

# A Mega-Ethnography of Qualitative Meta-Syntheses on Return to Work in People with Chronic Health Conditions

## Eine Mega-Ethnographie qualitativer Meta-Synthesen zum Return to Work bei chronischen Erkrankungen




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### Key words

review, meta-synthesis, return to work, mega-ethnography, qualitative evidence synthesis, chronic illnesses

### Schlüsselwörter

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### ABSTRACT

**Purpose** The aim of this study was to synthesize the findings of qualitative meta-syntheses (QMS) on return to work (RTW) of people with different chronic illnesses and to develop a generic RTW model that can provide advice on how to improve RTW interventions and strategies.

**Methods** We conducted a systematic literature search in PubMed, Epistemonikos, CENTRAL, and PsycARTICLES to find relevant QMS, published in English or German between 2000 and 2021, and adapted the meta-ethnographic approach of Noblit and Hare to synthesize their findings.

**Results** Nineteen QMS (five focusing on musculoskeletal disorders or chronic pain, four on acquired or traumatic brain injuries, four on cancer, two on mental disorders, one on spinal cord injury, and three on mixed samples) met our inclusion criteria for the meta-ethnographic synthesis. Through systematic comparison and reciprocal translation of the single QMS findings, we could identify a set of key cross-cutting themes/concepts, which formed the basis for four RTW principles and a generic RTW model.

**Conclusions** RTW is a multifactorial and highly interactive multistakeholder process, embedded in an individual's life and working history, as well as in a determined social and societal context. It runs parallel and interdependently to the process of coping with the disease and realigning one's own identity, thus emphasizing the significance of RTW for the person. Besides symptoms and consequences of the disease, individual coping

strategies, and RTW motivation, the course and success of RTW are strongly affected by the adaptability of the person's working environment and the social support in their private and working life. Thus, RTW is not only a problem of the individual, but also a matter of the social environment, especially the workplace, requiring a holistic, person-centered, and systemic approach, coordinated by a designated body, which considers the interests of all actors involved in the RTW process.

## ZUSAMMENFASSUNG

**Einleitung** Um zusätzlich zu quantitativen Meta-Analysen und über einzelne Erkrankungsgruppen hinaus übergreifende Erkenntnisse zur beruflichen Wiedereingliederung (Return to Work, RTW) zu gewinnen, wurde eine Zusammenstellung der Ergebnisse qualitativer Meta-Synthesen (QMS) vorgenommen. Ziel war die Erarbeitung eines generischen RTW-Modells sowie daraus resultierender Empfehlungen für die Rehabilitationspraxis.

**Methoden** Grundlage bildete eine systematische Literaturrecherche in PubMed, Epistemonikos, CENTRAL und PsycARTICLES zur Identifizierung thematisch einschlägiger QMS, die zwischen 2000 und 2021 veröffentlicht wurden. Die Synthese erfolgte auf der Basis des Ansatzes von Noblit und Hare.

**Ergebnisse** 19 QMS (muskuloskeletale Erkrankungen/chronischer Schmerz: 5, erworbene Hirnschädigung: 4, psychische Erkrankungen: 2, Querschnittlähmung: 1 und gemischte Gruppen: 3) wurden final in die Analyse einbezogen. Im systematischen Vergleich und der wechselseitigen Übersetzung der einzelnen Ergebnisse konnten wir eine Reihe übergreifender Themen/Konzepte identifizieren, die die Grundlage für 4 RTW-Prinzipien und ein generisches RTW-Modell bildeten.

**Schlussfolgerungen** Der RTW ist als multifaktorieller und hochgradig interaktiver Prozess mit vielen Beteiligten anzusehen, der in eine individuelle Lebens- und Arbeitsgeschichte sowie in einen sozialen und gesellschaftlichen Kontext eingebettet ist. Er verläuft parallel zu und in Wechselwirkung mit dem Prozess der Krankheitsbewältigung und der Neuausrichtung der eigenen Identität. Neben den Symptomen und Folgen der Krankheit, den individuellen Bewältigungsstrategien und der Motivation zur Wiedereingliederung werden der Verlauf und der Erfolg der Wiedereingliederung stark von der Anpassungsfähigkeit des Arbeitsumfelds und der sozialen Unterstützung im privaten und im Arbeitsleben beeinflusst. Der RTW ist kein Problem des Einzelnen, sondern immer auch eine Angelegenheit des sozialen Gefüges und erfordert einen ganzheitlichen, personenzentrierten und systemischen Ansatz sowie eine alle Beteiligten und deren Interessen koordinierende Instanz.

## Introduction

Chronic health conditions are a major cause of work disability and health-related early retirement. In the European Union, more than one third of the people aged 45–54 years and nearly half of the people aged 55–64 years reported suffering from a persistent health problem in 2019 [1]. The aging of the workforce will further increase the prevalence of chronic health conditions in the coming decade [2, 3]. Moreover, chronic diseases may occur together [4].

Though work participation provides financial security and may have a positive effect on health and health-related quality of life, people with chronic health conditions are less likely to participate in the workforce, particularly if they are affected by more than one chronic health condition [5]. Furthermore, studies have revealed an increased risk of sick leave [6–8] and early retirement of employees with chronic conditions compared with people without a chronic condition [5, 9–12]. In Germany, almost one in five retirements is due to a health problem, with mental disorders, musculoskeletal disorders, cardiovascular diseases, and cancer accounting for almost 80% of disability pensions [13]. Although several systematic reviews suggest that effective interventions exist to support the occupational participation of people with chronic health conditions, particularly when they directly involve the workplace [14], equal participation of people with chronic conditions appears to remain a challenge.

A growing number of qualitative studies has examined return to work (RTW) in people with chronic health conditions. With a focus on the perspectives and experiences of these people and/or other actors involved in RTW process (e. g., health care professionals, employers, and relatives), these studies have provided a detailed picture of RTW mechanisms and dimensions, facilitators, and

barriers for different disorders. However, because generalizability and transferability of single qualitative studies (each conducted in a certain context with a specific design and methodology on a particular sample) are limited, qualitative meta-syntheses (QMS) have been conducted in recent years. By aggregating, integrating, and reinterpreting the findings of various qualitative studies, QMS can give a broader and deeper understanding of the phenomenon under research, generate new knowledge (e. g., by theoretical abstraction and development of conceptual models or middle-range theories), and provide more robust evidence for practical recommendations [15–19].

Like most primary studies, QMS on RTW are predominantly focused on a certain disorder [e. g. 20–23], although the overlapping findings of several QMS indicate that many mechanisms, barriers, and facilitators are generic rather than specific to particular diagnoses. Hence, we aimed to identify generic RTW mechanisms, barriers, and facilitators and conducted a systematic search for QMS on RTW in people with different chronic health disorders, to synthesize their findings via meta-ethnographic approach (like Toyé et al. [24] did in their mega-ethnography of qualitative evidence syntheses exploring the experience of living with chronic nonmalignant pain) and – if possible – to derive a generic RTW model and to develop recommendations for RTW strategies in general.

## Research questions

As outlined in our study protocol on PROSPERO [25], our mega-ethnography was guided by the following three questions:

1. Which key concepts, middle-range theories, or conceptual models regarding RTW and its facilitators and barriers in peo-

ple with chronic health conditions have been developed by meta-syntheses of qualitative studies examining the RTW experiences/perspectives of people with chronic health conditions, and/or of other actors relevant to the RTW process (e. g., employers, health care professionals, relatives)?

2. Which of these findings are generic, and which are specific to a certain disease?
3. Which middle-range theory or conceptual model can finally be derived based on the findings of the single meta-syntheses?

## Methods

To find existing QMS, we conducted a systematic literature search. QMS that met our inclusion criteria were formally described and assessed. We subsequently accomplished our qualitative evidence synthesis by applying the meta-ethnographic approach [26], adapted for our purpose of synthesizing existing QMS instead of primary studies. We chose this interpretative approach because we wanted to go beyond a simple summary of primary studies, striving for some conceptual or theoretical innovation.

Since we conducted a literature review and synthesis of already published studies, we did not apply for an ethical approval.

### Systematic literature search

We conducted the systematic literature search in September 2019 and – for an update – in June 2021 in the following databases: PubMed, Epistemonikos, CENTRAL, and PsycARTICLES. We searched for QMS on RTW in people with chronic health conditions that were published in English or German.

Our search strategy combined search terms to identify RTW papers (based on the search strategy used by Van Vilsteren et al. [27]), and search terms to identify QMS (based on the search strategy used by Ring et al. [17]). We used synonyms and related terms to comprehensively capture both core concepts (i. e., RTW and QMS). Our strategy for searching in PubMed also included controlled vocabulary (i. e., MeSH terms).

MB, who is experienced in conducting systematic reviews, managed the development, pilot testing, and adaption of our search strategy. Together, we specified a set of 10 relevant QMS that were already known to us and that, at the very least, had to be identified by our search strategy. The final search strategy (adapted to each database) is available as supplemental material to our study protocol via PROSPERO [25].

The study selection was guided by the following inclusion criteria:

- Study type: QMS and full text available;
- Objective/focus of the meta-syntheses: The RTW experiences/perspectives of people with chronic health conditions and/or of other actors relevant to the RTW process;
- Language: English or German;
- Publication date: January 2000–7<sup>th</sup> of September 2019/1<sup>st</sup> of August – 4<sup>th</sup> of June 2021 (update)

We selected the studies (QMS) in two steps. As a first step, BS and MS independently screened the titles and abstracts of all retrieved papers and checked them for the inclusion criteria. In the case of divergent judgments, the papers in question were included for full-

text screening. In a second step, BS and MS again independently reviewed the full texts of all selected papers. Where judgments differed, a third person (EvK or NR) decided about inclusion.

### Data extraction and quality assessment

To get an overview of the selected QMS, we described them by using a data extraction sheet developed on the basis of the ENTREQ statement [28] and the eMERGe meta-ethnography reporting guidance [29]. The data extraction sheets were filled out by pairs (each responsible for a certain number of the included QMS) and subsequently presented in a joint meeting to validate them consensually. A list of all aspects that were covered with the data extraction sheet is available in our study protocol on PROSPERO [25].

Because there is no instrument to assess the methodological quality and trustworthiness of QMS [30], we developed such an instrument based on ROBIS, an established tool for assessing the risk of bias in systematic reviews [31]. The developed tool comprises 16 questions in four domains and is available as supplemental material (<http://dx.doi.org/10.1055/a-2129-2731>). Since there is an ongoing debate on how and with which criteria the methodological quality of qualitative studies should be assessed [32, 33], we focused on basic and more technical indicators (e. g. a clearly formulated research question/aim, a rigor proceeding in all steps of literature search and synthesis, and a transparent presentation of findings), and thus followed the approach of existing checklists and appraisal tools for primary studies using qualitative research designs and methods [34–36].

After developing and testing the instrument, we applied it to appraise all selected QMS. Each member of our team assessed the QMS for which he/she had already carried out data extraction. Therefore, each study was assessed by two members of our team independently (the data extraction pair). The individual appraisals were presented and – in case of divergences between the two assessors – agreed upon by consensus in a joint meeting.

Against the backdrop of the above-mentioned ongoing debate, we decided to not exclude QMS on the basis of the appraisal's results.

### Synthesis of the included meta-syntheses

To synthesize eligible meta-syntheses, we adapted the meta-ethnographic approach by Noblit and Hare [26], which includes the following three steps to synthesize primary qualitative studies:

1. Extraction of the primary studies' first-order concepts (codes/categories/themes);
2. Translation of these concepts into second-order interpretations (cross-cutting concepts); and
3. Development of a third-order synthesis (new concept, conceptual model, middle-range theory, another form of analytical abstraction).

It should be noted, that the usage of terms 'first, second and third order' is used differently by some authors [e. g. 24]. Following Schütz [37], the first-order term can be used also for the common-sense interpretations of the persons under research. The concepts of the primary studies' authors then are already second-order, and their translation into cross-cutting concepts third order interpretations. Thus, the final result of a synthesis would be scored as fourth order interpretation.

As we conducted a mega-ethnography (i.e. a qualitative meta-synthesis of qualitative evidence syntheses), we adapted the above-mentioned steps in the following way:

1. Extraction of the second-order interpretations and third-order syntheses of the included QMS, i.e., their cross-cutting concepts as well as their key concepts, conceptual models, middle-range theories, or other final synthesizing results/products (the second-order interpretations were extracted for a better understanding of the third-order syntheses);
2. Translation of these synthesizing results/products into one another (into cross-cutting terms/concepts), by comparing and contrasting them and finding a common language; and
3. Development of our own third-order synthesis by rearranging and reinterpreting the translated core findings of the included meta-syntheses.

The first step was again realized in pairs and validated consensually. BS performed the second step by translating the synthesized results/products of the included QMS into preliminary cross-cutting terms/concepts. The pairs checked whether these cross-cutting terms/concepts represented the findings of their meta-syntheses. Together, all authors finalized the cross-cutting terms/concepts and developed a third-order synthesis.

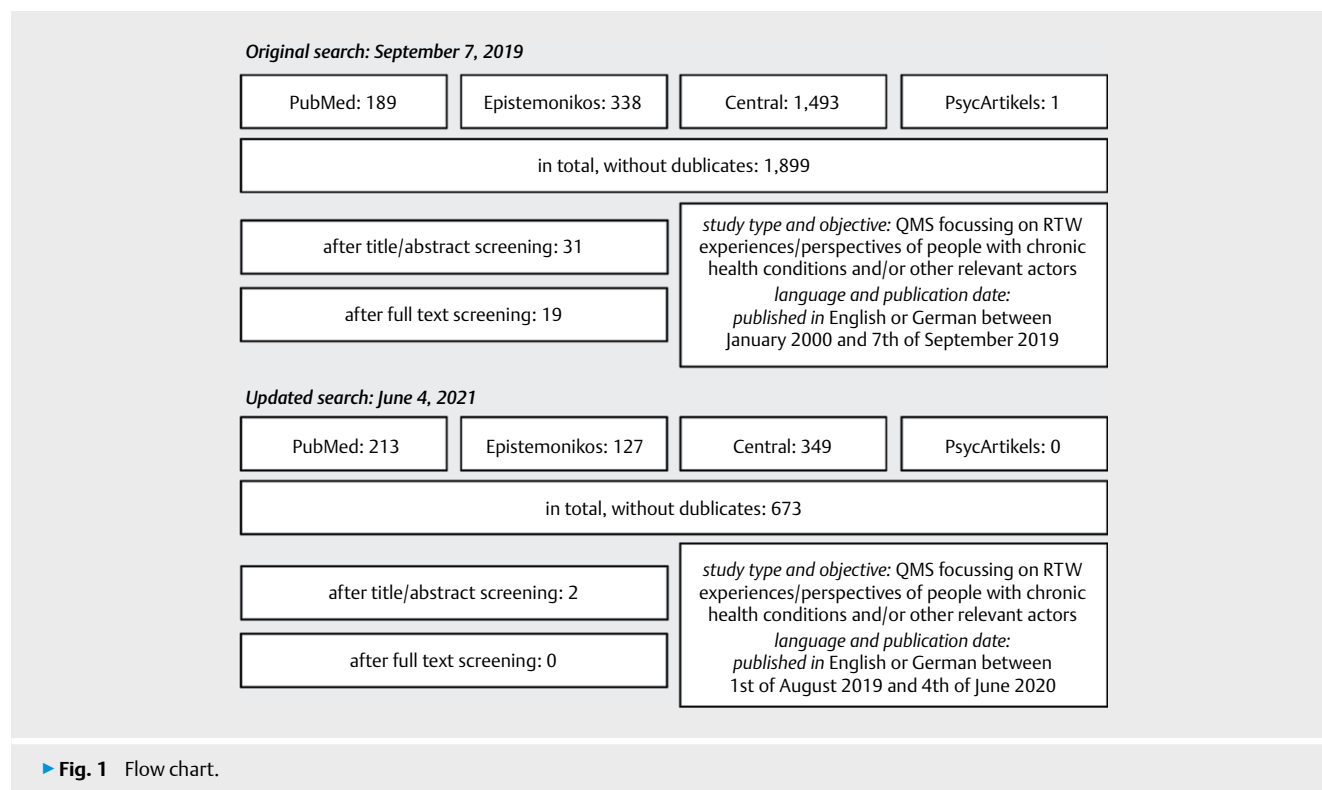
## Results

### Systematic literature search

As the flow chart shows (► **Fig. 1**), our systematic literature search on September 7, 2019, revealed 2,021 papers. After merging the

databases and removing duplicates, 1,899 papers remained. After screening titles and abstracts, 31 papers seemed to be eligible and thus were selected for full text-screening. Finally, 19 QMS met all inclusion criteria and were selected for our mega-synthesis. Our update on June 4, 2021, revealed 673 papers (without duplicates). The two papers selected during title/abstract screening did not pass the full text screening. Among the 19 selected QMS was a paper by two members of our team (BS and MS) published in 2018. Two other members of our team (EvK and RH) performed data extraction, quality assessment, and the first synthesizing step for this QMS.

► **Table 2** (available as supplemental material under: <http://dx.doi.org/10.1055/a-2129-2731>) contains the extracted key data as well as our quality ratings of the 19 selected QMS. They were published between 2006 and 2019, mainly by European authors. Five QMS examined RTW in people with musculoskeletal disorders or chronic pain, four in people with acquired or traumatic brain injuries, four in people with cancer, two in people with mental disorders, one in people with spinal cord injury, and three in mixed samples. The majority of the QMS (11 of 19) focused solely on the perspective of the affected individuals; seven QMS addressed the affected individuals and/or other actors relevant to RTW process, and the remaining QMS focused solely on the perspective of health care professionals. All included QMS conducted a systematic literature search; the most frequently used method to synthesize the selected primary studies was the meta-ethnographic approach (12 of 19 QMS), followed by thematic analysis/synthesis (4 of 19 QMS). Thirteen QMS scored 14–16 (out of 16 possible) points in our quality assessment, five scored 11–13 points, and one scored 9 points. Most methodological limitations were related to an inappropriate



► **Fig. 1** Flow chart.

search strategy and an increased risk of bias due to the selection and quality assessment of the studies (only one person selected and assessed the studies).

## Mega-ethnographic synthesis

During the *first step* of our mega-ethnography, we extracted the core cross-cutting themes and categories, conceptual models, and other synthesizing results/products of the included QMS (see ► **Table 2**, column 5) and summarized the information that was given by the authors to describe, explain, and discuss their findings.

Through systematic comparison and reciprocal translation [26] – *step two* of our mega-ethnography – we could identify and describe a set of key cross-cutting themes/concepts (► **Table 3**), which...

*characterize RTW in people with chronic health conditions as*

- a process rather than an outcome,
- multifactorial and interactive, as well as
- embedded in an individual biography and a certain social and societal context;

*represent key RTW barriers and facilitators like*

- symptoms and consequences of the disease,
- RTW motivation,
- social support, and
- adaptability of the working environment;

*outline RTW effects on the person's identity and the further handling of the illness; and last but not least*

*recommend how RTW strategies should be designed, i. e.*

- holistic,
- person-centered,
- systemic, and
- coordinated.

Besides the symptoms and direct consequences of the disease that vary from disorder to disorder, the identified cross-cutting themes/concepts seem to be generic and are therefore highly relevant for the RTW process in general.

In *step three* of our mega-ethnography, we rearranged and integrated these cross-cutting themes into the following principals of RTW in people with chronic health conditions (third-order synthesis):

1. *RTW is a multifactorial and highly interactive multistakeholder process, embedded in the individual's life and working history, as well as in a determined social and societal context.*
2. *The RTW process affects the person's identity and the further coping with the illness.*
3. *The RTW process is not only shaped by the direct consequences of the disease, the RTW motivation, and individual coping strategies; it is also particularly shaped by the adaptability of the person's working environment and the social support in private and working life.*
4. *Therefore, RTW is not only a problem of the individual, but also a matter of the social environment and system, requiring a holistic, person-centered, and systemic approach as well as a designated coordinator.*

Based on these RTW principles, we developed a generic RTW model (► **Fig. 2**).

It displays RTW as a process, which runs parallel and interdependently to the process of coping with the disease and reforming one's own identity, and thus emphasizes how significant RTW is for the affected person. People with a chronic disease have to cope with the condition and its impact on abilities and different areas of life (including paid work). They have to incorporate these consequences into their pre-illness identity, and thus, have to realign former (i.a. work-related) self-images. The course and success of RTW is influenced by these challenging tasks, which themselves are strongly affected by the experiences made through the RTW process (e. g., good or negative experiences with altered abilities at work).

Around these interdependent processes of RTW, coping with the disease and reforming identity, we arranged the four factors, that according to our analyses are central to each RTW process. Returning people can be confronted with more or less severe symptoms and functional restrictions, apply adaptive or maladaptive strategies to cope with these limitations and with RTW challenges, can pose different meanings to work and be more or less motivated to get back to it, have a varying amount of social support in private and working life, and are faced with different possibilities of accommodations at work.

The last two components of the model illustrate the embeddedness of the RTW process in a biographical and social context, and thus refer to the impact of the individual life and working history (e. g., former illness experiences, job qualifications, and experiences), the actual private and occupational situation (e. g., family obligations, relation to supervisor and colleagues), previous ideas and plans about the own future (e. g., pursuing a career or dedicating oneself more to family or retiring as soon as possible), and the political, legal, economic, cultural, and normative conditions in which RTW takes place (e. g., quality of health care provision, disability rights, social insurance regulations, labor laws and labor market situation, illness representations, and stigmas).

Overall, the model mirrors the complexity of RTW, its multifactorial and interactive character, and thus the need for holistic RTW approaches and a coordinating body.

## Discussion

The central aim of our mega-ethnography was to identify key concepts, mechanisms, barriers, and facilitators of RTW in people with chronic health conditions that have been found by former qualitative syntheses, and – if possible – to develop a generic RTW model, from which recommendations for RTW strategies in general can be derived. There are a number of QMS on RTW in people with different chronic conditions, based on an even larger number of primary qualitative studies that have identified a wide range of different factors that can hinder or foster successful RTW. Besides some factors that vary from disorder to disorder – for example, disease-specific restrictions of work ability – there are a myriad of factors and mechanisms that are essential to RTW processes independent of the underlying disorder. These factors and mechanisms, located on the micro-, meso-, and macro-levels, are related to the person, to the individual's immediate private and work-related social envi-

► **Table 3** Cross-cutting themes/concepts, their descriptions, and the relevant references.

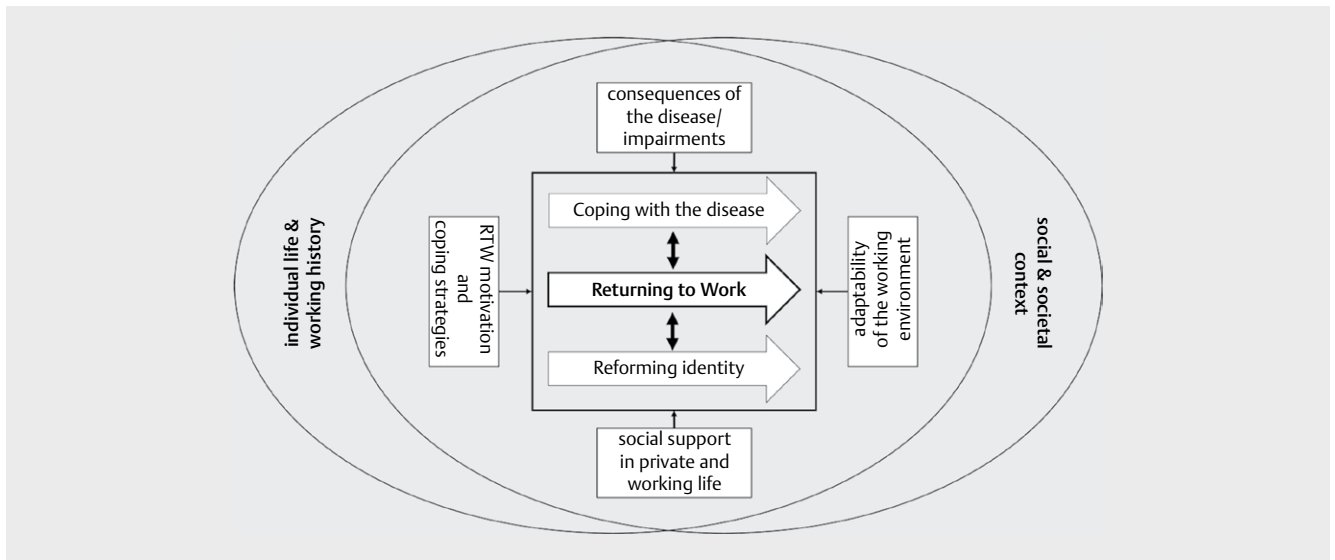
Cross-cutting theme/ concept	Description	QMS that contribute to the theme/concept
RTW is multifactorial	<p>RTW depends on various interdependent and intersectional factors that can be grouped into:</p> <ul style="list-style-type: none"> <li>▪ health-related/medical/biological factors (impairments and functional aspects);</li> <li>▪ personal/psychological factors (perceptions, attitudes, behaviors); and</li> <li>▪ environmental/social factors (work and family, social/societal context, health/rehabilitation system, regulations, and laws).</li> </ul> <p>Beside the term multifactorial, QMS also used the terms multidimensional and bio-psycho-social to describe the complexity of factors, that have an impact on RTW in people with chronic health conditions.</p>	[20–22, 38, 39, 41, 43, 44, 46–48, 51]
RTW is highly interactive and has multiple stakeholder	<p>RTW is highly interactive because it takes place in an arena of different actors and stakeholders (who are located in/represent different systems):</p> <ul style="list-style-type: none"> <li>▪ the person with the chronic health condition;</li> <li>▪ significant others, like spouses, relatives, friends, primary caregivers, etc. (direct social environment);</li> <li>▪ health care professionals, like general practitioners, therapists, etc. (acute and rehabilitative health care system);</li> <li>▪ employers, line managers, supervisors, human resources managers, colleagues, etc., and occupational health care providers (working sphere); and</li> <li>▪ actors from insurance agencies, who bear the financial risk of non-RTW (social security system).</li> </ul> <p>These actors and stakeholders shape the RTW process (purposely or unwittingly) through their attitudes, behaviors and (inter-)actions, which are guided by own (sometimes conflicting) interests, aims and logics (with respect to the interests, aims, and logics of the underlying systems).</p>	[20–23, 38, 39, 41, 42, 44–49, 51]
RTW is a process	<p>RTW is an evolving process rather than an outcome. This process can be of shorter or longer duration, with ups and downs as well as drawbacks, and – taking sustainability into account – does not end with the point of reentry into work (which has to be well chosen). Instead, the RTW process ends gradually by developing stable work participation, and it can have different outcomes/goals (continue to work in the old job, taking up an adapted or new job in the old company, taking up a new job in a new company, working full or part time etc.), which must be defined (and sometimes adapted) during the process.</p>	[20, 22, 38–40, 47, 48, 50, 51]
RTW is embedded in an individual's life and working history	<p>RTW is embedded in the biography of the individual and thus is influenced (positively or negatively) by the individual life and working history (e.g., former illness experiences, job qualifications, and experiences), the actual private and occupational situation (e.g., family obligations, relation to supervisor and colleagues), and previous ideas and plans about the own future (e.g., pursuing a career or dedicating oneself more to family or retiring as soon as possible).</p>	[20, 38, 40, 43]
RTW is embedded in a certain social and societal context	<p>RTW is embedded in a certain social and societal context/framework and thus is influenced (positively or negatively) by political, legal, economic, cultural, and normative conditions (e.g., quality of health care provision, disability rights, social insurance regulations, labor laws and labor market situation, illness representations, and stigmas).</p>	[20–23, 38–43, 45–49, 51, 52]
RTW affects a person's identity and the further coping with the illness	<p>RTW runs parallel and interdependently to the processes of coping with the disease and reforming one's own identity. RTW is influenced by coping with the illness (because unsuccessful or maladaptive coping for example can hamper a successful and sustainable RTW) and, vice versa, it influences further coping (e.g., by making good or negative experiences with altered abilities at work). It is also affected by the pre-illness identity and self-image of the person (e.g., as a valuable worker), which can be threatened by the disease and its consequences on abilities. Experiences during the RTW process have a significant impact on (an often declined) self-confidence, self-esteem, and self-efficacy, and thus on the process of building up a new coherent and stable self-image.</p>	[20–23, 40, 43, 44, 46, 47, 50–52]



▶ <b>Table 3</b> Continued.	<b>Cross-cutting theme/ concept</b>	<b>Description</b>	<b>QMS that contribute to the theme/concept</b>
RTW factors are consequences of the disease	<p>The consequences of the disease include functional limitations and a reduced or altered work ability/capability/performance/capacity due to physical and mental symptoms of the disease (and sometimes also due to therapy side-effects).</p> <p>(Long-term) symptoms that fluctuate, flare up, and are invisible or unpredictable in terms of frequency and intensity are described as the most challenging, often evoking feelings of uncertainty, leading to a lack of understanding/mistrust and making it hard to set up a RTW plan.</p> <p>A clear diagnosis and assessment of altered work ability/capability/performance/capacity and knowledge about the diseases and its symptoms can help to gain certainty and understanding and to form a legitimate and solid basis for RTW strategies/measurements.</p> <p>Most of the included QMS do not explicitly describe the consequences of the diseases, considering it as a given and focusing on other factors of RTW. Nearly no QMS distinguishes verbally/theoretically/conceptually between the terms work ability/capability/performance/capacity. Such a distinction could express more precisely the relatedness of abilities to demands and help to improve assessments and RTW measurements – which has to consider both sides: abilities and demands.</p>	[20–23, 39–42, 44, 48, 49, 51, 52]	
RTW factors include RTW motivation & coping strategies	<p>A high RTW motivation is an RTW facilitator, as the individual strives to get back to work. The underlying motives are manifold, comprising the different meanings and functions of paid work (income, structure, social belonging, distraction, feelings of competence, sense of purpose and contribution, etc.). Moreover, RTW is associated with recovery and getting back to normality.</p> <p>RTW motivation can be diminished by uncertainty about one's own abilities, by low self-esteem/confidence/efficacy (due to functional limitations and altered abilities), by demotivating attitudes and behaviors of significant others/relevant actors, and by unmet expectations and frustrating experiences at work (work failure).</p> <p>People with chronic diseases have to cope with symptoms, side effects of therapies, functional limitations, altered abilities, and the effects that these things (might) have on their identity/self-image and on their private and working life. They have to accept the disease and its consequences, adapt to their changed abilities, developing a new positive self-image and reorganize their private and working life. Some people with chronic diseases reevaluate their life priorities, reducing work aspirations to reach a better/new work-life-balance.</p> <p>Knowledge about the disease and its consequences, about therapy options, and active involvement in setting up treatment and RTW plans are crucial for an adaptive coping (help to feel competent, taking control).</p> <p>Health/illness representations have a strong impact on coping with the disease and on RTW. If work is associated with the disease as a cause or a risk of worsening, this might lead to late or non-RTW. A (too-)high RTW motivation otherwise can result into getting back to early.</p>	[20–23, 39, 40, 41, 43, 44, 47, 49–52]	
RTW factors include social support in private and working live	<p>Attitudes, expectations, and behaviors of significant others in private (family members and friends) and in working life (supervisor and colleagues) and the amount of social – practical and emotional – support they give to the person concerned can facilitate or inhibit the RTW process.</p> <p>People with chronic diseases emphasize the importance of perceiving genuine interest and empathy, understanding and trust (being believed), good will, and respectful treatment. Social support is crucial for them. It helps them to cope with the disease and its consequences.</p> <p>Reactions and social support at the workplace highly depend on the (perceived) causes of the disease and sick leave as well as on the relationships before the disease and the “workers value” to the team/company. It also depends on how the disease/sick leave, the RTW process, and possible work adaptations are communicated and implemented in the working unit.</p> <p>Here, the supervisor plays a decisive role, as he/she can act as an advocate of the disabled worker, seeking understanding on the side of the colleagues while making sure that they are not adversely affected by adaptations. Conflicts can arise when there is expectation mismatch; when altered abilities and/or work adaptations cause unequal workloads/inequalities between team members; and when the disease, sick leave, and limitations are questioned by the supervisor and/or colleagues. This mistrust causes labeling, stigmatization, and discrimination.</p>	[20–23, 38–52]	

Cross-cutting theme/ concept	Description	QMS that contribute to the theme/concept
RTW factors include adaptability of the working environment	<p>Work(place) adaptations (e. g., changes in work schedules/working hours and days, changes in tasks and job content, changes in workload, physical adaptations, offering assistive technologies and job coaching, etc.) and gradual RTW are seen as helpful/essential for a successful RTW. Work(place) adaptations require knowledge about the disease and its consequences and are ideally based on a professional assessment of work capacity, capability, and performance. They have to be tailored to the individual needs, considering the wishes of the person (active involvement), be regularly tracked and flexible to altered needs, and have to be well communicated in the team/working unit.</p> <p>The implementation of work(place) adaptations greatly depends on the possibilities and resources given in a certain company, its general health policy and already established occupation health strategies, the size of the company, the type of the job, as well as on the willingness/goodwill/understanding of the employer/supervisor. The age (i. e., remaining working years) and status/position/value of the worker, the availability of other skilled employees on the labor market, the sympathy/relationship between supervisor, and the person concerned are further key factors. Work(place) adaptations are not only a question of technical matters; there is also a question of communication.</p>	[20–23, 38–44, 46, 48, 50, 51]
RTW requires a holistic, person-centered, and systemic approach, and a designated coordinator	<p>Because successful RTW depends on various bio-psycho-social factors, it needs a holistic (multimodal and multiprofessional) approach that addresses all these factors in assessment and evaluation as well as in therapy/treatment and support. A holistic assessment/evaluation has to involve (1) information on the disease and its consequences, (2) information about the person and his/her personal situation/needs/interests and the biographical background, and (3) information about the individual working place and the possibilities for adapting this working place or the working situation in the company. An intervention strategy has to be defined by a combination of medical and vocational aspects.</p> <p>The underlying approach has to be tailored more to the individual needs than to existing systematic borders and responsibilities, and thus requires flexibility. The person has to have an active role in managing the RTW process. This improves empowerment and autonomy. Furthermore, it is a core element for a successful RTW process because the individual is taking control regarding defined steps and taking decisions, which supports regaining normality and forming a new identity.</p> <p>Moreover, RTW is not an individual problem: It requires a systemic approach to ensure the described balancing act between conflicting interests on the one hand and sufficient participation of all actors on the other hand.</p> <p>Because RTW is a highly interactive process, taking place in an arena of different actors and stakeholders with different (sometimes conflicting) interests, there is a need for coordination.</p>	[20–23, 38–42, 44, 45, 47, 48, 52]
Abbreviations: QMS, quantitative meta-syntheses; RTW, return to work.		





► Fig. 2 RTW model.

ronment, to the company that employs the individual, to the health care and social welfare system and the legal and societal framework. Together, these factors represent the processual, interactive, and embedded character of RTW.

Because we wanted to develop a generic RTW model, we focused on key factors and mechanisms and clustered them at a very formal and highly abstract level. The theoretical benefit of this abstraction from a bunch of detailed and specific qualitative studies and their syntheses is that typical characteristics of and relevant factors in every RTW process can be integrated, grouped, and located in the network of interactive relations and connected to the central key points within the RTW process. Thus, the formal and abstract model can be used methodologically to account for the most common RTW processes and its intersections with barriers and facilitators. Furthermore, the model can easily be enlarged by adding specific components within the more general features of the boxes of the model (► Fig. 2). For practical purposes the model can help to identify the individual needs in considering the core aspects in the model.

Our model is neither the first nor the most comprehensive RTW model: Several models exist, all with different purposes and basic assumptions. In their overview on different models Knauf and Schultz [53] identified (a) biomedical, (b) psychosocial, (c) ecological/case management and economic, (d) ergonomic, and (e) biopsychosocial models. These models are characterized by the perspectives of certain disciplines and professions (a, b, and d), by a systemic approach (c) or based on overall multidisciplinary perspectives (e). Based on this overview, our model overlaps with models (b) and (e) and, in its systematic conception, it is close to model (c). Disregarding the epistemological status of these models – Loisel et al. [54] presented an early scheme of relevant factors playing a role in RTW – each model has implications for additional research, focusing on certain factors and features and for agenda setting for practical purposes in the field of supporting RTW.

## Implications

In our model, RTW is rarely seen as an end in itself but rather as a very complex process. It needs to be critically reexamined and redefined, and it needs to manage both individual and social processes (e. g., at work) simultaneously and in a holistic manner. Thus, the concept of RTW has to be moved in the direction of a more nuanced person-centered and systemic approach to ensure a holistic perspective regarding all factors and areas of life that are relevant for RTW.

The holistic perspective considers the interplay between the chronic health condition – seen from a biopsychosocial perspective – to be treated in multimodal ways by different professions, the actual limitations of the patient, the respective impact on the work-tasks, and other relevant dimensions [55, 56].

The person-centered approach acknowledges the individual's sense of identity as well as the embeddedness of those returning to work into an intertwined biography that is shaped by social support of family and friends as well as work-related contacts, and by the consequences of the chronic health condition and its subjective meanings.

The systemic approach reflects that RTW is a highly interactive process, taking place in an arena of different actors and stakeholders. These actors and stakeholders shape the RTW process (purposely or unwittingly) through their attitudes, behaviors and (inter-)actions, which are guided by own and sometimes conflicting interests, aims and logics. This can hamper successful RTW processes and therefore indicate the need for a coordinating body. This coordinating body has to be an impartial third or even non-party that acts as a RTW process manager, moderating and mediating between all involved stakeholders. Such process-oriented RTW coordination goes beyond a case management that focusses on the affected person, acting as a personal supporter, gate keeper, broker and advocate [57–59]. Future studies should analyze in more detail how a RTW coordination has to be designed and which functions and roles a RTW coordinator should have to improve RTW

processes effectively and efficiently [60]. This might also help to explain, why current evidence regarding case management and RTW is mixed at best [61, 62].

Last but not least, the findings of our synthesis lead to the implication that RTW strategies can be designed similar in core for different diseases.

## Strengths and limitations

By conducting a mega-ethnography, we offer a comprehensive overview of international qualitative RTW research and follow an innovative way to generalize conceptual work resulting from QMS. Besides providing an RTW model, we have enhanced the methodological discussion concerning the assessment of QMS by providing a quality appraisal tool. However, we did not use the results for the exclusion of studies or considered them systematically in our synthesis.

The innovation of our approach is the radical reduction in complexity. This has to be considered in light of high complexities due to, for example, different health provision systems and different labor markets in different countries. Related to that, it has to be considered that the majority of the included QMS, as well as the primary studies on which the QMS are based, were conducted in the Western world. Except for the QMS by Magalhães et al. [45] and Neves et al. [47], the first authors were all from Europe or North America.

Bibliometric analyses show that there is still a predominance of high-income countries in medical or health-related publications even though the origin of scientific articles in some leading medical journals has diversified slightly over the past decades [63]. The reasons for the underrepresentation of research findings from lower-income countries are the general scientific infrastructure as well as publication barriers, especially the costs associated with publishing articles open access and for translation and editing services [64]. In addition, the sociodemographic structure combined with the structure of the economic sectors could also contribute to a stronger focus on RTW processes in high-income countries.

Regarding the aim to develop a generic RTW model, we must remark that the included QMS focused mainly on physical conditions, with only two focusing solely and three focusing partly on mental disorders. Further selectivity can be seen in the fact that a majority of the included QMS only reflected the perspective of those returning to work and not explicitly on multiple perspectives. Last but not least, we did not include the term 'qualitative evidence synthesis' in our literature search strategy.

## Conclusion

Despite the above-mentioned limitations, our mega-ethnography provides important knowledge about generic factors of successful RTW processes. RTW is embedded in the social and societal context and is part of an individual's life path and working history. Considering the individual's perception regarding their own limitations due to the chronic health condition, the individual's coping strategies and motivational structures, the perceived social support, and the working environment's willingness and potential to adapt work demands, RTW has to be understood as a process with multiple actors and interests. A person-centered, coordinated, systemic, and

holistic approach seems to support such an RTW process. This means that the precise activities in the rehabilitation process should be orientated toward the individual needs of the person with a chronic illness with regard to the specific life situation, motivations, and needs. However, our analysis also shows that in the future, it would be worthwhile to emphasize at least as strongly the role of the RTW coordinator, characterized as a mediator or broker of different interests.

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## Conflict of Interest

The authors declare that they have no conflict of interest.

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