



Needs assessment for a specialized training for nurses working in psychosomatic medicine and psychotherapy: A focus group study

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ABSTRACT

Background: Psychosomatic medicine has developed into an independent medical field over the past decades. Nurses in psychosomatic medicine perform highly specialized tasks. However, the available continuing education programs for specialization are very inconsistent.

Aim: The objective of this study was to conduct a needs assessment to identify the requirements for a specialized training for nurses working in psychosomatic medicine and psychotherapy in terms of subject-specific content, as well as the underlying reasons for their needs. We expected a high demand for a specialized training in advance.

Design: Focus groups were conducted from November 2023 to May 2024 each with at least six and no more than eight participants and with 42 participants in total.

Participants: The participants were nurses from various psychosomatic hospitals across Germany.

Results: The focus groups were analyzed using qualitative content analysis, leading to eight main-categories. There was a strong demand for specialized training. Many reasons for the need for specialized training were discussed, including the need for professionalization, standardization and quality assurance. In addition subject-specific essential teaching content was identified as well as interprofessional and interdisciplinary needs.

Discussion: The study identified a wide range of needs and reasons for the necessity of a dedicated specialized training program. A standardized specialized training for nurses working in psychosomatic medicine could facilitate interdisciplinary differentiation through its subject-specific content. It could also contribute to the formation of professional identity, quality assurance and the clarification of interprofessional roles, thereby helping to professionalize the field.

1. Introduction

1.1. Psychosomatic nursing and psychosomatic medicine

Internationally, the term ‘mental health nurse’ is used to refer to various descriptions of this nursing speciality in different countries, such as ‘psychiatric nurse’ or ‘psychiatric mental health nurse’ [1]. In several middle European countries like Austria, Switzerland or Germany, this term has to be further specified as there are psychosomatic and psychiatric departments. For example, there are clinics specializing in

psychosomatics in Switzerland and Austria, and doctors, who already have specialist qualifications, can acquire additional qualifications in psychosomatics [2,3].

A similar situation is also prevalent in Japan, where psychosomatic medicine established an independent department [4]. From an international perspective, psychosomatic is frequently regarded as a sub-specialty field of psychiatry e.g. in the U.S. the term ‘consultation-liaison service of psychiatry’ is the preferred description of this kind of medical service [5] which also exists in other countries, e.g. Australia [6].

To focus on more detail, in Germany, since 1992, psychosomatic

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medicine and psychotherapy (henceforth PSO and PT) has been recognized as a distinct medical specialty, with separate specialization for medical doctors and a variety of outpatient and inpatient services. Psychotherapy (e.g. cognitive behavioral therapy, psychodynamic therapy) plays an essential role in psychosomatic treatment [7]. Psychosomatic clinics work with psychotherapeutic approaches by often adopting a multimethodical approach [8] and having multimodal therapy programs [9] while often adopting one psychotherapeutic approach as part of their general orientation [10].

Psychosomatic nursing in Germany has evolved as an independent and distinct field in recent decades [11]. Although the identity of nurses working in this special field have been regarded as inconsistent [12,13].

Regarding the interdisciplinary level psychosomatic nurses have often been grouped with psychiatric nurses [14] rather than being recognized as a distinct specialty. This lack of distinction may be one reason for the limited body of literature. To date, there is still a lack of standardized nursing practices within psychosomatic nursing and varied nursing concepts and approaches are employed by different psychosomatic clinics [10].

1.2. Inpatient psychosomatic nursing in Germany

The range of tasks carried out by psychosomatic nurses in inpatient nursing includes both general nursing tasks and specialized psychosomatic nursing tasks. Unlike in other medical fields, psychosomatic nurses are less involved in general nursing tasks [10,13] like personal hygiene, while other responsibilities such as administering medication, assessing vital signs or administration [15,16] are more common parts of their daily work routine. Additionally, psychosomatic nurses develop individualized care plans that include nursing diagnoses [10].

Specialized psychosomatic nursing tasks often involve brief, frequent daily interactions with patients [15], offering consistent support during crises [16] and engaging in one-to-one therapeutic contact during inpatient psychotherapy [10]. In addition to these individual interactions, nurses also facilitate group activities [16] such as relaxation groups [15]. Besides this, a key component of nursing in psychosomatic medicine is building and working on relationships [15]. Dysfunctional relationship patterns can contribute to the development of psychosomatic symptoms, which is why addressing these relational dynamics is an essential component of psychosomatic treatment. In an inpatient setting, these patterns also become apparent in the patient's interactions with the interprofessional team, allowing them to be recognized and therapeutically addressed [17]. For example, nurses address any difficulties and challenges that arise in nurse - patient relationship [18].

Within the interprofessionell team doctors and psychologists offer psychotherapeutic services based on their psychotherapeutic approaches [19] and nurses play a key role in providing necessary additional accompanying care and support [11,20].

1.3. Basic nursing education and continuing education programs

1.3.1. International perspective

Continuing education, also referred to as continuing professional development, involves programs, continuing education programs (CEP), designed to maintain and enhance the knowledge and skills of postgraduate nurses in the spirit of lifelong learning [21].

Internationally, the basic training to become a registered nurse usually involves a three-year bachelor's degree with specific course content in the field of mental health. Mental health nurses, either obtain a specialized bachelor's degree in mental health nursing, a postgraduate qualification or a master's degree [1].

German perspective.

Nurses in Germany can get a certified specialization in specific nursing areas after completing basic vocational education, which encompasses in most cases three years of non-academic theoretical and practical training [22] - whereas since 2020 a state licensed nursing

degree can also be acquired at an academic level [23]. The postgraduate specialization is a kind of CEP and is further referred to as specialized training (ST). An existing ST called nursing in psychiatry, psychosomatic an psychotherapy is available for nursing professions [24]. However, the demands of nursing in PSO and PT goes beyond the content of the above mentioned ST for psychiatry [11,14]. To date, no independent, certified, nationwide, autonomous specialized training for nurses working in psychosomatic medicine and psychotherapy (henceforth: ST for PSO and PT) is available, although there have been efforts towards this in the past [e.g. [11]]. Current CEPs for psychosomatic nurses are often limited to in-house courses [25] [26].

To fill this essential gap an initiative to develop a curriculum for a ST for PSO and PT has been established. This curriculum will be developed in accordance with the six steps for curriculum development outlined by Thomas et al. [27]. The strategy and position of the working group have already been explained in more detail in a 'positioning paper' [28]. The first step in this process is to conduct a needs assessment.

1.4. Aim of the study

This study aims to conduct a needs assessment for the specialized training of psychosomatic nurses in order to identify the general need for ST, specific training needs (particularly regarding content), and the rationale for such education. Additionally, the study was conducted to explore preferences for methods, structure, and framework conditions. We expected that there will be a high demand for ST for PSO and PT as well as subject-specific teaching content.

2. Methods

2.1. Study design and recruitment

Nurses were recruited from various psychosomatic hospitals in Germany mainly through the community networks e.g. through collaboration with the Association of Psychosomatic Nurses in Germany (German: PsoPD e.V.). The participants were mainly contacted via email by the first author (SH). Written informed consent was obtained from participants. SH was also the moderator of the focus groups.

Six focus groups were conducted either online or face-to-face, with at least six and a maximum of eight participants from November 2023 to May 2024. A total of 42 participants were included in the study. All focus groups were recorded and recordings were transcribed by NA and another student assistant. All participants were of legal age.

2.2. Procedure of the focus group discussions

Initially, the moderator introduced herself, providing information about her professional background and the purpose of the study. The questions aimed at whether and why ST for psychosomatic nursing should be introduced at a national level, exploring differences of psychiatry and psychosomatics, and challenges in everyday work. Further questions focused on training topics and the conditions for implementing such ST. The full list of focus group interview guidelines is available in Appendix A. Each focus group discussions lasted between 80 and 90 min.

2.3. Data analysis

All discussions were analyzed by using MAXQDA Analytics Pro 2022 using a qualitative content analysis according to Kuckartz [29]. Coding was carried out by the first author (SH) and NA, a female Master student of health economics, both with expertise in qualitative analysis.

The majority of the categories were assigned according to the questions of the interview guidelines following a deductive approach. Other categories were generated from the data, which refers to inductive coding [30]. The two coders compared their results in several iterations,

refined the category system and agreed in a joint definition. Due to the complexity of the topic some passages were coded with more than one category and subcategory. As soon as all categories and sub-categories covered the meaning of the data, theoretical saturation has been discussed, and the analysis was finished. An exact title and definition of eight categories was provided. The full list of main categories, their definitions, subcategories, and supporting quotes are provided in Appendix B.

2.4. Self-reflexivity statement

SH is a female assistant doctor in psychosomatic medicine at the Department of General Internal Medicine, Psychosomatics and Psychotherapy at University Hospital Heidelberg and a former nurse however she has not not work as a nurse in the field of psychosomatics. She is also part of the above mentioned initiative to develop a curriculum for ST in PSO and PT. NA is a former student assistant at the Department of General Internal Medicine, Psychosomatics and Psychotherapy at University Hospital Heidelberg. She is interested in psychosomatics but she has no direct connection to psychosomatic nursing.

3. Results

3.1. Study population

The participants were 48 years old on average, ranging from 23 to 62 years, and approximately 71% of them were female. The average work experience in psychosomatic nursing among the participants was approximately 12 years, ranging from 3 weeks to 35 years.

3.2. Qualitative content analysis

Eight main categories were derived from the analysis, which are further subdivided into sub/sub-sub and sub-sub-sub-categories. Table 1 gives an overview of the most important main categories along with their most important sub-categories and they are also summarized below in more detail.

3.3. Opinions on ST for nurses working in psychosomatic medicine and psychotherapy

Most of the participants agreed that there is a need for ST. There were only a few participants who mentioned uncertainties e.g., whether standardization is possible and useful, considering the heterogeneity of the approaches of the different psychosomatic clinics.

[...] Well, I think something needs to happen here, urgently. In my years working in psychosomatics, I've noticed that it's becoming harder and harder; the patients are becoming more difficult [...] The basic vocational education as it is now is simply not enough. That's where problems start. We experience many things that make the work very difficult. Continuing education would help [...]. (A6) (sub-category: 'consent').

3.4. Needs regarding/reasons for an own ST - current situation and opportunities

Focus groups provided insight into the current professional needs of psychosomatic nurses that might be addressed with ST in PSO and PT. Psychosomatic nurses emphasized their wish to perform professional, high-quality work following uniform standards. The need for standardization emerged at several points during the discussion e.g., when nurses talked about their everyday working routine highlighting differences between the approaches taken by different hospitals.

Major parts of the discussion focused on the challenges newly employed nurses have to face, how they can be trained properly, how to pass on experience, knowledge and quality, and how ST might help to train new staff.

Table 1

Most important main categories with most important sub-categories.

Main Categories	Sub-Categories
Opinions on specialized trainings for nurses working in psychosomatic medicine and psychotherapy	Consent
Needs regarding/reasons for an own specialized training - current situation and opportunities	Uncertainties Quality assurance
Needs regarding an own specialized training – teaching content	Professionalization Standardization Creation of identity Recognition/appreciation of the profession Feelings of safety Junior staff/induction Working in psychosomatic nursing Psychosomatics vs. Psychiatry differences and overlaps Pathogenesis
Current status of psychosomatic nursing	Therapeutic nursing Crisis management Communication/conversation management Psychopharmacology Psychotherapeutic self-experience/ability to Self-reflection Supervision Self-care Basics of psychology/psychotherapy Working/Role in mono- and interprofessional team Differentiation of Psychosomatics and Psychiatry Role/position as a psychosomatic nurse Continuing education programs

And I think it's important that a standard is developed. That not everyone takes side steps, drifts off into some kind of therapeutic training, and then it's difficult to filter out what is needed. And I do expect that if there is now continuing education, a standard will be developed that clearly defines what is needed and how and through what kind of professionalization, i.e., what should professionalization look like? Not that everyone does something different. Because the possibilities are very, very diverse in this area. (A3) (sub-category: 'standardization').

The recognition of the field of psychosomatic nursing as an independent discipline – alongside other nursing disciplines – was frequently discussed. Psychosomatic nurses wanted their work to be appreciated and the field of psychosomatic nursing to be recognized. ST was assessed as a promising approach to achieve this goal.

Participants expressed strong interest in continuing professional development which can be seen as a potential mechanism for enhancing both professional identity and external appreciation of the field and the work done by psychosomatic nurses.

Moreover, it would also help to increase the attractiveness of the profession, e.g., to new employees, by providing development opportunities.

I also think that part of the problem is that people who have just graduated or are deciding which field to go into are not even aware that psychosomatics is a thing. Everything is said in such general terms, like, yes, it's psychiatry, but it's just not clear what psychosomatics actually is. And I think that should be brought more to the forefront, so that it's just clear. (B6) (sub-category: 'creation of identity').

The participants discussed the challenges they face in their day-to-day work e.g., crisis management, conversation management, handling transference and counter-transference or working with patients suffering from trauma or from personality disorders. ST was identified as a way of gaining a greater sense of security. In addition,

there was a discussion of the differences to basic vocational education as well as between somatic and psychosomatic nursing with some participants sharing their own experiences with transitioning from somatic nursing to psychosomatic nursing and the challenges they faced by doing so.

And when I think back to my early days. Originally coming from surgery, then working in psychiatry. It was overwhelming or new to me that you were so personally involved as a human being in this type of relationship. (A2) (sub-category: 'working in psychosomatic nursing').

Participants identified several differences between psychiatry and psychosomatics. For example, psychiatric nursing was seen as placing greater emphasis on psychopharmacology, whereas psychosomatic nursing was described as being more deeply integrated into the psychotherapeutic process. Additionally, psychosomatic nursing was perceived as emphasising patients' active participation in their treatment which is often not possible in psychiatric nursing.

Participants also reflected on their professional experiences in relationship work. The relationship with psychosomatic patients was described as closer and more profound, often explained by the fact that the patients' complaints/symptoms are more closely related to everyday life.

We work on relationships, we work more with interactions, with what happens between people. Perhaps also with things that only become apparent over a longer period of time, which would not be possible in a treatment designed for stabilization or short-term care followed by discharge. (A3) (sub-category: Psychosomatics vs. Psychiatry differences and overlaps).

Nevertheless, some overlaps were also identified, e.g., with regard to the range of treatments. Participants also described areas in which it is not possible to clearly distinguish between the two specialist areas.

3.5. Needs regarding an own ST - teaching content

In response to the accompanying interview question, a wide range of subject specific teaching content could be identified, e.g., therapeutic nursing and interventions like relaxation techniques. Other emerging topics for teaching were working on relationships as well as therapeutic one-to-one nursing and nursing groups, e.g., social skills training. In this context leadership skills were voiced by the participants. Furthermore crisis management, basics of psychology/psychotherapy and effective communication and self-reflection practice were discussed as helpful elements of a future ST.

I believe that self-reflection is a requirement for psychosomatic nurses, which is not only gained through professional experience, although this certainly plays a role. If I work in a good team, I can also reflect on myself to a certain extent. But I can only be a good counterpart to the patient in psychosomatic nursing in terms of relationship building if I know myself well enough. And I think that's why it's always necessary to promote self-awareness. (A3) (sub-category: 'Psychotherapeutic self-experience/ability to self-reflection').

3.6. Current status of psychosomatic nursing

Interprofessional teamwork emerged as a major topic in the focus groups. A frequently discussed topic were the unclear boundaries and overlaps to the roles and responsibilities of the psychotherapists. A wide range of continuing education opportunities currently available or already completed by participants were mentioned. Reports from everyday professional practice also demonstrated the variety of approaches adopted by individual clinics.

Where does it blur with therapy, with the therapist, where are the boundaries between us in nursing, and indeed with the therapist, with the psychotherapist? (A4) (sub-category: Role/position as a psychosomatic nurse - interprofessional).

4. Discussion

As expected, the majority of the participants agreed that there is a necessity for a standardized ST in PSO and PT.

With regard to our primary question, we were able to identify numerous needs of psychosomatic nurses as well as reasons why an own ST is needed. We also identified suitable teaching methods with a need for both theoretical and practical teaching. The analysis of the focus groups moreover revealed unmet interdisciplinary – regarding other nursing discipline like psychiatry – and interprofessional – regarding interprofessional collaboration - needs.

In the following, we address both the general, the content and teaching-related needs as well as the needs in relation to interdisciplinary and interprofessional collaboration.

4.1. General Needs of psychosomatic nurses and the opportunities offered through ST in PSO and PT

Professionalization, quality assurance and feelings of safety.

It has already been stated that continuing education can help to advance the role of nurses, develop nursing as a profession and improve nursing practice [21]. Continuing education has been described to offer an opportunity for professionalization at the individual level in terms of increasing the skills and expertise of nurses [31,32]. Continuing education can contribute to an improvement of the quality of care [32,33] as well as patient safety [33].

Standardization, new staff, comparison to basic vocational education and somatic medical fields.

Psychotherapeutic work is based on psychodynamic, systemic or cognitive behavioral psychotherapy guidelines and standards [10], while often following a multimodal and multimethodal approach [8]. These standards have been lacking in psychosomatic nursing to date. The differences within this special field of nursing were apparent in the focus groups conducted in this study. The need for uniform standards was one of the most prevalent requirements identified by the participants. Moreover, existing knowledge gaps show the necessity for a ST in this specialized field of nursing.

Our findings are consistent with prior results indicating that basic vocational education does not adequately prepare for the work in a psychosomatic clinic [11,34] and nurses transitioning from somatic specialties reported significant difficulties adapting to the psychosomatic nursing context [10]. Essential competencies in this field had to be acquired primarily through experiential learning [11].

Professional Identity and recognition.

ST for psychosomatic nursing can act as a potential mechanism for enhancing both professional identity and external reputation of the field and the work done by psychosomatic nurses.

Prior research has shown that continuing education or continuing professional development can improve employee retention [31–33], professional identity of nurses [32] and support recruitment efforts [31,32].

4.2. Interdisciplinary needs of nurses in PSO and PT

Psychosomatic nursing is often grouped together with psychiatric nursing and psychosomatic nursing is currently a subfield of the existing ST for psychiatry [e.g. [35]]. Given this circumstance, it is not surprising that the interdisciplinary role in relation to psychiatric nursing was repeatedly discussed in the focus groups. Previous literature has already noted that the content of the ST for psychiatry is not well-suited to the requirements of psychosomatic nursing [11,14]. Furthermore, the focus groups we conducted revealed that psychosomatic nursing substantially extend the scope of psychiatric nursing.

Bauer has likewise observed that the nurse – patient relationship differs between psychosomatic medicine and psychiatry [14]. However the blurred boundaries between the two fields e.g. regarding the

treatment spectrum [7] should not be neglected. Diseases such as anxiety or depression, for example, can be treated from both perspectives [9].

The differences identified should always be taken into account when considering the identified teaching content as they outline the subject-specific nature of the focus, approach, and relationship work in psychosomatic nursing.

4.3. Needs regarding teaching content for ST of psychosomatic nurses

4.3.1. Therapeutic nursing and communication

Participants identified several core elements of psychosomatic nursing as essential teaching content. Many of which have already been described in the introduction e.g. group activities or one-to-one therapeutic contacts. The latter describing a concept that has been mentioned in literature describing a kind of primary nursing which means a patient is assigned to a nurse to provide additional nursing therapeutic support during inpatient psychotherapeutic treatment [10]. Bauer and Ahrens mentioned that nurses are therapeutically effective through their relationships with patients [19].

Given the specific tasks of psychosomatic nurses, it is evident that effective communication is an essential element of their work. Bauer and Ahrens's stated that conversation is "the most important form of intervention" [19, p.187] in psychosomatic nursing. Regarding communicating with psychosomatic patients, one of the challenges might be dealing with patterns of behavior or emotions which is a regular part of the work routine of psychosomatic nurses [10]. In this context, self-reflection practice and relationship work – frequently discussed in the focus groups - should also be considered, both of which will be further discussed in the next section.

4.3.2. Relationship work and self-reflection practice

The close relationship to the patients in psychosomatic nursing inherently involves the difficulty of setting appropriate boundaries and managing processes of transference and counter-transference including dealing with nurses' own emotions [10,36]. One article describing the establishment of a psychosomatic ward illustrates this challenge: nurses who sought to build empathetic relationships with patients sometimes found themselves unexpectedly experiencing anger towards certain individuals. The article reports on the introduction of Balint groups as a strategy to promote self-awareness and foster acceptance of personal emotions among nursing staff [37].

Ludwig-Becker likewise identified self-reflection as a crucial competence for nurses in psychosomatic medicine. In his view, this can be achieved primarily through therapeutic self-experience, but also through Balint groups and team supervision [36].

4.3.3. Psychotherapeutic approaches

Regarding the multimethodical and multimodal approaches used in inpatient psychosomatic medicine, as mentioned above, it is particularly important for nurses working in therapeutic interprofessional teams to be familiar with the essential aspects of the various psychotherapeutic approaches. Nevertheless, this raises the question of how to distinguish this role from that of psychotherapists and what approaches therapeutic nursing should be based on. Adopting psychotherapeutic approaches would not be in line with the process of individual professionalization [19]. The interprofessional role of nurses in psychosomatic medicine is further discussed in the next section.

5. Interprofessional needs of nurses in PSO and PT

During the focus groups, it became clear that nurses' roles within their interprofessional teams are sometimes not clearly defined. In line with the IPEC Core Competencies of interprofessional collaborative practice understanding the roles of all team members is essential [38]. One possibility to clarify roles would be for psychosomatic nurses to base

their work on their own nursing approaches.

According to Bauer and Ahrens, the professionalization of nursing in psychosomatic medicine is best supported by the implementation of nursing models, which offer both a conceptual framework and a professional foundation for practice. They recommend integrating nursing models into psychosomatic nursing and the interprofessional teams and thereby work alongside, and in collaboration with, the psychotherapeutic approaches of medical and psychological professionals by integrating them when useful [19]. Bauers analysis describes how nursing models can be applied in psychosomatic nursing practice and how the use of nursing models can make nursing practice more targeted, transparent and professional [39] which could be used to make the ST in PSO and PT appealing to all psychosomatic nurses - regardless of the approaches and methods used in their respective clinics.

6. Implications

Following the six steps to curriculum development described by Thomas et al. [27], the next step following the needs assessment is to develop a competence-based catalogue of learning objectives. This has already been completed and evaluated using a two-round-Delphi study. Further research is required to explore the professional identity, subject-specific tasks and responsibilities of nurses in psychosomatic medicine taking into account the focus group findings on topics such as identity formation, standardization and role of psychosomatic nurses

7. Limitations

Some limitations of this study should be considered. Firstly, only a limited number of psychosomatic nurses participated in the focus groups, so that it is not possible to draw generalizable conclusions about all psychosomatic nurses. Second, the study participants were recruited mainly through the community networks which likely led to a sample of nurses already interested in CEP and therefore more inclined to support the need for such training.

8. Conclusion

There was a strong demand for standardized specialized training in PSO and PT which can contribute to quality assurance and professionalization in this area of nursing. It has also been demonstrated that the role of psychosomatic nurses in interprofessional teams and the interdisciplinary distinction from nursing in psychiatry are important topics that need further clarification.

Declaration of generative AI and AI-assisted technologies in the manuscript preparation process

During the preparation of this work the authors used a translation program and AI write assistant technology (DeepL translate [40], DeepL write [41],) in the writing process in order to translate and rephrase the manuscript and to improve readability as well as grammar and language. After using this tool/service, the authors reviewed and edited the content as needed and take full responsibility for the content of the published article.

CRedit authorship contribution statement

Svenja Hummel: Writing – original draft, Project administration, Formal analysis, Conceptualization. **Nathalie Assenheimer:** Writing – review & editing, Formal analysis. **Yvonne Ortmeier:** Resources, Conceptualization. **Christoph Hansjakob:** Resources, Conceptualization. **Christoph Nikendei:** Writing – review & editing, Conceptualization. **Hans-Christoph Friederich:** Supervision, Resources. **Götz Berberich:** Writing – review & editing, Supervision, Conceptualization. **Jobst-Hendrik Schultz:** Writing – review & editing, Supervision,

Resources, Project administration, Conceptualization.

Statement of ethics

This study protocol was reviewed and approved by Ethics Commission of the Medical Faculty of Heidelberg (S500/2023) prior to recruitment.

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Declaration of competing interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests:

Goetz Berberich reports a relationship with Deutsche Gesellschaft für Psychosomatische Medizin und Ärztliche Psychotherapie that includes: board membership. Yvonne Ortmeier reports a relationship with Verband psychosomatisch Pflegenden in Deutschland that includes: board membership. Hans-Christoph Friederich reports a relationship with Deutsche Gesellschaft für Psychosomatische Medizin und Ärztliche Psychotherapie that includes: board membership. Götz Berberich is medical director of clinic Windach and day clinic Munich-Westend for psychosomatic medicine, Hans-Christoph Friederich is medical director of Department of General Internal Medicine and Psychosomatics, University Hospital Heidelberg. If there are other authors, they declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.jpsychores.2026.112589>.

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