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THE SPORTS BACKGROUND, PERSONALITY, ATTITUDES, AND SOCIAL COMPETENCIES OF COACHES AND ASSISTANT COACHES IN THE *JUST SOCCER* PROGRAM FOR PUPILS WITH INTELLECTUAL DISABILITIES

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ABSTRACT
Purpose. The purpose of this study was to empirically analyze the sports background, personality dimensions, attitudes, and social competencies of adult head coaches and young assistant coaches involved in the German *Einfach Fußball* (*Just Soccer*) program, which promotes the participation of pupils with intellectual disabilities in soccer/sports and society. **Methods.** The study recruited 28 head coaches and 29 assistant coaches who completed a questionnaire battery of standardized instruments (NEO Five-Factor Inventory, Interpersonal Reactivity Index, Social Self-Efficacy) as well as self-developed instruments. Analysis of the data involved descriptive and inferential statistical procedures. A descriptive comparison of the assistant coaches with a normative sample of males aged 16–20 years was performed. **Results.** The head coaches were found with little soccer/sports experience with persons with disabilities prior to participation in the *Just Soccer* program. However, the majority were familiar with these persons through personal/vocational contacts. Overall, the head coaches were differentiated by formal coaching levels and playing backgrounds, with very few holding any additional formal qualifications in special education. The assistant coaches presented below average scores in the analyzed five personality dimensions when compared with the normative sample. Their attitudes and social competencies did not change during their 8-month involvement in *Just Soccer.* **Conclusions.** The findings highlight the important role of the coaching staff in the success of the *Just Soccer* program. Coaches involved in such activities should be familiarized with needs of people with disabilities, be stress-resistant, and possess a balanced set of personality traits. In addition, the results suggest that such individuals should be coaches/players from conventional soccer clubs instead of special school physical education teachers.

Key words: participation, inclusion, soccer, disabilities, personality, attitudes

Introduction

Einfach Fußball (*Just Soccer*) is a soccer program run by the Bayer AG (Leverkusen, Germany). Against the background of their social responsibility, Bayer AG is engaged in the advancement of pupils in special needs schools with a focus on those with intellectual disabilities. The program operates by creating partnerships between special schools and conventional soccer clubs of the German Soccer Federation (DFB), with the goal to include youth with disabilities within the cultural sphere of soccer clubs especially through participation in active club life and their inclusion in society.

In detail, the first step of the program was building up connections between DFB soccer clubs and schools for special needs children (intellectually disabled). These partnerships operate in the same local area so as to allow the pupils to be able to practice soccer at a regular DFB club at least once a week. The intention is to create a long-lasting program and establish itself as a natural part of DFB club life. It hopes to provide ever more opportunities to youths with disabilities who participate in this program. This is important especially so as pupils with stronger intellectual disabilities are excluded from playing soccer in regular DFB clubs. One important feature of this program is the support of two to three assistant coaches who support the head coach during the soccer practice. They are frequently young able-bodied players from regular club teams instead of more commonly-used adult assistant coaches. The underlying reason for this is based on the peer teaching concept, which aims to foster the social and soccer skills between similarly-aged participants. In this way, the training sessions are organized to optimize peer teaching (for a more comprehensive theoretical framework of the program see Schliermann [1] and Schliermann and Anneken [2]). Furthermore, a soccer tournament is also held on the training grounds of the Bayer Leverkusen Soccer Club at least once a year. All participating teams of the *Just Soccer* program come together, compete against another, and then attend a Bundesliga match for entertainment as well as to boost their own motivation.

The program focuses on including individuals with different intellectual as well as soccer-skill levels, especially those with stronger impairments. As such, the training content depends on the skill level of the participants (mental and physical) although it is similar to conventional soccer training. Previous evaluations revealed that this way of implementing the *Just Soccer* program was well received by all involved parties, especially by the children and youth with disabilities, and was easy to implement. Furthermore, it has been found to lead to positive physical, psychological, and social effects among the participants [1, 2].

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However, the successful implementation of the program largely depends on the effectiveness of the head coach and their cooperation with the younger assistant coaches. In this context, the sports backgrounds, personality structures, social competencies, and attitudes towards people with disabilities of the coaching staff comes under question.

Social competence

In the daily functioning of sports coaches and teachers, social competency is frequently highlighted as an important factor of effective communication. Social competence is a multidimensional construct that is subsumed in the general sphere of the competence concept [3]. Social competence includes the reservoir of knowledge, abilities, and skills of an individual that is available for socially competent actions. It is the possession of adequate social-communicative competencies that allow individuals to behave when interacting with others in group- or relationship-oriented situations [4]. Therefore, the point is to emphasize that social competence represents the disposition to socially competent behavior, but does not arise in every possible situation [5]. Reviewing the literature on team sports in general and soccer in specific, it is known that appropriate and distinctive social competencies are an important precondition for coaches and assistant coaches in order to meet different demands. The most popular theoretical approaches on leadership behavior in sports implicitly integrate aspects of social competence. They postulate links between adequate coaching behavior and sports performance as well as athlete satisfaction [6–8].

Attitude

The attitude concept is highly rated in the social-psychological context and refers especially to research on different topics connected with people with disabilities, hence its highly valued status in this field of study [9]. This concept mainly examines the acquisition, changes, and function of attitudes. Social attitudes are treated as predispositions which determine an individual's reaction to objects, circumstances, or persons in an affective/emotional, cognitive, and behavioral way [10]. These predispositions are relatively constant and may correlate with corresponding behavior. Although meta-analyses demonstrate few correlations exist between positive (negative) attitudes and actual displayed behavior (on average correlation of $r = 0.15$ to a maximum $r = 0.30$, [11]), the positive attitudes of coaching staff towards their athletes (with disabilities) seem to be important prerequisites for a solid coach-athlete relationship, i.e., effective leadership behavior while facilitating a motivational climate during training [12].

Personality structure

To provide a heuristic theoretical framework for the present study and to understand the development and alteration of the assessed constructs mentioned above, the *action theory model of personality* (HPP) [13] was applied. Generally, the personality of a person involves the collectivity of all the characteristics of this person including individual specifics in terms of physical appearance and the regularities of their behavior and experiences [11]. At the core, it can be characterized as relatively stable, outlasting behavior [14]. Based on dynamic interactionism [15], HPP focuses on cognitive expectations and personality characteristics. This approach postulates hierarchical personality levels which differ in terms of specificity, focus point, and stability over time. The several expectations and personality variables are, amongst others, the result of complex learning processes. Level one addresses concrete situations where personality is characterized as being unstable and changeable. At level two, specific areas of action are focused on where personality is characterized as more stable than at level one. Eventually, level three is characterized by cognitive personality factors, usually called 'traits', that are stable over time, situations, and areas [13]. At level four, these cognitive traits interact with other personality traits (e.g. bio-psychological, emotional, psychological) and constitute the whole personality structure. In this view, social competencies as well as attitudes towards people with intellectual disabilities would be relatively instable and sensitive to alteration with increased contact and experience (level two), whereas broad personality traits (such as the Big Five factors of openness, conscientiousness, extraversion, agreeableness, and neuroticism) are rather stable and difficult to change (level four).

The structural factors and positive effects of the *Just Soccer* program on youth with intellectual disabilities have already been assessed and documented [1, 2]. However, how the coaching staff are responsible for these positive effects has yet to be analyzed. This would first involve assessing important psychological factors characterizing this group. Therefore, the following empirical study researched a number of psychological characteristics of the soccer head coaches and assistant coaches of the *Just Soccer* program, with the following research questions in mind:

– Which sports-related biographical characteristics define the coaches and assistant coaches? One can expect that head coaches have experience with persons with disabilities and are willing to include them in club life. However, the type of formal soccer qualifications they possess or coaching history are difficult to hypothesize. This also applies to the assistant coaches, as they are personally selected by the head coaches. Hence, any assumptions on their sports and biographical background are impracticable.

– What are the personality dimensions of neuroticism, extraversion, openness to new experiences, conscientiousness, and agreeableness among the assistant coaches in comparison with a normative sample? These

personality traits are relatively stable in nature. Referring to the HPP mentioned above, these traits are characterized as abstract, relatively stable, and long-lasting (level four). Hence, any changes due to their involvement in such a program are not likely to occur, consequently not allowing any longitudinal effects to be assessed. Any significant differences between the examined group of assistant coaches and a normative group of the general German population are not expected.

– How are the attitudes and knowledge of the assistant coaches accentuated towards people with disabilities? Would they significantly change between a pre- (before the start of the program) and post- (after 8 months involvement) assessment? Due to the voluntarily nature of the program, any extremely negative attitudes were not likely to be recorded. Against the theoretical background of the HPP, attitudes towards people with intellectual disabilities are area-specific (level two). That is, they are not as stable as personality traits and may change under specific conditions. According to contact theory, frequent and emotional intensive contacts between persons with and without disabilities may facilitate conditions [11, 9, 16].

– How distinct are the social competencies of the assistant coaches? Do they significantly change between pre- and post-assessment? When comparing them with a reference group of young Germans, no significant differences are expected. According to the HPP, social competencies are located at level two, therefore area-specific expectations may change as they are not stable in nature.

Material and methods

The sample consisted of 28 head coaches and 29 assistants. This particular case involved surveying all of the head coaches and assistant coaches in the *Just Soccer* program (100% response rate). A detailed characterization of the sample is provided in the results section. After obtaining signed consent forms from all participants (and guardians, if necessary), the group was provided with questionnaires assessing the above aspects to be completed on their own during practice or in the privacy of their own home. The questionnaires consisted of:

Personality dimensions

The NEO Five-Factor Inventory (NEO FFI) personality questionnaire [17, 18] captures five fundamental dimensions of personality (the so-called Big Five). Within the subscales, the areas of personality of neuroticism (individual differences in emotional stability and emotional lability), extraversion (individual differences relating to extraverted and introverted lability), openness to experiences (individual differences in the extent of interest in seeking new experiences and impressions), agreeableness (individual differences in altruistic, cooperative behavior), and conscientiousness (individual differences in the extent of active planning and realizing important tasks) are operationalized with 12 questions per dimension. Statements are answered with a five-point scale (from 0 equaling a strong denial to 4 a strong acceptance with the item). The NEO FFI is known as a reliable and valid instrument for the assessment of central areas of personality and shows satisfactory to good internal consistency ranges between Cronbach's $\alpha = 0.72$ and $\alpha = 0.87$. Test-retest reliability (over a 5-year period) shows correlations between $r_{tt} = 0.71$ and $r_{tt} = 0.82$. The construct validity has been confirmed by correlations made between the NEO FFI subscales and a self-assessment using an adjective checklist. The NEO FFI was completed only by the assistant coaches, and their answers were compared with a representative normative sample presented in the NEO FFI manual (T-scores).

Social competencies – perspective-taking, self-efficacy, empathy, social support

In researching international school performance, Kunter et al. [19], amongst others, composed a set of questionnaires to ascertain the communicative competency of 15-year-old pupils as part of the Program for International Student Assessment (PISA). Psychometrically evaluated to be valid and reliable, these English-language questionnaires were translated into German and also psychometrically tested. In the large-scale PISA study with over 5000 test participants, the selected scales of this questionnaire proved to have acceptable psychometric properties. Two of the same questionnaires were used in this study to address social competencies and are presented below. Data on social competencies was collected only from the assistant coaches before the start of the program and after 8 months involvement.

Subtests of the Interpersonal Reactivity Index (IRI) were used [20]. The IRI is comprised of four subtests (Fantasy, Personal Distress, Perspective-Taking, Empathy) with a total of 28 items. The last two subscales were selected for this study. *Perspective taking* assesses the ability to understand and identify psychological processes (i.e., think, feel, desire) of other people in specific situations (five items: e.g. "I try to look at everybody's side of a disagreement before I make a decision." or "I sometimes try to understand my friends better by imagining how things look from their perspective."; Cronbach's $\alpha = 0.73$). *Empathy* focuses on feelings on the emotional reactions of other persons (six items: e.g. "I often have tender, concerned feelings for people less fortunate than me", "I would describe myself as a pretty soft-hearted person"; Cronbach's $\alpha = 0.77$).

To measure *self-efficacy*, the Social Self-Efficacy Scale (SSES) [21] was applied. This subscale originally belongs with another subscale (General Self-Efficacy) in a questionnaire that analyzes generalized (not situation-specific) expectancies of successful behavior. The SSES focuses on one's beliefs in their capabilities to adequately behave in social situations. These perceptions are important for processes regulating effective behavior in

the social context (six items: e.g. "When I'm trying to become friends with someone who seems uninterested at first, I don't give up easily.", "It is easy for me to start a conversation."; Cronbach's α = 0.77).

Finally, the aspect of *social support* was assessed with the German-language Social Support Scale. This scale analyzes one's behavior in supporting their peers with problems and was constructed especially for use in the PISA study (four items: e.g. "How often do you try to help others with their problems?", "How often do you encourage someone if something went wrong?"; Cronbach's α = 0.76).

Attitude and knowledge towards disabilities and persons with disabilities

To recognize existing, possibly fragmentary knowledge and corresponding (negative) attitudes towards people with disabilities, a self-developed standardized questionnaire was applied. This questionnaire addresses knowledge about disabilities ("To be disabled means to me...") and reactions on people with disabilities ("When I see a disabled person in the everyday life…"). This questionnaires was also only answered by the assistants.

Data analyses

Data were analyzed by calculating descriptive statistics (means, standard deviations, frequencies) and performing inferential statistical procedures. The latter included applying the parametric paired Student's *t* test and the nonparametric Wilcoxon signed-rank and chi-squared goodness-of-fit tests. Statistically significant and meaningful differences were assessed with the following criteria: significance level $p \leq 0.05$; effect sizes for the *t* test: Cohen's $d = 0.2$ – small effect, $d = 0.5$ – medium effect, and $d = 0.8$ – large effect; effect sizes for the Wilcoxon test: phi coefficient = 0.10 – small effect, phi= 0.30 – medium effect, phi = 0.50 – large effect; and effect sizes for the chi-squared test: Cohen's $w = 0.10$ – small effect, $w = 0.30$ – medium effect, $w = 0.50$ – large effect [22].

Results

Sports background characteristics

Head coaches – the majority of the head coaches were former competitive players, predominantly in the amateur leagues (Table 1). A minority had played professionally (question 5b). The range of experience as a coach ranged between 1 and 24 years, with most coaching at the lower amateur leagues and youth soccer leagues. Only two coaches were experienced (not including *Just Soccer*) in coaching people with disabilities (data not displayed in Table 1). Question 4 addressed the type of formal soccer qualifications the coaches possessed, finding that none of the coaches were in possession of the highest soccer coach license (UEFA Pro). In most cases a specialty qualification (e.g. goalkeeper coach) was stated or the question was left unanswered. Additional to the work at *Just Soccer*, nearly half of the group was also involved in other coach or exercise activities (question 6). On direct contact or previous experience with people with

Table 1. Characterization of the head coaches ($n = 28$; $n = 16$ for item 5b) presented as a percentage and absolute value

	Fully agree	Agree	Rather do not agree	Do not agree	Abstained
(1) I am very ambitious in sport.	28.6% (8)	46.4% (13)	3.6% (1)	–	21.4% (6)
(2) I see myself as a role model for the participants of *Just Soccer*.	57.1% (16)	17.9% (5)	3.6% (1)	–	21.4% (6)
(3) I am highly motivated to train the participants of *Just Soccer*.	50.0% (14)	28.6% (8)	–	–	21.4% (6)

UEFA Pro	Level A	Level B	Level C	Different qualification	Abstained
(4) Which is your highest soccer coach license?	7.1% (2)	17.9% (5)	7.1% (2)	25.0% (7)	42.9% (12)

	Yes	No	Abstained
(5a) Have you been a soccer player before you started your work as a soccer coach?	57.1% (16)	21.4% (6)	21.4% (6)
(5b) If you had been soccer player before, at what level did you play?	Pro league 12.5% (2)	Amateur league 75% (12)	Abstained 12.5% (2)
(6) Additional to my work as a soccer coach in *Just Soccer*, I work as a coach or club-trainer somewhere else.	42.9% (12)	35.7% (10)	21.4% (6)
(7) Did you have private or job- related experience with children with disabilities before *Just Soccer*?	57.1% (16)	21.4% (6)	21.4% (6)
(8) I have a certificate in the field of social pedagogy or special needs education.	14.3% (4)	64.3% (18)	21.4% (6)

disabilities, it is remarkable that about 57% of the coaches responded affirmatively (question 7). This contact or experience most commonly stemmed from a job in the social sector (n = 10), followed by family (n = 4), and then working contacts with colleagues with disabilities (n = 2) (data not displayed in Table 1). In contrast, most of the coaches did not have any social/pedagogical or special education qualifications (question 8). Nearly all of the respondents described themselves as ambitions and highly-motivated in both sports and their involvement as a *Just Soccer* coach, in which they stated they want to act as a role model for the participants (questions 1, 2, 3).

Assistant coaches – the 29 young assistant coaches had a mean age of 18.93 ± 5.58 years. There were significantly more male (n = 21, 72.4%) than female (n = 8, 27.6%) assistants comparable with the general German population of youths [chi-squared (1) = 5.83; p = 0.024; w = 0.448). Most attended three soccer practice sessions a week (37.5 %) or even four times a week (33.5%). The majority attended secondary school (32%) or involved in vocational training (20%).

Structure of personality of the assistants

Comparisons with the representative normative sample of males aged 16–20 years (this comparison sample was used due to the predominant number of assistants who were male) found this group to present below average scores in all five dimensions of the NEO FFI questionnaire (Table 2). Determining the insignificant scoring range to be T = 50 ± 10 (i.e., M ± 1 SD), T-scores between 40 and 60 were considered 'normal'. As a result, the data on their personality characteristics is relatively strong in the substandard (below average) area.

Table 2. Data scores of the NEO FFI dimensions for the assistant coaches (n = 29) compared with a normative sample of males aged 16–20 years (n = 480)

NEO FFI-Dimensions	*M*	*SD*	T-score
Neuroticism	1.39	0.31	21
Extraversion	2.74	0.29	19
Openness to experience	2.05	0.36	21
Agreeableness	2.60	0.27	19
Conscientiousness	2.85	0.37	19

Attitude and knowledge towards disabilities and persons with disabilities

Altogether, the eight questions (five negatively connoted, three positively connoted) on attitude and knowledge towards disabilities and persons with disabilities ("To be disabled means to me…") found that this group did not favor negative characterizations (Table 3). The assistants showed no negative assessment tendency, neither in pre- nor post-measurements. This result becomes stronger with the nine questions on confronting people with disabilities in everyday life ("When I see

Table 3. Pre-and post-assessment (T1 and T2) of the assistants' answers (n = 23–25) to the question "To be disabled means to me…" (1 = "do not agree", 2 = "rather do not agree", 3 = "rather agree", 4 = "fully agree")

	M_{T1}	*SD*	M_{T2}	*SD*	*t*	*p*	*d*
Having the ability to move free	2.47	0.51	2.41	0.80	0.32	0.75	0.077
Being ill	2.35	0.93	2.30	0.77	0.27	0.79	0.062
Having fun and enjoyment	2.94	0.68	3.12	0.96	–1.15	0.27	–0.282
Being dependent of other people	3.00	0.63	2.88	0.61	0.81	0.43	0.201
Stupidity	1.29	0.47	1.41	0.51	–1.00	0.33	–0.251
Limited physical activity	2.88	0.78	2.76	0.56	0.62	0.54	0.147
Mental problems	3.06	0.56	2.82	0.53	1.47	0.16	0.356
Being healthful	2.12	1.05	2.18	1.01	–0.32	0.75	–0.075

Table 4. Pre- and post-assessment (T1 and T2) of the assistants' answers (n = 23–25) to the question "When I see a disabled person in daily life…" (1 = "do not agree", 2 = "rather do not agree", 3 = "rather agree", 4 = "fully agree")

	M_{T1}	*SD*	M_{T2}	*SD*	*t*	*p*	*d*
I tend to look away	1.71	0.69	1.82	0.53	–0.70	0.496	0.162
I noticed that he or she attracted the attention of others	2.88	0.78	2.70	0.77	1.0	0.332	0.239
I feel compassion	3.06	0.827	2.76	0.75	2.58	0.020	0.628
I don't know how to act	2.65	0.786	2.71	0.47	–0.32	0.750	0.074
I'm afraid to be disabled someday as well	2.82	0.883	2.47	0.80	2.07	0.055	0.497
I'm repressed to ask, if he or she needs help	2.41	0.795	2.24	0.56	1.0	0.332	0.240
I act on the assumption, that he or she doesn't need help	1.76	0.437	1.94	0.56	–1.0	0.332	0.349
I wait, if help is needed	2.94	0.443	2.81	0.54	0.81	0.432	–0.205
I provide help immediately	2.24	0.56	2.47	0.63	–1.29	0.216	0.306

Table 5. Social competencies of the assistants (n = 23–25, for first three dimensions: 1 = "fully applies" to 4 = "does not apply", social support dimension: 1 = "never" to 5 = "always"; data in parenthesis from the 2000 PISA study)

	T1		T2		t	p	d
	M	*SD*	*M*	*SD*			
Perspective- taking	2.87 (2.73)	0.41 (0.53)	2.86	0.47	0.13	0.899	0.031
Self-efficacy	3.02 (2.90)	0.27 (0.54)	2.97	0.33	0.60	0.558	0.149
Empathy	3.09 (2.84)	0.25 (0.55)	3.01	0.29	1.33	0.205	0.356
Social support	3.88 (3.71)	0.40 (0.74)	3.88	0.59	0.0	1.000	0.0

a disabled people in daily life…"); at least one score of the negatively connoted items significantly decreased ("…I'm afraid to be disabled someday as well.": p = 0.055, d = 0.497, p = 0.058, phi = –0.352; "…I feel compassion."; p = 0.020, d = 0.628; p = 0.025, phi = –0.415) (Table 4). These findings are based on an assessment of the means by t and Wilcoxon tests, which were necessary as the assumption of normality was rejected in these two items.

Social competencies

Analysis on the social competencies of the assistant coaches did not show a significant change in the pre- and post-measurements. The studied measures – perspective-taking, self-efficacy, empathy, and social support – remained relatively constant (Table 5). Analysis of the first three social competencies showed a tendency towards more negatively directed scoring (i.e., the assistants felt they did not see themselves in a position to comprehend the psychological processes of others [perspective taking], nor show self-confidence in socially-related behavior [self-efficacy], nor place emphasis on the emotional mindset of others [empathy]). In contrast, they showed a high amount of socially-supportive behavior (even in the pre-assessment). As presented in Table 5, these results are similar to a representative sample of German adolescents from the PISA study. However, descriptive analysis of the comparison group found they were characterized by lower scores (i.e., better social competencies) in all four dimensions.

Discussion

Sports background characteristics

Examination of the sports backgrounds of the head coaches found that they were principally a group of former soccer players who had played in the lower amateur leagues, who were highly varied in terms of experience, and possessed various coaching licenses. None were qualified with the UEFA Pro License (highest license) and few had previously coached soccer to people with disabilities. In spite of this, most had contact with people with disabilities in a non-sports-related context, for example through family members or work colleagues.

Most of the coaches did not hold any social or special needs qualifications or certificates. The majority were male (similar to the assistant coaches). Therefore, the questions stands how this 'type' of coach is suitable for the *Just Soccer* program (Table 1). It might be important to note that previous research found that the *Just Soccer* participants perceive the coaches as professionals in *soccer* and considered their formal qualifications and teaching certificates to be of minor relevance. This can be connected to similar behavioral patterns observed in regards to conventional soccer coaches. Previous studies have shown that the leadership skills of youth soccer coaches is characterized by the application of directive and prescriptive methods such as different types of instructions. Furthermore, they use various types of feedback and praise [23–25]. These – often criticized in conventional youth soccer – behavioral patterns appear to be appropriate in working with pupils with intellectual disabilities and have been found to facilitate the learning of skills [26]. In addition, similar to conventional soccer, it is not surprising to have decidedly more men than female head and assistant coaches [23, 24]. Whether this imbalance was an advantage for effectively implementing *Just Soccer* could not be answered with the current study design.

Structure of personality

The assistants involved in *Just Soccer* program can be described as highly emotionally resilient, rather introverted, and conventionally conservative. They demonstrated characteristics such as calmness, serenity, carefreeness, and emotional balance. As provided in Table 2, when compared with the normative data scores of male adolescents aged 16–20 years, the assistants showed conspicuously below average scores in all five NEO FFI dimensions of personality [17]. According to previously collected feedback by the head coaches, participating youth with disabilities, and their special

school personnel, the assistant coaches were recognized as serving an important role in the *Just Soccer* program and considered to effectively fulfill their responsibilities [1, 2]. As a result, it may be that the 'not-normative' characteristics of this group are in fact desirable for this program's success.

Continuing this line, a query whether (above) average personality characteristics would be more beneficial for the successful realization of the program cannot be answered at this point. Additional research is necessary to analyze this issue. Furthermore, an examination of the literature was not successful in finding studies that administered the NEO FFI questionnaire to a soccer coach or assistant coach population. Consequently, comparisons of the obtained personality structure are not possible. Unfortunately, it was not possible to gather NEO FFI personality structure data on the participating head coaches. Hence, it is unknown whether their personality structure is comparable with the assistant coaches. Further study would be needed. In regards to methodological issues, attention needs to be paid to comprehension problems of particular items in the NEO FFI as they may distort the results. In particular, the NEO FFI dimension *openness for experiences* appears to be problematic for the type of group tested herein as it overemphasizes cultural/intellectual activities (e.g. theatre visits). For example, the assistants could have been described as adventurous and open-minded if differently formulated questions were used. As a result, the content validity of these types of items is questionable [27]. The author of the German-version NEO FFI also came to similar conclusions [17].

Attitudes and knowledge towards people with disabilities

In terms of the scores recorded for attitudes, no extreme values were observed. That is, no clearly positive or specifically negatively connoted attitudes towards pupils with disabilities were noted. As the assistants voluntarily participated in the *Just Soccer* program, this result is not surprising; a negative attitude would have been key in preventing them taking part in the program in the first place.

Summarizing, their attitudes towards people with disabilities remained stable after 8 months of involvement in *Just Soccer* (Table 3). Consequently, no meaningful changes occurred in terms of reacting to people with disabilities in daily life. Only for the item "When I see disabled people in daily life… I feel compassion." a statistically significant and medium effect was detected (Table 4). This result is in contrast to the findings of other studies evaluating Special Olympics Unified Sports soccer programs. An experimental design by Özer et al. [28] found an improvement in the attitudes of able-bodied teammates after 8 weeks involvement in the Unified Sports soccer program. Wilski et al. [29] also reported improved attitudes for able-bodied teammates when evaluating Unified Sport soccer and basketball programs in five European countries. This group of researchers conducted qualitative interviews with participants who had been involved for at least 12 months in these programs. Regardless of the differing methodological procedures, one explanation for such a discrepancy in the results may be due to variations in contact time and training frequency. Özer et al. [28] reported three training sessions per week over a period of 8 weeks. In *Just Soccer*, the training sessions were held only once a week. Hence, a logical explanation may be provided by the contact hypothesis [11, 9, 16], where the *Just Soccer* program did not afford enough opportunities (quantitative and qualitative) for the able-bodied assistant coaches to bond with the participants with disabilities so as to change their attitudes. However, in light of HPP [13], the findings are not surprising. As attitudes are relatively stable in nature, any changes would certainly require a period of time longer than 8 months. Regardless of the dissimilar findings in terms of attitudes and their later changes, neither Özer et al. [28] nor the present study on *Just Soccer* could demonstrate significant relationships between (positive) attitudes and (positive) daily life activities and behavioral patterns. Hence, future research has to also bear in mind the differences in the methodologies used to measure attitudes when comparing the results of different studies.

Social competencies

No statistical significant changes were observed between pre- and post-measurements in regards to the social competencies of the assistant coaches. Referring to the action theory model of personality [13], some variations could have been possible within the analyzed period of 8 months as the assessed dimensions of social competence are not considered to be stable traits. An evaluative study of the Special Olympics Unified Soccer program demonstrated ceiling effects in the involvement of able-bodied teammates [28], although the results in the present study cannot be explained by a ceiling effect at the two measurement points (Table 5). It is possible that a weekly training session is not sufficient to enhance the studied dimensions of social competence. Therefore, stronger emotional interactions with the participants with intellectual disabilities may be necessary. This aspect may be comparable with the mechanisms postulated by the contact hypothesis in explaining the development of attitudes towards people with disabilities [16]. This interpretation has also been confirmed by Wilski et al. [29], who qualitatively evaluated the Special Olympics Unified Sports programs of five European nations and found improved social competencies in a group of able-bodied teammates. However, in that study the participants were involved in the program for at least 1 year, attended several training

sessions per week, and competed together with their disabled teammates in several competitions.

Descriptively compared with the reference group, the assistants displayed worse competencies in three out of four dimensions (perspective taking, self-efficacy, empathy). Conversely, they showed better scores in socially-supportive behavior. Nonetheless, the social competence profile of this group was successful in developing positive coach–athlete interactions and effective teamwork with the participants with disabilities [1, 2]. It can be surmised that the assistants appropriately fulfilled the expectations of the participants with disabilities and facilitated a task-oriented training climate. This proved to be facilitative as evidenced by the high satisfaction levels and noted development in both sports in general [12] and in particular working with people with disabilities [1, 2].

Limitations

The present study had several limitations that need addressing. First, the study did not address both the adult head coaches and the younger assistant coaches in regards to personality characterizations, social competencies, and details on their attitudes towards persons with disabilities. That is, these aspects were analyzed only in the assistant coaches but not head coaches. Hence, evidence-based conclusions on selecting coaching staff appropriate for this type of program can be made only in the case the young assistant coaches. The reason for not obtaining parallel data is the result of several factors. The first was a technical problem in collecting data with the NEO FFI personality inventory via an online method. Originally, both groups (head and assistant coaches) were asked to complete the NEO FFI. Unfortunately, in transferring the data answers to one of the items was lost. In addition, data on social competencies and attitudes were not collected as the head coaches were time-constrained with the many responsibilities of the *Just Soccer* program. As a result, an additional study addressing the above issues should be conducted in order to gain a more holistic view of the studied aspects.

Second, those results longitudinal in nature (social competencies, attitudes, knowledge about persons with disabilities) involved a period of 8 months between pre- and post-measurements. The shortness of this period prevents any conclusive statements on the development of the assessed variables from being made. Typically, the coaching staff in conventional youth soccer work together with their players for several years. Similar temporal conditions are also needed in order to evaluate the *Just Soccer* program. However, external demands (e.g. financial resources) necessitated that this study had to examine the program within an 8-month period. Hence, future research performed over a longer period of time might find other results.

Third, comparisons with the findings of similar soccer programs were difficult to make. The literature contains different soccer programs for people with disabilities (e.g. International Sports Federation for Persons with Intellectual Disability and Special Olympics Unified Sports [30]), but the role of head as well as assistant coaches had been rarely analyzed and none had done so with the instruments adopted in this study (e.g. NEO FFI). However, comparisons with those studies on the Special Olympics Unified Sports soccer program are not entirely appropriate as they examined the role of able-bodied teammates and not head/assistant coaches. Furthermore, the role of assistant coaches has yet to be studied in such programs. In addition, the Special Olympics Unified Sports soccer program has a different set of goals in contrast to those outlined in the *Just Soccer* program. Consequently, the presented results are valid only for analysis of the *Just Soccer* program and restricted to only comparisons with other soccer programs.

Conclusions

The present study analyzed the role of head coaches and young assistant coaches in a soccer program fostering the participation of pupils with intellectual disabilities in sports and society. It can be presumed that a specific sports background, social competency, and appropriate attitudes and knowledge on persons with disabilities are helpful in working with youth with intellectual disabilities. One important aspect for the success of the *Just Soccer* program appears to be the coaches, who themselves are an essential element in the conventional sports/soccer realm. Previous contact with people with disabilities (especially private or job-related experience, not necessarily through soccer or sports) may help this group of individuals in communicating with people with disabilities in a sensitive and effective manner.

In regards to gaining acceptance by the *Just Soccer* participants with disabilities, head coaches and assistant coaches should also be experienced in playing soccer. The results found that the personality traits of the assistant coaches as calm, balanced, and stress-resistant to be necessary in working successfully with the *Just Soccer* participants. In addition, the results allow for the conclusion that changing attitudes towards people with disabilities as well as developing further positive social competencies requires a long-term and continuous commitment to such a program, maybe even lasting several years. Furthermore, intensive and positively connoted emotional contacts with youth with disabilities appear to be a necessary prerequisite for positive development of the analyzed psychological factors. In summary, the presented study confirmed the importance of the coaching staff in the success of the *Just Soccer* program [1, 2].

References

1. Schliermann R., Participation of cognitive disabled children in the soccer-sport, for example the „Just Soccer" program – Evaluation of structure parameters and participation satisfaction [in German]. In: Anneken V. (ed.), Inclusion through Sport- Research for people with disabilities [in German]. Strauss, Köln 2013, 65–82.
2. Schliermann R., Anneken V., Just soccer- program to encourage the participation in sport [in German]. *Teilhabe*, 2012, 51 (4), 176–181.
3. White R.W., Motivation reconsidered: the concept of competence. *Psychol Rev*, 1959, 66 (5), 297–333.
4. Erpenbeck J., Rosenstiel L. (eds.), Manual of competence measurement [in German]. Schäffer-Poeschel, Stuttgart 2003.
5. Kanning U.P., Diagnostic of social competences [in German]. Hogrefe, Göttingen 2003.
6. Chelladurai P., Leadership. In: Singer R.N., Murphy M., Tennant L.K. (eds.), Handbook on research in sport psychology. McMillan, New York 1993, 647–671.
7. Horn T.S., Coaching effectiveness in the sport domain. In: Horn T.S. (ed.), Advances in sport psychology (2nd Edition). Human Kinetics, Champaign 2002, 309–354.
8. Smoll F.L., Smith R.E., Leadership behaviors in sport. A theoretical model and research paradigm. *J Appl Soc Psychol*, 1989, 19 (18), 1522–1551, doi: 10.1111/j.1559-1816.1989.tb01462.x.
9. Cloerkes G., Sociology of people with disabilities [in German]. Winter, Heidelberg 2007.
10. Rosenberg M.J., Hovland C.L., Cognitive, affective, and behavioral components of attitudes. In: Rosenberg M.J., Hovland C.L., McGuire W.J., Abelson R.P., Brehm J.W. (eds.), Attitude Organization and Change: an analysis of consistency among attitude components. Yale University Press, New Haven 1960, 1–14.
11. Asendorpf J.B., Neyer F.J., Psychology of personality [in German]. Springer, Berlin 2012.
12. Riemer H.A., Multidimensional model of coach leadership. In: Jowett S., Lavallee D. (eds.), Social psychology in sport. Human Kinetics, Champaign 2007, 57–73.
13. Krampen G., Action-theoretical psychologyof personality [in German]. Hogrefe, Göttingen 2000.
14. Herrmann T., Textbook of empirical personality research [in German]. Hogrefe, Göttingen 1976.
15. Magnusson D., Endler N.S. (eds.), Personality at the crossroads: Current issues in interactional psychology. Erlbaum, Hillsdale 1977.
16. Stroebe W., Jonas K., Basics of attitude development and strategies of attitude-change [in German]. In: Stroebe W., Hewstone M., Stephenson G.M. (eds.), Social psychology [in German]. Springer, Berlin 1997, 253–289.
17. Borkenau P., Ostendorf F., NEO-Five-Factor-Inventory (NEO-FFI) by Costa and McCrae. Manual [in German]. Hogrefe, Göttingen 2008.
18. Costa P.T.Jr, McCrae R.R., Revised NEO Personality Inventory (NEO-PI-R) and NEO Five-Factor Inventory (NEO-FFI). Professional manual. Psychological Assessment Resources, Odessa 1992.
19. Kunter M., Schümer G., Artelt C., Baumert J., Klieme E., Neubrand M. et al., PISA 2000. Documentation of the survey instruments [in German]. Max-Planck-Institut für Bildungsforschung, Berlin 2002.
20. Davis M.H., A multidimensional approach to individual differences in empathy. *JSAS Catalogue of Selected Documents in Psychology*, 1980, 10, 85. Available from http://www.eckerd.edu/academics/psychology/files/Davis_1980.pdf.
21. Sherer M., Maddux J.E., Mercandante B., Prentice-Dunn S., Jacobs B., Rogers R.W., The self-efficacy scale: Construction and validation. *Psychological Reports*, 1982, 51 (2), 663–671, doi: 10.2466/pr0.1982.51.2.663.
22. Cohen J., Statistical power analysis for the behavioral sciences. Erlbaum, Hillsdale 1988.
23. Ford P.R., Yates I., Williams A.M., An analysis of practice activities and instructional behaviours used by youth soccer coaches during practice: exploring the link between science and application. *J Sports Sci*, 2010, 28 (5), 483–495, doi: 10.1080/02640410903582750.
24. Partington M., Cushion C., An investigation of the practice activities and coaching behaviors of professional top-level youth soccer coaches. *Scand J Med Sci Sports*, 2013,23(3),374–382,doi:10.1111/j.1600-0838.2011.01383.x.
25. Williams A.M., Hodges N.J., Practice, instruction and skill acquisition in soccer: Challenging tradition. *J Sports Sci*,2005,23(6),637–650,doi:10.1080/02640410400021328.
26. Fornefeld B., Basic knowledge Special education with intellectual disabled [in German]. Reinhardt, Stuttgart 2009.
27. Amelang M., Bartussek D., Differential psychology and personality research [in German]. Kohlhammer, Stuttgart 2001.
28. Özer D., Baran F., Aktop A., Nalbant S., Aglamis E., Hutzler Y., Effects of a Special Olympics Unified Sports soccer program on psycho-social attributes of youth with and without intellectual disability. *Res Dev Disabil*, 2012, 33 (1), 229–239, doi:10.1016/j.ridd.2011.09.011.
29. Wilski M., Nadolska A., Dowling S., McConkey R., Hassan D., Personal development of participants in Special Olympics Unified Sports teams. *Hum Mov*, 2012, 13 (3), 271–279, doi: 10.2478/v10038-012-0032-3.
30. Schliermann R., Anneken V., Abel Th., Scheuer T., Froböse I., Sport of people with disabilities. Foundations, target groups, applications fields [in German]. Urban & Fischer, München 2014.

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