



“What Type of Activity Suits Me?”

Development and Implementation of the Exercise and Sport Counseling Approach COMET

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Abstract: Counseling is seen as a promising method for promoting exercise behavior. The aims of this study were (1) to describe the design of a novel *counseling approach based on motives and goals in exercise and sport* (COMET). The COMET approach considers individual preferences, while focusing on identifying suitable types of activities. Furthermore, (2) implementation of the counseling was evaluated. A survey was carried out where 37 and 56 participants, were asked about their satisfaction with the counseling. In-depth interviews were conducted with a subsample of seven participants. Sixteen counsellors were questioned about implementation fidelity. The results showed that the COMET approach was implemented successfully in a nonclinical setting. Overall, participants were satisfied with the counseling. They found the trial exercise sessions helpful, as they offered diverse experiences and the opportunity to reflect on them. One-to-one conversations with the counselor were also beneficial, allowing participants to identify their preferences. Implementation fidelity was good. Further research could examine the implementation of the COMET approach in different settings.

Keywords: exercise promotion, individualized intervention, motivation, exercise experiences, preferences

„Welcher Sport passt zu mir?“ Entwicklung und Implementierung des Sportberatungs-Konzepts COMET

Zusammenfassung: Beratung gilt als eine vielversprechende Methode der Bewegungs- und Sportförderung. Ziel der vorliegenden Studie war es, 1) der neue Beratungsansatz COMET vorzustellen, der individuelle Motive und Ziele berücksichtigt und die Identifizierung passender Sportaktivitäten fokussiert. Weiter wurde 2) die Umsetzung der Beratung evaluiert. Dafür wurden 37 resp. 56 Teilnehmende schriftlich zu ihrer Zufriedenheit mit der Beratung befragt. Mit weiteren sieben Teilnehmenden wurde ein Interview geführt. 16 Beratende bewerteten schriftlich die Wiedergabebetreue der Intervention. Die Studienergebnisse zeigen, dass der COMET-Ansatz in einem nicht-klinischen Umfeld erfolgreich umgesetzt werden kann. Die Teilnehmenden waren insgesamt zufrieden mit der Beratung. Sie fanden die Schnuppersportangebote hilfreich, weil sie dadurch vielfältige Sporterfahrungen sammeln und reflektieren konnten. Durch das persönliche Gespräch mit dem Beratenden konnten sie ihre Präferenzen erkennen. Die Beratenden setzten die Intervention wie im Protokoll vorgesehen um. Weitere Forschungsarbeiten sollten untersuchen, inwiefern sich der COMET-Ansatz in anderen Settings anwenden lässt.

Schlüsselwörter: Bewegungsförderung, individualisierte Intervention, Sporterfahrungen, Präferenzen

Counseling is generally perceived as a promising method for promoting behavior change in clinical and nonclinical populations. Therefore, the World Health Organization (2018) aims to develop and implement standardized counseling approaches. “Counseling” is defined as an “interaction offering an opportunity for a person to explore, discover and clarify ways of living with greater well-being, usually in a one-to-one discussion with a trained counselor” (World Health Organization, 2018, p.97). One advantage of counseling is that the individual’s personal characteristics can be carefully considered and used to tailor advice (Hawkins et al., 2008). In the field of exercise and sport, it can be conducted by diverse health professionals,

such as exercise specialists, physical therapists, or physicians in both primary and secondary preventions.

Existing counseling approaches adopt either a predominantly medical or psychological focus. *Medical counseling concepts* aim to identify appropriate training loads (e.g., intensity, duration) for the purpose of improving physical performance, maximizing health gains, and avoiding health risks (Orrow et al., 2012). In contrast, *psychological counseling concepts* addresses relevant personal factors (e.g., motivation, volition) for long-term exercise and sport behavior change (e.g., Göhner et al., 2012). Regardless of the focus of the counseling, intervention materials often include general recommendations, such as “choose

activities you enjoy” (American College of Sports Medicine, 2018), or “pick something you like to do” (Office of Disease Prevention and Health Promotion, 2008). However, it remains unclear how people find out what activity type actually suits them. This shortcoming is surprising, as the literature highlights the need to address personal preferences in exercise promotion (Whitlock et al., 2002; World Health Organization, 2018).

To close the aforementioned research gap, we propose the novel COMET approach (*counseling based on motives and goals in exercise and sport*). It systematically includes individual preferences, with a focus on identifying suitable types of activities. The present article has two aims: The first is to describe the design of the intervention. As such, the theoretical foundations of this approach to counseling are presented, the intervention objectives identified, the core elements of the counseling approach deduced, and an intervention package of materials developed. Such a detailed description of the intervention not only helps to make the basic idea of the counseling approach comprehensible, but also simplifies its reproducibility. The second aim is to take a more practical view by evaluating its implementation. Thereby, the focus is on the two implementation outcomes, acceptability and fidelity. *Acceptability* refers to the degree to which a specific intervention is perceived as satisfactory or agreeable. In contrast, *fidelity* refers to how strictly an intervention is implemented as intended by the intervention developers or as proposed in the protocol (Peters et al., 2014). Evaluating the implementation of the counseling is crucial, as it highlights the factors that influence the successful adoption of the intervention in the real world. It therefore offers a greater understanding of how the counseling approach can be transferred to diverse systems or settings (Peters et al., 2014).

Counseling Design

Theoretical Foundation

COMET is based on two lines of research: firstly, on the theory of person-environment fit, which states that a match between people’s characteristics and their environment results in positive outcomes. More precisely, the theory claims that the fit can better predict the outcomes compared to its components taken separately. Moreover, it is assumed that individuals strive to find a suitable fit, because they generally prefer consistency and certainty (van Vianen, 2018).

Person-environment fit theories have been developed and tested mainly in organizational psychology (e.g., person-vocation fit; Holland, 1997). However, general assumptions of fit theories are also confirmed in the field of sport and exercise. A fit between a person’s motives and goals and the incentives of an activity, indeed, resulted in an improvement in their affective well-being and maintenance behavior change (Klusmann et al., 2016; Schmid et al., 2021; Sudeck & Conzelmann, 2011). Explicit motives refer to the willingness to strive for certain goal conditions that will endure over time and in different situations (Brunstein, 2010). Personal goals, in turn, are defined as cognitive representations of events, states, and processes which an individual wants to achieve, maintain or, avoid (Austin & Vancouver, 1996). People are not encouraged by one single motive or goal. On the contrary, they have different, yet concurrent, reasons for doing exercise and sport, such as stress reduction, a love of aesthetic movements, and health benefits (Lehnert et al., 2011; Schmid et al., 2018). Consequently, it makes sense to use counseling as an opportunity to examine an individual’s motive and goal *profile* and to adjust the resulting advice accordingly. Whether a specific set of motives can be satisfied depends not only on the type of activity (e.g., running), but also on its social and organizational setting (e.g., alone on a treadmill in a gym vs. outdoors with friends).

The second line of research relevant to the COMET approach is motivational interviewing (MI; Miller & Rollnick, 2013). This is an effective way for promoting physical activity (e.g., Samdal et al., 2017) and can be characterized as a person-centered, collaborative counseling style. It takes into account that people are the experts on themselves. They have intrinsic motivations and inner resources which need to be evoked for change to occur (Miller & Rollnick, 2013). Hardcastle et al. (2017) point to two differing MI techniques: Relational techniques relate to the interpersonal style in which an intervention is delivered. In contrast, content-based techniques relate to the knowledge and skills clients are taught to promote commitment to their behavior change,¹ addressing the question of what is delivered to clients rather than how it is delivered. As shown in Table 1, three relational techniques were relevant in the present study: (1) Counselors ask *open-ended questions* which invite the clients to reflect and elaborate. (2) Counselors make *reflective statements*. These not only help counselors to clarify if their understanding is accurate, but also allow clients to hear again their expressed thoughts and feelings. This fosters their self-awareness. Finally (3) counselors make *summary statements*, useful for transitioning from one task to another or ending a session. Two content-based techniques were relevant for the present

¹ These content-based MI techniques overlap with behavior change techniques. For a detailed comparison see Hardcastle et al., 2017.

Table 1. Applied motivational interviewing techniques

Type	Name of technique	Definition
Relational	Open-ended questions	The counselor asks questions that cannot be answered with a limited response (i. e., yes, no, maybe, twice)
	Reflective statements	The counselor paraphrases the client's comments by repeating back what the client has said
	Summary statements	The counselor pulls together everything that the client has said and offers a summary
Content-based	Developing a change plan	The counselor prompts the client to develop a specific change plan that the client is motivationally ready to accept
	Troubleshooting	The counselor prompts the client to think about potential barriers and identify ways of overcoming them

Note. Definitions derived from Hardcastle et al. (2017).

study: (1) Counselors encourage clients to *develop a change plan* and (2) assist them in *troubleshooting*. Both techniques foster clients' self-control in implementing their intentions.

In short, the presented research illustrates that counseling is not so much about simply prescribing an activity, but rather about encouraging people to identify their preferences and guiding them to find an exercise and sport activity that matches their individual motives and goals.

Counseling Objectives

The main objectives of the COMET approach are to promote motivational competence, self-concordance, and self-control. *Motivational competence* refers to a "person's ability to reconcile current and future situations with their activity preferences" (Rheinberg & Engeser, 2010, p. 532). In the context of exercise and sport behavior, motivational competence consists of the following components: (1) a person is aware of their motives and goals in exercise and sport; (2) they are able to evaluate the incentives of different activities, and if necessary, (3) they can reshape activities to suit individual motives and goals (Rheinberg & Engeser, 2010; Schorno et al., 2021). *Self-concordance* refers to the degree to which a specific goal intention is congruent with one's basic needs and personal values. It is seen as a continuum ranging from an intrinsic mode in which a person wants to engage because the physical activity is inherently interesting, to an extrinsic motivation mode in which a person wants to be active because of external pressure or positive consequences (Sheldon & Elliot, 1999). Finally, *self-control* refers to the ability to regulate one's behavior. High self-control enables people to focus on long-term goals while facing impulses, urges, and distractions (Carver & Scheier, 1998).

In line with theoretical considerations and empirical studies, it is assumed that increased motivational competence, self-concordance, and self-control lead to more

regular exercise and sport behavior (Bélanger-Gravel et al., 2013; Fuchs et al., 2016; Rheinberg & Engeser, 2010).

Counseling Elements

The above-mentioned objectives are to be achieved in COMET through the application of various elements. In the following section, these elements are presented along the lines of the five "A"s concept of Whitlock et al. (2002). This is a unifying framework for describing and evaluating behavioral health counseling interventions. The idea behind the five "A"s is to *assess* people's health behavior and the factors affecting it, to *advise*, to make a shared *agreement* about behavioral goals, to *assist* in achieving them, and finally, to *arrange* follow-up contacts to provide ongoing support (see Table 2).

Counseling starts with (elements 1a and 1b in Table 2) a standardized assessment of personal factors relevant for exercise and sport behavior. Clients fill out the Bernese Motive and Goal Inventory (BMZI; Lehnert et al., 2011; Schmid et al., 2018), on the basis of which a wide range of motives and goal contents can be assessed. For each person, an individual motive and goal profile is specified, based on an intraindividual standardization (Sudeck et al., 2011). In this procedure, motives and goals are weighted for each person, which, in turn, allows insight into individual rank order. Based on the individual profile, what is referred to as the *motive-based type of sports person* is determined. Using cluster analysis, Sudeck et al. (2011) identified nine characteristic profiles among people in middle adulthood. For counseling, clients are allocated to the type of sports person who had the most similar motive and goal profile. To find out more about people's experiences and skills, counselors assess past and current exercise and sport behavior in a structured interview. To measure the past behavior, they ask clients about the exercise and sport activities they have completed during their life course, including their activity settings. To measure cur-

Table 2. Overview of the exercise and sport counselling elements of COMET

Five "A's"	Counseling elements and questionnaires used	Components of motivational interviewing ^b	Procedure	Time needed
Assess	(1a) Assessing preferences: <ul style="list-style-type: none"> • Motives and goal contents in exercise and sport: figure/appearance, contact, competition/performance, aesthetics, distraction/catharsis, fitness/health, activation/enjoyment (Lehnert et al., 2011; Schmid et al., 2018) • Individual motive and goal profile • Motive-based types of sports person (Sudeck et al., 2011) (1b) Assessing exercise and sport behavior: <ul style="list-style-type: none"> • Current behavior: type of exercise and sport, frequency and duration per episode (Fuchs et al., 2015) • Past behavior: type of exercise and sport, settings (Sudeck et al., 2011) 		Computer-based survey	5 – 10 min
	(2) Explanation of and structured reflection on: <ul style="list-style-type: none"> • Individual motive and goal profile • Motive-based types of sports person 	Open-ended questions; reflective statements	One-to-one conversation, semistructured interview	5 – 10 min
	(3) Trial exercise and sport sessions: <ul style="list-style-type: none"> • Three sessions with different focuses in terms of content Assessing exercise and sport experiences before, during, and after each session: <ul style="list-style-type: none"> • Exercise and sport experience following motives and goal contents: figure/appearance, contact, competition/performance, aesthetics, distraction/catharsis, fitness/health, activation/enjoyment • Enjoyment and affective states (Hardy & Rejeski, 1989; Stanley et al., 2009) • Perceived exertion (Borg, 1998) 		Guided group sessions Smartphone-based survey (movisensXS)	110 min (three exercise and sport sessions of 30 min each, 10-min break between sessions)
Advise/assist	(4) Structured reflection and shared discussion about: <ul style="list-style-type: none"> • Exercise and sport experiences assessed during trial sessions • Suitable activity types • Local exercise and sport provider 	Open-ended questions; reflective statements	One-to-one conversation, semistructured interview	20 min
Agree	(5) Structured reflection and shared decision making about: <ul style="list-style-type: none"> • Concrete change plan 	Reflective statements; summary statements; develop a change plan		
Arrange	(6) Structured reflection and shared discussion about: <ul style="list-style-type: none"> • Implementation of the change plan in everyday life • If appropriate: adaptation of the change plan based on exercise and sport experiences • If appropriate: potential barriers and ways of overcoming them 	Open-ended questions; reflective statements; summary statements; adapt/develop a change plan; troubleshooting	One-to-one conversation on the phone, semistructured interview	approx. 20 min

Note. ^a According to the five "A's" by Whitlock et al. (2002); ^b According to the taxonomy of motivational interviewing by Hardcastle et al. (2017).

rent exercise and sport behavior, a validated questionnaire is used (Fuchs et al., 2015). Clients name up to three activities they have performed in the last 4 weeks and indicate both frequency and duration for each.

The collected data are used to form (element 2 in Table 2) individual feedback on the motive and goal profile and the motive-based type of sports person (see a specific example in Electronic Supplementary Material 1), and the counselor explains this in a one-to-one conversation. To foster the client's awareness of their preferences, the counselor asks them an open-ended question about their personal impression of their motive and goal profile. The counselor also makes reflective statements by paraphrasing the client's comments (Hardcastle et al., 2017; Miller & Rollnick, 2013).

Directly following this conversation, the client takes part in three trial exercise and sport sessions (element 3 in Table 2). Trained instructors hold the trials in small groups (approx. 10 individuals). All individuals participate in all three sessions in a row, but the order of visits is randomized. Each session last 30 minutes, with a break of 10 minutes in between. Sessions are similarly structured (warm-up, main part, cool down) but cover diverse motives and goals (see Table 3). In each session, the client uses their smartphones to record their affective state (Hardy & Rejeski, 1989), enjoyment (Stanley et al., 2009), exercise and sport experiences following motives and goal contents and exertion (Borg, 1998).

The counseling event continues with a one-to-one conversation (element 4 in Table 2). To encourage people to reflect on incentives in the activities experienced, the counselor asks which session they liked the most and which the least. With an open-ended question, the counselor prompts the client to express reasons for their opinion. Again, the counselor makes reflective statements by repeating back what the client has said. After that, the counselor leads the client through the feedback for their exer-

cise and sport experiences (for a specific example, see Electronic Supplementary Material 2), focusing on the favored session (Miller & Rollnick, 2013). Together with the client, they discuss to what extent these exercise and sport experiences match their individual motive and goal profile, and how this influenced their affective state and enjoyment during the activity. Based on this discussion, counselor and client work together to deduce potentially suitable activities. The final advice is also inspired by the work of Sudeck and Conzelmann (2011), who evaluated and defined matching exercise and sport activities for each motive-based type of sports person.

In the same conversational setting, the counselor then assists the client in (element 5 in Table 2) developing a change plan. They collaboratively select an activity type and define what the client would do to implement it in their everyday life. During the whole discussion, counselors emphasize the client's autonomy by acknowledging their free choice. The counseling event closes with the counselor giving a summary statement (Hardcastle et al., 2017; Miller & Rollnick, 2013).

Four weeks after the event, clients get an intervention "booster shot," consisting of a one-to-one conversation (element 6 in Table 2), this time on the telephone. Clients are asked to what extent they have been able to implement the plan in their everyday life, and what experiences they have had. Depending on the answers to these open-ended questions, the change plan is adapted. Furthermore, when deemed appropriate, the counselor will guide the client through a troubleshooting session, prompting them to identify barriers and think about strategies to face them. Throughout the whole conversation, the counselor makes reflective statements, and draws the session to a close with a summary statement (Hardcastle et al., 2017; Miller & Rollnick, 2013).

To summarize, we expected the assessment and structured reflection, both on individual motives and goals

Table 3. Activities in the three trial exercise and sport sessions

	Session A	Session B	Session C
Incentives	Figure / appearance, fitness, health	Contact, competition / performance	Aesthetics, distraction / catharsis
Warm-up 5 min	Dynamic stretching and gentle strengthening exercises, e.g., jumping jacks, high knees, squats with upper-body rotation	Name game with light running	Full-body mobilization with flowing movements, e.g., leg swings, easy body waves, hip circles
Main part 20 min	Cardio exercises, e.g., running around doing lunge jumps when the instructor claps; core-strength exercises	Competitive group games with the ranking announced afterwards, e.g., ball tag, relay races with a hula hoop	Several dance activities with music; Tai Chi exercises focusing on breathing and soft movements
Cool down 5 min	Full-body stretching, e.g., hamstrings and lower back, neck, and chest	Cooperative game, e.g., the whole group stands in a circle holding hands, one half leans forward, the other half backward	Body-awareness exercises, standing, with eyes closed

(counseling elements 1 and 2), and on incentives in different exercise and sport activities (counseling element 3) to help people find suitable activities (counseling elements 4 and 5), and consequently, to gain motivational competence (Rheinberg & Engeser, 2010). Furthermore, we assume that by applying the content-based MI techniques, the client's self-control will be promoted, enabling them to implement the activities in everyday life (counseling element 6; Bélanger-Gravel et al., 2013). In contrast, using relational MI techniques throughout the whole counseling process may increase the participant's intrinsic and identified motivation (Vansteenkiste & Sheldon, 2006).

Counseling Materials

Various materials were developed to ensure that the COMET approach as described above could be carried out in a standardized manner and are comprehensible to each participant. Materials for counselors include (a) a handbook explaining the goal and theoretical background of the counseling approach and (b) a semistructured counseling protocol² (available on request, from the first author), complete with the specific procedure and key elements of the one-to-one conversations (e.g., open-ended questions).

Materials for clients include (a) printed feedback for their individual motive and goal profile and their allocated motive-based type of sports person (see Electronic Supplementary Material 1). They also receive (b) feedback for their exercise and sport experiences, as assessed during trial sessions (see Electronic Supplementary Material 2). Furthermore, clients get (c) a standardized description of potentially matching exercise and sport activities based on their motive-based type of sports person (Sudeck & Conzelmann, 2011). Finally, they receive (d) a list of local exercise and sport providers (e.g., sport clubs, gyms, dance studios), which should help them to find a suitable organizational and social setting for their exercise and sport activities.

Evaluating the Implementation of the Exercise and Sport Counseling

Research Questions

To evaluate the implementation of the exercise and sport counseling, the five research questions listed below were

posed. Questions 1 to 3 considered the acceptability of the intervention, whereas questions 4 and 5 referred to its fidelity (see Table 4; Peters et al., 2014).

1. Overall how satisfied were participants with the counseling event?
2. How helpful were single elements of the counseling for participants?
3. Why were any single elements of the counseling helpful for participants?
4. To what degree was the counseling implemented as proposed in the protocol?
5. Which factors affected implementation fidelity?

Referring to the five "A"s by Whitlock et al. (2002), this study focused on the areas, assess, advise/assist, and agree, whereas it did not cover the area arrange (see Table 2).

Methods

The data were collected in two counseling studies in spring 2018 (pilot study) and spring 2019 (main study). The counseling was organized by the University of Bern in cooperation with a health insurance company and advertised through a monthly health insurance newsletter and social media networks.

The implementation of the counseling was evaluated both with participants and counselors. Table 4 gives an overview of the associated research questions and specific methods used. However, some procedures need further clarification. To investigate why single elements of the counseling were perceived as helpful (research question 3), semistructured telephone interviews were conducted. Participants of the pilot study with up to 75 minutes of exercise and sport per week ($n = 12$) were contacted by email, and seven of them finally agreed to a telephone interview. The 75-minute cutoff time was chosen in accordance with guidelines given by the World Health Organization (2010). Table 4 and Electronic Supplementary Material 4 show a detailed description of the sample. The interviewers had a semistructured interview protocol to guide them through the conversation. Examples of questions from the telephone interview include "With the counseling we aimed to give you an impulse to change your exercise and sport behavior. Keeping this in mind: How helpful were the trial exercise and sport sessions for you? Why was it helpful?" We also asked this question in relation to the one-to-one conversations (see Table 2, counseling elements 2, 4, and 5). We used follow-up probes to elicit more detailed answers. Interviews lasted on average 12 minutes

² The counselling protocol can be requested from the first author.

(range 9–21 minutes). They were audio recorded, anonymized, and transcribed verbatim. The second author analyzed the data in line with the conventions of thematic analysis (Braun & Clarke, 2006), followed by a review by the first author. All themes reported in the results were mentioned several times and by different participants. To investigate implementation fidelity and influencing factors (research questions 4 and 5), the 16 counselors of the main study were questioned immediately after each counseling session.

A specific training course for the counselors was held at the beginning of 2018 and 2019, for the pilot study and main study, respectively. The course was designed to ensure that the counselors acquired expertise in the coun-

seling approach and became familiar with the intervention material. The training was conducted by the project team and attended by master's degree level students of sport and exercise science. It took place at the university and lasted 10 sessions of 90 minutes. For further details, see Electronic Supplementary Material 3.

Results

Overall satisfaction with the counseling (research question 1)

Results of the paper-and-pencil or online questionnaire showed that overall, participants were satisfied with the

Table 4. Overview of research questions and corresponding methods

Implementation outcomes ^a	Research question	Procedures and data analyses	Sample	
Acceptability	1. Overall how satisfied were participants with the counseling event?	<ul style="list-style-type: none"> Paper-pencil questionnaire directly after the counseling event (pilot study), or online questionnaire 4 weeks after the counseling event (main study) Rating on a 5-point Likert scale from 1 (<i>very dissatisfied</i>) to 5 (<i>very satisfied</i>) Rating on a 5-point Likert scale from 1 (<i>not at all helpful</i>) to 5 (<i>very helpful</i>) Paired t-tests to compare means 	Participants of the pilot study <ul style="list-style-type: none"> $n = 37$ 70% women $M_{age} = 39.73$ years, $SD = 14.53$, age range 23–70 years 11% no exercise and sport; 22% 1–75 min exercise and sport/week 32% overweight Participants of the main study <ul style="list-style-type: none"> $n = 56$ 68% women $M_{age} = 42.25$ years, $SD = 13.31$, age range 20–65 years 73% no exercise and sport; 13% 1–75 min exercise and sport/week 55% overweight 	
	2. How helpful were any single elements of the counseling for participants?			Selected participants of the pilot study <ul style="list-style-type: none"> $n = 7$ 71% women $M_{age} = 35.57$ years, $SD = 7.98$, age range 28–52 years 29% no exercise and sport; 71% 1–74 min exercise and sport/week 43% overweight
	3. Why were single elements of the counseling helpful for participants?			
Fidelity	4. To what degree was the counseling implemented as proposed in the protocol?	<ul style="list-style-type: none"> Paper-pencil questionnaire directly after each counseling session Separate rating of counseling elements 1–5 on a 4-point Likert scale from 1 (<i>not at all implemented as proposed</i>) to 4 (<i>fully implemented as proposed</i>) One-way analysis of variance to compare means 	Counselors of the main study <ul style="list-style-type: none"> $n = 16$ 56% women $M_{age} = 25.81$ years, $SD = 3.08$, age range 23–35 years 	
	5. Which factors affected implementation fidelity?			<ul style="list-style-type: none"> Paper-pencil questionnaire directly after each counseling session Open question

Note. Referring to the “5As” by Whitlock et al. (2002), this study investigated acceptability and fidelity of the areas of assess (counseling elements 1–3), advise/assist (counseling element 4), and agree (counseling element 5), whereas it did not cover the area of arrange (counseling element 6; see Table 2). ^a According to Peters et al. (2014).

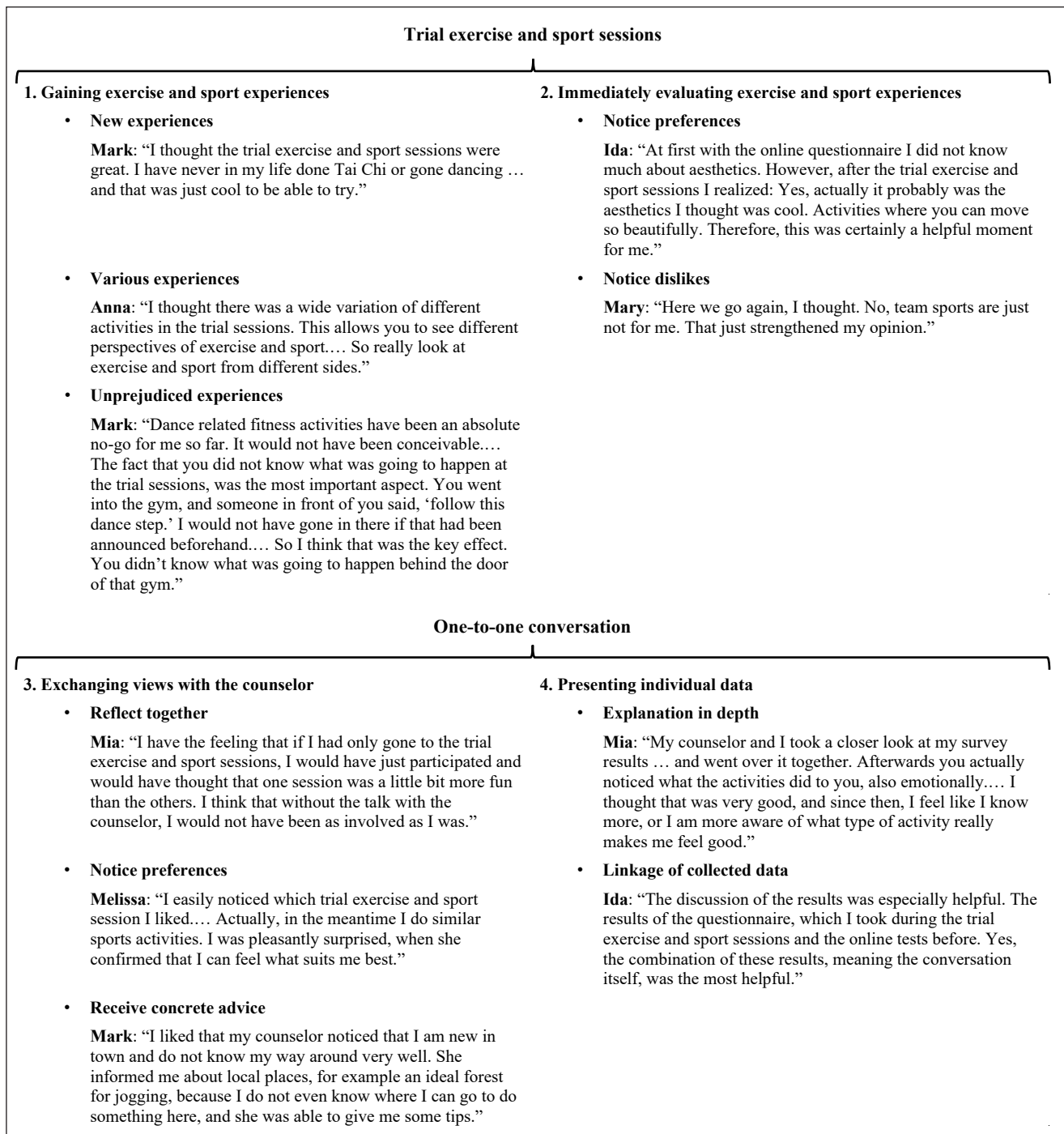


Figure 1. Themes and subthemes derived from the thematic analysis.

counseling event. However, the pilot study sample showed a more positive evaluation ($M = 4.59$, $SD = 0.80$) than the main study sample ($M = 4.17$, $SD = 0.82$).

Perceived helpfulness of single counseling elements (research questions 2 and 3)

In the questionnaire, participants had to decide how helpful selected elements of the counseling were. Participants

mentioned the one-to-one conversation with the counselor as very helpful in determining which exercise and sport activities suited them (pilot study: $M = 4.50$, $SD = 0.84$; main study: $M = 4.09$, $SD = 0.76$), whereas the trial sessions were rated lower (pilot study: $M = 4.22$, $SD = 0.91$; main study: $M = 3.76$, $SD = 1.13$). However, the pilot study showed no significant difference, $t(36) = -1.555$, $p = .130$; whereas the main study did, $t(55) = -2.195$, $p = .03$, $d = 0.34$.

The seven semistructured interviews gave a deeper insight into why these counseling elements were perceived as more or less helpful. Four overarching themes could be derived. Whereas the first two were linked to the trial sessions, the last two were linked to the one-to-one-conversation (see Figure 1 for an overview and examples of statements).

Theme 1: Gaining exercise and sport experiences. Three of the interviewed participants reported that the trial sessions were helpful because they offered the opportunity to gain new experiences. Participants tried exercise and sport activities which they had not practised before. Some mentioned that they would not have done them on their own initiative.

The trial sessions focused on only two or three motives each (see Table 3), and were therefore thematically limited. However, the trial sessions varied widely among each other. Four participants highlighted the fact that the broad spectrum of activities helped them.

Two participants emphasized the importance of joining the trial sessions without preconceptions or expectations. Consequently, they went in with a more open attitude.

Theme 2: Immediately evaluating exercise and sport experiences. During and immediately after the trial sessions, participants evaluated their affective state, enjoyment, and exercise and sport experience, on the basis of motives and goal contents. For this, they had to reflect on the activities they had performed and their subjective experiences immediately afterward. Three participants indicated that this evaluation helped them to confirm their current preferences or discover new likings, while two participants thereby noticed their dislikes.

Theme 3: Exchanging with the counselor. Four participants appreciated the one-to-one conversation with the counselor because they reflected together about exercise and sport experiences in the trial sessions, and more generally, in their usual behavior.

While talking with the counselor, three participants became aware of their own preferences. In some cases, the counselor gave new inputs, whereas in other cases, the current exercise and sport activities were confirmed.

Theme 4: Presenting individual data. Two participants reported the presentation of all individual data as helpful because counselors illustrated and explained them in depth. Further, three participants indicated that counselors linked the different datasets (individual motive and goal profile, motive-based type of sports person, and experiences in trial sessions) and therefore provided an overview.

Implementation fidelity and its influencing factors (research questions 4 and 5)

The results of the paper-and-pencil questionnaire showed overall that counselors in the main study were able to im-

plement one-to-one conversations accurately. However, their fidelity significantly differed between counseling elements, $F(4,39) = 10.035$, $p = .001$, partial $\eta^2 = .205$). They assessed the current and past exercise and sport behavior as proposed in the protocol (see Table 2, counseling element 1b: $M = 3.84$, $SD = 0.35$, range 2–4). They also explained and discussed the motive and goal profile as well as the motive-based types of sports person as planned (counseling element 2: $M = 3.69$, $SD = 0.40$, range 2.5–4). Counselors guided the reflections on exercise and sport experiences and suitable activity types with a similar level of quality (counseling element 4: $M = 3.63$, $SD = 0.47$, range 2–4). The counselors were least accurate in developing a concrete change plan (counseling element 5: $M = 3.46$, $SD = 0.52$, range 2–4) and adapting it in the telephone booster (counseling element 6: $M = 3.45$, $SD = 0.68$, range 1–4).

The counselors gave different reasons for the inaccuracy of the implementation. Two overarching themes could be derived.

Theme 1: Additional questions. In a total of six counseling, counselors mentioned that participants asked in-depth questions (e.g., explanation of the intraindividual standardization of the motive and goal scores) or wanted to know about other topics (e.g., nutrition, injuries). Counselors had to respond accordingly and invert the order of discussion to maintain the natural flow of the conversation.

Theme 2: Faced with dissonant data. In a total of seven counseling, counselors reported that some participants had a subjective impression contrary to what their data showed (e.g., identified motive-based type of sports person). Therefore, the discussion was modified, because it could not be handled according to the planned procedure.

Discussion

The goals of this study were to describe the design of a novel exercise and sport counseling approach and to evaluate its implementation. In contrast to existing approaches, the COMET systematically focuses on individual preferences and aims to identify suitable activity types. It is important for an individual to do a suitable activity as it improves their affective well-being and maintenance of their exercise and sport behavior (Klusmann et al., 2016; Sudeck & Conzelmann, 2011). The novel elements of the counseling approach were the trial exercise and sport sessions, accompanied by reflective conversations.

In the current research literature, the implementation of interventions is rarely reported in detail (Peters et al., 2014). However, because implementation is important

for the dissemination of the counseling approach, it has been addressed in this study. Evaluation of the implementation showed that overall participants were satisfied with the intervention and the single counseling elements were found to be useful. Their diverse practical experiences, combined with discussions with the counselor immediately afterwards, were especially helpful. This result is in line with Schön's (1983) reflection-on-action theory. Schön assumes that thinking back on what has been done in a particular situation and critically evaluating the beliefs, ideas, and feelings that framed the action, generally promote learning. Therefore, one can suppose that it was above all the aforementioned combination of counseling elements 3 and 4 which fostered participants' motivational competence and self-concordance. Initial analyses of a randomized controlled trial over 14 weeks with 129 adults partially confirm this assumption (Schorno et al., 2020).

Implementation fidelity ranged from good (e.g., shared decision about a change plan) to very good (e.g., assessment of past and current exercise and sport behavior). The following pattern of results became apparent: The more open the conversation, the more it allowed participants to get involved (e.g., by answering open questions). However, this also made it more difficult for counselors to follow the procedure and discussion structure as planned. The semistructured counseling protocol was likely to be crucial for a highly accurate implementation (Hébert et al., 2012). Counselors thus had a conversation structure, which gave them a certain level of confidence.

Overall, the findings of this study highlighted the fact that the COMET approach was implemented successfully in nonclinical settings. For its implementation in other settings, the following adaptations are worth considering: A first variation might be to integrate existing exercise and sport classes instead of creating specific trial sessions. This procedure could be suitable for institutions such as fitness centers, rehabilitation facilities, or communities, which often already have a wide range of exercise and sport offers, but do not combine them with individual counseling. A second variation could be to assess exercise and sport experiences beforehand in everyday life (e.g., by smartphone), and use the individual's results in the one-to-one conversation with the counselor. A further possibility would be to encourage participants to reflect on their exercise and sport experiences in a more general manner and without data (e.g., by asking what activity type have given them pleasure in the past). With all three of these variations, the basic idea of the counseling would remain, with the advantage of using available structures, which in turn, would save financial and personnel resources. However, a disadvantage could be that the reflective conversation with the counselors would not be based on diverse exer-

cise and sport experiences, as is the case with specially designed trial sessions.

Limitations

Although the results of this implementation study ranged from satisfactory to good, there were some limitations: Firstly, one should keep in mind that the procedure and sample characteristics of the pilot and main studies differed, which may have influenced the findings. Participants in the pilot study had to rate satisfaction on paper immediately after the counseling session, whereas those in the main study did so online a few weeks later. Furthermore, participants in the pilot study were more active and less likely to be overweight. It is striking that this group evaluated the intervention overall more positively than the less active group in the main study. Secondly, the counseling was based on a wide range of motives and goals (Lehnert et al., 2011; Schmid et al., 2018); however, risk and challenge, which might be particularly important for young adults, were not addressed (Gut et al., 2019). Future studies should consider such age-specific motives and goals. Thirdly, interviews were conducted with only seven participants. These were specifically selected because, being less active, they belonged to the counseling target group. However, one needs to keep in mind that the previously presented justifications for the helpfulness of single counseling elements (research question 3) might not be representative of all participants. Finally, this study was limited in that we did not evaluate the acceptability of the telephone booster session (counseling element 6). And yet, this follow-up contact seems to be particularly important for providing ongoing assistance and adjusting the intended activity types as needed (Whitlock et al., 2002). Further studies should therefore examine how the telephone conversations are perceived by participants.

A relevant step for future studies would be to optimize counselor training. At 10 sessions of 90 minutes, it was relatively time-consuming. It should therefore be investigated whether shortened training would lead to comparably accurate implementation. Further research is also needed to identify factors influencing satisfaction with the counseling. It can be speculated that satisfaction is linked to characteristics of the clients (e.g., their activity level), the counselors (e.g., their empathy or experience), and the setting. In addition, it would be interesting to investigate how aspects of implementation (e.g., quality or satisfaction) influence the effectiveness of the counseling. Finally, future research could take a closer look at the exercise and sport sessions. For example, it should be checked whether the targeted incentives were actually perceived (see Table 3), or whether the activities need to be slightly adapted.

Conclusion

To conclude, this study showed that the COMET approach was accepted and faithfully implemented in a nonclinical setting. It revealed that participants appreciated the combination of gaining experience in various exercise and sport activities, and reflecting on them in a one-to-one conversation with a counselor. Further research could examine the implementation of this counseling approach in different settings.

Electronic Supplementary Material

The electronic supplementary material is available with the online version of the article at <https://doi.org/10.1026/1612-5010/a000309>

ESM 1. Figure-oriented stress regulators.

ESM 2. Feedback of exercise and sport experiences.

ESM 3. Description of the counsellor training course.

ESM 4. Description of the interview participants.

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Conflict of Interests

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