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Collectively Individual: Motives of Triathletes for Club Sport

Abstract

This research aims to investigate motives of triathletes to participate in sport clubs and to measure collectivistic and individualistic tendencies among club triathletes. A questionnaire including motives for club sport and individualism/collectivism was developed and conducted with 137 triathletes from Saxony in Germany. The motives of goal achievement, affiliation and general health were found to be the driving forces for triathletes to participate in clubs. Club triathletes seem to have a rather collectivistic self-concept with a sense of unity for the peer-group. Differences in individualism/collectivism were found depending on training volume and the longest competing distance of triathletes.

Keywords: motives triathlon, club sport, individualism/collectivism in sport, triathlon distances, individual sport

Zusammenfassung

Ziel dieser Studie ist es, die Motive von Triathlet*innen für die Teilnahme an Sportvereinen zu untersuchen, indem kollektivistische und individualistische Tendenzen bei Vereinstriathlet*innen gemessen werden. Hierzu wurde ein Fragebogen, welcher Motive für den Vereinssport und Individualismus/Kollektivismus beinhaltet, entwickelt und Proband*innen mithilfe des sächsischen Triathlonverbandes akquiriert (n = 137). Die Motive der Zielerreichung, der Zugehörigkeit und der allgemeinen Gesundheit erwiesen sich als die treibenden Kräfte für die Mitgliedschaft von Triathleten in Vereinen. Vereinstriathlet*innen

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scheinen ferner ein eher kollektivistisches Selbstkonzept mit einem Gefühl der Zusammengehörigkeit in der Peer-Group zu haben. Unterschiede im Individualismus/Kollektivismus wurden in Abhängigkeit vom Trainingsumfang und der Wettkampfdistanz der Triathlet*innen festgestellt.

Schlagnworte: Motive für Triathlon, Vereinssport, Individualismus/Kollektivismus im Sport, Triathlon-Distanzen, Individualsport

1. Introduction

Triathlon is a relatively young sport compared to team sports such as football, that have a much longer history, especially in European Countries. The origins of doing three sports together go back to the 1920s, especially in France (“les trois sports”). Some years later, longer triathlon distances have evolved as result of a battle between marine soldiers on Hawaii, that marked the birth of the legendary IRONMAN Hawaii (Goldmann, 2014). Even today triathlon races differ in their distance, reaching from sprint to long distance, as shown in Table 1.

Table 3. *Triathlon distances (DTU, 2023)*

	SWIMMING	CYCLING	RUNNING
SPRINT	up to 0,75 km	up to 20 km	up to 5km
OLYMPIC	1,5 km	40 km	10 km
MIDDLE	1,9 km – 2,9 km	80 km – 90 km	20 km – 21 km
LONG	3 km – 4 km	91 km – 200 km	22 km – 42,2 km

In Germany, this sport gained attention in the 1980s, followed by the foundation of the first German triathlon federation, the Deutsche Triathlon Union (DTU), in 1985 (Goldmann, 2014). In the last twenty years the sport triathlon experienced a boom in Germany, resulting in large growths of club members from 23.508 in 2003 to 57.064 in 2022 (Statista, 2022).

But many triathletes do this sport without being a member in a triathlon club. In 2019, about 270.000 athletes participated in triathlon events, with only about 58.000 registered in clubs (DTU, 2019). This could be related to post-materialistic changes in Western societies, that foster an increasing individualism. In sports, this is reflected by a trend towards distancing oneself from organized or team sports, and instead gravitating towards sports that are primarily driven by individual motivations (Poczta et al., 2021).

The individualistic tendencies of athletes and their varying preferences for specific distances present challenges for triathlon clubs in terms of attracting new members and meeting their needs, especially within the context of organized

sports based on federations and clubs. On the one hand, the sport of triathlon is considered to be of an individualistic nature, even by the DTU (DTU, 2020). However, on the other hand, the practice of sport in the club context can be seen as collectivistic. This contradistinction is subject of this research and will provide triathlon clubs with useful resources to better understand their members and cover their interests.

Therefore, the aim of this paper is to analyze why triathletes choose to participate in clubs despite their assumed individualistic orientation. This will be accomplished by investigating the research question (RQ 1): What are the underlying motives that drive triathletes to practice their sport within a club context?

In addition to examining the motives behind triathlon club participation, this paper will also investigate the personality orientations of club members, drawing upon constructs from cultural research. Accordingly, this work aims to find an answer to the second research question (RQ 2): To what extent do individualistic and collectivistic tendencies manifest among triathlon club members?

As previously mentioned, athletes may differ in terms of their preferred distance. Therefore, the individualistic orientation will be presented in different facets, depending on the different preferred distances and training volumes of the athletes.

2. Theory

2.1 Theories of motives and motivation

One of the earliest explanations for motivation was drive theory, which argues that motivation is based on the need to satisfy tissue deficits. Freud, for example, believed that there are two primary drives, namely sex and aggression. In the late 1950s, human motivation was dichotomized into intrinsic and extrinsic motivation (Lamont & Kennelly, 2012). Intrinsic motivation refers to the enjoyment derived from the task itself, while extrinsic motivation is driven by external rewards (Elbe, 2019).

Continuing this research, Self Determination Theory (SDT) distinguishes motivation to what extent it is self-determined. SDT views intrinsic and extrinsic motivation not as opposing forces, but rather as a continuum (Elbe, 2019). This approach is used by many authors today and is also present in the research of motives for triathlon participation (Lamont & Kennelly, 2012; Lovett et al., 2018; Poczta et al., 2021).

This paper specifically focuses on motives, which can be defined as recurring personality traits that drive individuals towards certain incentives and target states. Motivation on the other hand is considered as an aroused motive, that includes an interaction between the motivated individual and the motivated situation (Graumann, 1969; McClelland, 1987).

2.2 Motives and motivation for triathlon practice

Numerous studies have already explored the motives and motivations behind triathlon participation. Some of these studies specifically focus on the underlying motives for practicing triathlon in general (Croft, Gray & Duncan, 2007; Hagenah, 2003; Lovett et al., 2018), while others specifically investigate the motivation to participate in a triathlon event (Myburgh et al., 2014; Poczta et al., 2021). Therefore, the categories of motives and motivations identified in these studies differ slightly between these two approaches.

Hagenah (2003) conducted a study comparing the motives of ironman triathletes with those of marathon runners, using a modified version of the Motivations of Marathoners Scale (MOMS) (Masters & Ogles, 1995). This scale consisted of four categories (psychological, achievement, social, physical health) and nine sub-dimensions. The results indicated that personal goal achievement motives were predominant among ironman triathletes, followed by self-esteem, general health and mental health motives. Croft, Gray & Duncan (2007) used the same scale to compare Australian Elite to Non-Elite triathletes. The results showed that personal goal achievement motives were still the most salient, followed by competition, general health, self-esteem and affiliation. Lovett et al. (2018) adapted this instrument specifically for triathletes and tested it with sprint distance triathletes. The study found similar results with personal goal achievement being the most prominent, followed by competition, general health, self-esteem, affiliation, and mental health.

The authors Poczta et al. (2021) and Myburgh et al. (2014) specifically addressed capturing motives for participating in triathlon events, which led to the inclusion of new categories such as *event novelty* and *factual*. Myburgh et al. (2014) surveyed Ironman triathletes and identified "challenge" as the predominant motive, which aligns with personal goal achievement motives. Based on different motivational categories three types of triathletes were defined: devotees, enthusiasts and aspirationalists (Myburgh et al., 2014). Similarly, Poczta et al. (2021) surveyed shorter distance athletes at a Super League triathlon and identified result orientation and experience motives as the most important.

Lamont & Kennelly (2012) took a unique approach to understanding triathletes' motivation by utilizing qualitative analysis. By interviewing amateur athletes with different preferred distances, additional motivational factors could be identified besides the already known including factors such as *opportunities to travel*, *equipment ownership* or *food as reward*. Their research provided valuable insights into the diverse and nuanced motivations that drive triathletes to participate in sport.

In summary, the literature analyzed triathletes of different distances in various contexts. The identified motives were partially similar but were categorized differently. Nevertheless, many authors have considered the MOMS categories of

social, psychological, achievement, and health to be valuable. In nearly all sources, motives related to personal goal achievement were consistently named as the most prominent. However, the importance of the remaining motives differed significantly between sources.

2.3 Motives for club sport participation

Regarding the focus of this study on the motives for club participation, there has been little research. Most studies concentrated on motives for volunteer work in sport clubs, with only a handful exploring motives for general participation in sport clubs.

Smith (2008) examined motivational factors for collegiate sport clubs and identified four categories: intellectual, social, competence-mastery, and stimulus-avoidance. The study found that competence mastery and social motivational factors were most influential. In contrast, Houselog, 2014 conducted interviews with college students playing various sports and identified *personal enjoyment* as the most significant motivational factor, with affiliation rating second highest, which aligns with previous research.

It should be noted that the participants in these studies were college students, and that various types of sport were considered. Furthermore, collegiate sport clubs and German sport clubs are not directly comparable due to fundamental differences in the two sport systems. Nevertheless, these studies could serve as a starting point to investigate the motives of triathletes for club sport participation.

Other studies compared the motives of sport participation in different settings with Deelen et al. (2018) finding that social and skill development motives are of greater importance in the club context than in informal sports, while Recours et al. (2004) revealed more competition and exhibitionism motives in the formal club context.

Given the emphasis on the social aspect in the sports club context by many authors, it is expected, that social motives such as affiliation to a group of peers or recognition from others are predominant also for the participation in triathlon clubs.

2.4 Individualism and collectivism in general

The concept of individualism and collectivism (INDCOL) is primarily explored in cross-cultural research. Generally, North American and West-European cultures are seen as more individualistic, while Asian, African, and Central/South American cultures are regarded as more collectivistic. Individualism highlights independence from other people or groups. Individualists consider themselves egocentric and independent of team members. They strive to stand out in

teams, often motivated through rewards, personal recognition or competition with others. They view their achievements as result of their own efforts and emphasize self-dependence and autonomy (me-orientated) (Han et al., 2016).

On the other hand, collectivism is defined as interdependence among group-members. It is linked to values such as group identification, sympathy, and harmony. Collectivists prioritize group goals and value them over personal interests, even if that means sacrificing personal goals for the benefit of the group. Their well-being is often dependent on the welfare of the group, and they tend to accept group norms (we-orientated) (Sivadas et al., 2008).

To better capture cultural value orientations, Triandis & Gelfand (1998) proposed dividing the dichotomy of individualism and collectivism into vertical and horizontal dimensions, respectively. Verticality emphasizes hierarchy and focuses on social status, while accepting inequality (Sivadas et al., 2008). In contrast, horizontality values equality and rejects social status (dimensions shown in Table 2).

Table 4. *Dimensions of INDCOL (Lee et al., 2022)*

	INDIVIDUALISM	COLLECTIVISM
HORIZONTAL	Independence and equality	Interdependence and equality
VERTICAL	Independence and inequality, status orientation	Interdependence and inequality, status orientation

For example, horizontal individualism means that one considers oneself independent of social groups but does not seek to demonstrate superiority over others, instead, everyone is viewed as equal. The constructs mentioned above originate from cross-cultural research, which could potentially raise questions regarding their ability to accurately predict individual personality traits. However, recent studies have shown that these constructs are indeed useful in predicting individual differences and characteristics in the self-concept (Hadjiyankova & Iancheva, 2021). Furthermore (Triandis, 2001) pointed out that there is a correspondence between cultural aspects and individual personality traits, which supports the idea that assessing collectivism and individualism can serve as a reliable method for measuring differences in personality among individuals.

2.5 Individualism/collectivism in sports

In sports, the constructs of individualism and collectivism have received limited attention so far. Nevertheless, there have been some studies exploring this topic in the context of sports, which will be presented below.

For instance, Han et al., 2016 utilized the INDCOL construct to understand motivational differences between American and Korean sport fans while Gau & Kim (2011) conducted a similar study involving sport spectators from Taiwan. Cardoso et al. (2017) on the other hand, examined the INDCOL orientation of judo athletes and found that they tended to be more collectivistic in nature. Furthermore, Hadjiyankova & Iancheva (2021) compared individual sport athletes with team sport athletes, finding that team sport athletes exhibited a higher level of horizontal collectivism orientation.

In the sport of triathlon, there haven't been any studies exploring the INDCOL orientation yet. Nevertheless, Cohen et al. (2018) provided some initial insights in their quest to define extreme sports. In this context, triathlon was also mentioned as an example of an extreme sport. According to Cohen et al.'s definition, an extreme sport is characterized by a *predominantly competitive* nature, *mental challenges* and *unsuccessful outcome* as determinants. When applied to triathlon, it becomes evident that this definition partly aligns with the motives analyzed previously. However, the *unsuccessful outcome* aspect may not apply to all triathlon distances. For sprint or Olympic distances, completing the race in a certain time is certainly central, whereas for long distances, completing the race is not certain due to the enormous physical challenge. Consequently, long-distance triathlon may be deemed as an extreme sport according to the definition of Cohen et al. (2018), particularly given that previous research has also classified it as such (Andreasson & Johansson, 2019). The findings of Cohen et al. (2018) suggest that extreme sports possess an individualistic nature, thus indicating that triathletes may score high on the individualism dimension of INDCOL. Since long-distance athletes are expected to have high individualistic tendencies due to the categorization of long-distance triathlon as extreme sport, it is reasonable to hypothesize that long-distance triathletes are likely to exhibit higher individualistic tendencies than athletes of shorter distances, including sprint-, Olympic- and middle-distance athletes (hypothesis H1).

As shown in Table 1, there are very distinct differences between triathlon distances, which is also reflected in the training volume. Consequently, the amount of training hours could also influence an individual's INDCOL orientation. Moreover, as triathlon is often considered as an individualist sport, the intensity of triathlon practice may impact one's individual self-concept. Using training intensity as a measure of how committed someone is to triathlon, it is expected that the higher the weekly training time, the higher the expression of individualism (hypothesis H2).

3. Methodology

3.1 Study Design

The study aimed to investigate the motives for club sport participation and the INDCOL orientation among club triathletes. Therefore, a questionnaire was developed and conducted with club triathletes, which is structured as follows.

First, the participants were asked if they were members of a triathlon club. Only those who answered in the affirmative were considered for the study. Next, questions were asked about the duration of club membership, voluntary activity, training frequency, training duration per week, preferred distance, and the most trained sport of the three.

The main part of the questionnaire consisted of two sections that assessed the motives for club sport participation and the INDCOL orientation. Finally, demographic data such as age, gender, place of residence, and educational level were collected.

To ensure data quality, an attention check was conducted. Participants who failed the attention check were accordingly excluded from the data analysis.

The survey was conducted online in collaboration with the Saxon Triathlon Association (STV) from December 2022 to January 2023. The STV provided feedback to improve the questionnaire and shared it through social networks. Other questions that were important especially for the STV were also integrated, which are not considered in the analysis. The survey was conducted anonymously, confidentially, and on a voluntary basis. Participants were incentivized with slots for triathlon races to increase the response rate.

3.2 Measuring motives for club sport participation

To develop an adequate instrument to measure triathletes' motives for club participation, this study drew upon the four categories health, achievement, social and psychological motives, which have been widely used in previous research (Brown, 2016; Lovett et al., 2018; Masters & Ogles, 1995). The four categories were further divided into nine subscales, as presented in Table 3.

Table 5. *Matrix of motives*

HEALTH	ACHIEVEMENT	PSYCHOLOGICAL	SOCIAL
general health (13.)	competition (16.)	balance (14.)	affiliation (18.)
body awareness (15.)	goal achievement (17.)	self-esteem (21.)	recognition (19.)
		life meaning (20.)	

The category system utilized to measure triathletes' motives for club participation is widely used in research on the motives for endurance sports. Therefore, it was adopted as the basis for this study. However, since this research focuses specifically on club sport participation, the wording of the questionnaire was slightly modified to better reflect this context, which is consistent with the approaches of Houselog (2014) and Smith (2008). Consequently, the wording was changed to "I do triathlon in the club", followed by the response options of the individual subscales. Each subscale contained between three and four items. Participants had to indicate why they do triathlon in a club on a seven-point Likert scale (1 meaning *no reason* and 7 meaning *very important reason*). The original MOTS questionnaire from Masters & Ogles (1995) and Lovett et al. (2018) contained a total of 56 items, but for the purposes of this study, the questionnaire was reduced to 32 items as proposed by Hagenah, (2003) who also used this scale with triathletes. Since the questionnaire is originally English, it was translated into German.

3.3 Measuring individualism and collectivism

As previously explained, the measurement of INDCOL across each of the vertical and horizontal dimensions has proven beneficial. One of the most widely used measuring instruments is the 32-item questionnaire of Singelis et al. (1995) which is still used today in some cases. Nevertheless, some measurement problems have been documented, which is why a newer questionnaire was used. Sivadas et al. (2008) therefore proposed a shortened questionnaire containing a total of 14 items, as shown in Table 4.

Table 6. *Measuring INDCOL (Sivadas et al, 2008)*

	INDIVIDUALISM	COLLECTIVISM
HORIZONTAL	Horizontal individualism (24.)	Horizontal collectivism (26.)
VERTICAL	Vertical individualism (25.)	Vertical collectivism: (27.)

This also takes into account having a minimal number of items in the questionnaire, as motives are collected before. The tool has already been used in the sports context and was considered adequate (Philyaw, 2019). Consistent with the measurement of motives, a seven-point Likert scale was adopted. As the INDCOL orientation refers more broadly to the personal self-concept rather than just sports, a note was integrated beforehand (See Appendix). Again, the original English questionnaire was translated to German, using translation software.

4. Results

4.1 Statistical analysis

After the survey period ended, the data was transferred from the used survey tool (SosciSurvey) to SPSS 27. Respondents who failed the attention check or did not complete the questionnaire were excluded from the analysis. Next, reliability analysis (Cronbach's Alpha) was performed on all subscales of the instruments used to measure motives and the INDCOL orientation. This was necessary because the instrument for motives of club sport participation was newly developed and the INDCOL items were being used for the first time with a German sample.

The subscales of the questionnaire designed to capture motives for club sport participation showed satisfactory values, ranging from 0,75 (*balance*) to 0,91 (*recognition*). However, the coefficients of the INDCOL scale were slightly lower, ranging from 0,58 for *vertical collectivism* to 0,75 for *vertical individualism*. Analysis revealed that the internal consistency for the subscale of vertical collectivism could be improved to 0,70 by removing the item "Children should feel honored if their parents receive a distinguished award" (27., as seen in Appendix). Therefore, this item was excluded from further analysis.

Table 7. *Reliability analysis*

Subscale	Cronbach's Alpha
general health	0.83
body awareness	0.88
competition	0.86
goal achievement	0.81
affiliation	0.87
recognition	0.91
balance	0.75
self-esteem	0.89
life meaning	0.86
horizontal individualism	0.67
vertical individualism	0.75
horizontal collectivism	0.67
vertical collectivism	0.70*

*after item removed

4.2 Participants

Only those participants who passed the attention check and completed the questionnaire in full were included in the analysis, resulting in 137 usable cases from the initial sample of 172 participants. Of these, 96 were male and 41 were female, with the largest age group being between 37 and 50 years old (42 %). The majority of participants held a university degree or higher (60 %). Concerning club membership, many were relatively new, having been members for zero to five years (61 %). Almost half of the members were involved in volunteer work, such as supporting triathlon races (49 %), as shown in Table 6. Since the sample was collected with the STV, 85.5 % of those surveyed were residents of Saxony.

Table 8. *Socio-demographic characteristics*

SOCIO-DEMOGRAPHICS		ALL (n = 137)	%	FEMALE (n = 41)	%	MALE (n = 96)	%
AGE	< 18 years	5	3.6	2	4.9	3	3.1
	18-25 years	11	8	7	17.1	4	4.2
	26-36 years	27	19.7	11	26.8	16	16.7
	37-50 years	58	42.3	15	36.6	43	44.8
	> 50 years	36	26.3	6	14.6	30	31.3
EDUCATION*	Without degree	2	1.5	1	2.4	1	1.0
	Secondary school	3	2.2	1	2.4	2	2.1
	Middle school	25	18.2	8	19.5	17	17.7
	High school	24	17.5	5	12.2	19	19.8
	University degree	82	59.9	26	63.4	56	58.3
CLUB MEMBER	Voluntary active	67	48.9	18	43.9	49	51.0
	0-5 years	83	60.6	28	68.3	55	57.3
	6-10 years	31	22.6	9	22.0	22	22.9
	11-15 years	9	6.6	2	4.9	7	7.3
	> 15 years	14	10.2	2	4.9	12	12.5

* not answered by one respondent

The observed triathletes showed a high level of training engagement, with 38.7 % of participants training more than six hours per week. More than half of the male attendants (52 %) exercise between four and six times a week, compared to 31.7 % of women. Running was the most popular sport for both men and women, with 53.7 % of participants selecting it as their primary exercise. However, women showed a higher preference for swimming, with 41.5 % selecting it as their second most frequent sport. In contrast, 47.4 % of men selected cycling as their most frequent sport after running. Women were more likely to train for shorter distances, with 63.4 % training for sprint distance and no one for long-distance races. For men, the Olympic distance was the most popular with 59.4 % training for it, while 21.9 % indicated training for long-distance races. Table 7 provides a summary of all relevant training parameters of the sample.

Table 9. *Training profile*

TRAINING PROFILE		ALL (n = 137)	%	FEMALE (n = 41)	%	MALE (n = 96)	%
DURATION (hours per week)	2	9	6.6	4	9.8	5	5.2
	2-4	38	27.7	13	31.6	25	26.0
	4-6	37	27.0	9	22.0	28	29.2
	> 6	53	38.7	15	36.6	38	39.6
FREQUENCY (times per week)	1	9	6.6	4	9.8	5	5.2
	2-3	49	35.7	16	39.0	33	34.4
	4-6	63	46.0	13	31.7	50	52.1
	> 6	16	11.7	8	19.5	8	8.3
MOST EXERCISED*	Swimming	46	33.8	17	41.5	29	30.5
	Cycling	60	44.1	15	36.6	45	47.4
	Running	73	53.7	21	51.2	52	54.7
	All equally	26	19.1	7	17.1	19	20.0
COMPETING DISTANCE*	Sprint	70	51.1	26	63.4	44	45.8
	Olympic	79	57.7	22	53.7	57	59.4
	Middle	60	43.8	13	31.7	47	49.0
	Long	21	15.3	0	0.0	21	21.9

*multiple selection possible

4.3 Descriptive Analysis

The analysis of all surveyed constructs showed the following results.

When it comes to health motives, the participants gave the highest rating to the subscale of *general health* (staying fit and healthy) ($M = 4.82$, $SD = 1.47$), while *body awareness* (concerning body weight and form) received a lower score ($M = 3.51$, $SD = 1.69$). In terms of achievement motives, *goal achievement* (improving individual performance) was rated the highest ($M = 5.31$, $SD = 1.34$), whereas *competition* (competing with others) scored lower ($M = 3.56$, $SD = 1.56$). Considering social motives, *recognition* (acknowledgement from others) received a very low score ($M = 2.15$, $SD = 1.39$) in contrast to *affiliation* (being together with others) that was rated the second highest ($M = 4.95$, $SD = 1.57$) after *goal achievement*.

The psychological motive *balance* (compensating everyday life) was rated in the medium range ($M = 3.66$, $SD = 1.55$), as well as *life meaning* (contributing to meaning of life) where similar results could be observed ($M = 3.98$, $SD = 1.71$). *Self-esteem* (improving confidence) reached scores in the same range as the two previous mentioned ($M = 3.83$, $SD = 1.73$).

To summarize, the subscales of *goal achievement*, *affiliation* and *general health* received highest ratings from the sample of club triathletes, as shown in Table 8. When it comes to individualism and collectivism, the horizontal dimensions were ranked highest with horizontal individualism ($M = 4.41$, $SD = 1.37$) and horizontal collectivism ($M = 5.19$, $SD = 1.03$), while both vertical dimensions, vertical collectivism ($M = 3.32$, $SD = 1.13$) and vertical individualism ($M = 3.94$, $SD = 1.46$) received lower levels.

Table 10. Mean values of motives and INDCOL

MEAN VALUES		ALL (n = 137)	FEMALE n = 41)	MALE (n = 96)
HEALTH	general health	4.82	4.89	4.79
	body awareness	3.51	3.87	3.36
ACHIEVEMENT	competition	3.56	3.52	3.57
	goal achievement	5.31	5.57	5.20
SOCIAL	affiliation	4.95	5.21	4.84
	recognition	2.15	2.20	2.13
PSYCHOLOGICAL	balance	3.66	4.12	3.46
	self-esteem	3.83	4.17	3.68
	life meaning	3.98	4.43	3.78
INDIVIDUALISM	horizontal	4.41	4.63	4.32
	vertical	3.94	3.60	4.08
COLLECTIVISM	horizontal	5.19	5.47	5.07
	vertical	3.39	3.15	3.49

4.4 Long-distance athletes score higher on measures of both vertical and horizontal individualism compared to athletes of shorter distances (H1)

To test hypothesis H1, the variables indicating the distances at which athletes compete were consolidated into a single variable. This was because athletes were able to select multiple distance options, making it difficult to compare their performances accurately. The new variable represents the longest triathlon distance in which an athlete competes, referred to as the “longest competing distance”. This allowed for the division of the sample into groups and for the comparison of mean values of INDCOL between these groups. Hypothesis H1, which proposes that long-distance athletes score higher on measures of both vertical and horizontal individualism compared to athletes of shorter distances, was investigated through ANOVAs for both dimensions of individualism to compare athletes of different triathlon distances. Beforehand, ANOVA assumptions were verified, including tests for homogeneity of variances (Levene-test) and normal distribution of residuals (Shapiro-Wilk test). While all assumptions were met except for normal distribution of residuals for vertical individualism, ANOVAs have been demonstrated to be robust to this requirement and were therefore still performed.

The results of the descriptive analysis reveal that middle distance athletes had the highest mean scores for horizontal individualism ($M = 4.77$, $SD = 1.34$) followed by Olympic-distance athletes ($M = 4.48$, $SD = 1.28$) and long-distance athletes ($M = 4.33$, $SD = 1.37$). ANOVA demonstrated a significant effect of the longest competing distance on the expression of horizontal individualism ($F(3, 133) = 2.69$, $p = 0.049$). Post-hoc comparisons (Scheffé-test) indicated that the mean scores of horizontal individualism were significantly different only between middle-distance ($M = 4.77$, $SD = 1.34$) and sprint-distance athletes ($M = 3.89$, $SD = 1.42$) ($p = 0.034$). Therefore, the expected prevalence of horizontal individualism in long-distance athletes, as proposed by hypothesis H1, could not be confirmed.

The same analysis was conducted with the vertical dimension of individualism, which revealed that middle-distance athletes had the highest mean scores ($M = 4.17$, $SD = 1.44$), followed by Olympic-distance athletes ($M = 3.99$, $SD = 1.47$) and long-distance athletes ($M = 3.87$, $SD = 1.34$). ANOVA indicated no significant effect of the longest competing distance on the expression of vertical individualism ($F(3, 133) = 1.00$, $p = 0.39$).

Overall, the results suggest that hypothesis H1, which predicted higher levels of individualism in long-distance athletes, must be rejected. The data indicates that the highest individualistic orientation can be found in middle distance athletes.

4.5 The higher the weekly training time, the stronger the expression of vertical and horizontal individualism (H2)

To test the next hypothesis H2, which stated that the higher the weekly training time, the stronger the expression of vertical and horizontal individualism among club triathletes, a linear regression was performed. First, horizontal individualism was assessed. Testing of the requirements for a regression showed satisfactory results, including tests for normal distribution of residuals, homoscedasticity and linearity.

The low R^2 value (0.008) and non-significant p-value ($p = 0.306$) indicate that there is no or only a very weak correlation between the weekly training time and horizontal individualism, as shown in Table 9.

Table 11. *Linear regression training time/horizontal individualism*

Dependent variable: <i>Individualism_horizontal</i>					
Coefficients	<i>b</i>	SE	β	<i>t</i>	<i>p</i>
(Constant term)	4.036	0.381		10.582	<.001
Training_time	0.125	0.122	0.088	1.027	0.306

Notes: N = 137; $R^2 = 0.008$; corr. $R^2 = 0$; $F(1, 135) = 1.99$; 0.305966965014177

Next, the vertical dimension of individualism was investigated using the same research model. However, only the requirements of homoskedasticity and linearity were met as the test for normal distribution of residuals (Shapiro-wilk test) yielded a significant result ($p = 0.018$), indicating non-normal distribution of residuals. Despite this limitation, regression analysis was still feasible given the sufficiently large sample size ($n = 137$). The analysis showed a marginally significant ($p = 0.08$) positive effect of weekly training time on the expression of vertical individualism ($R^2 = 0.021$), as shown in Table 10. This suggests that 2.1 % of the variability of vertical individualism can be explained by weekly training time.

Table 12. *Linear regression training time/vertical individualism*

Dependent variable: <i>Individualism_vertical</i>					
Coefficients	<i>b</i>	SE	β	<i>t</i>	<i>p</i>
(Constant term)	3.279	0.404		8.118	<.001
Training_time	0.222	0.129	0.146	1.719	0.088

Notes: N = 137; $R^2 = 0.021$; corr. $R^2 = 0.014$; $F(1, 135) = 2.954$; 0.0879575771459139

In summary hypothesis H2 was partially supported, given that training time only has an influence on the vertical dimension of individualism. However, this effect was marginal, explaining only 2.1 % of the variance of vertical individualism. Therefore, hypothesis H2 can only be partially confirmed.

5. Discussion

The results of this study suggest, first, that the underlying motives of triathletes to participate in a club are primarily driven by the motives of *goal achievement*, *affiliation* and *general health*. The rating of the motives *goal achievement* and *general health* in this study is consistent with previous literature that found these two motives among the top three highest rated motives for triathlon practice in general (Croft, Gray & Duncan, 2007; Hagenah, 2003; Lovett et al., 2018). This suggests that the motives for triathlon participation in general coincide to some extent with the motives of triathletes for club sport of this study. However, the second highest rated motive *affiliation* stands out, compared to research on motives for triathlon practice in general, where motives related to affiliation were rated lower (Croft, Gray & Duncan, 2007; Lovett et al., 2018; Myburgh et al., 2014; Poczta et al., 2021). Comparing this result with the research on motives for club sports, in which *affiliation* was named among the most important two, however, the high importance of *affiliation*, examined in this study, is consistent (Deelen et al., 2018; Houselog, 2014; Smith, 2008). Interestingly, *recognition*, which is also a social motive, finds less importance according to the results of this study.

Second, the analysis of INDCOL orientation of club triathletes revealed that the horizontal dimensions of individualism and collectivism were valued higher than the vertical ones, with horizontal collectivism as highest valued dimension.

The motives for triathlon practice analyzed in previous research suggest that triathletes are primarily individualistic in nature, as motives such as *personal goal achievement* were usually found to be salient (Croft, Gray & Duncan, 2007; Lovett et al., 2018; Myburgh et al., 2014; Poczta et al., 2021). The high expression of *horizontal collectivism*, explored in this study contradicts with this, and finds no support, that triathlon is primarily a sport for individualists. This could indicate that the self-concept of club triathletes is characterized by equality, less striving for social status, which is associated with horizontality (Sivadas et al., 2008). The low valuation of the motives *recognition* and *competition*, which are mainly related to verticality, supports this finding.

Comparing athletes competing at different distances showed that athletes, who chose middle-distance as their longest, appeared to have the highest individualistic orientation (horizontal and vertical), though the difference reached significance only for horizontal individualism when compared with sprint distance

athletes. This could imply that middle-distance athletes particularly strive for autonomy and independence from groups, which is related to *horizontal individualism* (Sivadas et al., 2008).

The relationship between weekly training volume and individualism was also considered in this study. The results suggest that the more weekly training is completed, the stronger the expression of individualism can be observed among club triathletes. However, this effect was only significant for vertical individualism, meaning that more training is associated with higher tendencies towards autonomy and competitive orientation. These results are similar to previous research that has identified higher expression of vertical individualism in athletes who compete at a higher level (e. g., national team) or have a higher qualification in their sport (Hadjiyankova & Iancheva, 2021).

Research on INDCOL and teamwork revealed that a rather collectivistic orientation can be beneficial for teamwork. Collectivists prioritize team goals (as opposed to personal goals for individualists) and provide emotional, informative and sustaining support for their team members (Hadjiyankova & Iancheva, 2021). For the club context in this study, this could mean that the investigated rather collectivistic orientation (especially horizontal collectivism) of club triathletes might facilitate teamwork, for example, in league races or in the organization of triathlon races (50 % of participants in this sample volunteered). However, despite high values for the expression of horizontal individualism being found, this represents club triathletes as individuals who pursue their own goals in sport, supported by the finding of *goal achievement* as the most important motive, and yet can be seen as rather group oriented in self-concept due to the high expression of horizontal collectivism, capable of focusing on a common goal of the group.

6. Limitations and future research

This study examined the underlying motives of triathletes for club sport participation and their attitudes towards individualism and collectivism. In previous literature additional motivational factors for triathlon participation besides the basic motives were investigated (Lamont & Kennelly, 2012). Therefore, incorporating motivational factors for club sport participation might yield a deeper understanding of triathletes involved in clubs.

The findings in this study suggested that club triathletes are more collectivistic than individualistic oriented. This raises the question of whether triathletes inherently have a collectivistic orientation, or if the club context, which is assumed to be collectivistic in nature, influences their individual self-concept (posing a “chicken or the egg” dilemma). Future research could therefore investigate triathletes without a club to answer this question and to find out if triathlon can indeed be seen as an individualist sport, as assumed before.

In addition, the sample size of long-distance triathletes in this study was very small (N = 21) and comprised only of men. Including comparable-sized groups of athletes from different distances could potentially reveal more significant differences in the scores of INDCOL.

Furthermore, considering that the constructs surveyed are based on comparative cultural research and that the influence of the political/cultural environment on personal self-concept has been sufficiently documented, including samples from other German states may yield significantly different results. It is worth noting that the sample in this study mainly consisted of triathletes from the new federal states (former GDR), and their potential higher collectivistic orientation could be influenced by the communist orientation of the former political system. Moreover, the adequacy of these constructs, which are less commonly used in psychological research, could be a limiting factor.

Additional insights could also be gained by including the influence of gender, age, and other demographic variables in the statistical analysis, which was not considered in this study. Nevertheless, this research could be a starting point to gain better understanding of the personality traits exhibited by club triathletes, with the aim of improving club and federation practices.

7. Managerial implications

This study provides insights of the fundamental motives of triathletes participating in clubs, which can be valuable for responsables at triathlon clubs and federations. The finding of *goal achievement* as most important motive should be used to create opportunities for triathletes to accomplish their personal goals. This can be implemented, for example, by providing individual training plans and a diverse range of training opportunities for athletes of different triathlon distances. Additional services related to equipment or nutrition could also help triathletes to achieve their best possible results. The second highest motive *affiliation* and the high degree of *horizontal collectivism* should be taken into consideration by creating enough opportunities for social exchange, e.g., social gatherings or internal club competitions among triathletes. This also respects the fact that triathlon clubs usually do not have their own club sites that facilitate this. A common planning of triathlon races, in which club members participate, might also contribute to the sharing of experiences and mutual networking. For the motive *general health*, which was rated third highest, additional health offers by the club could be helpful. Education about healthy training practices should also be beneficial, especially for very committed triathletes with high training volumes, as they are especially at risk for health issues (Tahir et al., 2018).

The findings may also imply that triathletes have different attitudes regarding individualism and collectivism, depending on training volume and longest com-

peting distance. This understanding should also help in common activities in triathlon clubs, as different attitudes towards INDCOL might influence team performance (Hadjiyankova & Iancheva, 2021). Meeting the motives and attitudes of the target group should finally ensure satisfaction among club triathletes fostering a continuous growth of sport structures in triathlon (Dürr, 2009).

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Appendixes can be requested by e-mail from the author.

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