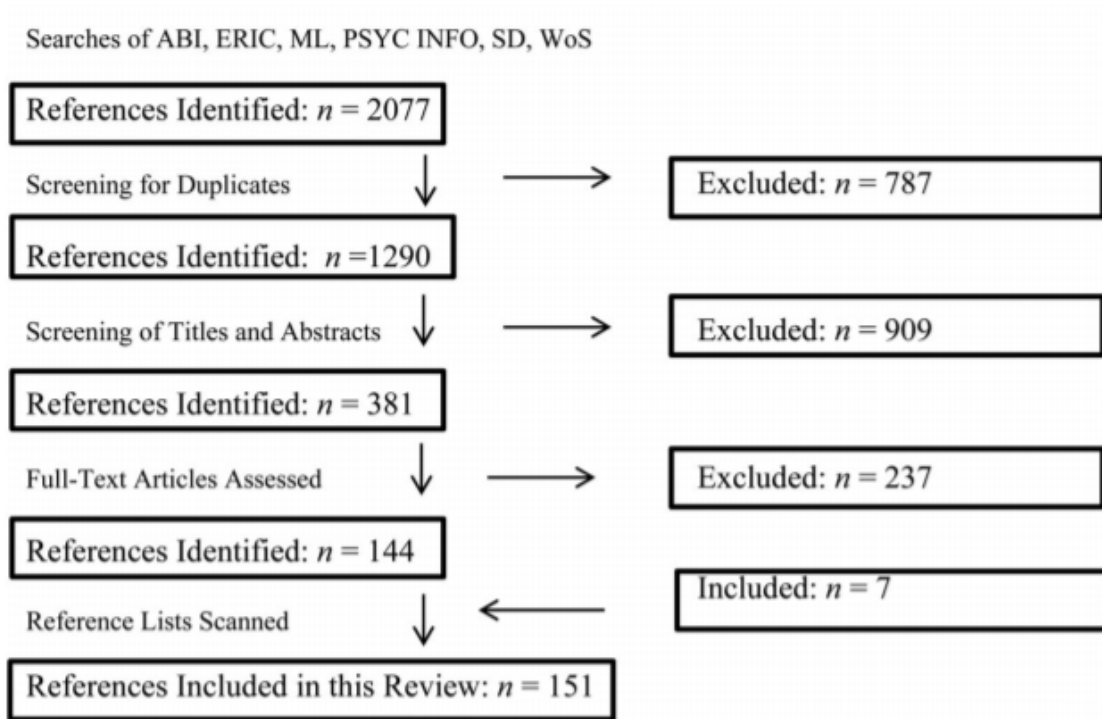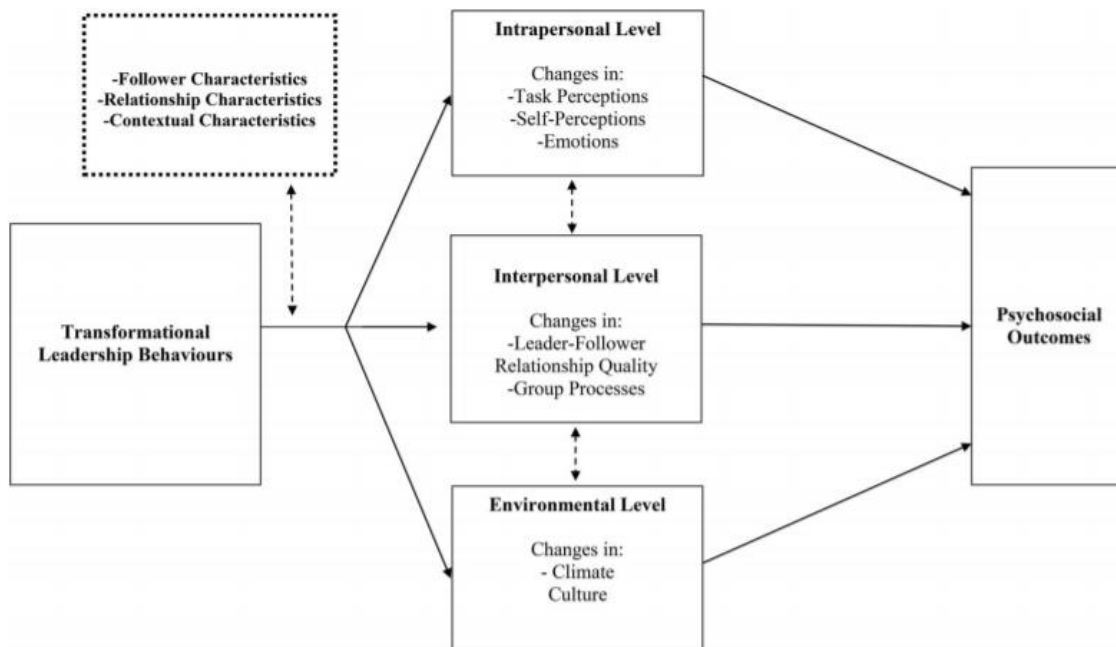
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Figures

Figure 1

Figure 2