



# UNIVERSITY OF TWENTE.

Faculty of Behavioural, Management  
and Social Sciences

## Which strengths do dialysis patients use to deal with their illness?

Lena Paschke

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**Supervisors:**  
dr. Christina Bode  
dr. P.M. ten Klooster

Faculty of Behavioural, Management  
and Social Sciences  
University of Twente  
P.O. Box 217  
7500 AE Enschede  
The Netherlands

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## STRENGTHS OF DIALYSIS PATIENTS

### **Abstract**

Having renal failure has many consequences, patients have to deal with. Being dependent on dialysis and changing the whole diet is highly challenging for patients and requires them to mobilize own strengths and coping strategies. Little knowledge exists about actual personal strengths which are used by patients with chronic diseases, and especially dialysis patients. Objective of this qualitative study was to find out which strengths dialysis patients use to deal with their disease, how they use them and what they find the best way to identify those personal strengths. In this qualitative study, ten dialysis patients (5 women and 5 men) were recruited for individual interviews.

The most important strengths were persistence, experiencing positive emotions and autonomy. Also optimism, generosity, family and health-care providers, discipline, serenity and spirituality were reported by the participants. To examine how the participants used their strengths, the three tasks of self-management were used as basis. For the first task (medical management) discipline, autonomy and having persistence were the most important strengths. The second task of creating and maintaining new life roles did not apply to participants in this study. For regulating emotions, participants used autonomy, persistence, positive emotions and family as strengths. Participants showed little interest in potential strengths-based interventions because the approach seems to be unknown and dialysis patients hesitated to request more help from health-care providers.

Findings are in line with results from previous research that showed strengths such as positive emotions, persistence and optimism to be important when it comes to chronic diseases and confirmed their importance. This study also contributed to a more detailed insight regarding patients with renal failure and their personal strengths. More research is needed to expand the knowledge about personal strengths and dialysis patients to examine if further differences come into existence when characteristics such as age and gender are taken into account. The general interest and needs of dialysis patients on strengths-based interventions should also be subject of future research.

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### **Samenvatting**

Patiënten met een nierfalen moeten omgaan met verschillende consequenties van hun aandoening. Ze zijn afhankelijk van een dialyse en moeten hun voedingsgedrag veranderen wat heel uitdagend kan zijn. Tot nu toe is er weinig onderzoek gedaan naar persoonlijke krachten die van patiënten met een chronische ziekte gebruikt worden. Doel van dit onderzoek was het daarom om te onderzoeken welke sterke kanten dialyse patiënten gebruiken om met hun ziekte om te gaan. Voor dit kwalitatief onderzoek werden 10 deelnemers (5 mannen en 5 vrouwen) gevraagd om aan een persoonlijk interview mee te doen.

De meest belangrijke krachten zijn standvastigheid, positieve emoties en autonomie. Optimisme, generositeit, familie en hulpverlener als externe kracht, discipline, sereniteit en spiritualiteit werden bovendien gerapporteerd. Om eruit te vinden hoe de deelnemers hun krachten gebruiken, werd gebruik gemaakt van de drie taken van self-management. Voor de eerste taak (medische management) waren discipline, autonomie en standvastigheid het meest belangrijk. De tweede taak, creëren en vasthouden van een nieuwe rol in het leven, was niet van toepassing voor deze steekproef. Om emoties te reguleren, hebben de deelnemers autonomie, standvastigheid, positieve emoties en familie als externe kracht gebruikt. De deelnemers waren weinig geïnteresseerd aan een potentiële sterke kanten interventie omdat het voor hen onbekend was en de dialyse patiënten niet nog meer hulp in beslag wilden nemen.

De resultaten komen overeen met voorafgaand onderzoek die laten zien dat krachten zoals positieve emoties, standvastigheid en optimisme belangrijk zijn om met chronische ziektes om te gaan. Dit onderzoek biedt bovendien verdere aanvullingen voor patiënten met een nierfalen en hun persoonlijke krachten. Er is meer onderzoek nodig om de kennis over persoonlijke krachten en dialyse patiënten uit te breiden en mogelijke verschillen te ontdekken als rekening wordt gehouden met geslacht of leeftijd. Het interesse en de behoeften van dialyse patiënten aan sterke kanten interventies moeten daarbij ook van belang zijn.

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### Introduction

Living with kidney failure and being dependent on a dialysis can be very demanding for the patients and for their families. On the one hand, patients have to take several medications and manage their side effects. Several times a week they have to take a dialysis. On the other hand, also the free time of dialysis patients is determined by their illness. For example vacation destinations have to provide a dialysis in the proximity and patients have to adhere to several rules regarding their eating and drinking behavior (Sperschneider, 2009). In addition physical capability and physical functions are limited and the sexual life can be disturbed (Sperschneider, 2009).

The affected patients have to orientate their life completely towards the illness. All these factors contribute to much emotional distress which can lead to anxiety and depression. Several studies found evidence that dialysis patients suffer more often from depression and report a lower quality of life than the general population (Finkelstein & Finkelstein, 2000; Lew & Piraino, 2005; Rebollo Rubio, Morales Asencio & Eugenia Pons Raventos, 2017). One possible way to counteract these problems is to find and use the personal strengths of the patients. In this study it is assumed that a strengths-based approach is the general mindset to see patients and people as more than just their care needs. According to this approach every patient has to be treated as individual expert of his own life with his personal resources, abilities and skills which are crucial for achieving the desired outcomes of recovery and dealing with the current situation (Social Care Institute for excellence, 2014).

Research from Hassani, Izadi-Avanji, Rakhshan and Alavi Majd (2016) for instance showed that a patient-centered approach, which also serves the principle of seeing the patient as individual, can help to enhance the resilience which is an important factor to manage the problems that come along with chronic illnesses. According to Kossakowsa and Zialazny (2013) knowing the personal strengths can have positive effects on psychological well-being. Positive emotions for instance are associated with a higher patient activation (Hibbard & Mahony, 2010) and optimism is related to well-being and high quality of life (Vilhena et al., 2014). Different studies also found that patients with chronic diseases wish to get more support to live with their illness and would appreciate a strengths-focused approach (Schulmann-Green et al., 2012; Zuidema, van Gaal, van Dulmen, Repping-Wuts & Schoonhoven, 2015).

In traditional clinical settings there is little emphasis on the strengths and resources of the patients (Engel, 1977). Treatment protocols for dialysis patients and clinical consultations

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mainly focus on symptoms and the biological treatment (Sperschneider, Kruse et al., 2013). Furthermore the interaction between patients and health care provider is mainly characterized by the pathology (Kruse et al., 2013). However, the current development indicates a slow change to a more person-centered care approach where patients are seen as an individual with personal strengths and needs (Moore et al., 2016; Bohlmeijer, Bolier, Steeneveld, Westerhof, & Walburg, 2013). Self-management interventions, for instance, try to empower and mobilize the personal strengths. Lin, Liu, Hsu and Tsai (2017) carried out a meta-analysis and found out that self-management programs can have medium to large effect on self-efficacy, depression, quality of life and anxiety. Nevertheless, there is a need for a deeper understanding on how strengths are actually used when it comes to chronic diseases. Different areas of life may demand different application of strength. Therefore this study also aims to examine the way strengths are used in the different life areas. Self-management serves as orientation for the different areas. According to Lorig and Holman (2003) self-management consists of three different tasks: (1) medical management of the disease or general lifestyle; (2) creating, maintaining and changing new meaningful life roles and (3) regulating the emotions that come with a chronic disease.

The term “personal strength” is defined in the discipline “positive psychology” where mental health is defined as “state of well-being in which the individual realizes his or her own abilities, can cope with normal stresses of life, can work productively and is able to make contribution to the community” (Bohlmeijer et al., 2013). Mental health is thus more than the absence of mental diseases. A personal strength is a characteristic people use to achieve well-being and to flourish (Park, Peterson, & Seligman, 2004). There is currently no classification system for strengths like the DSM-V for mental illnesses, but there are various methods to find personal strengths. For example the VIA signature strength or the Strength Finder which are available on the internet (Hiemstra, & Bohlmeijer, 2013). Research shows that the mere identification of the personal strength can be helpful but is not sufficient for an optimal result of an intervention. Littmann-Ovadia, Lazar-Butbul and Benjamin (2013) for instance showed that finding and developing the strengths helped unemployed job seekers, who also have to deal with physical and psychological problems, to enhance their self-esteem and find a new job. Also Hiemstra and Bohlmeijer (2013) stated that using and developing strengths can increase the effectiveness of the intervention and prevent an entity mindset where competences are seen as stable characteristics which cannot be improved or controlled.

Especially in medical institutions it is important to keep more focus on the patients’ personal strengths. In the clinical practice it is challenging for the patients to activate their

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resources when negative emotions and unpleasing symptoms are dominant and demand the patient's attention (Vlaeyen & Linton, 2000). Friedman et al. (2007) found that a constant focus on negative events and symptoms can prevent patients from activating their resources which actually could be very helpful to manage their chronic illness. Ancker et al. (2015), for instance, investigated the so-called illness work of patients with chronic illness. Illness work includes any activities which are involved to manage the illness such as following medications prescriptions or monitoring important physical conditions such as weight or blood sugar. Illness work thus also refers to the first function of self-management which is mentioned above. Ancker et al. (2015) found that seeing personal physical properties such as blood sugar or weight can provoke strong negative emotions such as fear, sadness and anger about being confronted with the illness every day. Patients with chronic conditions thus have to concentrate on their illness in their private life and in the medical setting. This persistent negativity in turn can worsen the health condition and thereby contributes to negative feelings. Gouin, Hantsoo and Kiecolt-Glaser (2011) also emphasize the negative effect of stress and negative emotions on inflammation processes. This makes the role of positive emotions and the use of strengths even more important. The 'undoing hypothesis' from Fredrickson, Mancuso, Branigan and Tugade (2000) for instance states that positive emotions can undo the cardiovascular aftereffects of negative emotions. Complementary to this, using strengths helps to increase the motivation which increases the chance of commitment, success and well-being, in turn resulting in positive emotions (Hiemstra & Bohlmeijer, 2013).

There are several studies which explored personal strengths in chronic illness management. Rotegard, Fagermoen and Ruland (2012) investigated strengths of cancer patients and discovered for example good mood, mindfulness and taking action to be important. A study from Kristjansdottir et al. (2018) identified further strengths which are important when it comes to dealing with chronic diseases such as chronic pain, morbid obesity and chronic respiratory disease. Selfcompassion, courage, kindness and having a positive outlook are some examples of the identified strengths.

As mentioned above there are several instruments that can help to identify personal strengths. However these instruments are not always suitable because the importance of strengths is dependent on the particular context such as goals and situational factors (Biswas-Diener, Kahdan, & Minhas, 2010). Furthermore, the incorporation of the identified strengths seems to be difficult which might be due to the problem-focused approach that is dominant in most healthcare systems.

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The aim of this study is to make a first step towards a more detailed basis for a strength-based approach in healthcare regarding patients with kidney failures. Literature about strengths that are important for general well-being and health exist in great numbers, but also chronic illness management should provide such empirical basis. Because of the lack of knowledge in this domain, a qualitative approach was chosen for this study. The empirical basis should be in line with the actual experience and perception of the affected patients so that it can be used for strengths-based interventions. Based on the different aspects of the literature, three different research questions emerge:

*Which strengths do dialysis patients use to deal with their illness?*

*How do dialysis patients use their strengths?*

*What is the best way to identify the illness-related strengths of dialysis patients?*

### Methods

#### *Participants*

In total 10 dialysis patients took part in this qualitative study. Five men and five women with a mean age of 57,5 years participated in this study. The age range of the patients was from 29 to 76 years. On average the participants received dialysis 8,7 years with a range from 3 to 30 years. Two participants had the chance to receive peritoneal dialysis before they had to go to hospital treatment. These treatment years were not included in the calculation of total dialysis years because with a peritoneal dialysis patients can stay at home and do the dialysis by themselves overnight. Therefore these patients are less limited than patients with a hemodialysis in the hospital.

Next to renal failure, most of the patients also suffered from several other diseases such as below-knee amputation, diabetes, neuropathy, rheumatism or heart diseases as cause or consequence of the renal failure. Further demographic data is presented in table 1. Only patients, who received dialysis for at least two years, were included in the study. This guaranteed that patients had a certain amount of experience and that important and illness-related strengths are developed. Moreover this protected patients who were still in a stage of accepting the illness or having emotional difficulties because of the diagnosis. Further inclusion criteria were being older than 18 years and the willingness to share personal experiences about living with kidney failure.

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Table 1

*Characteristics of the participants*

Gender	Age	Lifetime with dialysis (in years)	children	Marital status	comorbidity
Male	49	30	No	Unmarried	Yes
Male	52	9	Yes	Divorced	Yes
Female	29	13	No	Unmarried	No
Male	66	5	Yes	Married	Yes
Male	54	3	No	Unmarried	Yes
Female	63	6	Yes	Married	Yes
Female	59	7	Yes	Married	No
Female	66	4	Yes	Unmarried	Yes
Male	61	5	Yes	Married	Yes
Female	76	5	Yes	Married	Yes

*Procedure*

Before the data collection started, an ethical checking was conducted and approved by the ethic commission of the University of Twente (requestnumber 18369). A purposive sampling procedure was used to ensure an equal distribution of gender and age. The subjects were recruited in a small dialysis center in Eastern-Germany. First, a permission was obtained by the chief resident to conduct the study in this dialysis center. After that the researcher visited the dialysis center and gave a short introduction of the study. Nurses of the dialysis center collected names of patients who showed interest in the study and shared them with the researcher so that meetings could be planned.

The researcher and the interested interviewee met in a quiet room near the dialysis center or at home of the patient himself. A semi-structured interview scheme was developed. At the beginning, participants were informed about the purpose of the study. They had to sign an informed consent where the anonymization of the data was addressed. The informed consent can be found in appendix 1. The interviews lasted about 20 to 50 minutes and were recorded to be transcribed afterwards.



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### *Interview*

For this study, a semi-structured interview was developed by the researcher. A semi-structured interview has the advantages of being more flexible than a structured interview, giving the chance to expand the interviewees' responses and providing more depths in the data. At the same time the semi-structured character ensured that all relevant areas are covered within the research questions by integrating the theoretical background and considering the aim of the study (Alshenqeeti, 2014). Furthermore semi-structured and unstructured interviews are the best methods for investigating sensitive topics such as personal diseases (Elam & Fenton, 2003).

The interview questions were formed per research question and on basis of the theoretical background. A pilot study was conducted with the first prototype of the interview scheme. For this pilot study two persons with other chronic diseases were interviewed, one person with cardiac disease and one person with multiple sclerosis. During this pilot study, researcher and interviewee selected difficult interview questions and discussed them to formulate more comprehensible questions. The revised version had some adjustments regarding the formulation of the questions and more introducing texts for a better understanding. To become familiar with the topic, participants had to talk about personal characteristics they like about themselves first. After that, the question "Why is it difficult to live with the disease and which personal qualities help?" was asked followed by further questions about daily obstacles and challenges. To answer the first research questions, several topics were included within the interview questions such as development of new strengths and the comparison before and after the diagnosis. This ensured that the participants could approach this topic from different perspectives. The interview questions concerning the second research question were based on the three different tasks of self-management: medical management, finding new liferoles and regulating emotions. For the last research question, participants were asked if they have interest in a strengths-based intervention and possible ideas for a development of their personal strengths. The most important interview questions are reported in table 2. The semi-structured character of the interview emerged during the interview itself. If participants for instance broached important topics, the researcher asked for further explanation or examples. If participants could not answer the question on the first attempt, the researcher added own examples to help participants to generate own ideas. Certain research questions had a short introduction such as an explanation of life roles. The complete scheme in German and its translation can be found in the Appendix 2.

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Table 2

*Interview guide*

Research question	Interview question
Which strengths do dialysis patients use to deal with their illness?	<p>What makes it difficult to live with this illness? Which personal characteristics help here?</p> <p>Which new strengths did you find to deal with your illness?</p> <p>Are there any strengths you did not find to be a strength before the diagnosis, but now you do?</p>
How do dialysis patients use their strengths?	<p>Which personal characteristics help you to keep all the guidelines for eating and drinking behavior?</p> <p>Would you say that your personal life role changed since the beginning of the illness?</p> <p>Which personal strengths help you when negative feelings are overwhelming?</p>
What is the best way to identify the illness-related strengths of dialysis patients?	<p>Would you be interested in the attempt to discover your strengths?</p> <p>Do you have an idea how you could extend your strengths?</p>

*Analysis*

The data was analyzed by using content analysis (Mayring, 2014). First the transcribed and anonymized interviews were read freely to get an overview of the reported strengths and topics that emerged during the interviews. An inductive approach was used to extract meaningful units by marking them in Microsoft Words and give them initial labels. Thus the raw interviews served as basis for potential codes without considering knowledge from previous studies. Meaningful quotes firstly consisted of every strategy, factor or process that was reported as helpful by the participants. Initial codes with similar or overlapping meaning

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were grouped together and copied into a coding scheme. The coding scheme consisted of three levels with global categories on the first level. The three research questions served as orientation for the categories in this level. Components that could be ascribed to the categories were reported on the second level. Here the initial codes from the analysis were inserted. The meaningful text portions from the interviews which provided the basis for the codes were assigned in a quotation column. A fourth column was made for potential discussion points which emerged during the analysis. After the first three interviews were analyzed and sorted into the coding scheme, the results were discussed with the supervisor. After that, the initial codes were revised. For example several strengths were summarized into one code or got another label. Other codes were excluded to build an extra category. During this step, a more deductive approach was used to formulate and arrange the codes on a more comparable level. The final quotations were translated from German to English. The original quotes with the English translation can be found in Appendix 3. During the coding process it sometimes was difficult to formulate the right labels for each strength and to decide which characteristics could be summarized into one category. Therefore previous studies such as Kristjandottier et al. (2018) or Rotegard et al. (2012) were considered as orientation for the different strengths. A further challenge was to prevent an overinterpretation of the interviews. Some statement indicated certain strengths although they were not reported explicitly. These statements were not included to increase the validity of the results. The whole coding scheme can be seen in appendix 4.

## Results

### Reported personal strengths

The reported personal strengths are arranged according to their relevance, beginning with the most frequent reported strength. All strengths found in the interviews are described; along with illustrative quotations from the participants.

#### Being persistent, having fighting spirit and staying power

Having a fighting spirit, staying power and being persistent was the most relevant strength. 8 out of ten participants described themselves as fighters who persist and withstand the illness. Giving up and losing the will to live were not an option for them.

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*“Just standing and fighting. It is like tilting at windmills. They laughed about him. It was the same for me.”* (Participant 1)

Patients also described that they learned to withstand the illness. This included withstanding the fact that their disease will probably persist their whole life and secondly withstanding the procedure of the dialysis each time. Being persistent and having fighting spirit was also important to overcome the yearly medical examinations at many different doctors which are required for potential kidney transplantation. Thus some participants also reported this determination to be helping them being persistent and patient.

*“I always had my own goals and what others saw as a dream, I achieved somehow. I say to myself: okay, one day you will get a new kidney and then you can pee like a man again and I hope that this will happen and that it will hold a long time.”* (Participant 2)

### Experiencing positive emotions

Six participants reported that their ability to experience positive emotions is a strength that helped them to deal with their illness. Experiencing positive emotions included several different forms. Some participants reported that having a garden and enjoying nature gives stability to their daily life. Additionally being happy and appreciative about the little things was helpful. Two participants learned to live mindfully and did not let their life be disturbed by useless worries. Other participants experienced positive emotions by being curious and still being interested in politics, books and living out their thirst for adventure within their limits. One participant also reported that nostalgia and the memory of former times are emotions he can draw on.

*“And I drive to my homeland. I know every bush there and I get some memories I can draw on.”* (Participant 4)

*“I am happy about a wasp nest. I do not destroy it. I am happy about the big hornets’ nest at our tree, I am totally enthusiastic about that. I could sit next to it and watch it.”* (Participant 2)

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### Autonomy, independence and determination

One half of the participants mentioned their strength of being independent and assertive as helpful and crucial to cope with their situation. Having own goals or ideas and follow them regardless of what people say, was a principle participants saw as their personal strength. For one participant, being kind of obstinate even was now seen as strength although other people would describe this as being stubborn. These participants found it essential to keep their independence even with regard to physical restrictions. Before they would accept help of someone, they would try to achieve their tasks by themselves. Furthermore determination belongs to this category as participants reported that they would not let themselves be misled by other people.

*“I can achieve everything I want, in a certain framework of course. And that’s what it’s all about, that’s called life. Everything else is no life.”*

(Participant 1)

*“I know that I am totally handicapped, also because of the prothesis. But I do as much as I can by myself until total exhaustion. But before I would ask someone I would do it by myself. So independence is a strength for me and I want to carry that until old age.”* (Participant 2)

Some participants also expressed the wish that their autonomy is more respected regarding illness-related topics. For example that the patient can choose when he can begin with the dialysis.

### Being optimistic

Another strength that helped several participants was being optimistic. Four participants experienced that being pessimistic is not favorable, especially in the first period after the diagnosis. Being optimistic includes enjoying the little things of life such as nature, the own garden or the happiness of family members. In contrast to other strengths being optimistic was a strength that had to be discovered and developed during the disease.

*“You are upset because of peanuts, and you think it can always be worse. I was always someone who believed in good and was an optimist, but now even more.”* (Participant 3)

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In some cases the optimism of the participants even helped them to see something positive in being ill. For instance being more emphatic towards other people and adopting another worldview which made them more thankful for and more aware of being alive.

*“I have another worldview now. [...] And I know that we are unlasting but that something still remains. Even if it is a memory. And I am sure there are a lot of people who will remember me. Good and bad memories. There is always something left behind. And we all have a task, we have to set an example. Preferably a good one. And I am not afraid of death.”*(Participant 2)

### Generosity and compassion

Four participants mentioned the characteristic of being generous to be helpful to deal with their situation. For instance providing support to friends and family which distracts them from their own problems. But also being happy about the health of the own children and being there for them increased the happiness of the participant self.

*„I could listen for hours to the problems of other people. And it is also a good distraction, that my own problems are in the background. When I listen to others and try to give advice. I like doing that and I have fun doing it.”* (Participant 5)

*“I say to myself, live everyday and be happy when others are doing well. I benefit from that. That I can say, if they are fine, I am fine too.”* (Participant 8)

### Family and health-care providers as external strength

The own family was seen as an important strength for emotional and practical support by four participants. In two cases it was even the treating doctor or nurses who gave the crucial support. Friends and other social contacts however were often not seen as supportive because they often have a limited understanding of the required changes to the drinking and eating

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behavior of the dialysis patient. Therefore the majority of participants often withdrew from friends and peers as they would feel as an outsider.

*“I am still in contact with the doctor in Hamburg and I can call him anytime if I have something on my mind. Then he calls back and we talk. And that straightens me up again.”* (Participant 9)

*“I am still sanguine because of my husband. If I did not have him, I would no other choice than going into a nursing home since I cannot do this alone. [...] And he is a big support for me and of course our children are also there.”* (Participant 10)

### Discipline and conformity

Three participants reported that discipline was always a strength and now became even more important with the consequences of being a dialysis patient. Discipline also included the skill to follow rules and conforming to what the doctor advices. Especially when it comes to the eating and drinking behavior of dialysis patients, participants reported that discipline is a strength which was always present in their life and is now helping to be consistent in the interest of their health.

Additionally to the personal strength of discipline, participants argued that the willingness to have a healthy and long remaining life helps to maintain the drinking and eating behavior and supports being disciplined.

*“But you have to be disciplined. I don’t do this for the doctor. [...] In the end it is my health. Because water that cannot be taken out, remains in the body.”* (Participant 6)

*“When I do sports, I run through. Then I say to myself Sunday you will run 8 (kilometers). And then I run 8 (kilometers) on Sunday. It doesn’t matter.”* (Participant 9)

### Serenity

A less important strength that was mentioned by only two participants was their newfound serenity and calmness. They went their own way and can kept calm in situations that would

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have made them upset some years ago. For example when own family members commented their disease or had suggestions for them. Mostly they ascribed this serenity to their age. The serenity also helped to be caring for oneself by setting the own needs above those of others without worrying about their opinion.

*“I have to say that I became very patient. Many things that annoyed me in the past, I can accept now in a serene way.”* (Participant 7)

*“But now as retiree, you don’t have to wake up early and go to work and everything doesn’t need to be done immediately and quickly, and not to worry if it works. You do not have that anymore. A little bit of calmness.”*  
(Participant 8)

*“Not to overload oneself and being able to say no. If I can’t then I say no I can’t come. I say sorry but I can’t at this moment, we have to wait. [...] That’s just how it is and others have to accept this. That is a good thing and it took a while until they accepted this.”* (Participant 8)

### Spirituality

Two participants also found spirituality, faith and religion to be a supportive part in their life. For one participant this faith developed later in life with different extraordinary experiences he could not explain in a rational way. Another participant was always religious and strengthened this belief with the occurrence of her disease. On the question “What helps you to accept your situation” she answered:

*“I have my faith that helps me. I am catholic and God always helps me.”*  
(Participant 10)

### **Way of using own strengths**

The second research question in this study was “How do dialysis patients use their strengths. The three tasks of self-management were used as basis to answer this question.



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### (1) Medical management of the disease

Medical management includes the regular intake of medicine but also the restricted eating and drinking behavior dialysis patient have to obey. The main strengths that came salient when it comes to medical management were discipline, autonomy and fighting spirit.

Discipline was important for five participants because for them, handling the new conditions was a matter of exercise, habituation and finding own strategies to help. For instance one participant studied a lot of information concerning the disease.

*“But I looked in these brochures again and again until I internalized it and now it works better.”* (Participant 8)

Another participant found an own strategy to stay disciplined despite having big thirst:

*“In winter I have some radishes in the fridge that help me to satisfy my thirst. And if I am thirsty, I go to the fridge, get a radish and then everything is fine again. You have to try out because you cannot go to the fridge and take the bottle every time.”* (Participant 7).

For one participant the discipline developed by making a better connection to the own body:

*“At the beginning it was difficult with drinking. I drank too much water and that had a negative impact. But I learned to listen to my body. It’s fine now, I know how much I can eat of this or that.”* (Participant 3)

Four patients also emphasized their fighting spirit that became crucial for the medical management. Many participants declared their will to live to be helping to adhere to the rules. Thus fighting for a long, healthy life by doing what the doctors say.

*“In the end it is your own health. Because water that cannot be taken out, remains in the body. It can go into your lungs or your heart.”* (Participant 6)

Thirdly autonomy was a strength that helped one participant to deal with the number of rules they have to deal with. He took his freedom to decide by himself to which degree he would

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adhere to the rules. On the other side he still wanted to live and therefore followed the rules to a certain degree but at the same time he said:

*“But you can kick over the traces and you should. Otherwise it’s a waste of time and you don’t need to come here. You would just sit at home and wait for the call that probably never will arrive. I do not even wait for it. I do not do the examinations either because I have no time for this, I prefer to work in this time. It is my decision.”* (Participant 1)

### (2) Creating, maintaining and changing new meaningful life roles

Seven participants reported that the disease and their age entailed many restrictions which resulted in some small changes in their life. Three participants for instance felt sorry that their thirst for adventure and opportunities are restricted due to the disease. They had to live out this need in a smaller setting by traveling just within Germany or seeing the little events of daily life as adventure.

*“I had to give up The thought to travel abroad. But traveling in Germany works. I can go to every bigger city with a dialysis center and that’s okay.”*  
(Participant 5)

For one participant his role as a Christian has diminished but for him this was no severe change which required creating a new life role.

*“Yes, I wrangle with the world. I am Christian but my believe in this has declined. I go to church only on Christmas and this should be enough. You do not believe in this story anymore.”* (Participant 4)

Three other participants found the end of their working life to be challenging. They noticed the physical restrictions that came along with the disease and regretted that they could not be as active as in the past.

*“I would like to work. That’s what annoys me most. That I cannot pursue my work anymore. So I found other activities at home.”* (Participant 9)

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Although most participants reported some changes in their life, these changes were not that drastic and did not require an active process of creating and maintaining alternative life roles. For that reason they also did not describe these old and new activities as meaningful or important but as little discomforts that came along with the disease. Some participants indeed reported that they found alternative activities, reduced old ones or felt sorry about giving up certain hobbies. However this process did not require the activation of personal strengths. The three remaining participants even did not find any changes.

### (3) Regulating the emotions

When it comes to regulating intense emotions, participants activated different strengths. The most important strengths were autonomy, persistence, positive emotions and family as external strength.

For four participants it was their autonomy and independence that became important when negative emotions overwhelmed them. They reported that they sort out their feelings by themselves, by being alone without demanding the support of family and friends. One participant reported for instance that expressing the feelings helps:

*“Crying. I go into my room and sit somewhere where nobody can see me and cry. I let it happen. I wouldn’t have done this 20 years ago but now I do. Then I feel better.”* (Participant 2)

For another participant expressing feeling looked different. He reported that complaining to other people and letting the anger out was his individual manner to regulate his emotions:

*“Complaining, nagging. I do not sit at home with closed curtains but I do the opposite. I go out and grumble at someone who did something wrong. This helps. [...] Just complaining and nugging, that is freeing. And everyone has to be used as a buffer. That’s like scream therapy. Or smashing some cars on a scrap yard. Letting all the rage out.”* (Participant 1)

For three other participants it was their persistence again that helped them to regulate their emotions. They accepted that negative feelings and also physical complaints belong to their disease and that staying power is the best measure to withstand this.

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*“If you cannot sleep at night and you wake up and say, oh god, this does not work and this does not work but you don’t want to stand up. That’s how it is. You have to go through that. You have to keep up.”* (Participant 4)

Another important strength for regulating emotions was the ability to still experience positive emotions and distract from the negative feeling, which was mentioned by three participants.

For instance one participant stated:

*“I turn on some nice music or look if there is a nice film on TV to distract myself. Or I read or do a crossword puzzle. So that I am distracted and come to some other thoughts.”* (Participant 6)

The last strength that was reported by only one participant was receiving support of the family. For her family was always an important aid she could build on when it comes to negative emotions:

*“The family. They make effort and are always there if I need them. And so am I. If I’m needed, I’m there too.”* (Participant 7)

### **How to identify strengths**

Answering the question what patients think is the ‘best way to identify the strengths which are important to deal with their illness’ turned out to be demanding for the participants. Some participants did not understand the need for finding out the own strengths because they knew them already or did not understand how this could help. One participant for instance answered the question about developing own strengths with the following statement:

*“Difficult question. I think it comes on its own. You have to give yourself time for this. I know it from myself that I avoid situations where I feel uncomfortable or uncertain. But consciously confronting with these situations and trying to do it different than usual.”* (Participant 3)

Another participant commented on this topic with the opinion that knowing the own strengths would not be important:

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*“You never think about your strengths and weaknesses. You just live. You never think about that. Why should you? That’s just life.”* (Participant 9)

Another point of criticism was the fact that some participants did not even have interest in discussing personal issues. They did not want to demand even more help.

*“This would be kind of pity. If you sit together and have to talk about this, it is the disease that stays in focus. It runs through the whole day. It starts already in the morning at breakfast. Do I drink this, do I eat this? And that’s how it works all day long. You cannot push it away.”* (Participant 1)

Other participants however would have interest in discussing personal issues but the content of such conversations should rather concern other personal topics. For them it would be enough if conversation with nurses or doctors would not just be about their disease and bodily symptoms.

*“Just having some talks and showing empathy and understanding. That you’re also just a human. Because I learn it with taking pills, according to the motto: you always have to work. But sometimes this doesn’t work.”*  
(Participant 3)

Nevertheless most participants also found that the nurses already try to do this and thereby increase the patients’ happiness.

*“The doctor and nurses do it, they cheer you up. They influence you positively. They would never pull you down if you are already at the bottom.”* (Participant 8)

### **Additional findings**

During the interviews most participants also mentioned behavior and strategies that helped to deal with their illness but did not describe them in terms of personal strengths. However these strategies are still important and might be based on personal strengths the participants did not discover by now. Therefore these strategies were gathered as extra category in additional findings. The coping strategies were categorized in cognitive and behavioral coping strategies.

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Cognitive coping strategies:

### Zest

The most frequent argumentation was zest which includes the willingness to live and showing some thankfulness for the chance to live despite this severe illness. Statements such as “*Otherwise you would be dead*” (Participant 8) showed that the patient could accept the situation if he compared it to the alternative.

### Positive reframing

For some participants it was helpful to remember worse times from the past. Most of the participants had a long clinical history with lots of bad moments and feelings. Remembering those moments helped some participants to appreciate their current situation and adhere to the advices from the doctor to prevent a further stay in a hospital. They found a pragmatic way to see the current situation as better and argued that going to the dialysis has to be seen as going to work, which simply has to be done. One participant for instance appreciated the fact that he gets breakfast for free every second day:

*“I see it like someone who has to work. I only have to go to work three times a week and just until midday and I get a breakfast for free.”* (Participant 5)

### Responsibility

Participants with family also argued that they see a certain duty to stay alive and be there for the family. On the one hand they wanted to take part in the life of their family members and on the other hand they still feel needed as father or wife. This also helped them to keep fighting instead of giving up.

*“For me it does matter. I want to see how my grandchildren grow up and I want to be there for them.”* (Participant 8)

### Denial

Repression and distraction also played an important role in managing the disease. One patient even separated himself completely from his disease:

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*“I will never accept that I am sick. I will deal with it realistically but I will never say this belongs to me. I repress it. My life is outside and not here.”*

(Participant 2)

Other participants had a similar strategy not to expose themselves too much to their situation.

Behavioral coping strategy:

### Leisure-time activities

One behavioral coping strategy had to do with the strength of experiencing positive emotions. For example doing something during the dialysis such as reading, talking and joking and also making sure to have no boredom at home.

*“I follow my hobbies, otherwise I would have a problem. Because sitting at home every day and watching TV is not my thing. You have to overcome one’s weaker self.”* (Participant 5)

Some participants had to give up certain hobbies but still try to pursue them by doing the same things in a smaller setting such as traveling or keeping in contact with old colleagues or sport teammates.

## Discussion

The aim of this study was to find out which strengths dialysis patients use to deal with their illness. Additional to this question this study also examined the research questions:

*How do dialysis patients use their strengths?* and

*What is the best way to identify the illness-related strengths of dialysis patients?*

A number of different strengths could be identified during the 10 interviews. The most important were persistence, experiencing positive emotions and autonomy. Furthermore optimism, generosity, family and health care providers, discipline, serenity and spirituality were mentioned by the participants.

The findings are in line with another study from Kristjandottier et al. (2018) who interviewed patients with different chronic diseases. Similar to this study, they found persistence, positive outlook, positive emotions, generosity and support from family and health care providers to be important strengths when it comes to chronic illnesses. Especially

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the importance of positive emotions in chronic disease conditions is emphasized by other studies too. Hibbard (2010) for instance found a connection between positive emotions and activation. This activation in turn is important for behavioral responses also regarding health behavior. Further overlap can be found within a study from Rotegard et al. (2012). Good mood, willpower, positive relations and taking action and control are the identified strengths of cancer patients in their study. These strengths are related to positive emotions, fighting spirit, family and autonomy which are found in this study. Regarding autonomy and taking action and control, participants in both studies expressed the wish to become more active partners in care to increase the feeling of control and autonomy. Moreover Hassani et al. (2016) found that independence is a crucial factor for high resilience and that patients with chronic diseases want to preserve their independence. Although serenity was mentioned by only two participants, this finding is in line with other studies which focused on chronic diseases in older ages. Heigl-Evers and Heigl (as cited in Allert, Sponholz and Baitsch, 1994) for instance used a psychodynamic approach to illustrate that the challenges of an old age such as loneliness and personal limits can be compensated by strengths such as serenity and calmness in elderly with chronic diseases. Participants of this study mentioned this strength often in connection with their age which could be an indication for potential differences that exist between younger and older dialysis patients. Another strength that was mentioned by only two participants is spirituality. The significance of this strength could be confirmed by previous research. Valcanti, Cassia Lopes Chaves, Mesquita, Nogueira and Manderson (2011) and Unantenne, Warren, Canaway and Manderson (2011) for instance found that spiritual and religious coping can have positive outcome on health and wellbeing of patients with chronic diseases. However when it comes to spirituality, cultural differences have to be taken into account. Especially in Eastern-Germany religion still undergoes a big regression due to its history (Pollack & Pickel, 2000). This could be a reason why in this study spirituality was only mentioned by two participants.

The second research question was “How do dialysis patients use their strengths?” To answer this question the three main tasks of self-management (medical management, maintaining new life roles, regulating emotions) were used as basis. The found strengths for medical management were discipline, autonomy and fighting spirit. Schulman-Green et al. (2013) also outlined that cultivating discipline, taking action and setting goals are among others important steps during the self-management process.

The second task of self-management ‘creating and maintaining new meaningful life roles’ did not apply completely to the participants. Although most participants reported some



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changes since the beginning of their disease such as giving up some hobbies or quitting the job, these changes were not very drastic for them. Thus it was not necessary to create and maintain new life role because of these changes. However this finding does not necessarily indicate that the applied model of self-management is not true for this target group.

Schulman-Green et al. (2013) already stated that different models exist for self-management. In their meta-analysis they aimed to clarify the specific processes of self-management and provide a possible explanation for the findings in this study. Schulman-Green et al. (2013) integrated the task of creating new life roles into a broader category of self-management named 'living with a chronic illness'. Four tasks of this category were identified: processing emotions, adjusting, integrating into daily life and meaning making. Adjusting thereby refers to regulatory skills in terms of a changed life and a changed self. In this category they also lined out the temporal aspect of these tasks. They stated the possibility that the first task must precede the following task whereby the tasks also overlap and interact with each other. This could be the reason why participants of this study could only answer the questions about processing and regulating emotions. Either the participants did not reach the second stage yet or living with a renal failure does not require the other stages of adjusting, integrating and meaning making.

The most important strengths for regulating emotions were autonomy, persistence, positive emotions and family as external strength. Schulman-Green et al. (2013) also found experiencing positive emotions by finding new enjoyable activities and activating resources such as family to be important steps for processing emotions. Other studies confirmed the importance of social relations and support for the wellbeing of dialysis patients. For instance Thong, Kaptein, Krediet, Boeschoten and Dekker (2006) found that a lack of social support is even related to higher mortality of dialysis patients. Although autonomy and persistence is not explicitly mentioned by Schulman-Green et al. (2013), certain characteristics can also be found in their study. For instance taking action and control are tasks during processing emotions and require autonomy and independence of the patient. Also accepting the terminal condition is related to persistence and a fighting spirit.

The last research question "What is the best way to identify the illness-related strengths of dialysis patients?" could not directly be answered because participants often did not understand the need to identify own strengths and consequently had no interest in doing so. Even with interest in getting psychological help, participants did not necessarily required help with regard to finding strengths. These are important findings for the implementation of strengths-based approach because it shows that the participants are not very familiar with this

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concept and therefore very sceptical which is a potential obstacle for the conduction of strengths-based interventions. Apparently concepts such as strengths finder would not match the mindset of the sample especially if this concept produces even more dependence from health-care providers and loss of leisure time. It could be that a detailed introduction to the whole concepts or the participation in self-management or other psychological programs would increase the openness for strengths-based interventions. However also Taylor, Hare and Combes (2016) found that the attractiveness of psychological interventions depends on patients' personal coping strategies. They explored the attitude about different interventions approaches of patients with end-stage kidney disease and concluded that they need a choice of appropriately timed and tailored interventions to meet their different psychological needs. It is therefore possible that some patients would not show any interest even if the concept is introduced. During the interviews it became clear that not all participants find it easy to speak in terms of personal strengths when it comes to dealing with their illness. Instead they described personal coping strategies which helped them to handle their situation. Objective of this study was to find out characteristics that are explicitly described as personal strengths by the participants. However the mentioned coping strategies might also be important because they can be seen as consequence of the mobilization of the personal strengths (Booth-Kewley & Vicker Jr., 1994). Therefore an extra category in additional findings was made with the cognitive and behavioral coping strategies zest, positive reframing, responsibility, denial and leisure time activities being the most important. These findings are in line with the study from Hassani et al. (2016) who found that feeling responsible toward the family, finding purpose in life and positive reframing are coping strategies that can increase the resilience of a patient. Park et al. (2004) found zest to be related to life satisfaction and also identified it as an important coping strategy. Moreover the importance of finding new hobbies and integrate them in leisure time could be confirmed by several studies (Schulman-Green et al., (2012); Kristjandottier et al., (2018)). Although denial can be a maladaptive coping strategy, Schussler (1992) stated that a moderate denial indeed can be useful to conquer a chronic disease if it refers to partial aspects such as threat potential and uncertainty. Another study by Carver, Scheier and Weintraub (1989) found the same result by identifying denial as part of emotion-focused coping.

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### **Limitations of the current study**

Although the present study provided some important findings concerning the use of strengths by dialysis patients, it has some limitations. First, the transcribed interviews were analyzed by only one researcher which can decrease the reliability of the findings. An interrater-reliability does not exist in this study.

Second, the size and the mean age of the sample might be a limitation. On the one hand ten participants were not enough to reach saturation in the data because every interview showed new results which indicates that the sample is very heterogeneous when it comes to their strengths. On the other hand with a mean age of 57,5 years the sample had mainly older participants which could have influenced the given answers. For example the strength serenity was often mentioned in relationship to the age so that it is unclear if serenity is really relevant for the chronic disease or for the general challenges of the aging process.

Third, the interview scheme yields some limitations. During the interviews participants often had difficulties to describe their characteristics and coping strategies explicitly as personal strength. In some cases the researcher could confirm that the before mentioned behavior indeed is seen as strength by the participant by asking again. However this was not always the case so that some strengths might lack in the results. With a more detailed interview scheme and more probing, possibly more strengths could have been identified.

### **Implications for future research**

As mentioned above, people in different ages have different obstacles and might use other strengths to overcome these obstacles. Therefore it could be interesting to make a deeper differentiation within the sample. For instance the strengths of a younger and an older sample could be compared. Strengths such as serenity and family as external strength are expected to appear more often in the older target group. In addition, further characteristics could be examined. The gender or the employment status might have influence on the used strengths. Spirituality for instance might be more prominent in women and employed patients might see their autonomy as more important. Such findings would be crucial for potential strengths-based interventions in the future where the personal characteristics of each patient can be taken into account. Tailored interventions then could match the needs of the patients and result in more interest and better outcomes.

Future research should also focus on patient's opinion about strengths-based interventions. For instance they could examine if there would be any difference if such an

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intervention is introduced in more detail. Also experience with other self-management intervention could result in more interest in other strengths-based interventions. Participants could give advice how an intervention should be implemented and which features would increase the general interest. For instance how to integrate the intervention into daily life without having to spend extra time in a dialysis center.

### **Conclusion**

The present study expands previous findings on personal strengths and provides a more detailed insight into the strengths of dialysis patients. Many identified strengths such as positive emotions and persistence can be found in other studies too which confirms their importance. This study also adds emphasis on discipline and autonomy which might be especially applying to dialysis patients. Additionally this study gives indication that previous self-management models might not completely match to dialysis patients. By extending the knowledge about the strengths dialysis patients use, health-care providers could conduct tailored interventions which consider the individual key points that are important for dialysis patients. By showing dialysis patients which strengths they should pay attention to and help them to become more aware of, mental health could increase. However this study also shows that lacking interest in a strengths-based intervention might be an obstacle for its conduction. Future research should investigate what dialysis patients find important when it comes to strengths-based interventions and if introducing this approach would increase their interest.

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**Appendix 1: informed consent****Einverständniserklärung**

## Auszufüllen vom Teilnehmer

Ich wurde in einer für mich verständlichen Art und Weise über die Art, Methode und Zielsetzung der Untersuchung informiert.

Ich weiß, dass alle Daten und Ergebnisse der Studie anonym bleiben und vertraulich behandelt werden. Ich erkläre mich einverstanden, dass die Resultate dieser Studie anonymisiert veröffentlicht werden und habe verstanden, dass diese Informationen unter keinen Umständen zur Identifikation meiner Person führen können. In dem Fall, dass wörtliche Zitate verwendet werden, werden auch diese vollständig anonymisiert. Meine Fragen wurden zu meiner Zufriedenheit beantwortet.

Ich erkläre mich einverstanden, an der Studie teilzunehmen. Meine Teilnahme erfolgt freiwillig. Ich weiß, dass ich die Möglichkeit habe, meine Teilnahme an dieser Studie jederzeit und ohne Angabe von Gründen abzubrechen, ohne dass mir daraus Nachteile entstehen.

Name des Teilnehmers:

Datum:

Unterschrift:

## Auszufüllen vom wissenschaftlichen Leiter

Ich habe die Studie mündlich und schriftlich erläutert. Ich werde die restlichen Fragen entsprechend meiner Möglichkeiten beantworten. Der Teilnehmer wird keine nachteiligen Folgen im Falle einer frühzeitigen Beendigung der Teilnahme haben.

Name der wissenschaftlichen Leiterin:

Datum:

Unterschrift:

## STRENGTHS OF DIALYSIS PATIENTS

**Appendix 2: Interview scheme**

<p>Hallo,</p> <p>Ich bin Lena Paschke und möchte mich erst einmal dafür bedanken, dass Sie sich bereit erklärt haben, an diesem Interview teilzunehmen. Ich mache diese Studie im Rahmen meiner Masterarbeit, in der es darum geht herauszufinden welche persönlichen Stärken Menschen mit chronischen Erkrankungen haben und benutzen um mit Ihrer Krankheit umzugehen. Das medizinische Umfeld ist ja häufig eher auf die wichtigen Aspekte, wie körperliche Symptome, Medikamente oder Nebenwirkungen fokussiert. In dieser Studie geht es aber eben darum, welche Stärken diese Menschen eigentlich benutzen um mit dieser Situation zu Recht zu kommen, im Speziellen Dialyse Patienten. Ich weiß, dass es für viele Menschen oft schwierig ist über Ihre eigenen Stärken zu reden, weil sie denken, dass dies arrogant wirken könnte oder ähnliches. Deswegen möchte ich hier schon betonen, dass sie sich darüber keine Sorgen machen müssen und sie einladen mit mir darüber nachzudenken.</p> <p>Da ich die Interviews später noch in Schriftform übertragen muss, wäre es hilfreich, wenn ich das Interview aufnehmen dürfte. Ist das für Sie in Ordnung. Die Aufnahmen werden aber sowieso gelöscht, sobald die Interviews überschrieben wurden. Alle Informationen, die hier besprochen werden, bleiben selbstverständlich anonym. Falls die Ergebnisse</p>	<p>Hello,</p> <p>I am Lena Paschke and I firstly I would like to thank you that you participate in this study. This study is for my masterthesis and I want to find out which strengths people with chronic diseases use to deal with their situation. The medical setting is often focused on important aspects such as physical symptoms, medications or side effect. But in this study the focus lies on the strength people actually use to deal with their illness, especially which strength dialysis patients use. I know it can be difficult to talk about personal strengths because they think it could be arrogant. Therefore I want to mention that you need not worry about that and invite you to think about it. The interviews have to be transcribed later therefore it would be helpful if I could record the interview. Would this be okay for you? The records will be deleted when all interviews are transcribed. All data that is mentioned here remains anonym also if this study will be published. The interview will last about 25-35 minutes. If you agree you only have to sign this informed consent. It is possible that some question will be difficult to answer but you can think about it as long as you want. As introduction in this topic I would like to</p>
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<p>wissenschaftlich veröffentlicht werden sollten, ist es auch dann nicht möglich auf Grund der Daten Rückschlüsse auf Ihre Person ziehen zu können. Es werden demnach zum Beispiel nirgends Namen oder Orte genannt.</p> <p>Das Interview wird aus einigen Fragen bestehen und wird etwa 25-35 Minuten dauern.</p> <p>Wenn Sie mit allem einverstanden sind, was ich Ihnen eben erzählt habe, müssten Sie nun noch diese Einverständniserklärung unterschreiben und dann können wir schon beginnen</p> <p>Es ist wahrscheinlich nicht so einfach jede Frage auf Anhieb so zu beantworten, Deswegen überlegen Sie ruhig solange Sie möchten und fühlen sich nicht gehetzt.</p> <p>Zur Einstimmung in das Thema, würde ich gerne erst einmal ganz allgemein nach ihren positiven Eigenschaften fragen</p> <p>Welche Eigenschaften mögen Sie an sich selbst?</p> <p>Wie würden Ihre Freunde und Familie Sie beschreiben?</p> <p>Was macht es schwierig mit Ihrer Krankheit zu leben? Und welche persönlichen Eigenschaften helfen hierbei?</p> <ul style="list-style-type: none"> <li>- Welche neuen Stärken bzw. Fähigkeiten mussten Sie finden um mit der Krankheit zu Recht zu kommen?</li> </ul> <p>Gibt es auch Eigenschaften von Ihnen die Sie vor der Diagnose gar nicht als Stärke von sich selbst gesehen haben, nun aber schon?</p>	<p>ask for your positive characteristics in general.</p> <p>Which characteristics do you like about yourself? How would friends and family describe you?</p> <p>Why is it difficult to live with the disease and which qualities help you?</p> <ul style="list-style-type: none"> <li>- Which new strengths and skills did you have to find to deal with the illness?</li> </ul> <p>Are there any qualities you did not describe as personal strength before the diagnosis, but now you do?</p>
<p>Wenn Sie an die vielen Richtlinien denken, an die Sie sich wegen der Krankheit halten müssen, welche Charaktereigenschaften helfen Ihnen dabei das durchzuhalten?</p>	<p>If you think about all the rules regarding the eating and drinking behavior, which strengths help you to deal with it?</p>

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<p>Wenn Sie über Ihre Stärken nachdenken, fällt Ihnen vielleicht auf, dass diese in den unterschiedlichen Lebensbereichen sehr unterschiedlich sein können. (Zum Beispiel Geduld). Fällt Ihnen auch so ein Beispiel ein?</p>	<p>If you think about your strengths, you maybe noticed that different life areas require different strengths. (For example patience). Do you know a similar example?</p>
<p>Die meisten Menschen haben ja ein bestimmtes Bild von sich selbst, also wie man sein möchte und welche Rolle man in seinem Leben einnehmen möchte, sei es die eines Vaters, Ehemannes/Ehefrau, Arzt, Christ etc. Würden sie sagen, dass sich dieses Bild seitdem Sie mit der Krankheit Leben verändert hat?</p> <ul style="list-style-type: none"> <li>- Was hat Ihnen dabei geholfen diese neue Rolle anzunehmen bzw. zu finden?</li> <li>- Mussten Sie bestimmte Tätigkeiten oder Hobbies aufgeben wegen der Krankheit?</li> <li>- Was hat Ihnen dabei geholfen neue Tätigkeiten oder Hobbies zu finden?</li> <li>- Gibt es irgendwelche positiven Situationen oder Erkenntnisse, die Sie erst durch die Krankheit gewinnen konnten?</li> </ul>	<p>Most people have a certain image about themselves, how they want to be and which role they want to adopt such as being father/mother/husband etc. Would you say that this image about yourself changed with the disease?</p> <ul style="list-style-type: none"> <li>- What did you help to find and adopt this new role</li> <li>- Did you have to give up certain hobbies because of the disease?</li> <li>- What did you help to find new hobbies?</li> <li>- Are there any positive situations or insights you could gain just because of the disease?</li> </ul>
<p>Welche persönlichen Eigenschaften helfen Ihnen allgemein wenn negative Gefühle Sie übermannen?</p> <ul style="list-style-type: none"> <li>- Haben Sie das Gefühl, dass positive Gefühle und die guten Seiten des Lebens mehr in den Fokus gerückt sind, seitdem Sie mit der Krankheit leben? Wenn ja: Was hat Ihnen dabei geholfen sich bewusster auf positive Gefühle zu</li> </ul>	<p>Which personal strengths help you if negative feelings are overwhelming?</p> <ul style="list-style-type: none"> <li>- Do you have the feeling that positive feelings stand now more in focus since the disease?</li> <li>- If yes: what did you help to be more aware of these positive feelings?</li> </ul>

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konzentrieren?	
<p>Wenn Sie sich jetzt vorstellen, dass Ärzte und Krankenschwester in der Dialyse den Versuch unternimmt, ganz bewusst Ihre Stärken zu entdecken und darüber zu sprechen damit Sie sich darüber bewusst sind und entwickeln können.</p> <ul style="list-style-type: none"> <li>- Hätten Sie generell Interesse daran, dass man das versucht?</li> <li>- Wenn ja, was wäre für Sie die beste Methode um dies zu tun?</li> </ul> <p>Wenn Sie an den Alltag in der Dialyse denken, was finden Sie bereits gelungen, unter dem Gesichtspunkt eine positivere Herangehensweise in den Krankenhausalltag einzubringen?</p> <ul style="list-style-type: none"> <li>- Was könnte man eventuell noch verbessern?</li> </ul> <p>Haben Sie eine Idee was Sie selber tun könnte um Ihre Stärken weiterzuentwickeln?</p> <p>Damit wären wir am Ende des Interviews angekommen.</p> <p>Vielen Dank noch einmal für Ihre Teilnahme etc. ...</p> <p>Haben Sie noch irgendwelche Ergänzungen die Sie noch anmerken möchten, weil sie in den Interviewfragen nicht vorkamen? Sie können auch erzählen, wie Ihnen das Gespräch gefallen hat oder was es mit Ihnen gemacht hat, wie Sie sich jetzt fühlen.</p> <p>Wenn Sie den Wunsch haben, Ihr eigenes</p>	<p>If you imagine that doctors and nurses in the dialysis center try to help you to discover your strengths to be aware about them and develop them, Would you be interested in such an attempt?</p> <ul style="list-style-type: none"> <li>- If yes: what would be the best way to do so?</li> </ul> <p>If you think about the daily life in the dialysis center, what do you already find good?</p> <ul style="list-style-type: none"> <li>- What could be improved?</li> </ul> <p>Do you have an idea how you could develop your strengths on your own?</p> <p>Now we have finished the interview. I would like to thank you once again for your participation. Do you want to add something that did not appeared in the interview questions? How did you like this interview and how do you feel now? If you want to read your interview again or are interested in the results of this study, you can come in contact with me. The E-mail address would be <a href="mailto:l.paschke@student.utwente.nl">l.paschke@student.utwente.nl</a></p>

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<p>Interview noch einmal zu lesen oder Interesse haben an den Ergebnissen der Studie, können Sie das jetzt bei mir angeben oder noch später mit mir in Kontakt treten wenn Sie möchten.</p> <p>Die E-Mailadresse dafür wäre: l.paschke@student.utwente.nl</p>	
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**Appendix 3: translation table**

Original quote (German)	Translation (English)
<p>Ja genau, durchhalten, kämpfen. Das ist wie der Kampf gegen die Windmühlen.</p> <p>Ausgelacht haben die ihn, so ging's mir auch.</p>	<p>„Just standing and fighting. It is like tilting at windmills. They laughed about him. It was the same for me.” (participant 1)</p>
<p>Also ich hatte immer gerade Ziele und das was andere als Traum sehen, das hab ich mir irgendwie immer verwirklicht. Ich sag mir so okay, irgendwann krieg ich ne Niere, dann kann ich auch pullern gehen, vernünftig wie ein Mann und da hoffe ich halt, dass das wieder passiert und auch lange durchhält.</p>	<p>„I always had my own goals and what others saw as a dream, I achieved somehow. I say to myself: okay, one day you will get a new kidney and then you can pee like a man again and I hope that this will happen and will hold out long time.” (participant 2)</p>
<p>Man regt sich immer so über Kleinigkeiten auf wo man denkt, das geht echt schlimmer. Ich war schon immer so, dass ich ans Gute geglaubt hab und Optimist war, aber jetzt noch mehr.</p>	<p>„You are upset because of peanuts, and you think it always can be worse. I was always someone who believed in the good and was an optimist, but now even more.” (participant 3)</p>
<p>Ich hab auch eine andere Auffassung zum gesamten Weltbild. [...] Ich weiß, dass wir alle endlich sind aber das es trotzdem immer was gibt, was zurückbleibt. Wenn man sich nur erinnert an dich. Und da gibt's bestimmt</p>	<p>„ I have another worldview. [...] And I know that we are unlasting but that still something remains. Even if it is a memory. And I am sure there are a lot of people who remember me. Good and bad memories. There is</p>

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<p>viele die sich an mich erinnern. Gut und schlecht. Es bleibt immer irgendwas zurück, wir haben alle ne Aufgabe, wir sollen irgendwie hier ein Zeichen setzen. Am besten nur positiv. Und ich hab keine Angst vor dem Tod.</p>	<p>always something left behind. And we all have a task, we have to set an example. Preferably a good one. And I am not afraid of the death.” (Participant 2)</p>
<p>Also ich könnte stundenlang zuhören wenn irgendeiner Probleme hat oder so. Wobei für mich denn ne gute Ablenkung ist, dass meine Probleme dann im Hintergrund stehen. Wenn ich bei andere zuhöre und versuche Ratschläge zu geben oder sonst was. Das mach ich gern und das macht mir auch Spaß</p>	<p>„I could listen for hours if someone has problems. And it is also a good distraction, that my own problems are in the background. When I listen to others and try to give advice. I like doing that and I have fun doing it.” (Participant 5)</p>
<p>Also, dass ich sage: lebe jeden Tag und freu dich auch wenn es Anderen gut geht. Oder wenn es meinen Kindern gut geht. Davon profitier ich auch. Dass ich sage, wenn es denen gut geht, geht’s mir auch gut.</p>	<p>“I say to myself, live everyday and be happy when others are doing well. I benefit from that. That I can say, if they are fine, I am fine too.” (Participant 8)</p>
<p>Ich kann alles leisten was ich möchte, in einem bestimmten Rahmen natürlich. Und das ist das, was es ausmacht, das nennt sich Leben. Alles andere ist kein Leben.</p>	<p>I can achieve everything I want, in a certain framework of course. And that’s what it’s all about, that’s called life. Everything else is no life. (Participant 1)</p>
<p>Ich weiß, dass ich total gehandicapt bin auch durch die Prothese aber ich mach vieles selber bis eben hin zur richtigen Erschöpfung, aber bevor ich jemanden frage, mach ich das alleine. Also Unabhängig ist auch eine Stärke von mir und das möchte ich mir auch bin ins hohe Alter erhalten.</p>	<p>I know that I am totally handicapped, also because of the prosthesis. But I do much by myself up till real exhaustion, but before I ask someone I do it by myself. So independence is a strength for me and I want to carry that until old age. (Participant 2)</p>
<p>Und ich fahr sehr viel in die Heimat. Da kennt man ja jeden Busch und da kommen dann wieder Erinnerungen auf und davon zehrt man auch ein bisschen.</p>	<p>And I drive to my homeland. I know every bush there and I get some memories I can draw on.” (Participant 4)</p>
<p>Über ein Wespennest freu ich mich. Ich</p>	<p>I am happy about a wasp nest. I do not</p>

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<p>mach das nicht kaputt. Ich freu mich wenn dicke Hornissen da bei uns am Baum nisten, da bin ich total begeistert. Da könnte ich mich daneben stellen und zugucken.</p>	<p>destroy it. I am happy if the big hornets nest at our tree, I am totally enthusiastic about that. I could sit next to it and watching it. (Participant 2)</p>
<p>Ich hab einen Glauben, der hilft mir. Ja ich bin katholisch und das der liebe Gott der hilft mir immer weiter.</p>	<p>I have my faith which helps me. I am catholic and God always helps me. (Participant 10)</p>
<p>Aber so nachher muss man diszipliniert sein. Man muss ja auch noch dran denken. Ich mach das ja nicht für die Ärztin. [...] letztendlich ist es aber meine Gesundheit. Denn Wasser, das nicht mehr raus kann, bleibt auch im Körper.</p>	<p>But you have to be disciplined. I don't do this for the doctor. [...] In the end it is my health. Because water that cannot taken out, remains in the body. (Participant 6)</p>
<p>Eigentlich ist es das ne. Wenn ich mein Sport mache, denn zieh ich durch ne. [...] Sonntag läufst du 8. Und dann bin ich Sonntag auch 8 gelaufen. Das ist egal. Auch die 8 lauf ich denn.</p>	<p>When I do sports, I run through. Then I say to myself Sunday you will run 8 (kilometers). And then I ran 8 (kilometers) on Sunday. It doesn't matter. I also run 8. (Participant 9)</p>
<p>Nee also ich muss sagen, ich bin sehr geduldig geworden. Früher hat mich vieles auch genervt und jetzt nehm ich das gelassen hin.</p>	<p>I have to say I became very patient. In the past many things that annoyed me, I can accept now in a serene way. (Participant 7)</p>
<p>Aber jetzt weil man ja auch Rentner ist, dann hat man ja nicht mehr dieses frühe Aufstehen, du musst sofort zur Arbeit los und alles sofort und schnell und zügig und nicht lange überlegen, das muss alles klappen, das muss alles abgearbeitet werden. Das hat man ja nicht mehr. Bisschen Gelassenheit ist schon.</p>	<p>But now as retiree, you don't have to wake up early and go to work and everything immediately and quickly, and not to worry if it works. You do not have that anymore. A little bit calmness. (Participant 8)</p>
<p>Sich nicht überfordern mit irgendwas und auch nein sagen. Wenn ich nicht kann, dann sag ich: nein ich kann nicht kommen. Ja, dass</p>	<p>Not to overload oneself and being able to say no. If I can't then I say no I can't come. I say sorry but I can't at this moment, we have to</p>



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<p>ich eben sage, es tut mir leid, aber ich kann nicht im Moment. Wir müssen warten. [...] dann ist das so und die anderen akzeptieren das. Und das ist auch gut, das hat ein bisschen gedauert, bis die das akzeptiert haben.</p>	<p>wait. [...] That's just how it is and the others have to accept this. That is a good thing and it took a while until they accepted this. (Participant 8)</p>
<p>Ich bin immer noch bei dem Arzt und der ist so, den kann ich jederzeit anrufen, wenn ich irgendwas auf dem Herzen hab. Dann ruft der zurück und dann sprechen wir. Und das richtet ein immer bisschen wieder auf.</p>	<p>I am still with the doctor and I can call him anytime if I have something on my mind. Then he calls back and we talk. And that straightens me up again. (Participant 9)</p>
<p>Eigentlich bin ich immer noch zuversichtlich aber nur dadurch, dass ich meinen Mann hab. Wenn ich den nicht mehr hab, denn bleibt mir nichts übrig, als ins Heim zu gehen, denn alleine pack ich das nicht. [...] Und also das ist die große Stütze für mich auch und natürlich sind unsere Kinder auch da.</p>	<p>I am still sanguine because of my husband. If I did not have him, I would no other choice than going into a nursing home since I cannot do this alone. [...] And he is the big support for me and of course our children are also there. (Participant 10)</p>
<p>Weil ich werd das nie akzeptieren, dass ich so krank bin. Ich werd damit realistisch umgehen, aber dass ich jetzt sage das ist meins, nee. [...] So ist das bei mir, ich verdränge das. Mein Leben ist da und nicht hier drin.</p>	<p>I will never accept that I am sick. I will deal with it realistically but I will never say this belongs to me. I repress it. My life is outside and not here. (Participant 2)</p>
<p>Ja ich mach mir schöne Musik an oder guck mal im Fernsehen, ob ein schöner Film kommt um mich ein bisschen abzulenken. Oder Lesen tu ich auch viel. Hier vor allem. Oder mach mal ein Kreuzworträtsel. Damit man bisschen abgelenkt ist und mal auf andere Gedanken kommt.</p>	<p>I turn on some nice music or look if there is a nice film in TV to distract myself. Or I read or do a crossword puzzle. So that I am distracted and come to some other thoughts. (Participant 6)</p>
<p>Die Familie. Also die machen sich wirklich viel Mühe. Also die sind immer da, wenn man sie braucht. Und so bin ich auch. Wenn</p>	<p>The family. They make effort and are always there if I need them. And so am I. If I'm needed, I'm there too. (Participant 7)</p>

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ich gebraucht werde, bin ich auch da.	
Weinen. Ich geh dann in mein Zimmer oder ich setz mich irgendwo hin wo mich keiner sieht und weine. Ich lasse das voll zu. Hätte ich vor 20 Jahren nicht getan aber jetzt ja. Dann geht's mir wieder gut.	Crying. I go into my room and sit somewhere where nobody can see me and cry. I let it happen. I wouldn't have done this 20 years ago but now I do. Then I feel better. (Participant 2)
Schimpfen, meckern. Also da sitz ich nicht zu Hause und mache die Gardinen zu sondern das Gegenteil. Raus und irgendeinen vollmeckern, weil er was falsch gemacht hat, das hilft. [...] Einfach nur schimpfen und meckern. Das ist befreiend. Da müssen auch alle herhalten. Das ist so wie eine Schreitherapie, das hilft wirklich. Oder Autos zertrümmern auf nem Schrottplatz. Die Wut raus lassen.	„Complaining, nagging. I do not sit at home with closed curtains but I do the opposite. I go out and grumble at someone who did something wrong. This helps. [...] Just complaining and nugging, that is freeing. And everyone has to be used as a buffer. That's like scream therapy. Or smashing some cars on a scrap yard. Letting all the rage out.” (Participant 1)
Aber man kann schon über die Stränge schlagen und sollte man auch. Sonst bringt das nichts, dann muss man nicht herkommen. Dann sitzt du ja nur noch zu Hause und wartest auf den Anruf, der wahrscheinlich nie kommt. Ich warte nicht mal drauf. Ich mach auch die Untersuchung nicht, weil da hab ich überhaupt keine zeit für, da geh ich lieber arbeiten.	„But you can kick over the traces and you also should. Otherwise it's a waste of time and you needn't to come here. So you would sit at home and wait for the call that probably never will arrive. I do not even wait for it. I do not do the examinations either because I have no time for this, I prefer to work in this time” (participant 1)
Am Anfang war das schwer mit dem trinken. Dass ich öfter zu viel Wasser getrunken hab und das hat sich negativ ausgewirkt. Aber ich hab gelernt auf meinen Körper mehr zu hören. Jetzt ist es gut, ich weiß wie viel ich essen kann, davon oder davon.	At the beginning it was difficult with drinking. I drank too much water and that has a negative impact. But I learned to listen to my body. Now it is good, I know how much I can eat from this or that. (Participant 3)
Im Winter hab ich im Kühlschrank Radieschen zu stehen und die helfen mir den	In winter I have some radishes in the fridge that help me to satisfy my thirst. And it I

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<p>Durst zu löschen. Und wenn ich dann jetzt Durst hab oder so, geh ich an Kühlschrank, hol mir ein Radieschen und dann ist wieder alles gut. Man muss ja irgendwie was ausprobieren und man kann nicht immer an Kühlschrank gehen und die Flasche ansetzen.</p>	<p>have thirst, I go to the fridge, get a radish and then everything is fine again. You have to try out because you cannot go to the fridge everytime and take the bottle. (Participant 7)</p>
<p>Aber ich hab mir das immer wieder angeguckt in diesen Broschüren, bis ich mir das verinnerlicht hab und jetzt klappt es viel besser.</p>	<p>But I looked in these brochures again and again until I internalized it and now it works better. (Participant 8)</p>
<p>Schwierige Frage. Ich denke das kommt einfach von alleine. Man muss sich da auch irgendwie Zeit geben. Ich kenn das von mir selber auch, dass ich dann solche Situationen meide, wo ich mich unwohl fühle oder unsicher bin. Aber die auch mal ganz bewusst suchen und versuchen das anders zu machen.</p>	<p>Difficult question. I think it comes on its own. You have to give yourself time for this. I know it from myself that I avoid situations where I feel uncomfortable or uncertain. But confronting consciously with these situations consciously and trying to do it different than usual. (Participant 3)</p>
<p>Man denkt ja nie über seine Stärken und Schwächen nach. Man lebt ja. Da macht man sich nie Gedanken drüber. Warum auch. Das ist das Leben eben.</p>	<p>You never think about your strengths and weaknesses. You just live. You never think about that. Why should you? That's just life. (Participant 9)</p>
<p>Das geht dann nachher schon in Richtung Mitleid. Wenn man sich da zusammensetzt und dann muss darüber geredet werden. Die Krankheit steht ja nun mal im Fokus. Das zieht sich ja durch den ganzen Alltag, das geht ja schon morgens los mit dem Frühstück, trink ich das? Ess ich das? Und so geht das den ganzen Tag. Das kann man nicht beiseite drücken.</p>	<p>This would be kind of pity. If you sit together and have to talk about this. It is the disease that stays in focus. It runs through the whole day. It starts already in the morning at breakfast. Do I drink this, do I eat this? And that's how it works all day long. You cannot push it away. (Participant 1)</p>
<p>Und dann einfach Gespräche führen und</p>	<p>Just holding some talks and showing</p>

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<p>Mitgefühl und auch Verständnis dafür, dass man auch einfach nur Mensch ist. Weil ich lerne das alles kennen mit Tabletten nehmen und: du musst immer funktionieren, so nach dem Motto, aber manchmal geht das auch einfach nicht.</p>	<p>empathy and understanding that you're also just a human. Because I learn it with taking pills, according to the motto: you have always to work. But sometimes this doesn't work. (Participant 3)</p>
<p>Die Ärztin kommt ja durch und auch die Krankenschwestern die machen das ja schon, die bauen einen auch auf. Also die beeinflussen einen schon positiv das muss ich schon sagen. Also die würden dich nicht noch weiter runterziehen, wenn du schon unten bist.</p>	<p>The doctor and nurses do it, they cheer you up. They influence you postiviely. They would never pull you down if you are already at the bottom. (Participant 8)</p>
<p>letztendlich ist es aber meine Gesundheit. Denn Wasser das nicht mehr raus kann, bleibt auch im Körper. Das kann in die Lunge, Herz.</p>	<p>“In the end it is your own health. Because water that cannot be taken out, remains in the body. It can go into your lungs or your heart“ (participant 6).</p>
<p>Wenn man dann nachts um eins aufwacht und sagt oh Gott geht das nicht und geht das nicht. Aber du willst dann auch nicht aufstehen oder irgendwas. Ja das ist das. Da musst du durch. Da musst du durchhalten.</p>	<p>“If you cannot sleep at night and you wake up and say ,oh god, this does not work and this does not work but you don't want to stand up. That's how it is. There you have to go through. You have to keep up.“ (Participant 4).</p>
<p>Ja man hadert schon mit sich und mit der Welt und mit dem. Ich bin Christ dadurch hat das nachgelassen. Ich geh nur Weihnachten zur Kirche und dann sollte das reichen. Man glaubt da nicht mehr dran an die ganze Geschichte.</p> <p>4</p>	<p>Yes, I wrangle with the world. I am Christian but this has declined. I go to church only on Christmal and this should be enough. You do not believe in this story anymore.</p> <p>(Participant 4)</p>
<p>Na die Hintergedanken mal ins Ausland zu fahren ja. Die hab ich irgendwo aufgegeben. Und nee in Deutschland rumreisen. Geht</p>	<p>The thought to travel abroad, I had to give up. But traveling in Germany works. I can go to every bigger city with a dialysis center and</p>

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gesundheitsmäßig kann ich ja flächendeckend in jede große Stadt fahren wo Dialyse ist und das ist schon okay.	that's okay. (Participant 5)
Nee ist eigentlich so, ich würde lieber eigentlich arbeiten gehen. Das ist das was mich am meisten ärgert. Dass ich meine Arbeit nicht mehr machen kann. Deswegen hab ich mir ja andere Betätigungsfelder gesucht. Zu Hause eben.	I would like to work. That's what annoys me most. That I cannot do my work anymore. So I found other activities. At home. (Participant 9)
ich seh das so wie jeder andere der Arbeiten geht, ich brauch nur dreimal die Woche arbeiten gehen und bloß bis Mittag und krieg noch ein Frühstück umsonst.	I see it like someone who has to work. I only have to go to work three times a week and just until midday and I get a breakfast for free. (Participant 5)
Nein mir ist das nicht egal, ich wollte noch ein bisschen sehen wie meine Enkelkinder aufwachsen und einfach noch ein bisschen dabei sein und für sie da sein.	For me it does matter. I want to see how my grandchildren grow and be there for them. (Participant 8)
Also meine Hobbies zieh ich durch und wenn ich die nicht hätte, hätte ich ein Problem glaub ich. Weil jeden Tag zu Hause und Fernsehen gucken, das ist eigentlich nicht mein Ding. Der innere Schweinehund der muss manchmal überwältigt werden.	I do my hobbies, otherwise I would have a problem. Because sitting at home every day and watching TV is not my thing. You have to overcome one's weaker self. (Participant 5)

**Appendix 4: coding scheme**

Codes 1st level	Codes 2nd level	Quotations	remarks
Reported strengths	Being persistent, having fighting spirit and staying power	„Just standing and fighting. It is like tilting at windmills. They laughed about him. It was the same for me.” (participant 1)	

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		„I always had my own goals and what others saw as a dream, I realized somehow. I say to myself: okay, one day you will get a new kidney and then you can pee like a man again and I hope that this will happen and will hold out long time.” (participant 2)	
	Experiencing positive emotions	<p>“And I drive to my homeland. There I know every bush and there appear some memories, I can draw on.” (Participant 4)</p> <p>“I am happy about a wasp nest. I do not destroy it. I am happy if the big hornets nest at our tree, I am totally enthusiastic about that. I could get next to it and watching it.” (Participant 2)</p>	Had several different forms, can maybe be divided into further strengths (touch with nature, curiosity etc.)
	Autonomy, independence and goal-directedness	<p>“I can achieve everything I want, in a certain framework of course. And that’s what it’s all about, that’s called life. Everything else is no life.” (Participant 1)</p> <p>“I know that I am totally handicapped, also because of the prosthesis. But I do much by myself up till real exhaustion, but before I ask someone I do it by myself. So independence is a strength for me and I want to carry that into old age.” (Participant 2)</p>	Some also had the wish that they can have more autonomy with regard to their treatment
	optimism	„You are upset because of peanuts, and you think it always can be worse. I was always someone who believed in the good and was an optimist, but now even more.”	

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		<p>(participant 3)</p> <p>„I have another worldview. [...] And I know that we are unlasting but that still something remains. Even if it is a memory. And I am sure there are a lot of people who remember me. Good and bad memories. There is always something left behind. And we all have a task, we have to set an example. Preferably a good one. And I am not afraid of the death.”(Participant 2)</p>	
	Generosity and compassion	<p>„I could listen for hours if someone has problems. And it is also a good distraction, that my own problems are in the background. When I listen to others and try to give advice. I like doing that and I have fun doing it.” (Participant 5)</p> <p>“I say to myself, live everyday and be happy when others are doing well. I benefit from that. That I can say, if they are fine, I am fine too.” (Participant 8)</p>	
	Family and health-care providers as external strength	<p>“I am still with the doctor in Hamburg and I can call him anytime if I have something on my mind. Then he calls back and we talk. And that straightens me up again.” (Participant 9)</p> <p>“I am still sanguine because of my husband. If I would not have him, I have no other choice than going into a nursing home since I cannot do this alone. [...] And he is the big support for me and of course our children are also there.”</p>	

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		(Participant 10)	
	Discipline and conformity	<p>“But you have to be disciplined. I don’t do this for the doctor. [...] In the end it is my health. Because water that cannot taken out, remains in the body.” (Participant 6)</p> <p>“When I do sports, I pull through. Then I say to myself Sunday you will run 8 (kilometers). And then I run 8 (kilometers) on Sunday. It doesn’t matter.” (Participant 9)</p>	
	Serenity	<p>“I have to say I became very patient. In the past many things that annoyed me, I can accept now in a serene way.” (Participant 7)</p> <p>“But now as retiree, you don’t have to wake up early and go to work and everything immediately and quickly, and not thinking too long, it has to work, it has to be handled. You do not have that anymore. A little bit calmness.” (Participant 8)</p> <p>“Not to overwhelm oneself and being able to say no. If I can’t then I say no I can’t come. I say sorry but I can’t at this moment, we have to wait. [...] That’s just how it is and the others have to accept this. That is a good thing and it took a while until they accepted this.” (Participant 8)</p>	Maybe due to the age?
	Spirituality	<p>“I have my faith which helps me. I am</p>	Just two participants,



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		catholic and God always helps me.” (Participant 10)	seems to be not very important
Medical management	Discipline	<p>“But I looked in these brochures again and again until I internalized it and now it works better.” (Participant 8)</p> <p>“In winter I have some radishes in the fridge that help me to satisfy my thirst. And if I have thirst, I go to the fridge, get a radish and then everything is fine again. You have to try out because you cannot go to the fridge everytime and take the bottle.” (Participant 7).</p> <p>“At the beginning it was difficult with drinking. I drank too much water and that has a negative impact. But I learned to listen to my body. Now it is good, I know how much I can eat from this or that.” (Participant 3)</p>	
	fighting spirit	“In the end it is your own health. Because water that cannot be taken out, rests in the body. It can go into your lungs or your heart“ (participant 6)	
	autonomy	“But you can kick over the traces and you also should. Otherwise it’s a waste of time and you needn’t to come here. So you would sit at home and wait for the call that probably never will arrive. I do not even wait for it. I do not do the examinations either because I have no time for this, I prefer to work in this time. It is my decision.” (participant 1)	
Changing life role	Adventure, traveling	“The thought to travel abroad, I had to give up. But traveling in Germany works.	

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		I can go to every bigger city with a dialysis center and that's okay." (Participant 5)	
	faith	"Yes, I wrangle with the world. I am Christian but this has declined. I go to church only on Christmas and this should be enough. You do not believe in this story anymore." (Participant 4)	
	End of employment, physical restrictions	"I would like to work. That's what annoys me most. That I cannot do my work anymore. So I found other activities. At home." (Participant 9)	
Emotion regulation	Autonomy	"Crying. I go into my room and sit somewhere where nobody can see me and cry. I let it happen. I wouldn't have done this 20 years ago but now I do. Then I feel better." (Participant 2)  "Complaining, nagging. I do not sit at home with closed curtains but I do the opposite. I go out and grumble at someone who did something wrong. This helps. [...] Just complaining and nugging, that is freeing. And everyone has to be used as a buffer. That's like scream therapy. Or smashing some cars on a scrap yard. Letting all the rage out." (Participant 1	
	persistence	"If you cannot sleep at night and you wake up and say ,oh god, this does not work and this does not work but you don't want to stand up. That's how it is. There you have to go through. You have to keep up." (Participant 4).	
	Positive emotions	"I turn on some nice music or look if there is a nice film in TV to distract myself. Or I	

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		read or do a crossword puzzle. So that I am distracted and come to some other thoughts.” (Participant 6)	
	family	“The family. They make effort and are always there if I need them. And so am I. If I’m needed, I’m there too.” (Participant 7)	Just one participant
Identification of personal strengths	No need	“Difficult question. I think it comes on its own. You have to give yourself time for this. I know it from myself that I avoid situations where I feel uncomfortable or uncertain. But looking for such situations consciously and trying to make it different than usual.” (Participant 3)	
	No importance?	<p>“You never think about your strengths and weaknesses. You just live. You never think about that. Why should you? That’s just life.” (Participant 9)</p> <p>“This would be kind of pity. If you sit together and have to talk about this. It is the disease that stays in focus. It runs through the whole day. It starts already in the morning at breakfast. Do I drink this, do I eat this? And that’s how it works all day long. You cannot push it away.” (Participant 1)</p>	
	Other priorities	<p>“Just holding some talks and showing empathy and understanding. That you’re also just a human. Because I learn it with taking pills, according to the motto: you have always to function. But sometimes this doesn’t work.” (Participant 3)</p> <p>“The doctor and nurses do it, they cheer you up. They influence you positively.</p>	

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		They would never pull you down if you are already at the bottom.” (Participant 8)	
Coping strategies (additional findings)	zest	“Otherwise you would be dead” (Participant 8)	
	Positive reframing	I see it like someone who has to work. I only have to go to work three times a week and just until midday and I get a breakfast for free. (Participant 5)	Optimism?
	Responsibility	For me it does matter. I want to see how my grandchildren grow and be there for them. (Participant 8)	
	Denial	“I will never accept that I am sick. I will deal with it realistically but I will never say this belongs to me. I repress it. My life is outside and not here.” (Participant 2)	
	Leisure-time activities	I do my hobbies, otherwise I would have a problem. Because sitting at home every day and watching TV is not my thing. You have to overcome one’s weaker self. (Participant 5)	