The Development of a Scale to Measure Shared Leadership in Youth Sport

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Abstract

Shared leadership is viewed as an effective form of management to deal with increased complexity in youth team sport. However two gaps exist: ‘lack of literature concerning leadership development in youth’ and ‘the paucity of reliable and valid measures to assess shared leadership in youth sport’. This paper seeks to make a contribution to the youth leadership literature by developing an instrument to measure shared leadership among young football players. A total of 746 U17 football players from 62 different youth football teams in two samples in The Netherlands were surveyed. The Youth Athlete Shared Leadership (YASL) in football instrument comprises three factors: ‘steering’, ‘coaching’ and ‘intervening’. This research contributes to the common understanding of youth leadership development in general and the development of youth team leadership in particular. The practical contribution is a tool for coaches to develop shared leadership behavior in youth football.

Keywords: adolescence - team – EFA – CFA – coaching.

1. Introduction

In sport, effective leadership has been described as a vital driver towards high performance achievement (in general, and both at individual and team levels) and contributor to athlete and coach satisfaction (Chelladurai & Riemer, 1998; Gould, Hodge, Peterson, & Petlichkoff, 1987; Riemer & Chelladurai, 1995). Within sport teams the existence of both formal and informal athlete leaders is acknowledged (Holmes, McNeil, & Adorna, 2010; Loughead, Hardy, & Eys, 2006). Findings by Fransen, Vanbeselaere, De Cuyper, Vande Broek, & Boen (2014) confirmed that informal athlete leadership, exhibited by other players besides the team captain, is important and should be acknowledged. In addition they found that it is common (i.e. 70.5% of the time) that informal athlete leaders, rather than the formal leader, take the principal lead, both on and off the field.

Scholars have suggested that the shared leadership approach potentially provides a more suitable solution to team management than classical, hierarchical, or vertical leadership, as represented by the solo leader approach (Day, Gronn, & Salas, 2006; Gronn, 2000, 2002; Hoch, 2007). Shared leadership encompasses a collective social influence process shared by team members aimed towards the achievement of one or more common goals (Hoch, Pearce, & Welzel, 2010a, p.105). The team itself therefore, is an important potential source of leadership (Gronn, 2002), in addition to the formally appointed leaders (e.g., captain in team sport) that are frequently studied as leadership sources (Bass, 1990; Perry, Pearce, & Sims, 1999; Yukl, 2010). Shared leadership is described as the dynamic process of distribution of leadership influence across multiple team members (Pearce & Sims, 2002; Wang, Waldmann, & Zhan, 2014) and as an emergent team property (Hoch, Dulebohn, & Pearce, 2010b). In sport management literature specifically, the subjective voice from stakeholders (formally

and informally designated leaders) is missing while they play an essential role in leadership interactions (Kihl, Leberman & Schull, 2010).

Evidence on shared leadership antecedents and consequences is still scarce (Hoch, 2013; Pearce, Hoch, Jeppesen, & Wegge, 2010). An explanation for this lack of empirical research may be the paucity of reliable and valid measures to assess shared leadership even though the need for such measures has often been expressed (e.g., Avolio, Sivasubramaniam, Murry, Jung, & Garger, 2003; Gockel & Werth, 2010; Hiller, Day, & Vance, 2006). This paper intends to address this gap.

In addition, although a substantial body of literature on leadership and its development in adulthood exists, literature concerning leadership behavior in childhood through to adolescence is scarce and calls for further investigation (e.g., Chan, 2000; Murphy & Riggio, 2003; Oakland, Falkenburg, & Oakland, 1996; Yamaguchi & Maehr, 2004). Knowledge gained from studying youth leadership development is a prerequisite for supporting and challenging youth to be the best leaders they can be (Van Linden & Fertman, 1998).

Although shared leadership is often used in sport management literature as one of the indicators of professionalization when investigating governance in sport on the organisational or institutional level (Ferkins, Shilbury, & McDonald, 2005; Nagel, Schlesinger, Bayle, & Giauque, 2015), to date, there is a paucity of research at the micro level of individuals and sport teams. In this paper, the concept of shared leadership is applied to elite youth football teams.

The aim is to develop an instrument to measure shared leadership among young football players. Specifically, it seeks to measure the gradation to what extent the team as a whole makes use of shared leadership behavior. Understanding shared leadership behavior in youth football teams is important as it provides coaches insight

into which kind of behavior needs additional attention to function as a team and to enhance team performance. In addition, information gained about shared leadership can be used at the individual level to support and challenge youth to be the best leaders they can be.

Our instrument is based on two scales of which the first is the 'Shared Professional Leadership Inventory for Team' (SPLIT) by Grille & Kauffeld (2015). This scale is attuned to the context of team sport. Secondly, the 'Six Natural Leaders Questionnaire' (SNLQ) originally developed by Van Vugt and Ahuja (2011) but further adapted to the context of youth football by Van Dalfsen, Van Hoecke and Westerbeek (2016) was used.

In the following sections, at first an introduction to leadership in youth sport is provided. Next, shared leadership as a concept is explored. Thirdly, methods to assess shared leadership behaviours are examined. Finally, the SPLIT instrument (Grille & Kauffeld, 2015) and SNLQ (Van Dalfsen et al., 2016) are explained as a foundation for developing a scale to measure shared leadership.

2. Leadership in Youth Sport

Many insights into effective leadership can be gleaned from organized sports (Murpy & Johnson, 2011). Children in youth sports programs (Larson, Hanson, & Moneta, 2006) showed significantly higher rates of initiative, emotional regulation, and teamwork experiences compared to other types of organized activities. Research by Chelladurai (2011) has highlighted the many other sports-related skills that are transferrable to leadership situations later in life including: visioning, intellectualizing, cultivating self-efficacy, focus on winning, being self-interested, being competitive, being task and ego-oriented, and cultivating and enjoying the flow experience. Sport

and physical activity contexts are conducive to teaching youth leadership according to Martinek and Hellison (2009), as sport and physical activities provide highly interactive and numerous experiences where leadership is required. Participants involved in elite youth football teams expect that leaders communicate frequently and effectively (Van Dalfsen et al., 2016). Sport and physical activities also provide opportunities for young people to learn about leadership in an enjoyable, motivating way. In developing youth leadership it should be realised that not all consequences of youth leadership may be positive (e.g., bullying maybe a form of destructive dominance misperceived as being leadership) (Ferris, Zinko, Brouer, Buckley, & Harvey, 2007).

In relation to the sport leadership literature, the majority of research over the past 25 years has focused on the roles and impact of either the coach or the manager of the team (Cotterill, 2012). The role of athlete leaders, whilst no less important, has received far less attention (Fransen et al., 2014). For example, some scholars in the field (e.g., Dupuis, Bloom, & Loughead, 2006; Wright & Côté, 2003) have been examining youngsters in formal leadership roles. Gould and Voelker (2012), in that regard, argued that: (1) youth leadership is dynamic in nature, and it involves a complex and flexible interaction between the person, the situation, and his or her followers; (2) youth leadership is learned in phases and stages; and (3) youths can learn to lead if leadership is intentionally developed through extracurricular activities, including sport and physical activities. Given the influence athlete leaders can exert upon the team and its processes, this suggests there is a gap in current understanding of leadership (Cotterill & Franssen, 2016).

2.1 Shared leadership

Shared leadership is rooted in behavioral science with its tenet that the sharing of power creates commitment and increases the effectiveness of group members (Stogdill, 1974). Shared leadership theory originates from and is developed in Western countries (Whetten, 2009). Early studies by Bass, Hare, and McKeachie (as cited in Stogdill, 1974) contended that when groups used a structured collaborative power sharing process, members had a higher degree of understanding, commitment, and decision making. Pearce and Conger (2003, p. xi), summarized its essence: "Leadership is not determined by position of authority but rather by an individual's capacity to influence peers and by the needs of the team (organization) in any given moment". Shared leadership distinguishes conceptually from vertical leadership as leadership is not a property of an individual person with certain attributes or established by the position of a leader but is determined by the focus on the process to achieve a common team purpose (Grint, 2005). The intent of shared leadership is not to replace vertical leadership (Hoch et al., 2010a; Pearce & Sims, 2002) but to enhance teamwork effectiveness (Carson, Tesluk, & Marrone, 2007; Ensley, Hmieleski, & Pearce, 2006).

The relational construct of leadership is increasingly acknowledged by scholars (Kocolowski, 2010; Foldy & Ospina, 2012) and is characterized as a socially constructed phenomenon between workgroup members (Bass & Bass, 2008; Day et al., 2006; Denis, Langley, & Sergi, 2012). The relational construct of leadership is explained by Bekman (2004) as horizontal leadership. He suggests four behaviours to influence the process of leadership: 'inspiring', 'steering', 'coaching', and 'intervening'. 'Inspiring' involves behaviors to improve strategic decisions, to adapt to change, to increase innovation, and to foster commitment to visions and goals (Barry, 1991; Yukl, 2010). 'Steering' aims to increase efficiency and coordination

among team members by assigning tasks, determining requirements, and clarifying priorities and standards (Barry, 1991; Pearce & Sims, 2002). 'Coaching' involves developing and maintaining the team's socio-psychological functioning (Barry, 1991; Perry, Pearce, & Sims, 1999). It encompasses behaviors such as being friendly, supportive, respectful, and generally showing concern for others and their welfare but also includes resolving conflicts, providing encouragement, and ensuring that all members' opinions are heard (Bergman, Rentsch, Small, Davenport, & Bergman, 2012). 'Intervening' provides the team with reality checks and focuses attention on "political" happenings that may affect the team (Bergman et al., 2012).

2.2 Methods to assess the presence of Shared Leadership Behavior

Given the complexity of the phenomenon of shared leadership and the infancy of the field of study, it is not surprising that research on methods to assess shared leadership is lagging (Pearce & Conger, 2003). Methods to advance our understanding of shared leadership encompass quantitative survey-based - and qualitative observation based research (Pearce, 2002).

In terms of a qualitative approach, two approaches found in literature include leadership sociograms and ethnographic methods (Conger & Pearce, 2003). The leadership sociogram method involves the observation of group meeting(s) and recording of interaction patterns. This approach permits a richer understanding of ongoing group dynamics than questionnaire-based methods, and it allows to quantify the analysis as input into a social network analysis. On the other hand, it requires researchers to be onsite, and it does not capture the influence that occurs outside of the specific meeting(s) observed (Pearce, 2002). The ethnographic approach involves extensive, long-term observation of the group in their natural setting(s). It is not solely

focused on the group when they are in a meeting and thereby provides a more naturalistic feeling for the group in its various tasks. The strength of this approach is that it provides the richest possible understanding of ongoing group dynamics. The weakness is that it requires an extensive time commitment on the part of the researcher being onsite for data collection on a single group (Pearce & Conger, 2003). Some researchers have used video analysis to do research on emerging leadership behaviors in teams (e.g., Bergman et al., 2012; Künzle, Zala-Mezö, Kolbe, Wacker, & Grote, 2010). These methods are also time consuming and not always practicable (Agnew, Carlston, Graziano, & Kelly, 2009).

Increasingly ethnographic and case study research has adopted a more pragmatic multiple methods or integrated approach to research shared leadership behaviors (Plowright, 2011; Thomas, 2010). Performance leadership and management research in other domains also have the potential to inform sport management practice, however scholars should be cautious of blindly extracting findings and applying them, since their direct relevance may be questionable (Arnold, Fletcher, & Molyneux, 2012).

Given the complexity of the phenomenon of shared leadership and the infancy of the field of study it was chosen to use instruments in- and outside the context of sports to develop a scale to measure shared leadership in youth football.

2.3 Development of a Scale to measure Shared Leadership in Youth Football

Research on leadership has found that effective leaders use several specific types of behaviours (see Bass, 1990; Yukl, 2010). Grille and Kauffeld (2015) reported on various scholars creating new scales designed to measure certain aspects of shared leadership behaviors (i.e. Avolio et al., 2003; Hiller, et al., 2006; Hoch, et al., 2010b;

Hoch, 2013; Pearce & Sims, 2002). The development of these instruments and their strengths and limitations were largely based on traditional leadership theories and were often built on existing vertical leadership questionnaires with adapted items (Ensley et al., 2006; Hmieleski, Cole, & Baron, 2012). Instruments based on vertical leadership therefore have been discounted.

Exploring the literature further, a study by Fransen et al. (2014), was designed to assess shared leadership roles in the context of adult sport. Grille & Kauffeld (2015 developed an instrument to assess shared leadership including findings from team-, and network research. A study by Van Dalfsen et al. (2016), analyzed leadership specifically in the context of youth football. The authors hereby focused on natural leadership in teams as natural leadership was one of the earliest forms of shared leadership on the prehistoric savannah.

Fransen et al. (2014) assessed roles of shared leadership in team sport. The authors aimed to identify the athlete leaders' roles at the senior level in team sport. The study compared the importance of the captain as a formal team leader relative to the importance of informal leaders. A distinction was made between four different athlete leadership roles: (1) the task leader (helping the team to focus on its goals and during a match providing team mates with tactical advice; (2) the motivational leader (motivating on field and directing emotions of teammates in the right direction for optimal performance); (3) the social leader (taking care of a good atmosphere off the field, hereby serving as a confidant for teammates; and (4) the external leader (taking care of the communication with club management, media, and sponsors).

In a very similar way, Grille and Kauffeld (2015), assessed different dimensions of shared leadership behaviour of professionals working in teams (albeit outside a sport context). The SPLIT instrument consists of a task-, relation-, change-

and micro political- orientation. The ‘task’ orientation includes structure and consists of all activities intended to organize and structure team members’ work. The ‘relation’ orientation comprises of consideration and it indicates the extent to which leaders value the opinions of, and make efforts to be emotionally connected to team members (Fleishman, 1953; House, 1996). The ‘change-oriented’ leadership approach was identified as a third category crucial for leadership effectiveness (Yukl, Gordon and Taber, 2002). Effective leaders are skilled in providing a vision to inspire others and to encourage innovation and modernization (Gilley, Dixon, & Gilley, 2008; Waite, 2013; Williams & Foti, 2011). The fourth category ‘micro political leadership orientation’ relates to engagement in network activities. Personal network connections with other organizational units or external parties have the possibility to provide important resources (Balkundi & Kilduff, 2006; Cross & Prusak, 2002; Morgeson et al., 2010).

Compared to Fransen et al (2014), the “Shared Professional Leadership Inventory for Teams” (SPLIT) from Grille and Kauffeld (2015) demonstrated scale reliability and validity in more than one sample of individual data. Furthermore it showed suitability for practitioners due to the conciseness and practical use and implemented a referent-shift consensus model (Chan, 1998) in which team members assessed perceptions of their team’s leadership as opposed to team captain leadership perceptions.

Finally, Van Dalfsen et al. (2016) tested if the concept of natural leadership can be applied to elite youth team sport, and youth football in the Netherlands in particular. They used the Six Natural Leaders Questionnaire (SNLQ) originally developed by Van Vugt and Ahuja (2011) as their basic framework. Natural leadership has its origins in evolutionary theory and takes the human phenomenon of

complex cooperation as a response to the need for collective action (Van Vugt, Hogan, & Kaiser, 2008). The evolutionary approach postulates that the choice who becomes the leader is influenced by environmental pressures. Van Vugt and Ahuja (2011) used the following situations for their framework: ‘external crises’, ‘coordination in complex situations’, ‘need for resources / change’, ‘external communication’, ‘mediation in internal conflicts’, and ‘the need to develop team skills’. Here, natural leadership is seen as an early form of shared leadership because role distribution during collaborative goal oriented work exemplifies shared leadership. The adapted SNLQ version by Van Dalfsen et al. (2016) proposes a leadership model that is simplified and applied to the context of youth football. The instrument includes ‘competitive-oriented leadership’, ‘leadership of resources’ and ‘leadership communication behaviors’. The dimension ‘competitive-oriented leadership’ originated from the drive of being the best performing team which is one of the core defining characteristics of playing sport. The dimension ‘leadership of resources’ relates to the search for better players, optimizing group conditions such as size of the team and finding additional resources for the team. In sport, it is exemplified how important superior resources (human and physical) are in achieving success. The dimension ‘leadership communication’ relates to mediation in team discussion, arguments and conflicts, making sure that all team members are getting along and to address team members if they fail to commit fully. Participants involved in elite youth football teams expect that leaders communicate frequently and effectively (Van Dalfsen et al., 2016). For the development of the shared leadership scale the instrument of SPLIT by Grille and Kauffeld (2015) and the adapted SNLQ instrument by Van Dalfsen et al. (2016) was used. The instrument of SPLIT was used because it already demonstrated scale reliability and validity, was suitable for

practitioners and assessed team leadership in comparison to individual leadership. The adapted SNLQ instrument was used because it was adapted to youth and secondly because it was adapted to the context of youth sport.

3. Materials and Methods

3.1 Scale development, content validity and questionnaire procedure

With a process of deductive scale development (Schwab, 1980) the "Shared Professional Leadership Inventory for Teams" (SPLIT) by Grille and Kauffeld (2015) with 20 items to measure shared leadership (i.e. shared leadership outside sport) and the 'Six Natural Leaders Questionnaire' (SNLQ) by Van Vugt and Ahuja (2011) adapted by Van Dalfsen et al. (2016) with 15 items to measure natural leadership in youth football were combined as a starting theoretical framework to measure shared leadership behavior in young elite football teams. The SPLIT instrument consists of four categories: 'shared task', 'relation', 'change' and 'micro political' leadership orientation. The SNLQ instrument adapted by Van Dalfsen et al. (2016) consists of three categories: 'the competitive', 'the resourceful' and 'the communicating' leader. In order to merge and adapt these two scales, item development was conducted in six steps (Hinkin, 1998).

At first an expert group consisting of authors of this paper and researchers specialized in youth sport and sport science selected and ordered the items from the two scales (Grille & Kauffeld, 2015; Van Dalfsen, et al., 2016) that were deemed to best assess shared leadership behavior aspects. The expert group had no comments on the initial items or requested to add items. Therefore all items remained (see table 1) and were ordered by the authors and researchers into four categories according to similarities in behavior that can be identified in both instruments. For example:

‘understanding ongoing processes in the team’ (change leadership orientation) relates to ‘intervening in arguments and conflicts’ and ‘making sure that everyone gets on well with everyone else’ (the communicating leader).

Second, the instrument from Van Dalfsen, et al., (2016) was changed into a referent-shift consensus model (Chan, 1998) to emphasize the team perception. For example: ‘I am keen that everyone knows about the group norms’ was changed into ‘as a team we are keen that everyone knows about the group norms’.

Third, items were translated from English to Dutch and from Dutch to English making use of translation - back translation approach.

Fourth, five youth coaches, experts in the domain of youth football, were exposed to all items, with the opportunity to question and suggest changes to formulation as to maximize the understanding and readability of definitions and items.

Fifth, eleven youth football players of one U17 team were guided through the same process to further maximize readability of definitions and items for their peer group. Minor changes were made in definitions and wording by the researchers. The questionnaire was then delivered through two surveys, each with introductions and an appropriate style of communication to fit the respondent group. The questionnaire contained statements that were answered by the team captain, members of the team and the coach. There were three respondent groups selected in order to obtain a triangulated view of leadership and, where possible, to compare differences in views about what constitutes youth football team leadership.

In the sixth step, the authors, listed the items in four blocks of questions as presented in table 1 to provide a structure more easy to fill in on an IPad.

INSERT TABLE 1

3.2 Participant Characteristics

In total 134 teams play at the A-category level in District North in The Netherlands in the U17 age grouping. A simple random sample approach was used to validate the factor structures (EFA and CFA) with each team having the same probability of being selected at any stage during the sampling process. To obtain a representative sample at a ratio of 10 respondents per 1 item (Schwab, 1980) at least 350 respondents were required in one sample. Two different samples were used to gather data. Sample one consisted of 363 U17 youth football players from 32 different youth football teams. On average, the participants were 15 years and 8 months old (M=15.7, with a minimum of 14 and maximum of 17 years old). Sample two consisted of 383 U17 youth football players from 30 different youth football teams. On average, the participants were 15 years and 7 months old (M=15.6, with a minimum of 14 and maximum of 17 years old).

3.3 Questionnaire Procedure

Prior to questionnaire administration, verbal permission to participate was requested from the club, the youth football coach and their football players. Informed consent was obtained from all involved. Twenty IPads with a strong internet connection were used to collect the data on site. The researcher together with an assistant explained the purpose and procedure of the research in the dressing room of the football players, before or after a training session. All participants were also instructed to think about

the whole team and not only focusing on their team captain while answering the questions. In this way we tried to minimize the effect of answering the question in a vertical leadership context rather than a shared leadership perspective. Players and coach completed the questionnaire and data was sent via a hotspot directly into the database using the research system Questback. The questionnaire was configured in such a way that all items required a response before submitting was enabled. This resulted in a 100% (n=363) response rate. After submitting the data, the questionnaire on the IPads was deleted and a new questionnaire was uploaded to ensure each entry to be unique.

3.4 Data analysis: EFA and CFA

Following Grille and Kauffeld (2015), respondents answered on a 6-point Likert-type scale ranging from 1 (“does not apply at all”) to 6 (“fully applies”). A 6-point, even-numbered Likert scale require the user to indicate at least a slight preference even if the respondent feels more or less neutral about a question. This measurably intensifies the respondent's cognitive evolvement in the survey and consequently leads to more valid results (e.g., Chomeya, 2010).

An EFA was employed on the U17 youth elite football team sample using a principle axis factoring analysis with promax rotation. Before executing the factor analysis the dataset was scrutinized for normality and kurtosis values. Estimating skewness values where within acceptable range <+1, >-1 and the absolute value of the kurtosis was less than three times the standard error, both measures being within acceptable range (Hair, Black, Babin, & Anderson, 2010). The item “As a team we want the group to be ahead of other groups” revealed a positive kurtosis and negative

skewness showing the teams competitiveness and willingness to win. The item was excluded from the factor analysis and as such 34 items remained.

A Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and a Bartlett's Test of Sphericity were executed for quality measures (sampling adequacy and if the proportion of the data is well suited). In this study KMO (.93) indicated a strong correlation among items. The Bartlett's Test of Sphericity (3305, df = 190, $p<0.05$) reported a significant relationship indicating that a factor analysis may be useful with the data. To determine whether distinctions among the four shared leadership scales were justified, an exploratory factor analysis was conducted. A common factoring method, principal axis was executed because the principal component accounts for common, specific and random error variances (Ford, MacCallum & Trait, 1986; Rummel, 1970). A principal axis rotation and pro max for extraction was conducted assuming the factors to be relatively dependent as the shared leadership constructs concern human processes.

Although the exploratory factor analytical results provided some evidence of the factor model, confirmatory factor analyses provides a more rigorous test of item loadings as a type of structural equation analysis is designed to assess the goodness-of-fit of rival models (Joreskog & Sorbom, 1993). A confirmatory factor analyses was conducted on sample two given that the model was grounded on theoretical factor structure and its deductive purpose using AMOS. In this study, Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), Chi-square divided by Degrees of Freedom (CMIN/DF) and p of close fit (PCLOSE) are used as fit indices. Model fit for CFA was assessed according to cut-offs proposed in literature RMSEA less than .08 and a CFI greater than .90 indicating an acceptable model (Wang & Wang, 2012), CMIN/DF <3 to be good and PCLOSE > 0.05 (Hu & Bentler,

1999). If the test was rejected, the item with the lowest loading was removed and test continued until the indices fitted (Hair, 2005; Netemeyer, Bearden, & Sharma, 2003).

4. Results

The results from the EFA and CFA are presented in table 2. Confirmatory factor analysis confirmed three factors and the researchers named the scale the 'Youth Athlete Shared Leadership' (YASL) in football. To label the different items, the behaviors of horizontal leaders of Bekman (2004) were used to emphasize the dynamic process of distribution of leadership influence across multiple team members as an emergent team property (Hoch et al., 2010b).

The factor 'steering' consists of items that describe four of the proposed communicating leader factor, including the items 4.6-4.9. This relates to making sure that things get done, looking after the traditions of the group, including new team members in the group, being keen that everyone knows about the group norms. The factor 'Steering' encompasses the communication of the setup of work processes to create conditions for realizing the work.

The factor 'coaching' consists of items that describe three of the proposed relation leadership orientation. The relation leadership orientation included the items 2.3-2.5, related to being a solid team, supporting each other in handling conflicts within the team and never let each other down as a team. The factor 'Coaching' encompasses the support of team members in the learning process.

The factor 'intervening' consists of items that describe two of the proposed micro political leadership orientations. The orientation included the items 4.4 and 4.5, related to asking experts valuable for the team and openness to external assistance in the case of internal team problems. The factor 'Intervening' encompasses of

confronting interactions in the team built on strong arguments to communicate what is desired and what not.

INSERT TABLE 2

The YASL scales analyses revealed convergent validity as evidenced by all AVE (Average Variance Extracted) estimates exceeding the cut-off value of .5 (Hair et al., 2010), with values between .51 and .59, except for the inspiring variables which had a value of .45. The indicators for composite reliabilities were above the common cut-off scores of .70 (Hair et al., 2010; Fornell & Larcker, 1981) from .74 to .82, except for inspiring measuring .62. As the discriminate validity of inspiring did not match the criteria that the squared root of the AVE needs to be greater than any inter-factor correlation, the factor inspiring with its two items were excluded from the scale. This resulted in good convergent and discriminant validities. Cronbach's alphas were acceptable to good (.72-.84). All indicators are shown in table 2. The goodness-of-fit statistics for the three-factor YASL model were (chi-square (24, N = 383)=62.234, CMIN/DF= 2.593 p<.001; CFI = .966; RMSA =.065; PCLOSE = 0.104). The evaluation of fit indices indicated that measurement model fits the data satisfactorily (Kline, 1998).

5. Discussion

This paper sought to close the gap in research regarding the identification of reliable and valid measures to assess shared leadership. Most instruments have not been

applied to sports or to football in particular. This study developed a scale to measure shared leadership among young football players. Specifically an instrument was developed to measure different shared leadership behaviors in youth football teams.

The confirmatory factor analysis delivered three shared leadership categories in youth football, labelled as: ‘steering’, ‘coaching’, and ‘intervening’.

The factor ‘inspiring’ was excluded from the model. As young football players are still in a process of exploring and individual development, shared leadership behaviours to increase innovation and commitment to new visions imaginably have a better fit to the development stage of early adulthood.

All three process factors in this research incorporated strong elements of interpersonal communication and as such it can be argued that being able to communicate effectively is a pre-condition for the shared leadership process. Leaders need to communicate frequently and effectively as expected by participants being involved in elite youth football teams (Van Dalfsen et al., 2016).

Although shared leadership is viewed as a more suitable solution to team management than the hierarchical leadership (Day, Gronn, & Salas, 2006; Gronn, 2000, 2002; Hoch, 2007), pre-conditions are required for shared leadership to be successful at a micro (team) level. Young football players for instance firstly, need to be able to be vulnerable to another party (Avolio, Bass, & Jung, 1999; Dirks, 1999), secondly, they need to cooperate and work interdependently with others, be able to listen and communicate with others (Mitra, Sanders, & Perkins, 2010; Roach et al., 1999; Culp & Kohlhagen, 2000), and finally they need to be willing to influence and be influenced by other team members (Dirks, 1999; Perry et al., 1999).

In future research, the effectiveness of shared leadership should be investigated in context of the level of emotional intelligence (self-awareness, self-

regulation, self-motivation, empathy, social skills) (Harrison & Clough, 2006) as young people are still at an early stage of development. This scale could be used as a tool for providing information while this learning process is in progress.

Because shared leadership theory originates from and is developed in Western countries (Whetten, 2009), it can be argued that the preference of sharing leadership responsibilities is culturally specific. In cultural settings with greater power distance, people tend to accept that power is distributed unequally (Hofstede, 1984), and therefore may be reluctant to take the leadership roles and responsibilities (Chen & Tjosvold, 2012; Hofstede, 1991).

The scale to measure shared leadership is based on perceptions of youth football players and their perceived shared leadership behavior in the team. As this concerns an opinion, the outcome of the scale should always be treated with care.

5.1 Implication for Research and practice

In this research we developed a new scale to measure shared leadership in youth football. We have named this new scale the Youth Athlete Shared Leadership (YASL) in football. YASL can be used in the context of football to test if sharing leadership creates commitment and increases the effectiveness of group members as stated by Carson et al. (2007). Further research is recommended to explore the relationship of shared leadership with team effectiveness and game performance. Shared leadership distinguishes from the solo leader approach because of the emphasis on the team component that is making use of group power and collective action while responsibilities are shared (Ensley et al., 2006). Compared to other youth leadership questionnaires, this is the first leadership tool in youth sport assessing shared leadership in a team perspective. By assessing the four dimensions the coaching team

can conduct research into the dynamic process of distribution of leadership influence across multiple team members (Hoch, Dulebohn, & Pearce, 2010b) and to clarify the individually claimed leader and granted follower roles (DeRue & Ashford, 2010).

YASL is suited for youth football coaches and their teams because it distinguishes between and provides insight into three youth shared leadership dimensions. In addition, it could also indicate that certain responsibilities should be distributed to selected individual football players. YASL therefore provides youth coaches a tool for team coaching and monitoring of the development of shared leadership behaviors in youth football.

5.2 Limitations and future research proposals

Although shared leadership can potentially be seen as an important component of team effectiveness a next step could be to understand under which circumstances shared leadership occurs and how enduring shared leadership can be achieved in youth leadership development. It is expected that in teams where it is safe to speak up, team members are more willing to share the leadership responsibilities among other team members. Further research therefore is needed to understand how to facilitate the process and learning conditions of youth shared leadership in teams.

The current study reported on the first findings of developing a scale to assess youth shared leadership in football. An opportunity of the study is the further development of the YASL football instrument to different fields of team sports. Further studies on shared leadership in youth sport are required to confirm the validity of YASL. The study only collected data in the North of the Netherlands and only in the field of youth football. This limits the generalizability of the results of the study

and is recommended to explore more broadly, for instance also in non-Western countries, in future research.

6. Conclusion

Shared leadership is a promising concept in order to develop leadership behavior in youth team sport and youth football in particular. Knowledge about shared leadership development in sport and in particular in youth football is still scarce and thus highlights the empirical need for the development of a youth shared leadership instrument. Leadership skills at the team level can be trained like tactical and technical skills in order to develop players to increase team performance. Knowledge gained from studying youth leadership development in teams and its transfer to other applications in life is a prerequisite for supporting and challenging youth to be the best leaders they can be. Although the scale is deemed to be applicable in youth football, evaluation and further development of the instrument to assess shared leadership behaviors in various team sporting contexts and at different age levels is encouraged.

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Table 1: Combined and adapted items of the "Shared Professional Leadership Inventory for Teams" (SPLIT) by Grille and Kauffeld (2015) and the 'Six Natural Leaders Questionnaire' (SNLQ) by Van Vugt and Ahuja (2011) adapted by Van Dalfsen et al. (2016).

1. As a team we clearly assign tasks and assignments. (1.1)*
2. As a team we clearly communicate our expectations. (1.2)
3. As a team we provide each other with relevant information to do our task in a match. (1.3)
4. As a team we ensure that everyone knows their tasks and assignments. (1.4)
5. As a team we monitor goal achievement. (1.5)
6. As a team we want the group to be ahead of other groups. (1.6)
7. We are devastated when other groups do better. (1.7)
8. We are always on the lookout for new and better players. (1.8)
9. As a team we take sufficient time to address each other's concerns. (2.1)
10. As a team we recognize good performance that fits our assignment. (2.2)
11. We are a solid team. (2.3)
12. We support each other in handling conflicts within the team. (2.4)
13. As a team we never let each other down. (2.5)
14. As a team we make sure that the group gets additional resources like drinking bottles, socks/shorts. (2.6)
15. As a team we are concerned that the group is too small. (2.7)
16. As a team we have a spokesperson. (2.8)
17. We keep the group in good standing with authorities (for instance coach and referee). (2.9)
18. We help each other to correctly understand ongoing processes in our team, in, during and after a match. (3.1)
19. As a team we help each other to learn from past events. (3.2)
20. As a team we involve each player to correctly understand current company events. (3.3)
21. As a team we can inspire each other for ideas and solutions. (3.4)
22. As a team we support each other with the implementation of ideas and solutions. (3.5)
23. As a team we intervene in arguments and conflicts. (3.6)
24. As a team we make sure that everyone gets on well with everyone else. (3.7)
25. We tell off individuals who do not pull their weight. (3.8)
26. We take care of the team taking the training seriously. (3.9)
27. We ask questions externally in order to support our team's work. (4.1)
28. We ensure that our team is supported with necessary resources to fulfil the task. (4.2)
29. As a team we assist each other to make contacts. (4.3)
30. We ask experts valuable for our team. (4.4)
31. As a team we are open to external assistance in the case of internal team problems. (4.5)
32. We make sure that things get done. (4.6)
33. We look after the traditions of the group. (4.7)
34. We include new team members in the group. (4.8)
35. As a team we are keen that everyone knows about the group norms. (4.9)

*35 items divided in four blocks of questions 1.1-1.8, 2.1-2.9, 3.1-3.9 and 4.1-4.9.

Table 2: Factor loadings

YASL					
	EFA		CFA		
Factor and items	Loading	α	SFL	CR	AVE
Steering		.72		.82	.53
4.6 We make sure that things get done.	.76		.76		
4.7 We look after the traditions of the group.	.60		.80		
4.8 We include new team members in the group.	.74		.60		
4.9 As a team we are keen that everyone knows about the group norms.	.72		.73		
Coaching		.82		.76	.51
2.3 We are a solid team.	.79		.71		
2.4 We support each other in handling conflicts within the team.	.83		.79		
2.5 As a team we never let each other down.	.67		.63		
Intervening		.73		.74	.59
4.4 We ask experts valuable for our team.	.71		.69		
4.5 As a team we are open to external assistance in the case of internal team problems.	.83		.84		

Notes: α = Cronbach's α,FL = standard factor loadings; CR = composite reliability, AVE = average variance extracted.