

Coaches' Experience of the "Gaelic4Teens" Program in Ireland

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This paper examines Irish volunteer coaches' experiences of the content and delivery of the "Gaelic4Teens" coach education initiative, and further seeks to evaluate if participants coaching behavior changed as a result. The Gaelic4Teens program aims to help coaches better understand the female teenage participant through enhancing the coach-athlete relationship, which in turn, seeks to help retain young females in the sport. Qualitative data were gathered over a 16-week period from August to November 2020 and comprised of pre and post online focus groups with eight (three females and five males) volunteer coaches; one from each of the eight rural community sport settings ($n = 8$) in Ireland. Findings revealed that the coach education program had a meaningful impact on coaches' abilities to competently work with female adolescents. Specifically, the Gaelic4Teens program is effective as a blended learning coach education program that encouraged a coaching environment that empowered the female athletes. Further analysis, with additional stakeholder input, is warranted to ascertain its long-term effectiveness.

Keywords: girls, adolescent, ladies Gaelic football, coach education

Research consistently reports that coach education courses assist in the development of youth sport coaches (Santos et al., 2017; Santos, Camiré, et al., 2019; Santos, Gould, & Strachan, 2019), irrespective of competition level (Newman et al., 2020). Yet, from a coaching perspective in Ireland, there is an insufficient body of evidence in terms of the efficacy of team sport coach education provision (Farmer et al., 2018; Woods et al., 2018). Coaches bring different coaching expertise, approaches, and playing experiences into their respective coaching situations, which is linked to their perceived knowledge and perceived competence levels (Sullivan et al., 2012). While it is well-established that the athlete-centered approach is often recommended in coaching practice in Ireland, it is rarely defined and lacks National Governing Body (NGB) guidance on how coaches can achieve this approach (Bowles & O'Dwyer, 2020). There are many accepted definitions on athlete-centered approaches; however, this study favors Pill's (2018) understanding of the coach guided athlete learning through the provision of athlete autonomy and responsibility. Yet, such an athlete-centered approach is difficult to achieve with volunteer coaches in Gaelic Games on account of their multiple roles, alongside the varying technical skill levels of the athletes at both grassroot and high-performance levels (Hogan et al., 2021). Many volunteer coaches, in Ireland, are responsible for administrative and refereeing roles in addition to their coaching duties (Hogan et al., 2021). Multiple factors, therefore, can impact the effectiveness of coaching, and sufficient training provision must be provided to volunteer coaches in supporting them in their role.

Participation in sport has important effects on the health of adolescents (Bull et al., 2020; Physical Activity Guidelines Advisory Committee, 2018), however, girls have been found to have lower levels of sport engagement (Gavin et al., 2015; Owen


et al., 2017; Woods et al., 2018), higher attrition rates, and tend to dropout of organized activities at an earlier age, when compared to boys (Canadian Women Sport, 2020). Coaches are regularly cited as an associative factor for young girls dropping out of sport (Møllerløgken et al., 2015), and in response, the Ladies Gaelic Football Association (LGFA) in Ireland have implemented the "Gaelic4Teens" (G4T) female sport initiative to try and address the issue. This program is an age-related extension to the evidence-based "Gaelic4Girls" initiative (Farmer et al., 2020) and aims to educate volunteer club coaches on the needs and interests of teenage girls in sport. Through the provision of a unique Ladies Gaelic Football (LGF) program, G4T seeks to retain 13- to 17-year old girls involvement within the sport, while also aiming to develop their athletic (physical) and social skills in a safe and nurturing environment (LGFA, 2021).

The LGFA has over 188,000 members (LGFA, 2018), with volunteer coaches contributing, on average, 3.5 hr a week. (Sport Ireland, 2019). Volunteer coaches are consistently identified as the foundation block of sports organizations (Walsh, 2015). More recently, volunteering has been targeted as a key focus of the National Sports Policy 2018–2027 in Ireland (Government of Ireland, 2018), and the training provided by each sporting NGB is critical to the professional development of coaches. In order for coaches to implement the inclusive nature of LGF, and successfully undertake the multiple roles required from them, competent coaches are needed (Hogan et al., 2021). Few studies, however, have focused on the coach's experiences within youth sport settings (Farmer et al., 2020) particularly relating to coach education. The coach's voice is important as Lewis et al. (2018) concluded that coaches and NGBs often have different perceptions of what effective coach education programs should include. Without this qualitative insight, there is little scope for effective modification to coach educational content, as coach developers and the associated NGB will be unable to fully understand the needs of the coach.

Coaches play a vital role in sport by creating feelings of inclusion and being responsible for the personal development of their athletes (Evans et al., 2015). Yet, girls who participate in sport

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can still face difficult incongruence between the traditional masculine characteristics expected and the dominant notions of femininity (Clark & Paechter, 2007). As a result, Caudwell (2011) has argued for more gender-based research in sport; focusing specifically on issues such as coach education, particularly as male and female athletes require different pedagogical coaching approaches (Longshore & Sachs, 2015). Female athletes frequently report positive experiences of being involved within the decision-making process of their coaching sessions, alongside their tendencies to establish positive coach–athlete relationships (Longshore & Sachs, 2015). There is a need, therefore, for coaches and coach developers to be appreciative of gender when coaching, and through this lens, coach education should focus on developing effective communication and relationship skills when working with female athletes (Norman, 2016). Such improvements in coaches' interpersonal skills may contribute to the retention of female youth athletes in sport (Langan et al., 2013). In this regard, a transition from traditional coach education to a more club based, context-specific approach is warranted for those coaching female athletes (Hogan et al., 2021).

While coaches positively recognize that any learning will improve their coaching behaviors going forward, coaches often return to old habits after their participation within coach education programs (Chesterfield et al., 2010). Coaches undertaking such coach education programs tend to frequently focus on the content that is relevant to them only, and in these instances such content interests already align with the coaches' current philosophies on effective coaching (Chesterfield et al., 2010).

Previous research has shown that volunteer coaches want to be competent and confident in their role and are willing to engage in training (Walsh et al., 2011), despite the time commitment involved. Specifically, in the context of LGF, the evidence base for coach education delivery is only now beginning to surface. Most recently, the Gaelic4Girls program ($n = 120$; mean age 10.75 ± 1.44 years) highlighted that a 10 weeks, specifically tailored coach education intervention can positively impact the physical and psychological wellbeing of young Irish athletes (Farmer et al., 2020). The volunteer coaches' experiences of these programs, and other tailored educational programs, however, remains under researched (Santos, Gould, & Strachan, 2019).

Coach education, for the most part, is effective if delivery and design is coach centered, interactive, and includes reflective practices (Ciampolini et al., 2019). An emphasis on self-directed learning also helps with coach learning (Culver et al., 2019), with Banwell et al. (2019) stating that by removing the blanket approach to coach education, the coach can delve further into the areas of relevance to them. Traditionally, coach education was in a formal face-to-face setting, but, more recently, newer methods of delivery have evolved; particularly through online platforms (Santos, Camiré, et al., 2019). Online coach education courses have significant reach and allow context-specific training at the coaches' own pace, as well as providing a repository of resources for follow-up (Driska & Nalepa, 2020). Such repositories include E-learning platforms that are beneficial for coaches, as all of the learning materials and discussion forums are centralized (Crudington, 2020). Online learning has pedagogical potential beyond traditional methods, as multimedia and animation can be used to facilitate learners in applying concepts realistically that may be difficult to portray in traditional face-to-face classes (McEwen, 1997). As a result, a more accurate communication of ideas can take place, potentially enhancing learning compared with what can be accomplished using a classroom only approach. Care must be

taken, however, to ensure that the learner characteristics, course content, and the learning context are all considered when integrating learning units online (Smart & Cappel, 2006). Otherwise, there is a risk of learners feeling isolated (Brown, 1996), frustrated, and/or confused (Hara, 2000) with the content.

There is a dearth of research on the effectiveness of both face-to-face and online coach education interventions (Langan et al., 2013) for volunteer coaches working with female adolescent youth. Targeting the development of female youth participation in community sport through well-structured coach education programs may heighten girl's autonomous motivation toward participating in organized sports and activities (Woods et al., 2018). The primary purpose of this study was to examine Irish coaches' perspectives on the content and delivery of the G4T coach education program. A secondary aim was to investigate coaches' behaviors after completing the program at 16-week follow-up.

Methods

Overview of the Study

Constructivism is often associated with qualitative research methods. Honebein (1996) describes the constructivism philosophical paradigm as an approach that asserts that people construct their own understanding and knowledge of the world through experiencing things and reflecting on those experiences. In this study's case, the philosophical position is based on the analogy that coaches can form or construct much of what they learn through experience.

Longitudinal follow-up research data were collected on two occasions with a sample of volunteer coaches in Ireland to evaluate the effectiveness of a multicomponent, community sports based G4T intervention. Qualitative data for the study were gathered at two intervals between August and November 2020. This data collection comprised of pre and post online focus group (FG) discussions with volunteer coaches. The delivery of the G4T coach education program, as provided by the LGFA in Ireland spanned across a 16-week duration. Two online FG discussions with four participating coaches in each session were conducted using repeated questions at pre and post stages of the study. This method aimed to capture and monitor the outcomes of the G4T coach education program, based on the expressions of the volunteer coaches.

Full ethical approval for this qualitative study was granted by the Institutional Social Research Ethics Committee at University College Cork in 2020. All participating coaches were informed about the full study prior to their online FG engagement, which outlined the data collection protocol, and consent was then obtained. All participants were free to withdraw from the research at any stage, without prejudice.

Participants, Setting, and Gaelic4Teens Program

The G4T program is a club-based coaching initiative designed by the LGFA, which focuses on appropriate coaching practices, as relative to the needs of female teenagers at nonelite level in Ireland (LGFA, 2021). The overarching aim of G4T is to increase the attraction of LGF as a sport, by seeking to retain 13- to 17-year-old girls' involvement in the sport through the promotion of a player-centered environment for social and athletic development (LGFA, 2021).

Due to the face-to-face COVID-19 restrictions in place across amateur community team sport settings in Ireland during 2020, the rollout of the G4T coach education program was amended to facilitate a blended learning delivery over a 16-week period.

The program included unlimited access to both self-paced modules and recorded webinar content that the coaches could access in their own time. A convenience sample (based on local funding allocation to the sports clubs) of selected data were collected across eight rural community LGF clubs in County Cavan, Ireland. Convenience sampling is nonprobability sampling that is often used in qualitative research (such as the current G4T study), and, as per this sampling technique, participants that were available from County Cavan to contribute to this study were selected (Stratton, 2021). One volunteer coach from each of the eight rural community sport settings ($n = 8$) participated in this longitudinal study on two occasions, as part of the FG protocol and the research evaluation design constructed. All selected coach participants were directly contacted by a member of the national LGFA staff for participation within the qualitative phase of the study.

While participants' data were not gathered in terms of the overall number of coaches that received official G4T coach education training, it is estimated that at least four to five coaches from each of the eight rural community LGF clubs participated on a weekly basis; the projected sample size of trained G4T coach participants was somewhere between 32 and 40 coaches. The sample of participants who were specifically involved in the FG data collection consisted of three female, and five male coaches, with each participant having successfully completed the entry-level Foundation course for LGFA coach education. All eight participants at the time of data collection were coaching existing LGF youth teams. Participant experience ranged from 2 to 20 years, and some of the sample had coached at the highest performing level of LGF (intercounty; see Table 1).

All eight participating LGF clubs in receipt of the G4T coach education program experienced a combination of initial face-to-face content, virtual sessions, online self-paced learning modules, and a sample of best practice coaching sessions. The G4T coach education topics included a wide array of learning outcomes, spanning across coaching approaches and behaviors. Examples include: the creation of positive learning environments, the importance of nutrition and hydration, the integration of inclusive coaching practices, disability provisions in coaching, technical skill specific webinars, and rules of the game (Table 2). Each of these G4T coach education learning outcomes were designed by the national LGFA and targeted the upskilling of volunteer coaches' working with female adolescent youth. Throughout the G4T program, all LGF club coaches had access to an E-learning space, where they had the opportunity to discuss workshop-related content and/or communicate with fellow coaches through peer support networks.

Focus Group Data Collection

Online FG interviews using the Zoom platform examined volunteer coaches' perspectives of being involved in the G4T programs in 2020. Furthermore, the online FG interviews evaluated the coaches' behaviors after completing the program at 16-week follow-up, through their receipt of the blended learning G4T program. All FG interviews were held with the same coach representatives from each of the eight participating LGF clubs on two occasions: before and after the 16-week G4T program.

At both time points, the FG discussions were structured into two participating groups, consisting of four coaches at a given time. The first author (O'Brien) conducted the FG, and the second author (Hogan) was present in an observational capacity, taking reflective field notes. Both authors had extensive experience in undertaking face-to-face and online FG discussions for coach education. These FG questions were derived from the literature (Farmer et al., 2018, 2020) and experiences of the research team in practice, with a sample of FG questions provided in Table 3.

Data Analysis

The FG discussions were transcribed verbatim, with the first and second author then proceeding to undertake first round theme identification as part of the six-phase reflexive thematic analysis (Braun et al., 2016). Phases 1 and 2 involved familiarization with the data, which was achieved through taking notes and transcribing the FGs verbatim and developing initial meanings, often in the

Table 2 The Gaelic4Teens Content-Related Focus and Modality for Coach Education Delivery

Topic	Delivery method
Coaching approach and behaviors	Live webinar
Physical considerations	Live webinar
Lifestyle balance and nutrition/hydration	Live webinar
Creating positive club coaching climate	Live webinar
LGFA rules online refresher course	Self-paced learning
LGFA coaching the tackle webinar	Self-paced learning
Sport Ireland coaching children course	Self-paced learning
LGFA player participation webinar	Self-paced learning

Note. LGFA = Ladies Gaelic Football Association; Live Webinar = session delivered live via Zoom to all participants; self-paced learning = unlimited access to E-Learning platform content.

Table 1 Participants' Ladies Gaelic Football Coaching Experience

Coach	Coach education completed	Years of coaching experience	Currently coaching	Highest level coached
Female	Foundation	Unknown	Unknown	Club underage
Female	Unknown	Unknown	U14	Club underage
Female	Foundation	Unknown	U14 and U16	Club underage
Male	Foundation	20	U16	Intercounty U14
Male	Level 1	6	U12 and U14	Club underage
Male	Level 1	10	U14 and U16	Intercounty underage
Male	Unknown	15	U8, U10, and U14	Club underage
Male	Foundation	2	U11, U12, and 13	Club underage

Note. Unknown = data not being reported; U = under; underage = those under the age of 18; intercounty = regional representation of high-level youth performance.

Table 3 Sample of Questions Posed at Pre and Post Focus Group

Feedback on the program content and delivery

- From what you know to-date as a coach, what are your thoughts/perspectives on the “Gaelic 4 Teens” (G4T) program?
 Are there any barriers or challenges that are hampering or impacting your maximum engagement as a coach in the G4T program?
 How do you feel about the move in 2020 to a blended online model (self-paced learning, webinars, and practical) for the G4T program?
 How did the club visits with the ambassadors demonstrate good coaching?
 Is there anything different at this stage that you would like to see in the G4T program?

Coach development and learning

- Has your coaching style changed when working with female teenagers at club level as a result of the G4T program?
 When planning your coaching sessions in training, what do you feel are the most important factors to consider?
 As a coach in the lead up, and on the game day, what do you think are the most important factors to consider?

Coaches' understanding of female teenage athletes

- From the eyes of a teenage participant, what type of coach do you think they prefer?
 Would you get involved with teenage teams again in the future?

participants own words. Following the individual analysis and through combined reflexive engagement and discussion (Braun & Clarke, 2016), 20 broad categories were identified as part of Phases 3–5, which resulted in eight broad themes with sub themes included. This thematic identification process was strongly informed by the lead authors' extensive coaching experiences within LGF as a sport, and the respective field experiences of the authorship team allowed the data to be reduced into three overarching thematic structures. The final write-up phase occurred for this manuscript and an overall report for the NGB was produced.

Results

Following the data analysis, the three dominant and overarching thematic structures included the following:

1. Theme 1: Coach Education: Coach appreciation of online and blended learning approaches.
2. Theme 2: Coach Environment: The coach's provision of player autonomy, confidence and competence.
3. Theme 3: Coach Behavior: Holistic coaching philosophy, using robust coaching pedagogies in practice.

Theme 1: Coach Education—Coach Appreciation of Online and Blended Learning Approaches

The participating coaches were strong in their support of the blended learning delivery style of the G4T program, specifically with respect to the dissemination of coach education materials. Some of the guest speakers were deemed “inspirational” and the provision of content on mental health was beneficial, as alluded to below:

Very interesting to hear elements about mental health and making the whole player.

Other coaches spoke about the program informing and upskilling their knowledge relating to “educating the girls to make decisions.” Furthermore, coach education concepts like “player ownership, autonomy, physical fitness, nutrition, hydration, and mental well-being” were noted to have been covered comprehensively through the regular “interactive components.”

The blended learning approach allowed coaches to return to the previously delivered coach education material in their own time, and

encouragingly, participants believed that they could practically apply the resources to their future coaching sessions, as inferred:

Program was excellent and having resources on the portal makes it easier to go back and see what to pull out for a session.

The coaches felt that the online G4T delivery “worked really well.” The shared online dialogue between peers at webinars particularly helped in “getting perspectives from other coaches with similar stories,” which was a key element in understanding the similarities among volunteer LGF coaches:

Taking perspectives from other clubs would be great as you think you are on your own at times but listening to other coaches shows we are all in the same boat.

Finally, the online G4T delivery format of the coach education content enhanced time efficiency, with a “reduction in travel,” but also the self-paced modules offered coaches an opportunity to “work at your own pace.”

Overall, the participants appreciated the coach education offerings through the G4T delivery style and were favorable advocates for the adoption of similar coach education practices going forward. The second theme moves away from the “coach education” delivery style toward the “coaching environment,” specifically the coach's provision of player autonomy, confidence and competence in practice.

Theme 2: Coach Environment: The Coach's Provision of Player Autonomy, Confidence, and Competence

It was evident upon completion of the G4T program that the coaching style of coaches had made a positive advancement toward the provision of athlete-centered coaching environments. One coach spoke about their outlook “changing toward more talking with the girls” and “giving them a goal to work with.”

When listening to the players, coaches highlighted that they are now more aware of the voices of their athletes in their respective coaching environments, and noted that the “feedback from the girls, by talking to them, it is amazing what they understand.” This communication strategy employed by coaches was reinforced by another participant, who indicated that “I am more aware of what I do now with them, no one gets more attention than anyone else.”

These higher order coaching principles of providing player autonomy within the coaching environment were clearly reflective of the G4T program, by coaches identifying that “players have choices on what they need to improve on.” One particular element, at follow-up, strongly reinforced the importance of “individual players setting milestones” under the structured guidance from coaches. The focus on the player in the coaching environment was again reiterated by another coach who stated: “Autonomy for older girls, my style with underage girls is collaborative but putting bit more emphasis on the player pathway.”

Finally, upon completion of the G4T program, the coaches realized the importance of integrating a coaching environment that provides contextually rich and “varied training sessions.” A large proportion of coaches agreed that the coaching environment can improve players’ confidence by “challenging players” at training through utilizing the “extra coaches.” It was agreed by participants that this coaching environment allows for additional skill development time, which in turn, has a positive cyclical effect on higher levels of player enjoyment.

Overall, by the end of G4T program, the participants advanced toward the implementation of an athlete-centered coaching environment, with a particular emphasis on the provision of autonomy and listening to the player’s voices during practice. The third and final theme moves away from the “coaching environment” and concludes with the “coach’s future behaviors,” specifically their intended holistic coaching philosophy through the integration of robust coaching pedagogies in practice.

Theme 3: Coach Behavior: Holistic Coaching Philosophy Using Robust Coaching Pedagogies in Practice

The G4T facilitator skill set was applauded by the participants, as it was highlighted by the coaches that they were tasked to reflect on their coaching styles:

It makes you look at your own coaching style and philosophy and are you trying to do this for yourself or for the players.

The psychological shift among participants from a coach-centered to a player-centered mindset was outlined by some of the coaches, who reflected on their changed approaches:

I asked the players what they are looking for, what they expect from me, and we work together. We talk about us as a group, not just me and the coach, and they are the team. Everyone’s opinion is important.

I would structure the whole training session and let the girls take over during a session.

My coaching style is probably through questioning, we do an activity, I stop and ask questions about what they could improve on, what is going well, so trying to take from the girls what they can improve on and when there are problems seeing how they can identify it, so as they get older they can see problems on the pitch and deal with these themselves.

In addition to the appreciation of holistic coaching philosophies, it was evident that the participants obtained a significant amount of information and “learned loads” about coaching practices through peer collaboration. When probed about their future coaching endeavors, many spoke about engaging players more “interactively”

through listening and talking to the players in an “approachable” capacity.

I probably introduced more fun, more breaks so they can talk to each other, give them more autonomy especially with U16 group, gave them control, and I am a bit more relaxed.

I now build in breaks or fun activity toward the end.

There was a notable change in coaches’ perceptions regarding factors to consider when planning a training session. Participants’ viewpoints over time moved from focusing on the practicalities surrounding equipment to the inclusion of fun and player involvement at all coaching sessions.

I now include a fun element and it is not all serious but I challenge players, vary sessions; looking to keep them entertained and wanting to come back

Discussion

The aim of this study was to examine Irish volunteer coaches’ perspectives on the content and delivery of the G4T coach education program, and to investigate coaches’ behaviors after completing the program at 16-week follow-up. Findings revealed that the G4T coach education program had a meaningful impact on coaches’ abilities to competently work with female adolescents. The thematic analysis specifically revealed G4T program effectiveness toward coach education, the coaching environment and the coaches’ overall behaviors.

The incorporation of course content that focuses on the psychosocial aspect of coaching, through a blended learning approach, may facilitate a shift away from the traditional, predominantly technical elements of coach education (Vinson et al., 2016). Previous Irish research (Larkin et al., 2007) reported that coaches preferred access to observing other coaches in practice, as well as opportunities to informally collaborate with their experienced peers. In this study, coaches positively reported on many aspects surrounding the coach education theme, including the E-Learning portal, their opportunities to collaborate with others, as well as the contextual content within the G4T program. The coaches’ appreciation for peer learning and support through the online collaboration opportunities is consistent with findings from Clements and Morgan (2015). It is reasonable to infer that the G4T program aligns to the research from Nash and Sproule (2012), in which volunteer coaches need be understood, supported, valued, and have regular access to resources.

A previous systematic review and meta-analysis of PA-related community sports-based interventions among girls (Pearson et al., 2015) found that greater program effectiveness resulted from initiatives that were multicomponent, theory based, focused on girls, and included a coach education component. From the present study, it is evident that the current theoretical structures of the program within the G4T intervention positively impacted coaches in their environment. Specifically, coaches upon completion of the G4T program progressed their coaching environment through the provision of player autonomy, confidence, and competence. It was very encouraging to observe how coaches were providing environments with autonomy for older girls, whereby individual players were setting milestones and having choices on what they need to improve on. Ryan and Deci (2000) state that providing female youth athletes with such ownership opportunities within coaching sessions enhances intrinsic motivation and fosters relatedness. The

coaches' positive transition toward autonomy provision upon completion of the G4T program was a notable feature of quality within the coaching environmental structures.

Recent research has also identified that social interaction, fun challenges, noncompetitive structures, and personally relevant opportunities are underpinning structures for successful female youth sport and PA programs (Beni et al., 2018; O'Brien et al., 2021). Such personal relevant opportunities were clearly provided by participants upon completion of this G4T program, by providing players with goals to work with, and by coaches talking to them. James et al. (2018) propose that policy-makers and those involved in sport should include young people in the design process to ensure that such female youth programs are meeting the needs of the age cohort. These are the focus of athlete-centered coaching approaches and can include unstructured, local, low cost, fun, and sociable opportunities (James et al., 2018). It would appear that by the end of this G4T program that coach participants moved toward the implementation of an athlete-centered coaching environment, with a particular emphasis on the provision of autonomy and listening to the player's voices during practice.

While the current G4T program offering was well received by the coaches during the COVID-19 pandemic, the authors of this study recommend that the LGFA should use these findings to review and adapt the program where necessary going forward. Furthermore, previous research considers how coach education can be deemed to be low impact on account of the coaches' lack in self-awareness (Harvey et al., 2013). Future coach education programs must be cautious of the mechanisms required to change coaching behaviors in the long term; irrespective of their self-reported claims (Harvey et al., 2018). Notwithstanding these recommendations, the LGFA of Ireland should be encouraged to continue the delivery of the G4T program, via the existing online learning portal, that included peer and coach developer support (Leduc et al., 2012).

Limitations

Given that the data were comprised of coach FG discussions only, it is difficult to infer causality in terms of coach behavior changes because of their G4T coach education participation. Future coach education research should consider an extended longitudinal time span and incorporate the experiences of the adolescent athlete, alongside some direct observation of coaching activities. It is acknowledged that the sample selected for the study was not fully random or stratified (Smith, 2018) and, therefore, only reflects the viewpoints of those participants rather than the coaching population as a whole (Gorard, 2001). It should also be noted that although the current study had a relatively small sample size of coach participants, equal participation within the FG discussions over time were obtained, and meaningful findings for future practice were derived in terms of coach education, the coaching environment, and the coaches' future behaviors when working with female youth athletes. The authors report that there are no competing interests to declare.

Conclusion

The concluding findings from this current qualitative study over time reveal that the G4T program had a meaningful impact on coaches' abilities to competently work with female adolescents. Furthermore, it has contributed specific knowledge to advancing the field of coach education through highlighting the effectiveness

of an online coach education course, which focuses on a positive coaching environment for female athletes. Additionally, coaches' self-awareness and behaviors changed in a positive manner after completing the G4T program, as they transitioned from a coach-centered to player-centered ethos. A long-term analysis, with additional stakeholder input, is warranted to conclude whether the coaches' behaviors change positively over time, and whether such changes are sustainable. The incorporation of data surrounding the voices of adolescents who partake in the G4T face-to-face coaching sessions are also needed to strengthen the methodological research design within the program.

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