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Understanding Social Networks and Social Support Resources with Sports Coaches

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Abstract

Objectives: Research on social support with sports coaches is limited, yet the benefits of social support within other occupations have been widely reported. This study explored sports coaches' social network structures, the social support resources available to coaches, and the situations in which coaches use social support.

Design: Cross-sectional.

Method: Data were collected with male (n=6) and female (n=7) British coaches (Mage=34.20, SD=13.37; Mexperience=13.20, SD=10.41) using semi-structured interviews and interviewee-aided sociograms. Interview data and sociograms were analyzed using abductive thematic analysis and social network analysis to create ego-network diagrams. The ego-network diagrams were created to provide information on the locality and influence of coaches' social network members. Results: The ego-network diagrams highlight that the structure of coaches' social networks encompasses support from peers, friends, family, and miscellaneous (e.g., media). The diagrams also demonstrate that support from friends tended to be perceived as most influential. The coaches called on their network for appraisal (e.g., affirmation), emotional (e.g., venting), informational (e.g., training), and or instrumental support (e.g., cooking dinner) for a variety of situations, such as training (e.g., drill ideas) and issues with athletes (e.g., venting about a misbehaving player).

Conclusion: Given the pertinence of coaches' social networks and resources for performance and psychological well-being, coach education programs should include a focus on the importance of building relationships. Longitudinal research methods are warranted to, for example, explore the dynamic functions of coaches' social support. This will develop a more comprehensive base from which interventions can be developed.

Keywords: community, mentor, relationships, trust, stress management

Research Highlights

- The main sources of support for coaches were peers.
- Friends were the most important avenues of support for coaches.
- Coaches sought all four types of social support resources.
- The most frequently cited support resource was informational support.
- Coaches required support for a variety of situations (e.g., player behavior).

Understanding Social Networks and Social Support Resources with Sports Coaches

Since early works by Barrera (1986) and Thoits (1995), social support has become one of the most well-documented psychosocial factors that influences health outcomes (Thoits, 2011). In particular, research in this area has found that higher levels of social support are related to more positive psychological well-being (PWB; e.g., Thoits, 2011). Despite the influence of social support on health and PWB being largely agreed, consensus regarding how to conceptualize social support has not yet been reached (e.g., Rees & Hardy, 2000). Indeed, Veiel and Baumann (1992) stated that "if asked, almost every researcher in the field will present a more or less precise definition of support, but, more than likely, it will be different from that of his or her colleagues" (p. 3). This quote points to the multifaceted nature of social support, which is reflected in the varied definitions found in published literature (e.g., Cohen & Wills, 1985; Holt & Hoar, 2006).

Social support has often been defined to include both the *structure* of an individual's network (e.g., existence of family ties) and the explicit *resources* that one's interpersonal relationships may provide (Cohen & Wills, 1985). The structure of social networks refers to the number of relationships a person has within his or her network, the frequency of contact with his or her network members, and the density (e.g., strength) of those relationships (Thoits, 1995). Network members typically consist of significant others such as family, friends, and peers (Thoits, 1995). These significant others can provide social support resources in the form of appraisal (e.g., different point of view), emotional (e.g., feeling loved), informational (e.g., receiving advice), and instrumental support (e.g., physical resources; Rees & Hardy, 2000). Amidst the various definitions of social support provided in the literature, structure and resources has been frequently used in sport research (e.g., Rees & Hardy, 2000). The current study will

permeate gaps in published literature by exploring social network structures and resources with sports coaches. This will make a novel and valuable contribution to extant knowledge by offering insight to how lasting social relationships that support coaches during potentially stressful periods (e.g., a losing streak) and enhance PWB and performance can be built and maintained.

While limited research exists that focuses on social support among sports coaches, research with athletes has demonstrated positive links between social support and performance (Rees & Hardy, 2000; Tamminen, Sabiston, & Crocker, 2018). Athletes have been advised to not feel that they must 'go it alone' (Rees & Hardy, 2000) but, instead, be pro-active with their use of social support and understand that it is not a sign of weakness to ask for help. Despite coaching being reported as a particularly stressful, complex, and demanding occupation (Thelwell, Weston, Greenlees, & Hutchings, 2008), the same level of academic attention that has been paid to social support among athletes has not been afforded to coaches. On a day-to-day basis, coaches across all performance levels are expected to develop engaging and winning training programs, recruit athletes, cope with performance (e.g., competition outcomes) and organizational (e.g., travel to events) stressors, and manage relationships with different stakeholders (e.g., athletes, administrators, officials, media, and parents; Chroni, Diakaki, Perkos, Hassandra, & Schoen, 2013; Knights & Ruddock-Hudson, 2016; Thelwell et al., 2008). In a recent systematic review on stressors, coping, and well-being among coaches, social support was mentioned in over 50% of the 38 studies that were included in the final sample (Norris, Didymus, & Kaiseler, 2017). The findings of this review suggest that coaches frequently use social support and that, when there is a lack of social support, coaches report higher perceptions of stress and reduced performance.

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The use of social support has also been discussed by limited other researchers (e.g., Bruening & Dixon, 2007; Chroni et al., 2013) who have highlighted that coaches draw on family, friends, assistant coaches, and other staff members for support. Family, for example, have been shown to be a social support resource for head coaches who were also mothers during unexpected situations (e.g., an unexpected tournament) and during special circumstances (e.g., extended road trips; Bruening & Dixon, 2007). More recent research with male Olympic level coaches reported that having friends outside of sport was important because it allowed coaches to get away from the job and achieve a sensible work-life balance (Olusoga, Butt, Maynard, & Hays, 2010). Receiving social support is important because a lack of support has been shown to be significantly related to perceived stress. Judge et al. (2015), for example, found that social support had a significant negative relationship with task-based stress (e.g., completing paperwork on time) among American college coaches. However, there have been limited studies that focus specifically on coaches' PWB, and the work that does exist, is quantitative in nature (see, for a review, Norris et al., 2017). The findings of the quantitative research show that lower work-life conflict is associated with psychological need satisfaction, which in turn increases PWB (Stebbings, Taylor, Spray, & Ntoumanis, 2012). More recently, other researchers have used selfdetermination theory (Alcaraz, Torregrosa, & Viladrich, 2015; Bentzen, Lemyre, & Kentta, 2016) to explore PWB among team sport coaches. The findings from this questionnaire research highlight that coaches' self-determined motivation mediates relationships from relatedness need satisfaction and basic psychological need thwarting to coaches' PWB. In addition, coaches' PWB was found to decrease over the course of a season. Collectively, the research that has focused on social support and psychological stress among coaches has demonstrated the potential positive and or negative influences that social support can have for an individual. Therefore, it seems

crucial to understand the structure of and resources for social support among sports coaches so that guidance can be offered about how to use support to enhance development and PWB in a particularly demanding profession.

Many different methods can be used to investigate social support. One such method is social network analysis (SNA; Marin & Wellman, 2009), which focuses on the "relationships among social entities, and on the patterns and implications of these relationships" (Wasserman & Faust, 1994, p. 3). Previous research using SNA has been predominantly quantitative in nature, despite knowledge that quantitative techniques alone do not provide thorough understanding of social support beyond its structure (Crossley, 2010). Qualitative methods (e.g., interviews) that provide additional information about the structure of and resources for social support do, therefore, need to be employed (Marin & Wellman, 2009). One method that allows network structures to be illustrated and can facilitate discussions (e.g., during interviews) is intervieweeaided sociograms (Crossley, 2010). Sociograms are a data collection tool that can examine how people perceive the structure of their social network and the resources offered by the ties within that network (Ryan, Mulholland, & Agoston, 2014). Visually representing social networks using sociograms can facilitate memory recall from interviewees and, thus, gather additional relevant information that may not be reported if solely using interviews (Ryan et al., 2014). Sociograms are analyzed and turned into ego-network diagrams to provide visual representations of individuals' social networks. The current study uses interviews, sociograms, and ego-network diagrams to provide novel, in-depth data on coaches' social networks and the attributes (characteristics) that connect the network members (Marin & Wellman, 2009).

It is apparent that social support could be a helpful tool for coaches, particularly when coping with stressors (Knights & Ruddock-Hudson, 2016), because stressors can have significant

implications for coach PWB (e.g., depression) and performance outcomes (e.g., reduced concentration leading to less effective observations). Published literature has focused on the affiliation between social support and stressors (see, for a review, Norris et al., 2017) but lacks specific explorations of coaches' social network structures and resources. Indeed, whilst social support has been studied as an antecedent to various coaching outcomes (e.g., performance and PWB), it is surprising that, after extensive searches of electronic databases (e.g., Web of Knowledge, PsycINFO, PsycARTICLES), no published literature was found that focuses solely on the structure and types of social support among sports coaches. The current investigation presents a unique opportunity to address these voids and, in doing so, expand scientific understanding of social support whilst developing important evidence for interventions that focus on development and maintenance of social networks for performance enhancement. The aim of this study was, therefore, three-fold: to examine coaches' social network structures, to explore the social support resources that are available to these coaches, and to better understand the situations in which coaches use social support.

Methodology and Methods

Philosophical Assumptions

The first named researcher's ontological stance is best described as relativist and, therefore, believes in multiple, constructed realities. It is recognized that our values and previous experiences as researcher-practitioners may influence our understanding of the coaches' experiences. The epistemological stance is underpinned by constructionism, which suggests that the researcher and the researched are interdependent in such a way that findings are co-constructed (Sparkes & Smith, 2014). These form the paradigmatic assumption of social constructionism (Burr, 2015). In line with this assumption, it is believed that knowledge is

constructed via interactions between people during the course of life. The first named researcher's paradigmatic assumptions also relate to elements of critical theory (Creswell & Miller, 2000). This paradigm encourages reflections on what shapes interpretations of the world so that we can challenge individuals' social practices (Sparkes & Smith, 2014). The second and third named researchers' align primarily with constructionist and pragmatist orientations respectively. We recognize our different philosophies to shed light on how they may have influenced the study design, use of terminology, and the development of this manuscript.

Interviewees

Purposive (Patton, 2002) and snowball sampling (Robinson, 2014) were used to recruit 'information rich' interviewees. Coaches had to be coaching at the time of the interviews and were identified through emails to local clubs and the researchers' contacts. To address our aims and limitations of previous literature (e.g., gender bias; see Norris et al., 2017), we deemed it important to work with both male and female coaches from different sports, with those who had varied levels of coaching experience, and those employed on different bases. This provides the platform for future research to be more sport, experience, and employability specific. Purposive and snowball sampling were the most appropriate methods for achieving this sample because they allowed us to target recruitment at coaches who we knew were more or less experienced (purposive sampling), for example, and to ask those individuals to recommend other coaches who may be interested in contributing to the work (snowball sampling). Six male and six female coaches (M_{age} =34.20, SD=13.37, $M_{\text{experience}}$ =13.20, SD=10.41 years) volunteered to take part in this study (see Table 1). At the time of data collection, each individual was working part-time as either a head (n=8) or assistant (n=4) coach and, although not purposefully sampled this way, identified as White British. Coaches were either employed (n=5) or in voluntary positions (n=7)

and worked with either youth (n=7) or adult (n=5) athletes. Six of the twelve coaches were working closely with another coach. Each coach represented a team (handball, hockey, rugby, soccer, tchoukball) or individual sport (athletics, disability tennis, tennis, squash) and held a coaching qualification that ranged from level one to five (M_{level} =2.42, SD=1.32) in their respective sport. These levels of coaching qualifications carry different connotations depending on the sport (for example, a level three athletics coach is different to a level three coach in soccer). The variety of coaches that we recruited, aimed to address voids in the social support literature and extend the coaching literature that predominantly focuses on high-performance coaches.

[TABLE 1 HERE]

Interview Guide

In line with previous literature that has focused on stressors and coping with sports coaches (e.g., Didymus, 2017; Knights & Ruddock-Hudson, 2016), a semi-structured interview guide was developed specifically for this study. The interview guide contained three sections. The first section focused on the individual's demographic information and coaching background. This was followed by a section on the situations where coaches use social support (e.g., "What is your experience of social support during coaching?"). This section also contained questions on social support resources (e.g., "What kinds of social support do you use?"). The third section of the interview guide required the coaches to complete an interviewee-aided sociogram that aimed to explore the structure of coaches' social networks (Ryan et al., 2014).

The interviewee-aided sociograms (Crossley, 2010) consisted of four concentric circles that had been prepared electronically and printed prior to the interview. The distance of each of the concentric circles from the center where the coach was placed, represented the closeness (or

lack thereof) of the network members to the individual (for example, the fourth and outermost circle signified that members were less important to the individual). Coaches were instructed that the closer they put each member of support to themselves in the center, the more influential it was in his or her social network. Interviewees were advised they could write names outside of these circles if they wished. Possible avenues for social support (peers, family, friends, and miscellaneous) were described by the researcher during the interviews (Thoits, 1995), and were recorded on the sociograms in different colors. Miscellaneous was included to allow coaches to discuss members that they felt were relevant but not aligned to one of the commonly reported groups (i.e., peers, family, friends). The use of sociograms as a data collection tool fits with the first named researcher's epistemological stance by offering coaches the opportunity to co-create data and to lead the interview (Burr, 2015). After the completion of the sociograms, the interviewees led discussions on the network members that were included in the social network and the rationale for their inclusion. These discussions provided a real-time association between the text (written quotes) and the ego-network diagrams (visual representation).

Procedure

After obtaining ethical approval from the researchers' local research ethics committee, 18 coaches were contacted via email and invited to participate in the study. Each coach was assured that his or her identity would remain confidential and that reproductions of the data would be anonymized. Each coach was also informed of the nature of the study; the compliance of the study with the British Psychological Society's Code of Ethics and Conduct; and the collection, storage, and destruction of data in accordance with the Data Protection Act (1998, see also the General Data Protection Regulation guidelines, 2018). Coaches (n=12) who expressed an interest in volunteering for the study were sent a copy of the interview guide so that they could

familiarize themselves with the questions. Twelve coaches were initially deemed appropriate due to availability of the coaches to conduct in-depth interviews and, later in the research, because new insight gathered during the last interview was minimal. A date and an ethically appropriate location for each interview were then organized to meet the coaches' needs and schedules. Each of the 12 interviews were conducted face-to-face by the first named researcher who had six years of coaching experience in soccer and three years' experience of conducting interviews for research purposes at the time of data collection. This researcher holds the UEFA B and The FA Youth Awards coaching qualifications and his experiences with interviews include being both an interviewer and an interviewee. At the beginning of each interview, coaches were asked to confirm that they understood the purpose and procedure of the study and were happy to proceed. Each interviewee then provided written informed consent and completed a demographic sheet describing his or her age, gender, sport coached, coaching level, and coaching experience. The interviews were recorded using a digital recording device and lasted between 55 and 154 minutes (*M*_{length}=78.72, *SD*=25.53 minutes).

Data Analysis

We transcribed the audio files verbatim. This process allowed the lead researcher to immerse himself in and reflect on the data (Braun, Clarke, & Weate, 2016). Each interview transcript was analyzed by the first named researcher using an abductive approach to semantic and latent level thematic analyses (Braun et al., 2016). NVivo (QSR International Pty Ltd, 2016) was used to assist with six recursive phases of thematic analyses. To begin with, inductive analysis was completed at the semantic level to create original themes that identified strongly with the interview data. We then analyzed our inductive themes at the latent level to look for similarities to and or differences from existing theories or models of social support. This allowed

us to use existing theory to shape the semantic content of the data and, where appropriate, adapt our inductive themes to create a deductive one (Braun et al., 2016). Latent level analysis manifested through double coding of relevant quotes. For example, when analyzing the inductive theme of why coaches use social support, it was clear that these could be grouped according to the four types of social support resources that have been reported in published literature (Rees & Hardy, 2000) without changing their meaning. These approaches align with the constructionist stance that guided this study by providing opportunities to create rich, descriptive themes that strongly link to the data whilst also acknowledging the belief that data is not free of theory.

The interviewee-aided sociograms were analyzed separately using NodeXL to create an ego-network diagram for each coach (Borgatti, Everett, & Johnson, 2018). Ego-networks focus on one individual and the social ties associated to that individual (see Figure 1 for an example). SNA using sociograms provides visual representations of social support networks that cannot be achieved through interview data and thematic analysis alone (Marin & Wellman, 2009). The completed sociograms were manually inputted into a network edge list and the data were transformed into an ego-network diagram that illustrated the structure of the social networks (Borgatti et al., 2018). The chosen methods of data analysis complement social constructionism because they provide an insider perspective of each coach's individual social network alongside an outsider view of the network structure (Marin & Wellman, 2009). After completing thematic and social network analyses separately, the data were then combined to provide a visual representation alongside written explanations of the interviewees' social networks. The second and third named researchers' were involved in data analysis by reviewing a sample of the data, helping to create and refine themes and acting as critical friends during research team meetings.

[FIGURE 1 HERE]

Research Quality

To enhance trustworthiness of the data, criteria relating to thick quotes, close collaborations, and reflexivity were deemed most appropriate for this study (e.g., Creswell & Miller, 2000; Sparkes & Smith, 2014). Thick quotes (Ponterotto, 2006) are presented in the results section of this manuscript and consist of dense, descriptive data from the interviewees. This allows readers to make their own judgements of our interpretations of the data. Further, close collaborations that the first named researcher built with the interviewees enhanced the quality of the data by involving the coaches as co-creators of knowledge and by allowing their experiences to come to the fore (Creswell & Miller, 2000). Close collaborations with the interviewees were developed in two main ways: 1) the first named researcher's previous involvement in coaching allowed for similar experiences to be shared with interviewees during initial e-mail contact and during pre-interview orientation discussions, 2) the use of intervieweeaided sociograms allowed the coaches to collaborate with the researcher and be increasingly involved in the data collection process. A reflexive journal (Berger, 2015) was kept throughout this study by the first named researcher. Reflections consisted of critical reflections on the research process and recording of thoughts and feelings relating to the interviews (e.g., opportunities to probe) and the data analysis. Reflecting can provide a more comprehensive analysis of the data by alerting the researchers to unconscious biases that may influence how the data is constructed (Berger, 2015). In line with social constructionism, this journal also helped to highlight how researcher experiences, assumptions, and knowledge may have influenced the work.

Results

The results are presented in three sections that align with the three-fold aim of the study.

First, coaches' social network structures are illustrated using ego-network diagrams to show what coaches use as social support and the locality of that support. These were constructed using the sociograms that were completed during the interviews. The ego-network diagrams are supplemented by quotes from the interviewees. Next, coaches' social support resources are presented in four segments to represent each type of support (informational, emotional, instrumental, and appraisal). The final section of the results highlights the situations in which coaches use social support (i.e., for player issues, training, competition, and organizational issues). Quotes are provided from the coaches across all three sections of the results. In the first section, quotes are supplemented by the interviewees' ego-network diagrams.

Coaches' Social Network Structure

In total, we constructed 429 raw data codes that represent the structure of the coaches' social networks (see Table 2). We collapsed the raw data codes into 41 raw data themes and four lower-order themes: peers (e.g., other coaches), friends (e.g., best friend), family (e.g., parents), and miscellaneous (e.g., media).

[TABLE 2 HERE]

Ego-Network Diagrams. Below is one ego-network diagram for each coach who took part in this study. Each coach is represented by the brown sphere in the center of his or her diagram. The network is organized by shape (female=circle, male=square, miscellaneous=triangle), color (black=family, blue=friends, red=peers, green= miscellaneous), and length of tie (short tie=close relationship, long tie=less close relationship). This approach to shapes and colors has been applied to figures 2-13. The number of network members included in the coaches' networks ranged from 7-28 with most of the networks (n=7) consisting of between 11-16 people. The populations of peers and family were included in every network diagram with

[FIGURE 12 HERE]

peers being cited most frequently by coaches. Friends were perceived by the coaches as the most significant population in their networks. Additional results from the ego-network diagrams are presented throughout the results section.

| [FIGURE 2 HERE] | [FIGURE 3 HERE] |
|------------------|------------------|
| [FIGURE 4 HERE] | [FIGURE 5 HERE] |
| [FIGURE 6 HERE] | [FIGURE 7 HERE] |
| [FIGURE 8 HERE] | [FIGURE 9 HERE] |
| [FIGURE 10 HERE] | [FIGURE 11 HERE] |
| | |

[FIGURE 13 HERE]

Peers. Each of the 12 coaches reported that they turn to other coaches for social support. More experienced coaches than themselves were discussed most often, as described by Phil: "I talk to other coaches, you know, professional coaches." The following quote from Jade, illustrates how mentors can provide informational support by offering advice:

...for example, last year I got an FA mentor which was quite . . . a really good source because I had just started off, well I hadn't just started off coaching but was newly qualified and was like what else do I do now? What do I do in terms of tailoring the session? . . . So, it were nice to have someone there to comfort me and say you are doing the right thing, but I will offer you more advice...

Work colleagues were cited by eight coaches as people who they turned to for support. Physiotherapists, strength and conditioning coaches, and technical directors were discussed by the coaches as sources of social support from colleagues. Phil gave an example of receiving informational support from work colleagues if he has a work problem: "I have got a great line manager here and umm, the coaches here have all got different experiences and different values

so I wouldn't hesitate to ask if I had a problem."

distance herself from coaching:

Peers was the most common population (n=53) in the coaches' social support networks (e.g., see Figure 2) and mentioned by every coach. The following quote from Steph supports this:

Because I think in terms of support, I feel like she [the coach] has given me the most or has been the most effective . . . and [coach] is a couple of years older than me. She's kind

of done various other things like I've done in terms of the coaching pathway.

Friends. Whilst peers were staple in coaches' social support networks, these individuals were generally not the *most* significant people within the coaches' networks (e.g., Figure 3). The ego-network diagrams revealed that friends played an important, possibly the most important, part in the structure of coaches' social networks. Friends were often used to help coaches achieve distance from their profession. Katie, for example, spoke about going out with her friends to

I like that I have friends that are away from it all and out of it all, err, so I can go there and not think about [coaching]. So, I suppose it is a network or a support because it is a chance to get away and forget...

In particular, coaches frequently turned to their best friend or their housemates for emotional support as the following quote from Jade suggests:

...my boyfriend and my best friend [support me], so like . . . they understand what I am trying to achieve and what I want in my career and this is sort of one of the stepping stones on that ladder. So, they are there to sort of offer me advice. Even though they are not qualified in that area.

However, despite friends being cited as an important source of support, soccer coach

Steph highlighted how she was wary not to draw on her friends too often because she did not

want them to begrudge her:

I think in the back of your mind you don't want to become that person. Say if I go to a housemate after every session and say this happened, this happened. I don't want her to be like bloody hell . . . I don't want her to think that when she comes home from football she just chats about how bad it was. That's why I am also careful about when I use it.

The ego-network diagrams show that friends were consistently (n=41) a significant source of support for the coaches. The majority of friends were placed towards the middle of the diagram as demonstrated by Phil (Figure 4). These tended to be the most significant people within coaches' networks. Terry advised that the people who he trusts the most tend to be the most significant individuals: "Because probably they are the people I trust to give me the advice. They are the people I trust more than any of the other people."

Some ego-network diagrams do, however, show that friends can be both close and distant within the structure of the social network (see e.g., Figure 5). It was mentioned by Ruby that the closeness of friends to the center of her sociogram depends on the regularity in which she sees them: "...yeah, it's just like they are all [people closer to the center] just people that I see regularly, interact with regularly and that I feel comfortable going to if I wanted some advice."

Family. The most commonly cited family member was the coach's romantic partner. Liam mentioned that, without his partner offering all four types of social support resources, he would not have been coaching at that level at the time of data collection: "Umm, the better half. That's got to be . . . Without them I don't think I'd be able to do half the stuff I've done." Parents were also commonly cited as important sources of social support. For example, Josh stated:

And I also kind of talk over stuff with my parents. My mum and my dad. My dad was an athletics coach for umm, he was, he was one of my athletics coaches as I kind of grew up

so I kind of talk to him quite a lot about coaching...

Family members (n=38) were cited by each of the 12 coaches on their ego-network diagrams. The importance of family members within coaches' networks was, however, varied. For example, Shaun's family members were all important sources of support (see Figure 3) yet, for Jade (Figure 6) and Steph (Figure 7), while they turned to family for support, they did not see them as significant sources of social support. This is illustrated by the following quote from Steph who suggests that, while her family can provide social support resources related to her coaching (e.g., emotional support regarding a difficult situation), their lack of football and coaching knowledge can limit the effectiveness of the coach specific support that they can offer:

None of my family really get football. So, I could tell them I've just started coaching with this club I am at or I'm on my UEFA B license and they are like "oh." They don't really understand what it is but like for me that is a huge achievement and I think that, I don't know, I think that would kind of come into your social support.

Other coaches, such as Josh, reported that different family members vary in social support influence (see Figure 8). For example, Josh's wife and father were central parts of his social network, whereas other family members were less frequently turned to.

Miscellaneous. Three coaches described how they used continuous professional development (CPD) events as forms of informational and appraisal support. These CPD events afford coaches opportunities to learn new information and gain feedback from other coaches, as described by Jade: "...the CPD sessions I have gone on with the FA [have been a form of social support]. But obviously one of those is off my own back. You've got to be willing to be criticized and learn as well." Coaches also cited their participation in sport and exercise as a form of instrumental social support. Lucy described how the act of playing sport, in addition to the social

aspect, offers her support by being able to distance herself from coaching:

I play badminton . . . but I actually enjoy a Monday night and Wednesday matches cause no . . . well, unfortunately, a few people do know me and that I do tennis but to most people I am just the average club player that swears a lot when she misses the shuttlecock. Yeah, on the social side, the sport becomes the . . . that social support really.

Miscellaneous sources of support were represented least frequently on the coaches' egonetwork diagrams (n=36) and were frequently reported as less significant (e.g., Figure 9).

Coaches' Social Support Resources

We constructed a total of 140 raw data codes that provide insight to the social support resources that the coaches use. We organized the codes into 12 raw data themes and four lower-order themes that each represent a different type of resource (see Table 3): informational (e.g., advice), emotional (e.g., venting), appraisal (e.g., reassurance), and instrumental (e.g., partner looking after the children).

[TABLE 3 HERE]

Informational Support. This section included data from each of the 12 coaches who described receiving support for the generation of ideas related to coaching practice (e.g., to bounce ideas), advice (e.g., technical), and general coaching matters (e.g., coach behavior). Ten of the coaches discussed that they used social support to bounce ideas and that this support came predominantly from other coaches. One example is from Liam:

[Social support is] really important because obviously to have those people there that I can bounce ideas off and just get ideas off them. At times I talk to them about ideas that I've got and they'll just let me potentially trial stuff and then we will sometimes recap and assess why it hasn't worked or maybe what we can do to make it better.

Coaches also commented on how they used social support to gain advice about their coaching practice. Terry, for example, discussed how he gains advice from the local tennis community if he has a problem during his coaching role:

I would say that the coaching network in tennis is quite a close-knit community. It's quite close, they all like . . . I'm sure if I had a problem, I could go to someone and they would be able to help me or tell me what I'm doing wrong and just give me advice.

Coaches also discussed how they would seek informational support to develop themselves as coaches. The following quote from Katie illustrates how being connected with other coaches allows her to observe and improve her coaching style: "...[I am] linked with coaches within the governing body to you know, improve my coaching abilities and, you know, to watch and develop and learn from them..."

Emotional Support. Ten coaches reported using emotional support as a resource to vent (e.g., about an athlete performance), talk and listen (e.g., about a training session), and seek a calming influence (e.g., helping them to relax). Being able to vent to friends and family about a perceived poor training session or a misbehaving athlete, for example, was important to coaches, particularly for Lucy:

...there are certain people in my life that we have this kind of rule that I can vent and then that's it and it's finished with. I've got a best friend . . . we coach the same sport, tennis, but we are in completely different coaching spheres. So, she is a club coach where I used to be about 20 years ago, and you know, she is a very good coach but we are in completely different fields. But it's quite good because we've got a commonality of tennis and can both vent to each other.

Two coaches mentioned seeking support to help calm them down. Steph, for example,

discussed that emotional support from her friends stops her from overthinking situations (e.g., how to improve training):

I think if anything, sometimes I just need someone to say you worry about if far too much or you're just completely overthinking and driving yourself crazy with it. But it's just striving for perfection and you just want it to . . . you want it to be good, you want it to improve, you want to improve yourself, and you want it to be the best you can.

Appraisal Support. The raw data themes related to appraisal support encompassed affirmation (e.g., that the coach is heading in the right direction) and gaining perspective (e.g., seeking a second opinion). In total, seven coaches discussed the use of affirmation or recognition that what they were doing was correct as a form of appraisal support. For example, Phil spoke about seeking confirmation that he was going in the right direction:

Yeah, it [social support] helps you because it reassures you or points you in the right direction where you think you might be going at a tangent. As I have said before, you are not right all the time so you need to be told every now and then.

With regards to gaining perspective, Steph discussed the worth of getting other points of view from coaches, work colleagues, family, and friends about a situation at a previous club:

...at a previous club I was at, where it was getting to the point when I was walking away hating coaching, hating being there, hating being part of the club it was like "oh well, I want to be here for this reason." But, actually, that is when I found I can rely on my support to kind of hear both sides . . . so I am not just getting closed minded, tunnel vision.

Instrumental Support. Eight coaches discussed using instrumental social support resources. This consisted of creating opportunities (e.g., observing other coaches), securing

coach cover (e.g., for training), switching off from coaching (e.g., by going to a public house), and support from their partner (e.g., looking after the children). With reference to creating opportunities, six coaches spoke about how instrumental support had created opportunities for them to develop. One example came from Maria who stated that she would not have the same coaching opportunities made available to her if she did not have the social network that she has: "He [coach] made that approach for me to go to [club] and got the introduction so I guess if I didn't have that relationship with him then that wouldn't have come about…" Additionally, Josh spoke about the importance of the instrumental support that he received from his partner:

I will be away this weekend. We've got two sons so that puts a burden on her, so all of that sort of stuff kind of has a toll and the tangible support that [wife] would give, I wouldn't be able to continue coaching [without it].

Situations in Which Coaches use Social Support

Overall, we constructed 83 raw data codes that focused on the situations in which coaches use social support (see Table 4). We organized the raw data codes into 14 raw data themes and four lower-order themes: player issues (e.g., player behavior), training (e.g., planning), competition (e.g., team selection), and organizational issues (e.g., coaching qualifications).

Player Issues. In total, 10 coaches revealed that they turn to their social support resources for player issues, including player behavior, number of available players, and players struggling with a skill or technique. Ruby for example, described how she sought informational support from her housemates when working with disruptive players:

I had a situation last year with a team I coached, the under 13's, 15 kids I think I had.

There was four that were a bit rowdy and all stuck together. And we had a situation

basically where they were accused of bullying . . . I was really stressed about the situation and I would ask my housemates who are both teachers, especially one of them who also coaches tchoukball. So, she obviously talked about her experiences as a teacher in terms of obviously how she deals with these types of experiences [regularly]...

[TABLE 4 HERE]

Four coaches highlighted that not having enough players during training and competition was a situation when they sought support. Maria provided an example of seeking informational support when needing to increase number of players for her soccer team:

...so, the support is there and again the same with the county [FA] when we were struggling with numbers or . . . losing numbers [of players] or need a bit of direction or ideas, suggestions. I always know I can just drop [coach] an email or give him a call.

Training. Eight coaches cited training as a common situation when they would seek support. For example, coaches reported turning to their social networks when planning training sessions. An example from Steph shows how she turned to work colleagues to discuss what she could do during training:

I've really enjoyed to be able to just sit with them [work colleagues] and be you know, "I got this topic tonight what did you do?" "Oh, I did this with this age group," and "oh right, well I can take some of that", and it makes a whole world of a difference because just to have someone on your wave length or that thinks similar to you or, you know, got that common ground in a coaching sense...

Coaches also turned to their social networks after training if they perceived that the session went badly. Ruby described how they would seek support from friends if "the session didn't go very well" via emotional support to vent frustrations and appraisal support to gain

another perspective.

Competition. One situation when coaches required support with competition was for team selection. Lucy talked about when she was coaching for Great Britain and needed informational support during team selection: "I've been on the GB books, GB books as manager/coach, so when I took the teams away and did selection and that sort of stuff, I needed social support." Tactics was another situation for which coaches sought support. When deciding what formation his hockey team should play, Liam sought advice from the head coach: "If I need to bounce ideas off the head coach then I talk to him about what formation to play, erm, who to play where, what to do in certain situations and that sort of thing."

Organizational Issues. This theme relates to various organizational issues that the coaches sought support for, including coaching qualifications, issues with the sports clubs where the coaches were working, issues with the coaches' National Governing Bodies (NGB), and issues that arose during coaching qualifications. Three coaches mentioned that they had received social support from other coaches and their club when wanting to complete a coaching qualification. Jade discussed how her soccer club provided instrumental support by helping with the process of applying for a coach education course: "...I think if you have a proactive club that puts you on courses, so if I want to go on any course then I can go on it, I think that is probably their way of supporting you." With reference to issues with a club, Steph described how she sought advice when she began disliking her work at a soccer club:

The most recent example is when a fall out with a club, or if I felt like something was making me feel really uncomfortable, umm, just ended up being at a place where I hated being part of it but I wasn't sure whether I should stay there and see it out or...and when it gets to that point, that's when I rely on it [social support]...

Discussion

The purpose of the study was to examine coaches' social network structures, to explore the social support resources that are available to these coaches, and to better understand the situations in which coaches use social support. The findings highlight that the structures of coaches' social networks consisted of peers (e.g., other coaches), friends, family, and, to a lesser extent, miscellaneous avenues of support (e.g., CPD). The most frequently cited support resource was informational support to acquire advice but emotional, appraisal, and instrumental social support resources were also sought. There were a variety of situations that coaches required support for, including informational support for training (e.g., drill ideas) or advice about players (e.g., player behavior) and instrumental support for organizational issues (e.g., completing a coaching qualification).

The use of a novel data collection technique to create ego-network diagrams offered unique data on the structure of coaches' social networks. Despite discussions relating to the structure of social support in previous literature (e.g., Bruening & Dixon, 2007; Olusoga et al., 2010), coaches' networks have not previously been illuminated in the detail that is offered in this study. The ego-network diagrams presented in the current study demonstrate that the main sources of support for coaches were peers. Coaches have previously discussed turning to other coaches for social support when experiencing stressors (Didymus, 2017; Knights & Ruddock-Hudson, 2016). In a study exploring the learning approaches of coaches, Stoszkowski and Collins (2016) found that social interactions with peers during day-to-day coaching were the predominant source of support for guidance, advice, and information. The current study advances knowledge of social support by investigating the importance and influence of the social network for sports coaches, which is missing from previous literature. For instance, whilst social

support from peers has a significant influence on coaches, the ego-network diagrams showed that despite friends being cited less than peers, friends were perceived as the most important avenues of support. This was highlighted by the locality of friends in the coaches' networks; they were regularly placed closer to the coach when compared to other populations (e.g., family). An explanation for this may be that friends provide the widest range of support resources (Rosenfeld, Richman, & Hardy, 1989) and may, therefore, have greater influence on coach PWB. Due to high demands and unsociable working hours in the coaching profession, coaches may feel disconnected from their friends and family (Didymus, 2017). Given our findings relating to the importance of friends in coaches' support networks, this could have negative implications for the receipt of appropriate and important types of social support. This can, in turn, have adverse effects on coaches' personal lives, relationships, PWB (Didymus, 2017), and performance because a reduction in PWB can decrease cognitive functioning and impair decision making.

Turning to the social support resources provided by members of coaches' social networks, our findings reinforce the notion that coaches often seek four types of resources (informational, emotional, appraisal, and instrumental; Thoits, 1995; Rees & Hardy, 2000). Extending previous social support literature, the support resource cited most frequently by the coaches in this study was informational, particularly to gain knowledge and advice related to coaching behaviors and or training drills. This is perhaps not surprising given that a study focusing on coach development reported that coaches discussed the need to seek advice and knowledge to continually develop their skills (Stoszkowski & Collins, 2016). However, this study develops on Stoszkowski and Collins by exploring all four types social support resources in detail and the association to the individual's network structure. With regards to emotional

support, the majority of examples provided during this study were from female coaches. This could be explained by published social support literature, which suggests that women are more likely to seek and receive emotional support (Reevy & Maslach, 2001). Social support resources offered by network members can sustain an individual's self-esteem, sense of mattering to others, and perceived control over minor or impending stressors (Thoits, 2011) and as a result, PWB and performance increases.

The results that relate to the situations where coaches require social support resources highlight that coaches use social support when managing issues relating to players (e.g., player numbers), training (e.g., perceived poor session), competition (e.g., tactics), and the coaches' governing organizations (e.g., qualifications). Support during training was commonly cited by coaches for generating ideas relating to training drills and to help recover from and reflect on poor training sessions. These findings supplement research that has consistently shown training to be a significant stressor for coaches (e.g., planning and running training sessions; Chroni et al., 2013). Other research has shown that the stressors experienced can differ according to a coach's employment status (Potts, Didymus, & Kaiseler, 2018). Coaches who are employed and paid, for example, may perceive pressure from the organization (Thelwell et al., 2008) while volunteer coaches may be more likely to experience finance related stressors (e.g., funding for their role; Potts et al., 2018). Therefore, it seems important that coaches are offered additional support (e.g., instrumental support from the organization) to cope with and buffer the negative effects of stressors. As illustrated by one of the coaches in this study, social support is often sought in peaks and troughs. This supports the notion that social support is multidimensional and timesensitive (Hassell, Sabiston, & Bloom, 2010), which, alongside the general social support literature (e.g., Holt & Hoar, 2006), highlights the need for longitudinal research to better

understand the development and manifestation of social support over time.

As with any research project, this study is not without strengths and limitations. A strength relates to the sampling strategy that we employed. The sample included male and female coaches who were purposefully selected from a range of team and individual sports, coaching levels, employment statuses, and levels of coaching experience. In doing so, the work extends the wealth of published sport psychology research that has recruited high-performance, often male, coaches. Research of this type is useful because it helps to build an evidence base for appropriate and effective support that can be tailored by organizations and or NGBs for each performance context (e.g., specific coach education on social support for each coaching level). A further strength relates to the innovative representation of data via ego-network diagrams, which provides aerial views of the coaches' network structures and highlights our novel data on the locality of the network members. The data were, however, collected via a single interview, which means that we captured the coaches' perceptions at one time point and may not have fully represented the multidimensional nature of social support (Hassell et al., 2010). In addition, each of the coaches in this study identified as white British. While not purposefully sampled in this way, we have not worked with coaches' from diverse cultural backgrounds. This is important because individuals from different cultures may place higher values on different network members (e.g., with family). The study focused on coaches with a range of coaching experience (1.5-39 years). This can be considered a strength of the work because it provides insight to the specific ways in which more and less experienced coaches' networks differ. Given the importance of mentors and learning from more experienced peers during coach development (Nash, Sproule, & Horton, 2017), the current work adds value by offering those with less developed networks some strategic foci for maturation of their social support resources. For

example, coaches who want to develop their networks might look to build relationships that can offer emotional support when managing frustrations (i.e., support that is more common among experienced coaches) and should work to maintain relationships that offer informational support for tactical knowledge development.

Future studies may wish to employ longitudinal methods (e.g., daily diaries or multiple interviews) whereby coaches can recount or record when, why, and for what they use social support resources on a daily basis. Such methods would also afford explorations of whether and how the use of social support resources changes over time. Future research is also recommended with coaches from different cultural and ethnic backgrounds to facilitate tailored social support interventions that are fully inclusive. Explorations of gender differences and or similarities in social support with sports coaches are called for to better understand if there are differences in seeking and receiving social support between genders. The current study used a sample of coaches from varied levels, sports, and employability statuses. Future research could focus on social support structure and resources among coaches from more specific populations or demographic groups to understand more deeply the nature of social support structure and resources among these groups. Coaches highlighted the receipt of social support when applying for coach education courses but provided limited discussions on the support received during coaching courses. Given that coaches' experiences on education courses can influence their intention to stay in the profession, future research should focus attention here to understand support experiences during education course. Finally, research on the effects of social support on PWB with coaches is warranted as this may be beneficial to enhancing coach well-being and performance.

With reference to the applied implications of our findings, not all coaches seem to be

aware of the importance of social support. Thus, NGBs should educate coaches on the usefulness of social support and on how to build effective social networks through coaching qualifications and CPD events, for example. Particular focus should be on developing and maintaining relationships with friends because these individuals have been shown in the current study to provide coaches with appropriate social support resources. In addition, the results offer practitioners who are working with coaches a better understanding of the situations when coaches require social support (e.g., during coaching qualifications). This information can assist practitioners to provide more effective support (e.g., information about the coaching qualification) during these specific situations.

Conclusion

This study provides novel insight to male and female coaches' social network structure, social support resources, and the situations when coaches use social support. The innovative methods employed allowed data to be collected on the resources for and the structure of coaches' networks, as well as showing the importance of social support as described by the coaches themselves. Peers were frequently turned to by coaches yet the ego-network diagrams illustrated that friends tended to be more important sources of support. Based on the findings of this study, we recommend that practitioners, researchers, and NGBs work together to provide various options for social support to coaches, particularly given the influence of relationships in enhancing development and PWB. The findings of this study highlight that an effective social support network is likely to be influential in enhancing performance and PWB as a coach.

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Tables

Table 1

Interviewee

Characteristics

| Interviewee | Age | Sport | Context | Experience | Level | Employed / |
|-------------|---------|------------|-------------|------------|-------|------------|
| Pseudonym | (years) | | | (years) | | volunteer |
| Jade | 24 | Soccer | Youth | 1.5 | 1 | Volunteer |
| Joe | 20 | Handball | Adult | 4 | 1 | Volunteer |
| Josh | 38 | Athletics | Adults | 22 | 3 | Volunteer |
| Katie | 31 | Squash | Adolescence | 14 | 3 | Employed |
| Liam | 22 | Hockey | Youth | 6 | 2 | Volunteer |
| Lucy | 42 | Tennis | Adult | 22 | 4 | Employed |
| Maria | 44 | Soccer | Youth | 10 | 1 | Volunteer |
| Phil | 61 | Rugby | Adolescence | 20 | 4 | Employed |
| Ruby | 25 | Tchoukball | Adult | 9 | 1 | Volunteer |
| Shaun | 56 | Tennis | Adolescence | 39 | 5 | Employed |
| Steph | 24 | Soccer | Youth | 3 | 2 | Employed |
| Terry | 23 | Tennis | Youth | 8 | 2 | Volunteer |

Table 2

Coaches' Social Network

| SRaw Data Themes | Lower-Order Themes | Higher-Order Theme |
|---|-----------------------|---------------------------|
| Committee (3) Experienced coaches (12) Less experienced coaches (4) | | |
| Mentor(s) (6) | Peers (12) | |
| Previous coach (5) | | |
| Support staff (4) | | |
| Work colleagues (8) | | _ |
| Brother (2) | | |
| Children (4) | | |
| Cousin | | |
| Dad (8) | | |
| General family (7) | Family (12) | |
| Grandmother | ranniy (12) | |
| Mum (9) | | |
| Niece and nephew | | |
| Romantic partner (9) | | |
| Sister (4) | | _ Coaches' Social Network |
| Best friend (7) | | Structure (12) |
| Friends (9) | | |
| Housemates (2) | Friends (11) | |
| Players (6) | | |
| School friends (2) | | _ |
| Animals (2) | | |
| Business people (2) | | |
| Continuous professional | | |
| development | | |
| Internet (8) | | |
| National governing body (2) | Miscellaneous (12) | |
| Players parents | Wilscellaneous (12) | |
| Previous experiences (2) | | |
| Sport and exercise (2) | | |
| Sport psychologist | | |
| Teachers (3) | | |
| Writing in a journal | | |

Table 3

Coaches' Social Support Resources

| Raw Data Themes | Lower-Order Themes | Higher-Order Theme |
|--|----------------------------|------------------------|
| Advice (7) Coaching practice (7) Ideas (10) | Informational Support (12) | |
| Calming influence (2) To talk to and listen (6) Venting (7) | Emotional Support (10) | - Coaches' Social |
| Affirmation (7) Perspective (4) | Appraisal Support (8) | Support Resources (12) |
| Ability to switch off (4) Covering coaching sessions (4) Opportunities (6) Partner (2) | Instrumental Support (8) | |

Table 4
Situations Where Coaches' use Social Support

| Raw Data Themes | Lower-Order Themes | Higher-Order Theme |
|--|---------------------------|---|
| Lack of players (4) Personal problems (2) Player behaviour (8) Struggling with something (4) | Player Issues (10) | |
| Coaching practice (4) Feedback (2) Planning sessions (8) Poor training session (2) | Training (10) | Situations Where Coaches' use Social Support (12) |
| Preparation (2) Tactics (2) Team selection (3) | Competition (6) | |
| Issues with club Issues with NGB Qualifications (3) | Organizational Issues (5) | |

Figures

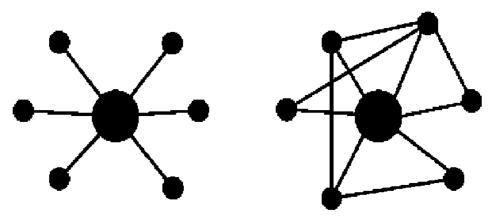


Figure 1. Two illustrative examples of ego-networks. Adapted from "Network Analysis in the Social Sciences" by S. P. Borgatti, A. Mehra, D. J. Brass, and G. Labianca, 2009, Science, 323, p. 894.

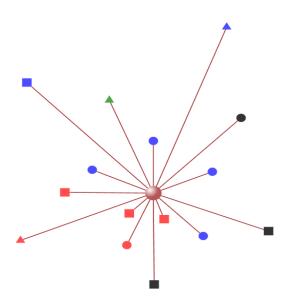


Figure 2. Ego-network diagram for coach Joe.

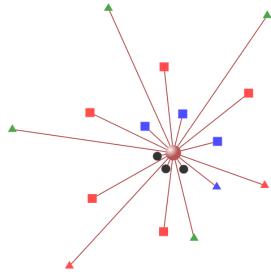


Figure 3. Ego-network diagram for coach Shaun.

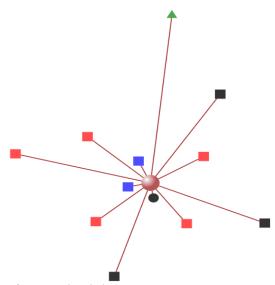


Figure 4. Ego-network diagram for coach Phil.

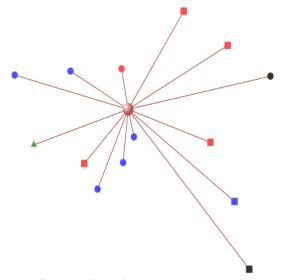


Figure 5. Ego-network diagram for coach Ruby.

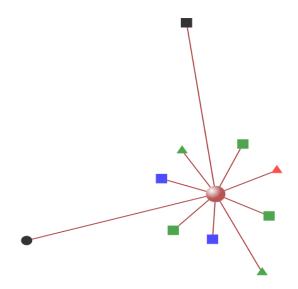


Figure 6. Ego-network diagram for coach Jade.

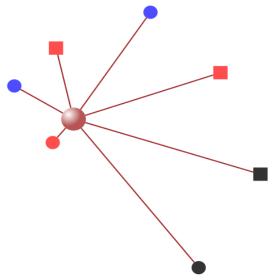


Figure 7. Ego-network diagram for coach Steph.

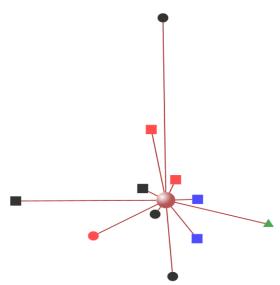


Figure 8. Ego-network diagram for coach Josh.

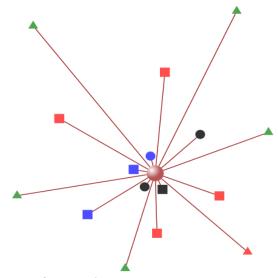


Figure 9. Ego-network diagram for coach Maria.

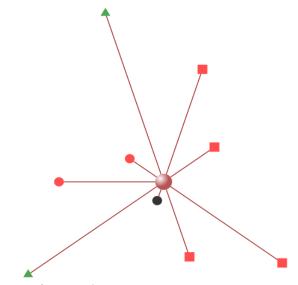


Figure 10. Ego-network diagram for coach Liam.

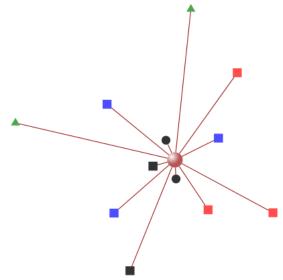


Figure 11. Ego-network diagram for coach Terry.

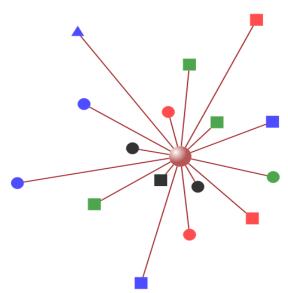


Figure 12. Ego-network diagram for coach Katie.

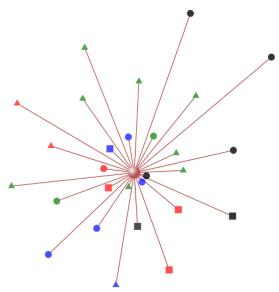


Figure 13. Ego-network diagram for coach Lucy.