



Seminar modules on healthy nutrition in medical rehabilitation

Results of the formative evaluation of a training program on the use of the modules and of practical implementation by nutrition professionals

Malte Klemmt, Roland Küffner, Christian Toellner, Andrea Reusch, Karin Meng

Abstract

Nutrition-related interventions are a key part of medical rehabilitation. Nutrition teams at rehabilitation facilities offer a range of nutrition education groups for patients. However, there are only a few standardized, generic group programs that aim to promote a healthy diet, and there is a need for the development of further strategies to motivate patients and promote the practical application of what is learned in everyday life.

The SErFo project (*Seminarbausteine zu gesunder Ernährung und Fortbildungen für die Ernährungsberatung in der medizinischen Rehabilitation* – standardized modules for teaching patients about healthy nutrition and training for nutritionists in inpatient medical rehabilitation), involved the systematic development of 46 defined learning outcomes, flexible training modules, an associated framework concept, learning materials and an associated training course for nutrition professionals. The formative evaluation of the training and the SErFo components was done at three time points and with 60 participants.

The SErFo components and training were evaluated positively. Self-reported skills were found to have increased after the training. Three months after the training, some of the SErFo components were being applied in practice. SErFo can help support and further develop the quality of nutrition counseling in groups. The main barriers to its implementation are internal barriers within individual clinics.

Keywords: Healthy nutrition, medical rehabilitation, group programs, formative evaluation, nutrition counseling

Citation

Klemmt M, Küffner R, Toellner C, Reusch A, Meng K: Seminar modules on healthy nutrition in medical rehabilitation. Results of the formative evaluation of a training program on the use of the modules and of practical implementation by nutrition professionals. *Ernährungs Umschau* 2021; 68(9): 174–80.

This article is available online:

DOI: 10.4455/eu.2021.035

Peer reviewed

Manuscript (original) received: 23 October 2020

Revision accepted: 31 March 2021

Corresponding author

M. A. Malte Klemmt
Universität Würzburg
Institut für Klinische Epidemiologie und Biometrie
Petrinistr. 33A, 97080 Würzburg
malte.klemmt@fhws.de

Introduction

Background

Nutrition-related interventions are an essential component of multimodal medical rehabilitation and are defined in rehabilitation treatment standards as an evidence-based treatment modality for all indications [1]. According to international reviews, there is evidence for the effectiveness of nutrition-related interventions [2, 3], although studies are heterogeneous in terms of target populations, target parameters, and effect sizes. There is also evidence for the efficacy of some behavior change techniques (BCT) in the area of nutrition and body weight [4, 5]. As yet, in terms of health education about healthy eating in the context of medical rehabilitation, only a few group programs have been published and there is no evidence of effectiveness. There are also no known training courses specifically for teams of nutrition professionals working in rehabilitation facilities. Studies conducted in the rehabilitation setting demonstrate that training courses for leaders of patient nutrition education groups who come from various professions can increase participants' self-reported skills as group leaders [6, 7]. The aim of the SErFo project was to systematically develop needs-based standardized modules (SMs) for teaching patients about nutrition in the context of medical rehabilitation, along with a training program for nutrition professionals on how to use these modules. An additional aim was the formative evaluation of the training for nutrition professionals. This article is concerned with the formative evaluation.

Development of the SErFo concept

In the initial phase of the project, the status quo and current needs with regard to nutrition-related group programs in inpatient medical rehabilitation were analyzed (Germany-wide survey of rehabilitation facilities, survey of focus groups involving rehabilitation patients, literature searches). This analysis identified a

Learning outcome area (LOA)	Number of learning outcomes	Learning outcome example (target level)
Motivation and emotion (M)	8	M.7 Participants can identify their own favorable and unfavorable eating habits (knowledge, attitude)
Knowledge (K)	12	K.9 The participants can state their daily fluid requirements and name desirable and undesirable beverages (knowledge)
Application in daily life (A)	8	A.5 The participants can describe the social contexts in which they usually eat (with family, with colleagues) and state what effects these contexts have on their dietary behavior (knowledge, attitude)
Behavior (B)	9	B.5 The participants can estimate and use appropriate portion sizes (ability to act)
Self-management (S)	9	S.2 The participants can create a concrete plan of action to achieve these goals (attitude, ability to act)

Table 1: Overview of the learning outcomes of the SErFo concept

need for flexible, standardized modules that nutrition professionals could use flexibly to teach patient groups about nutrition, as well as a need among nutrition professionals for training in strategies to motivate patients and encourage them to implement what they learn about healthy nutrition in their everyday lives [8]. Rehabilitation patients' needs and desires are mainly concerned with aspects of implementation in everyday practice as well [9]. Based on these findings, a framework concept (FC) was developed using a multi-stage Delphi method with the support of an expert advisory committee (composed of scientists and practitioners). The FC links learning outcomes and teaching methods in a theory-based and evidence-based manner and defines 5 learning outcome areas (LOAs) (these are: motivation and emotion, know-

ledge, application in everyday life, behavior and self-management) and 46 teaching objectives (♦ Table 1).

Based on this framework concept, learning outcome-based SMs were developed that could be used flexibly to create group training courses. ♦ Figure 1 shows an example of how an SM is structured. The SErFo concept was enhanced with teaching materials (TMs) to aid in the teaching of the SMs.

The FC describes the objectives, theoretical background, and evidence base for programs and BCTs. It also explains the system behind the SErFo

Lehrziel	S.2 Die TN können für diese Ziele einen konkreten Umsetzungsplan erstellen.	
METHODE S.2-1	Umsetzungsplan erstellen	
ZIELEBENE	Wissen • Einstellung • Handlungskompetenz	
ERLÄUTERUNG	Die TN erstellen einen Plan, mit dem sie ihr Ernährungsziel erreichen möchten.	
VORGEHEN	<p>Passend zu ihrem Ernährungsziel (vgl. S.1) erstellen die TN einen Handlungsplan (z. B. „statt Süßgetränke nur noch Wasser und ungesüßter Tee“).</p> <p>Am Fallbeispiel eines TN oder einer erdachten Person erarbeitet die GL zusammen mit der Gruppe gemeinsam einen konkreten Plan. Anhand des Beispiels kann das Erstellen eines Plans erläutert werden (z. B. „schriftlich planen“, „anhand von W-Fragen“, „genau, aber doch flexibel planen“).</p> <p>Danach notieren die TN in Einzelarbeit einen eigenen Plan.</p> <p>Im Plenum können abschließend einige Beispiele der TN vorgestellt und nachbesprochen werden.</p>	
SOZIALFORM	Plenum + Einzel + Plenum	
ZEIT	15 – 20 Min.	
MATERIAL	Arbeitsblatt S.2: „Mein Ernährungsplan“, Fallbeispiele	
ANMERKUNG	Voraussetzung für das Erstellen eines Plans ist, dass die TN ein passendes Veränderungsziel gefunden haben (s. Lehrziel S.1, vgl. Rahmenkonzept).	

Fig. 1: Example of a standardized module (SM) in the learning outcome area of self-management (S)



concept, the teaching methods and the structure of the SMs and how they are used in practice. Since the advisory committee was involved in every step of development, it is assumed that the FC, the SMs and the TMs are practical and feasible. They are self-explanatory and can be used as is. However, using them in practice requires knowledge and skills that are taught in a two-day SErFo training course (6 hours each day). These assumptions were tested through formative evaluation.

Study question

The study questions pertain to how the nutrition professionals rate the professional training, to their acceptance of the SErFo components, and to how well the components can be implemented in practice:

- How satisfied are the participants with the SErFo training?
- To what extent do participants subjectively find that their skills were improved through the training? Hypothesis: The training will improve the participants' practical knowledge and self-reported skills in implementing SMs.
- To what extent do participants accept the SErFo components? How do participants rate them?
- How easily can the SErFo components be put into practice? Which SMs are put into practice? How do participants rate their

practical implementation? What are the facilitating factors and barriers to implementation?

Methodology

Study design

A multimodal formative evaluation was performed using written surveys of nutrition professionals immediately before the training (T0), immediately after the training (T1) and three months later (T2). At T2, additional, guideline-based telephone interviews were conducted with a subsample of the participants. These interviews were logged and audio-recorded. The guideline-based interview questions pertained to the practical application and implementation of the SErFo components.

Instruments

Existing measurement instruments [6, 7] were adapted in order to measure the target parameters. The questionnaire used at T0 included items on personal characteristics and facility characteristics, as well as a scale to indirectly measure change in self-reported group leader skills across 13 items; the same scale was used at all time points.

The questionnaire used at T1 included 24 items pertaining to the conceptual and overall evaluation of the training, and 9 items pertaining to the goal of the training, which was to develop skills in teaching the SErFo concept and skills in practical application. A further 24 items were used to assess form-related and content-related aspects as well as the scope of the SErFo components. In addition, the participants' intentions to use what they learned in practice—their interest in actually implementing the LOAs, SMs and FC was measured using three items.

The questionnaire used at T2 contained 15 items for the evaluation of the SErFo components (content, comprehensibility, practical relevance, scope, overall impression). It also included questions about previous use of the SErFo components (indication of the SMs used to date, how they were used, reasons for not using if not used), as well as 4 items to evaluate individual implementation and intentions to implement further in the future.

Recruitment and data collection

Four training events were held in the period from July to October 2019. The teaching team consisted of a psychologist/rehabilitation sci-

Personal characteristics (n = 60)		n (%)
Sex	Female	60 (98.4)
Age (in years)	21–30	10 (16.4)
	31–40	17 (27.9)
	41–50	12 (19.7)
	51–60	19 (31.1)
	> 60	2 (3.3)
Profession	Dietetics	52 (85.2)
	Nutrition and home economics ^a	6 (9.9)
	Nutrition science	2 (4.9)
Facility characteristics (n = 34 rehabilitation facilities)		n (%)
Main rehabilitation indications	Orthopedics/trauma	45 (73.8)
	Psychosomatics (excluding addiction)	20 (32.8)
	Oncology	17 (27.9)
	Cardiology/angiology/hematology	14 (23.0)
	Neurology (phase D)	10 (16.4)
	Gastroenterology	8 (13.1)
	Pulmonology	7 (11.5)
	Endocrinology/diabetology	4 (6.6)
	Urology	4 (6.6)
	Nephrology	2 (3.3)
	Rheumatology	2 (3.3)
	Dermatology/allergology	1 (1.6)
Number of persons in team	M (SD), range	2.9 (1.2), 1–6
Number of beds	M (SD), range	250 (138.9), 75–790

Table 2: Description of sample

^a In German "Ökotrophologie" [ecotrophology]



entist and one nutrition and home economics scientist (in German "ÖkotrophologIn"). Participants were included based on defined inclusion and exclusion criteria (including being a practicing professional in an inpatient rehabilitation facility). The aim was to ensure heterogeneity in terms of the main rehabilitation indications, the number of beds per facility and the type of ownership of the facility. Another priority was to include two participants from each facility. The response rate of the 60 participants was 100% at T0 and T1, and 41 returned questionnaires were available for analysis at T2 (68%). 14 telephone interviews were done.

Evaluation

The evaluation was based on descriptive analyses. Change in self-reported skills was tested using a t-test for dependent samples for each of the after-training time points, and effect sizes were calculated (d [10]; 0.2 = small; 0.5 = medium; 0.8 = large). The partially transcribed interviews were grouped into categories.

Results

Sample

A total of 60 participants took part in the training. Almost all of them were female ($n = 59$) and most of them were dietitians ($n = 52$). The self-reported average number of years of experience as a group leader was 14.7 years (standard deviation [SD] = 10.6). 34 rehabilitation facilities were included through these participants. ♦ Table 2 shows some further characteristics of the sample.

Satisfaction with the training

Most participants rated the structural design of the training as "just right". About a quarter of the participants rated the proportion of information/theory as "too high" and about a fifth said the same of the duration of the training. By contrast, some participants rated the proportion of practical exercises as "too low" (♦ Figure 2).

On average, the participants rated all aspects of how the training was taught and the aspects of practical implementation positively (♦ Table 3). The highest ratings were given for the comprehensibility of the content and the support given to implement the content in practice. Somewhat lower ratings were given for improvements in skills in implementation, the suitability of the content for integration into one's own practice and the use of methods, but these aspects were nevertheless rated positively. The values for global satisfaction and the meeting of expectations were within a satisfactory range.

Self-reported improvement in skills

The analysis of the items on the direct, self-reported change in the participants' skills at T1 resulted in positive evaluations with regard to all of the training objectives that were asked about. The highest mean level of agreement was obtained for the items on knowledge acquisition and understanding of SErFo, with slightly lower ratings for the acquisition of skills related to application in practice (♦ Table 3).

In terms of self-reported skills as a group leader, there was a significant improvement in the pre-post comparison from T0 to T1 ($n = 53$; T0: mean [M] = 4.3, SD = 0.8; T1: M = 4.9, SD = 0.5; $p < 0.001$; $d = 0.75$). This effect persisted from T0 to T2 ($n = 39$; T0: M = 4.3, SD = 0.9; T2: M = 5.0, SD = 0.5; $p < 0.001$; $d = 0.74$). The explorative calculations for the individual items show that the changes are mostly larger for practical knowledge than for skills related to application or implementation (data not shown). The hy-

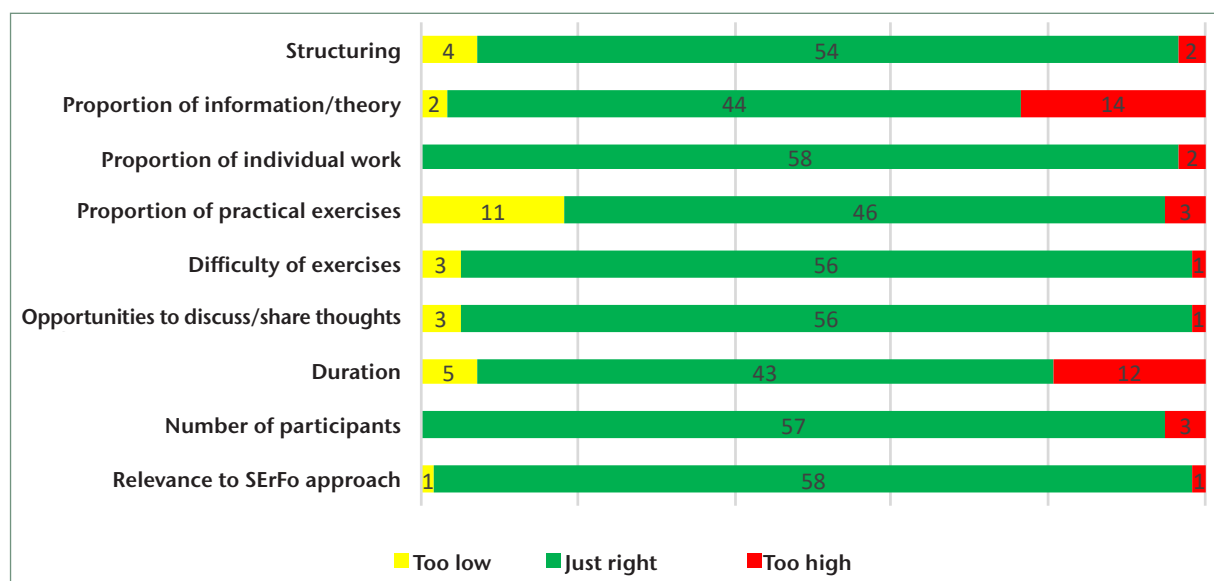


Fig. 2: Composition of the training:— evaluation by participants ($n = 60$) at T1



Evaluation of training	M (SD)
Logical structure	5.1 (0.67)
Comprehensible content	5.3 (0.57)
Media used illustrates the content effectively	5.1 (0.57)
Appropriate methods used	4.8 (0.72)
Practical application was covered	5.3 (0.71)
The knowledge imparted was useful	5.1 (0.87)
Content can be applied to everyday practice	4.9 (0.86)
Skills as group leader increased	4.8 (0.92)
Training met expectations	4.7 (0.92)
Would recommend training to others	4.9 (0.93)
Satisfied overall	4.9 (0.89)
Development of skills—training aims ^a	M (SD)
Clear understanding of the SErFo approach	5.2 (0.72)
Sufficiently informed about the SErFo framework concept	5.1 (0.70)
Clear understanding of the learning outcome areas	5.2 (0.64)
Clear understanding of the SErFo teaching methods	5.0 (0.64)
Confidence in teaching individual standardized modules	4.7 (0.83)
Confidence to create groups using the standardized modules	4.7 (0.74)
Knowledge of more strategies to motivate participants	5.0 (0.96)
Knowledge of more strategies to promote implementation in everyday life	5.0 (0.95)
Knowledge of more strategies for dealing with difficult group situations	4.8 (0.95)

Table 3: Evaluation of the training and of self-reported skill development as a result of the training at T1

Response scale: 1–6 (1 = completely disagree, 6 = completely agree)

Sample: $57 \leq n \leq 60$

^a Each question started with: “Through participation in the training I am / I have...”

pothesis regarding the development of skills in terms of practical knowledge and the implementation of the modules through the training was confirmed.

Acceptance of the SErFo approach, evaluation of the SErFo components

Overall, the participants rated the SErFo components positively at time points T1 and T2 (♦ Table 4). The results for the individual aspects of the evaluation (design, comprehensibility, content, practical relevance) were also in the good rating range on average ($1.5 \leq M \leq 2.2$). The lowest ratings were given for suitability for implementation in practice ($M = 2.2$, $SD = 1.0$) and for the TMs ($M = 2.1$, $SD = 1.0$) at T2. The majority of the participants rated the scope of the components as “just right”.

After the training, the participants indicated a high level of interest in implementing the FC ($M = 7.8$, $SD = 2.0$, range: 2–10 where 10 = very high level of interest) and the SMs ($M = 8.0$, $SD = 1.9$; range: 2–10). There was some divergence in terms of intentions to implement when it came to different LOAs. There continued to be a high level of interest in continuing to use SErFo in one’s own work 3 months after the training ($n = 40$; $M = 8.1$, $SD = 1.8$, range: 3–10).

Implementation in practice

Three months after the training, 23 of the 41 participants stated that they had used SErFo components in their daily work. The reasons the remaining 18 participants gave for not using them included lack of time (13 participants), waiting for the right time (5 participants) and lack of a need for them (3 participants). The key ways in which the participants used the training included reading the FC (21 participants) and using the SMs to further develop their own existing group programs (20 participants) or presentations (14 participants). The main use of the TMs was in the provision of group programs (12 participants).

Of the 46 SMs that were created, 40 were used in practice. The most frequently used were the SMs from the LOAs of motivation and emotion (39 participants), knowledge (36 participants) and behavior (23 participants). The SMs that were used less frequently were those in the LOAs of implementation in everyday practice (13 participants) and self-management (12 participants). SMs from the area LOA of knowledge were most frequently used in presentations, whereas those in the LOA of motivation and emotion were most frequently used in the provision of group programs. In other types of programs (e.g., cooking lessons), it was mostly SMs in the LOA of behavior that were used. The participants ($n = 40$) rated (scale: 1–10, with 10 being the highest rating) the usefulness of SErFo for their own work positively on average ($M = 7.3$, $SD = 2.0$, range: 3–10). The same was true of how easy it was to use ($M = 7.0$, $SD = 2.2$, range: 1–10) and how practical it was ($M = 6.8$, $SD = 1.9$, range: 2–10).

Telephone interviews ($n = 14$) were used to identify the supporting factors for ($n = 7$ superordinate categories) and barriers to ($n = 6$ superordinate categories) the use of SErFo components in practice that the participants experienced. The aspects that participants mentioned were categorized into the following four superordinate categories: content and form of SErFo components, organizational aspects, institutional aspects, and team-related aspects.

Perceived supporting factors included the flexibility of the SMs, as well as their structure in terms of form and content. The relatively short amount of time required for familiarization was also seen as a supporting factor. Further supporting factors included institutional openness to new concepts and a small-sized nutrition team, especially if the whole nutrition therapy team at a given facility had attended a SErFo training course. Perceived



barriers included the scope of SErFo components and the timing of certain SMs, which was sometimes perceived as inappropriate. Other reported barriers included a perceived lack of motivation among rehabilitation patients with regard to interactive methods. Key impediments included facilities lacking the resources (staff and time) to restructure concepts. Another potential barrier that was mentioned with regard to comprehensive implementation in facilities was a lack of interest from other professional groups.

Discussion

In the SErFo project, the SErFo components were systematically developed based on an assessment of the status quo and of current needs, with the involvement of an expert advisory committee. In the formative evaluation, the SErFo components were rated positively both at the end of the training and 3 months later. At the time of the follow-up survey, slightly more than half of the respondents had used SErFo components in their own work. The majority of the SMs had been used in practice, although there were differences in rates of usage between different LOAs and SMs. There was also variability in usage between those who used the SMs. This demonstrates how flexible and customizable the SMs are because they can be used individually to structure or restructure group nutrition education programs and presentations as needed. The respondents' stated intentions regarding future implementation indicate that there is a high level of motivation to continue with the modules. To a large extent, the barriers to implementation in practice are to do with organization and institutional aspects, as has been previously reported in relation to formalized patient education/group programs [11–13]. The results also show that the goal of developing appropriate training in teaching the SErFo concept has been achieved. All structural, teaching and content-related aspects were rated positively. In the follow-up, there was a positive effect on self-reported improvement in skills among the participants. These results are consistent with other training evaluations in the German rehabilitation setting, which have yielded ratings in the relatively good range and indicate a self-reported improvement in skills among participants at follow-up or in comparison to a control condition [6, 7, 14].

	Framework concept (FC)	Standardized modules (SM)	Learning materials (LM)
Overall evaluation T1, M (SD) ^a	1.7 (0.5)	1.7 (0.6)	1.8 (0.7)
Overall evaluation T2, M (SD) ^a	1.8 (0.7)	1.9 (0.9)	1.9 (0.9)
Evaluation of scope T1, "just right" n (%) ^b	51 (83.6)	55 (90.2)	54 (88.5)
Evaluation of scope T2, "just right" n (%) ^b	37 (90.2)	38 (92.7)	35 (85.4)

Table 4: Evaluation of the SErFo components by the participants

(T1: n=60; T2: n=41)

^a scale: 1–6 where 1 is excellent and 6 is very poor; ^b Response categories: "too low", "just right", "too high"

M = mean value; SD = standard deviation

However, the results also indicate ways in which this approach could be adapted and improved. For example, there could be an even stronger focus on practical relevance, which could be achieved by increasing the proportion of practical exercises.

Limitations

Limitations of this study that are worthy of discussion include the limited sample, the fact that the sample was self-selecting, and the follow-up response rate. During the pre-selection of participants from among those who were interested in the training, care was taken to select facilities that were as representative as possible. This applies to both the characteristics of the participants [15] and the distribution of professions [8]. The indications can be considered to be typical for the field of rehabilitation [16] and there was heterogeneity in terms of clinic sizes. Nevertheless, it must be assumed that motivational aspects were also at play in the sense that the participants could be a positive selection of particularly interested nutrition professionals. At T2, the response rate was 67%. A non-responder analysis showed associations between non-response and evaluations of the training or of the SErFo components immediately after the training: non-responders gave less favorable ratings. Therefore, overall, the possibility of a selection effect and a bias of the data at T2 towards a more favorable evaluation of the use of

An electronic version of the SErFo components is freely available (in German) on the project website (→ www.med.uni-wuerzburg.de/epidemiologie/projekte/reha-forschung/serfo/). Furthermore, the SErFo components are available as a brochure from the *Deutsche Rentenversicherung Bund* (Federation of German Pension Insurance Institutions). The *Zentrum Patientenschulung und Gesundheitsförderung* — Center for Patient Education and Health Promotion (ZePG e. V.) has now made the training developed through the project permanent and the training has been running regularly since fall 2020 (→ www.zepg.de).



the SMs cannot be ruled out. This formative evaluation does not prove the effectiveness of the training or the SErFo components; randomized controlled studies would be required for this.

Conclusion

Overall, we conclude that the project objectives were achieved and that the SErFo components and the associated training can help support and further develop the quality of nutrition counseling in groups. At the end of the project, all SErFo components were revised and edited slightly once again. As other studies on implementation have already shown, barriers to implementation and application in practice appear to include internal, clinic-specific obstacles. Additional support measures could be helpful in this regard.

Acknowledgments

We would like to thank the *Deutsche Rentenversicherung Bund* for funding the project and the experts for their participation in the advisory committee.

Conflict of Interest

The authors declare no conflict of interest.

Malte Klemmt, M.A.^{1,2}

Roland Küffner, Dipl. Psych.^{1,3}

Christian Toellner, Dipl. oec. troph.⁴

Dr. Andrea Reusch⁵

Dr. Karin Meng, PD^{1,6}

¹ Universität Würzburg

Institut für Klinische Epidemiologie und Biometrie
Petrinistr. 33A, 97080 Würzburg

² malte.klemmt@fhws.de

³ roland.kueffner@uni-wuerzburg.de

⁴ Deutsche Rentenversicherung Nordbayern
Frankenland-Klinik

Schwarzallee 1, 91438 Bad Windsheim
christian.toellner@drv-nordbayern.de

⁵ Zentrum Patientenschulung und Gesundheitsförderung e. V.
reusch@zpeg.de

⁶ k.meng@uni-wuerzburg.de

References

1. Deutsche Rentenversicherung Bund: Reha-Therapiestandards. www.deutsche-rentenversicherung.de/DRV/DE/Experten/Infos-fuer-Reha-Einrichtungen/Grundlagen-und-Anforderungen/Reha-Qualitaetssicherung/rts.html (last accessed on 17 September 2020).
2. Rees K, Dyakova M, Wilson N, Ward K, Thorogood M, Brunner E: Dietary advice for reducing cardiovascular risk. *Cochrane Database Syst Rev* 2013; online: DOI:10.1002/14651858.CD002128.pub5.
3. Spahn JM, Reeves RS, Keim KS, et al.: State of the evidence regarding behavior change theories and strategies in nutrition counseling to facilitate health and food behavior change. *J Am Diet Assoc* 2010; 110: 879–91.
4. Samdal GB, Eide GE, Barth T, Williams G, Meland E: Effective behaviour change techniques for physical activity and healthy eating in overweight and obese adults. *Systematic review and meta-regression analyses. Int J Behav Nutr Phys Act* 2017; 14: 42.
5. Lara J, Evans EH, O'Brien N, et al.: Association of behaviour change techniques with effectiveness of dietary interventions among adults of retirement age: a systematic review and meta-analysis of randomised controlled trials. *BMC Med* 2014; 12: 177.
6. Meng K, Peters S, Schultze A, Pfeifer K, Faller H: Bedarforientierte Entwicklung und Teilnehmerbewertung von zwei Implementierungsinterventionen für eine standardisierte Rückenschulung in der stationären medizinischen Rehabilitation. *Praxis Klinische Verhaltensmedizin und Rehabilitation* 2014; 94: 218–31.
7. Ströbl V, Friedl-Huber A, Küffner R, et al.: Evaluation des Train-the-Trainer-Grundlagenseminars in der Rheumatologie – Entwicklung und erste Anwendung eines Fragebogens zur Kompetenz zur Gruppenleitung. *Praxis Klinische Verhaltensmedizin und Rehabilitation* 2007; 20: 106–12.
8. Meng K, Klemmt M, Toellner C, Reusch A: Ernährungsbezogene Gruppenangebote in der medizinischen Rehabilitation: Ergebnisse einer bundesweiten Befragung. *Rehabilitation* 2020; 59: 78–86.
9. Klemmt M, Reusch A, Meng K: Die Ernährungsberatung in der Rehabilitation aus Patientensicht: Ergebnisse von Fokusgruppen mit Rehabilitanden. *Praxis Klinische Verhaltensmedizin und Rehabilitation* 2020; 110: 135–45.
10. Cohen J: *Statistical power analysis for the behavioral science*. 2nd ed., Hillsdale: Lawrence Erlbaum Associates 1988.
11. Peters S, Schultze A, Pfeifer K, Faller H, Meng K: Akzeptanz der Einführung standardisierter Patientenschulungen durch das multidisziplinäre Reha-Team am Beispiel einer Rückenschule – Eine qualitative Studie. *Gesundheitswesen* 2016; 78: 148–55.
12. Höner O, Sudeck G, Keck M, Kosmützky G: Verhaltensbezogene Interventionen in der Sport- und Bewegungstherapie. *Bewegungstherapie und Gesundheitssport* 2011; 27: 111–20.
13. Brandes I, Bönisch A, Vries U, Ehlebracht-König I, Petermann F, Kraut C: Modellhafte Einführung von Patientenschulungsprogrammen in der Rehabilitation. *Physikalische Medizin, Rehabilitationsmedizin, Kurortmedizin* 2008; 18: 344–8.
14. Göhner W, Schagg D, Küffner R, Reusch A: Psychologische Strategien zur Bewegungsförderung: Entwicklung von Fortbildungen für die Bewegungstherapie (BeFo). *Bewegungstherapie und Gesundheitssport* 2018; 34: 168–77.
15. Buchholz D, Hofmann J, Babitsch B: Berufs- und Tätigkeitsfeldanalyse der Diätassistentinnen und Diätassistenten in Deutschland. *Ernährungs Umschau* 2011; 58: 258–64.
16. Deutsche Rentenversicherung Bund: Reha-Bericht 2018. www.deutsche-rentenversicherung.de/SharedDocs/Downloads/DE/Statistiken-und-Berichte/Berichte/rehabericht_2018.html (last accessed on 18 September 2020).