

## ARTICLE

# Helping patients mobilize their personal strengths within a rheumatology setting: A qualitative study with healthcare providers

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## Abstract

**Introduction:** Healthcare providers play an essential but under-realized role in helping people with chronic illness become aware of and use their own personal strengths for self-management support. A digital application that encourages a focus on patients' strengths could have a positive effect.

**Objective:** To explore how rheumatology healthcare providers report: (1) helping patients mobilize their strengths and (2) the potential of a digital application to support this process.

**Methods:** Focus groups and individual interviews were conducted with healthcare providers (n=16) with different professional backgrounds, recruited from a rheumatology specialist department providing in- and outpatient service. They were asked about their experience with helping patients use their strengths and for their feedback on an initial paper prototype of a digital application to encourage reflection and dialog on strengths. Thematic analysis was conducted.

**Results:** Healthcare providers generally perceive helping patients to acknowledge and use their strengths as important and embedded in their work. Analyses identified 4 categories describing the subtle work of helping patients engage their strengths: Active Listening, The Importance of Contextualization, Promoting Learning and Not Without Challenges. Feedback on a potential digital application was summarized.

**Conclusion:** The task of mobilizing strengths is seen by healthcare providers as part of their self-management support for patients with chronic illness. Based on their feedback on an initial prototype, a digital pre-consultation application might have the potential to support the process of helping patients build on their personal strengths.

## Keywords

Behaviour change, chronic illness, communication skills, digital applications, E-health development, experiences, goal setting, health personnel, healthcare providers, patient activation, person-centered healthcare, positive psychology, qualitative study, rheumatology, self-efficacy, self-management, strengths, therapeutic relationship, wellbeing

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## Introduction

Personal strengths, or health assets, have been described as the repertoire of potentials - internal and external - that mobilize positive health behavior and promote health and wellbeing [1]. Examples of such strengths are courage,

persistence, kindness, gratitude, knowledge, hope and positive relationships [2,3]. Personal strengths are prominent in positive psychology and other strengths-based approaches that focus on enhancing wellbeing and optimal functioning, complementing traditional approaches that focus more on deficits and symptoms [4,5]. A prominent theory in positive psychology is the broaden-

and-build theory of positive emotion [6]. It proposes that positive emotions have various beneficial biological and psychological effects, ranging from calming cardiac activity to broadening visual attention and action urges. The impact of positive emotions can add up over time, contributing to an upward spiral toward positive health behavior change and wellbeing [7,8].

Although most care for people with chronic illness focuses on symptoms, risk factors and disease markers [9], people living with chronic conditions can also benefit from a more salutogenic approach, capitalizing on their personal strengths [10-14]. Healthcare providers could play an essential role in helping their patients become aware of, use and expand on their own strengths. Strengths-based approaches overlap with person-centered care, with a focus on empowerment and a collaborative partnership between patient and healthcare providers, in addition to a holistic approach including strengths (common synonyms are assets and resources) [5,15,16]. However, few studies explore how healthcare providers experience helping patients with somatic disorders to identify and use their personal strengths. A qualitative study including general practitioners found that they considered including patients' individual resources a core competence, but also reported a heterogeneous understanding of the term "resource orientation" and a need for improvement of communication skills [17]. Nurses in oncology care have reported that patients' strengths do not receive optimal attention and have voiced a need for interventions to support them in helping patients to become aware of and use their strengths [18]. Studies indicate that a better understanding of how healthcare providers in different contexts experience helping patients to capitalize on their strengths is needed [17-21].

Interventions that prepare patients for consultations can lead to more active engagement during clinical encounters [22]. Digital pre-encounter interventions that help patients prepare for discussing their symptoms and problems with healthcare providers have shown positive effects on communication and consultation quality [23,24]. Less is known about using digital applications to support patients in exploring and reporting their strengths in a clinical setting [25]. Such interventions can potentially help people reflect on their strengths, in preparation for a consultation [25,26].

The present study is part of a larger research project aimed at developing a digital application to help patients become aware of their strengths and to assist patients and their healthcare providers to build on the patients' strengths. Understanding and accommodating the perspectives of the people who will use an intervention is essential in a person-centered approach to developing digital applications [27]. The present study had the following objectives: (1) to explore how healthcare providers in a rheumatology care setting report helping patients mobilize their strengths and (2) to understand the potential identified by these healthcare providers for using a digital application to promote a patient-provider dialog on patients' personal strengths.

## Methods

### Sampling, recruitment and consent

The ethics committee at Oslo University Hospital approved the study. Healthcare providers were recruited from 2 different units at a rheumatology specialist department in Oslo, Norway. One unit provided specialized inpatient rehabilitation for patients with complex needs and one unit provided multidisciplinary group self-management courses and individual outpatient consultations. Both units explicitly focused on empowering patients to optimize their functioning and enhance wellbeing.

The study was presented to the unit leaders, who allowed us to contact their employees. Healthcare providers received an e-mail with information about the study and invitation to participate in focus group interviews. If they were not able to attend a focus group, they were invited to pair-wise or individual interviews. Non-participation or reasons for not participating were not documented. All interviews took place at the hospital.

### Data generation

In preparation, an interview guide was developed and refined by the research group and reviewed by two patient representatives engaged in the project. At the start of the interviews, the participants were informed about the project and its goal, the interviewers' role in the project and gave their written consent. Afterwards, participants were presented with a definition of strengths, together with a few examples of strengths from patients from our earlier study [3]. The interviews included questions on participants' experience with helping their patients explore, become more aware of and use their strengths.

During the last part of the interviews, a paper prototype of a digital intervention developed earlier in the project was presented to the participants. The prototype was based on requirements from patients [26]; see description of features in Table 1 (pictures of the paper prototype are provided in Appendix 1).

The participants were asked for their feedback on a potential digital intervention aiming to support dialog on patients' strengths and for their feedback on this specific prototype.

Two focus groups (n=5, n=6), one pair-wise interview and 3 individual interviews were conducted in 2016. The focus groups lasted 65 and 79 minutes and the pair-wise and individual interviews lasted about 50 minutes. The interviews were audiotaped and transcribed. The focus groups were moderated by 2 of the authors (OBK, US). In one of the focus groups a patient representative participated by observing and summarizing her main impression from the discussion at the end and a third researcher (JM) participated as an observer. The individual and pair-wise interviews were conducted by the first author. In the pair-wise interview a PhD student, not involved in the project, observed and provided a summary of her impression at the end.

Table 1 Features of a paper prototype shown to participants

Video symbol, indicating a rationale for the application presented in a short video
Text box for the patient to describe the goal of the consultation
Text box for the patient to describe his or her current situation or concerns
Categories of strengths (e.g., knowledge, activity and rest, my network)
A list of strengths where the patient can mark those items that describe him/herself
A text box for own formulations of strengths
A text box for the patient to write a health-related goal
Selection of 3-5 strengths relevant in current situation
A text box for reflecting how the selected strengths might contribute to progress toward the goal
Summary of registered information (text box information and 3-5 selected strengths)
Submit symbol, indicating option for digital sharing of the information with a healthcare provider

## Analysis

For the first objective, thematic analysis was carried out guided by the principles of systematic text condensation [28], using the software NVivo. Three of the authors (OBK, US, HAZ) read the transcribed material to get an overview and independently identified preliminary themes. The themes were discussed by the 3 authors and a consensus on preliminary themes agreed upon. The first author then conducted the primary coding into the preliminary themes. The coding and relevance of the preliminary themes was discussed in an iterative process among the 3 authors before they concluded on representative categories. For the second objective, a content analysis was used to summarize the healthcare providers' feedback on the potentials of a digital application. Quotes from participants are included to illustrate findings. To ensure participants' anonymity, quotations presented here are not linked with interview type or profession.

## Results

### Sample characteristics

In total, 16 healthcare providers participated; 9 from the inpatient unit and 7 from the outpatient unit. They comprised the following professions: nurse (n=5), social worker (n=2), pharmacist (n=2), hospital priest (theolog) (n=1), rheumatologist (n=1), psychologist (n=1), physiotherapist (n=2) and occupational therapist (n=2). All were female except one. The median age was 53 years (range 34-62). Twelve reported a relevant postgraduate education, including 3 with a doctoral degree.

### Main findings

Participants generally perceived helping patients to acknowledge and use their strengths as important and embedded in their work. The analysis revealed 4 categories that describe providers' work related to patients' strengths: Active Listening, The importance of contextualization, Promoting Learning, and Not Without Challenges. Feedback on the prototype is summarized in the category Potentials of a Digital Application.

### Active listening

Healthcare providers described how skilled communication and being open for talking about more than the illness was essential to support patients in the process of becoming more aware of their strengths. Communication strategies were described as "kind-hearted" curiosity, detective work and active listening. Establishing a trustful relationship was considered a key to addressing patients' strengths:

"... about being open and curious when you meet the patient and at least creating a basis for developing a kind of relationship then, because it is a question of trust after all, about being allowed to say something about oneself apart from being ill, also a bit about who I am as a person." (Participant 3, Focus Group 1)

Several healthcare providers talked about the importance of using the patient's own language, to pick up on words and descriptions used by the patient and to check for shared understanding of the strengths:

"So I can make suggestions, right. But they need to feel some ownership of that description of themselves. If it's going to have any effect. The words need to be their own. And many patients are often very concerned about the nuances too. That the words should be right, in a way. Fit the way they see themselves." (Participant 16)

A shared understanding was described as a premise for documenting patients' strengths. A few mentioned that lack of a shared understanding was one reason for not documenting information about strengths. Some healthcare providers described a more direct approach than active listening to help create an opportunity for patients to describe their strengths - for example, by asking direct questions about interests, passions, enjoyable activities and what patients found important. Direct questions about strengths as positive personal characteristics or character strengths were more rarely described. A few mentioned it might be more fruitful to ask patients to reflect on what others might report as their strengths. A few participants talked about identifying strengths as something that could happen somewhat automatically. For example, assessing challenges could suggest what was working well too.

A few participants described how, when leading self-management groups, they needed to lead the discussion firmly to avoid falling back into illness-related discussions. To keep the focus on strengths, the group leader needed to pay active attention to the positive in the histories being told and build on that:

“It really demands something from you, when you do it when you are listening so closely, when you hear it and think, wow, here it is, I must cheer that on, I want to highlight that, I want to draw that story out.” (Participant 1, Focus Group 1)

Several participants described the positive effects of paying attention to patients’ strengths - for example, leading to the patient feeling seen and heard, met as a person and as an expression of positive emotions.

### The importance of contextualization

To help patients use their strengths, participants talked about the need to contextualize strengths and focus on what the use of strengths should lead to. Participants described the importance of helping patients to find their motivation, to explore values and to identify goals. Goals were seen as a way to mobilize strengths:

“Actually, I think that setting goals in itself, as a technique, often activates a resource mindset. Because when you have defined something ... I want to take part in family activities more. So that becomes a shared topic for working on together. And then ... what can we contribute ... what can they ...” (Participant 8, Focus Group 2)

In addition to contextualizing strengths in relation to specific goals, it was considered important to view strengths in relation to different areas of life (e.g., home or work life), as well as stages of readiness to change. Participants said that after identifying goals together with the patients, they collaborated in finding goal-related behaviors based on strengths. They described how they mutually explored strengths that could help patients achieve the goal. Several mentioned that it was important to view strengths on a continuum, not inherently positive or negative but as attributes that could have adverse or beneficial consequences depending on context and degree of use:

“Because what counts as a resource in one aspect of everyday life is not necessarily a resource in another aspect. An example is that I look after other people, and that ... yes, that may be a resource. But that might also be something that drains your energy far too much.” (Participant 7, Focus Group 2)

### Promoting learning

Knowledge about the disease, treatment and constructive self-management strategies were considered strengths. Participants emphasized that promoting learning was essential to mobilize strengths, for example, by providing education about the disease and treatment:

“He was not interested in knowing a lot about his illness, because he thought that was maybe a little scary [...] So that is a point, trying to get them to see the need for it. And the biopsychosocial model comes in there too. To know a little about their illness. That can help with pain, it can help with fatigue, it can help with ... that you use

the different factors that can contribute to fatigue, to pain and so on. That they realize that yes, maybe it wouldn’t be such a bad idea to work on this or on that.” (Participant 15)

They talked about how they promoted patients’ insight into what they previously had been able to do and which challenges they could anticipate while working toward a goal. Some described exploring patients’ self-efficacy regarding a specific activity as a way to mobilize strengths. Further, some described the value of giving patients the experience of being able to do more than they first anticipated. This was described as mobilizing strengths by increasing self-efficacy.

Several participants talked about providing education about the disease and treatment to the patients’ family and other healthcare providers to ensure a common understanding of recommended treatment. Some participants described how they dedicated time in patient self-management groups for patients to share their strengths and positive coping experiences and to learn from each other’s experiences. Putting the patient in touch with people from a patient organization was also mentioned as way of increasing the patients’ resources:

“Because she was very scared of moving. Of everything, actually. Of living. Of the future, and the ... and had become very inactive, very ill. And so she had actually become ... had the potential to get a lot better. We saw that. And then knowledge was what we needed to work on together with her. From all angles. And then we had to work together with the family. Because that was her most important support, resource, or maybe it had in fact been the opposite for a while. The next thing was to work toward that. To adjust the resources that she had built up over time. All the way. Very good example. Because she started out by being terrified and completely without hope. And ended on a completely different level, with ordinary desires and resources, and with a family that had a completely different understanding of her illness.” (Participant 8, Focus Group 2)

### Not without challenges

Several challenges to mobilizing patients’ strengths were described. Several talked about challenges in finding the appropriate timing to bring attention to strengths. Some talked about awareness and mobilization of strengths as a process that needed to consider the patient’s stage of readiness for change, grief and acceptance processes. A few described how asking too early about strengths could reduce the patient’s trust. Several described the need to address patients’ most urgent concerns and difficulties needed before explicitly exploring their strengths. Some patients would need time before they could acknowledge their strengths. Some healthcare providers expressed how the topic of strengths, including interests and passions, could evoke sorrow due to disease-related limitations, indicating a need for more time, not only for the discussion, but for the patient’s process of acceptance and change:

“At least in my experience there should be a balance. Because if you ask too early about what is working well, while their experience is that no one has fully heard what the burden in this is like. Then we have a very bad start.” (Participant 7, Focus Group 2)

Some healthcare providers found that time constraints limited opportunities for shifting the focus to strengths. Several mentioned that since addressing symptoms and concerns was the prioritized task, they did not always have time available for exploring strengths to the degree they would prefer:

“... there is so much we know we can inform them about, but what is the patient ready to absorb at that precise moment? Because the fact that I think along those lines, that through my training as an [profession], but that applies to all health professions, you get it drummed into you that you must look for resources. What is needed to enable one to do what is meaningful in the individual’s life. In any case this is after all ... yes ... Whether it’s physical activity, or we think of activity as such, but it’s very dangerous to think that one does it automatically.” (Participant 13)

However, a few commented that the healthcare providers’ attitude and what they themselves drew into the conversation was more important for inclusion of strengths than availability of time. Some had experienced that patients did not expect attention to be given to their strengths and a few described how this made them hesitant to discuss them. Moreover, some reported that patients had not reflected much on their strengths or what they were good at and that patients might find it challenging to identify their strengths. A few expressed having the impression that some patients felt they should or needed to show that they were “sick enough” to receive healthcare and thus had to describe their symptoms and problems rather than strengths:

“... for some people, I believe there is almost an expectation that one must emphasize a narrative of misery, that patients expect this, even if it is maybe good to talk about what you can cope with, but you are sitting in a room with health staff, that then it’s the sad things, the illness, the pain that should be in focus ...” (Participant 14)

Trying to help patients to explore their strengths when they seemed more oriented toward their symptoms and difficulties and were unmotivated for behavior change, was experienced as challenging and requiring skilled communication techniques:

“I feel that maybe one of the greatest challenges is to have good communication skills yourself. If there are patients with strong resistance to change, how are you going to help them in a good way? It’s demanding to manage to turn that around and focus on the positive and build on that.” (Participant 12)

## Potentials of a digital application focusing on strengths

In general, many of the healthcare providers saw potential for a digital application supporting patients’ awareness of strengths. It was suggested that the application might help in initiating a reflection process that could continue until and during the consultation or in a group self-management program:

“Because sometimes they may not have words for these things themselves. Because it’s not at all certain that ... or they don’t usually go around thinking that these are my resources, or I’m good at this ... or ... Yes, so I do think that could have raised their awareness.” (Participant 16)

Establishing a trustful patient-healthcare provider relationship before introducing the application was an essential requirement from the providers, as was identifying the appropriate timing. Providing a clear rationale for the purpose of the application was also stated as necessary. Provision of instruction or advice on how to use the strengths overview was reported important. A few healthcare providers imagined that the application might also help patients to expect strengths being included in the consultation. A few also talked about seeing the potential usefulness for themselves to remind them to include and keep focus on strengths:

“And then the patient, or the users, become more aware that they should focus. And in a way they should insist that this is taken up in the consultation, or while they are in hospital. Because now they may not even think about it. They only expect to get treatment and diagnosis.” (Participant 5, Focus Group 1)

The inpatient unit used a rehabilitation plan that includes an entry field for the topic of strengths and resources linked with goals. This reminded the healthcare providers to identify strengths, together with their patients, when working on and documenting goals and action plans. Nevertheless, some said that they found it challenging to document strengths in patient records or rehabilitation plans and that they saw potential for improving their documentation. Several reasons were provided and included not having discussed strengths explicitly with patients to ensure a shared understanding, the need to prioritize required documentation on symptoms and treatment and lack of a systematic assessment of strengths. None reported using an assessment instrument or a digital application aimed specifically at personal strengths and a few reported wanting a more systematic assessment approach to strengths:

“Don’t think I map it in a very structured way. Sometimes, maybe I do that. But mostly through the conversation. Pick out words, so that I can note a few keywords, which I can take with me further. Sort of to take care of the exact choice of words. But otherwise I am much better at structured mapping of problems than resources.” (Participant 16)

Some talked about the importance of following up what the patient had reported in the application. Many, but not all, described how viewing the registered strengths in the context of recommended treatment or a goal was essential. Others, however, wondered if sharing the registered strengths and goals should be optional. It was suggested that for some patients reflection on their own could be a sufficient first step and with an option to discuss it with healthcare providers, fellow patients or self-management group members:

“But the thing is, they wait for a while before they get to see a specialist. And then they must at least be ill enough to qualify for an appointment. I think there may be some of that in the picture as well. So that’s why we maybe lose some of that positive focus on resources. So it might anyway be good to ... in the first stage, to become aware yourself. And then you could perhaps be invited to share.” (Participant 5, Focus Group 1)

A few potential challenges were mentioned. For example, one participant wondered if the patient might feel as if someone was labeling them by asking them to list strengths. Since strengths were specific to the context such as life situation and phase of illness, the usefulness of referring to strengths not recently registered was questioned by a few. Lastly, one participant expressed concern for how the application might be experienced by patients not able to identify themselves with any or only a few of the strength items in the application. To address this some believed that the patients would appreciate the option of adding descriptions of strengths in own words and listing strengths you had to a certain degree or in some periods.

## Discussion

### Main findings

The healthcare providers in this study generally perceived helping patients to acknowledge and use their strengths as important and embedded in their care for people with a rheumatic disease. They described the communication skills needed to bring up strengths in the conversation, the importance of contextualization of strengths to, for example, goals and how they promoted learning. Challenges to addressing strengths in the conversations included patients’ readiness for change, time limitations and the expectations of a focus on concerns rather than strengths. Healthcare providers were generally positive toward the potential usefulness of a digital application to help prepare patients for a conversation including strengths. They recommended introducing the application within an established trustful patient-provider relationship, including an option to link personal strengths with goals and confirmed the importance of the option of a follow-up conversation.

### Comparison with previous research

Our results indicate that the healthcare providers viewed mobilizing strengths as part of self-management support, reflected in active listening, patient education and goal setting. Their descriptions amplify previous descriptions of strengths-based approaches, including the concepts of empowerment and collaboration [5,15]. At the time of writing, there is general agreement on the value of empowerment and person-centered care, but the traditional biomedical approach remains dominant in practice [21,29,30]. This is reflected in our results to some degree, where some healthcare providers describe struggles with balancing attention to strengths with a more problem-based approach. This balancing is important in strengths-based approaches [20]. Lack of time with the patient was described by some as an obstacle to addressing strengths. This is consistent with literature on the importance of sufficient time to establish therapeutic relationships as a prerequisite for patient empowerment [21].

Our results provide examples of important elements of clinical communication, for example, active listening and motivational interviewing [31] and confirm the necessity of a collaborative patient-healthcare provider relationship for self-management support [32]. Our participants describe the importance of communication skills, in line with studies including general practitioners and nurses in an oncology setting describing a need for improved communication skills in order to increase competencies in helping their patients mobilize their strengths [17,18]. The potential for improved documentation of patients’ strengths has been described [19,33]. This was also indicated by some of the healthcare providers in the present study. Several reasons for not documenting strengths were provided, including patients experienced as more prepared to describe their concerns rather than their strengths. A limited ability to identify strengths was a particular feature of related research in a sample of US general practice patients from disadvantaged backgrounds [25]. When documented, strengths were related to goals and use of formal assessment instruments to map or identify strengths was not described. Indeed, goal setting is an important part of rehabilitation programs, with goal topics of wide variation including topics related to strengths, for example, goals involving courage and contributing to others [34]. However, including assessment on personal strengths in initial assessment has been suggested as helpful to achieve a holistic view of the patient [35,36].

Core strength-oriented processes have been described as consisting of strengths identification, goal-setting, encouragement and generalization of strengths [20]. Our results did not indicate a stepwise process starting with identification of strengths, but rather an ongoing empowerment process where strengths are not necessarily confined to an initial conversation or assessment. Consistent with our results, therapists applying a strengths-based approach also described strengths identification as an ongoing process not confined to early stages of therapy [20]. Further, our results indicate that the healthcare providers view factors influencing self-management and wellbeing as context-bound as opposed to being

categorized clearly as strengths or weakness. Viewing attributes based on their context-bound positive or negative implications has been stated as important [37].

### Empowerment in positive psychology

Common terms from positive psychology such as gratitude, hope and self-compassion were seldom mentioned by the participants. However, their descriptions of skilled communication to promote a therapeutic relationship, actively looking for the positive while at the same time being sensitive to the patients' emotional state, supporting empowerment and providing knowledge, imply a process toward positive emotions, mastery and hope. Direct questions or descriptions of strengths as personal traits or character strengths were not prominent in the participants' descriptions. Rather, they described the process of exploring strengths in relations to goals, interest and what mattered to their patients, as well as supporting empowerment with increasing knowledge and self-efficacy. Our results are therefore in line with the prior literature on the importance of patient education to empower patients [3,32]. A recent review of positive psychology interventions for people with physical illness identified 14 studies. The interventions were categorized as aiming to promote one or more of the following: (1) Identification of strengths, (2) acknowledging the positives, (3) positive writing, (4) mindfulness and spiritual interventions, (5) acts of kindness and (6) forgiveness [38]. Some of the participants' descriptions can be categorized within the first two categories, the other four were not clearly present in our results but were not explicitly asked for either. There is emerging evidence that people with chronic illnesses find positive psychology interventions acceptable and feasible [38] and they have the potential to improve wellbeing [7,8,39].

### Potentials of digital interventions to promote strengths-based care

The healthcare providers were generally positive toward the idea of a digital pre-consultation application helping the patient to reflect on their strengths. They largely agreed on the functionality suggested by patients in an earlier study, that is, a list of examples of strengths to support reflection, possibility to add items in own wording and linking strengths to goals to provide context [26]. Our results provide insight for where and when use of such an application could be considered according to healthcare providers. Our results indicate that it should be introduced within an established therapeutic relationship or as a part of a group self-management program. The importance of skilled clinical communication to introduce and follow up the use of the application and the introduction of the topic of strengths was highlighted. The healthcare providers in our study underlined how timing is important when addressing strengths and the need for addressing first the patient's urgent concerns and to the patient's illness and psychological state. Timing and readiness has been addressed by others describing strengths-based work [5].

For example, for the patient who is in a crisis, it may not be appropriate to focus on strengths [20]. This is in line with the fluctuating needs of patients for self-managing support, depending on factors such as disease stage, psychological response and flare-up of symptoms [32]. Nurses using an interactive tailored patient assessment application where their patients registered symptoms and concerns have reported that the application helped prepare both the patient and the nurse for communication, gave the patients a voice and contributed to normalization for the patients [40]. Similarly, our participants generally agreed on the potential for an application to help the patient reflect on and identify strengths. Introducing an assessment of strengths has been suggested as informing patients that the care they will be receiving will consider their strengths. Since this may not be expected by all patients, patients therefore need a clear rationale for its inclusion, so as to not disrespect their concerns [35]. This was also evident in our results, which indicate the potential for a digital application to function as a reminder for both healthcare providers and patients to include personal strengths in the conversation.

### Limitations

The participants' stories represent their recollection and understanding about helping patients to use their strengths. An observational study design would have provided a complementary perspective and perhaps a more objective assessment. The aim of the study was to explore healthcare providers' experience and perceptions, but not to examine prevalence of strategies, provide a complete overview of strategies, or compare strategies between professional groups or between inpatient or outpatient units. The interviews were held during the participants' working hours and were therefore limited in time, influencing the richness of the data gathered and level of saturation. The participants viewed the prototype only shortly during the interview. More time to consider the prototype might have provided a more in-depth feedback. As in other qualitative studies, the results represent our interpretation of the findings and should be considered as one possible understanding of how healthcare providers perceive helping their patients mobilize their strengths. The results are strengthened by the involvement of three researchers in the analysis, but may, again, be influenced by their professional background, nursing and social work.

### Conclusion

This study provides insights into the experiences and perceptions of healthcare providers about use of patients' strengths in clinical practice. The task of mobilizing strengths is seen by healthcare providers as part of their self-management support for patients with chronic illness. They described active listening, contextualization of strengths and promoting learning, as well as several challenges to mobilizing strengths. Based on their feedback on an initial prototype, this task might be helped

by a digital pre-consultation application that supports the process of helping patients build on their personal strengths.

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# Appendix 1

## Pictures of the prototype

