

Applying Salutogenesis to the Experiences of Students with Disabilities in the Netherlands

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Abstract

Students with disabilities face several barriers during their academic lives. However, as many of them manage to access a variety of resources, their experiences can be examined through the lens of salutogenesis, which is employed to analyze the mechanisms whereby people succeed in preserving their wellbeing while dealing with stress and difficulties. This study seeks to explain how students with disabilities identify and use resources to reach their academic goals, and to understand how their sense of coherence (namely, a global orientation that expresses the extent to which a person feels that the world is comprehensible, manageable, and meaningful) developed over time. This exploratory study has a dual focus: to test the applicability of salutogenesis to students with disabilities and to investigate their life experiences. A life course perspective has been adopted to allow for an in-depth exploration of the life histories of 11 students with disabilities at Wageningen University. After the participants designed a timeline of their life, semi-structured interviews were conducted. The identified general resistance resources included social support and supportive environments, as well as flexibility, persistence, and awareness of their own skills and limits. Specific resistance resources ranged from aids and treatments to institutional services and disease information. Such resources were identified through reflexive processes that led the students to understand first the stressors that they were facing and then the resources that they needed to deal with these stressors. Finally, some recommendations for disability services providers are reported.

Keywords: Students, disability, salutogenesis, resources, life course perspective

Beginning academic studies brings about changes and new demands in the lives of students and is particularly challenging for students with disabilities, who show higher course failure and lower graduation rates than students of a similar age but without disabilities (Murray, Lombardi, Bender, & Gerdes, 2013; Sanford et al., 2011). In fact, these students have been found to face several physical and social barriers at the academic level that reduce their likelihood of success (Agarwal, 2011; Johnson, 2006). Nonetheless, the number of students with disabilities entering higher education has been gradually increasing over the last decades (Eckes & Ochoa, 2005; Paul, 2000) and, in spite of the difficulties they have to deal with, not all of them think of themselves as disabled (Tinklin & Hall, 1999). In this study, disability is defined as “the disadvantage or restriction of activity caused by a contemporary social organization which takes no or

little account of people with impairments and thus excludes them from participation in the mainstream of social activities” (Union of the Physically Impaired Against Segregation, 1976, p. 14). It is important not to confuse the concept of disability with that of handicap, as the latter may result from a disability and indicates a limitation on the fulfillment of a role that is considered normal (depending on age, sex, social, and cultural factors) for an individual (World Health Organization, 1980).

The positive experiences of students with disabilities can be understood through the lens of the salutogenic theory, which has been used to study the mechanisms whereby people succeed in maintaining their health and wellbeing while handling stressful situations (Antonovsky, 1979). This theory originated when Antonovsky, a medical sociologist, was studying the emotional health of a group of women who

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had been imprisoned in concentration camps during the Second World War (Antonovsky, 1987). In particular, Antonovsky found that some of these women successfully preserved their health; thus, he asked himself the “salutogenic question,” namely, how they succeeded in leading a good life (i.e., an active and productive life) in spite of such a negative experience (Eriksson & Lindström, 2008). Actually, health is a broad and complex concept, which has been defined as a state of complete physical, mental, and social wellbeing, and not merely the absence of disease (World Health Organization, 1948); therefore, being healthy does not necessarily mean not having an impairment.

In fact, although external observers often perceive people with disabilities as leading undesirable lives, some such people state that they lead a happy and satisfactory life (Albrecht & Devlieger, 1999). It is also true that not all disabilities are visible to the eyes of an observer. In fact, whereas physical, sensory, or mobility impairments may be apparent, hidden disabilities (e.g., attention deficit disorders, learning disabilities) are not as noticeable (Wolf, 2001).

Since some students with disabilities have been found to deal successfully with academic difficulties by being able to access appropriate equipment, social support, and positive responses from the university staff (Holloway, 2001; Murray et al., 2013), the salutogenic model may help shed light on their experiences.

Moreover, whereas some authors describe people with disabilities as ill (Naidoo, 2006), the salutogenic model (Figure 1) rejects the ill/healthy dichotomy and introduces a more dynamic ease/dis-ease continuum, where people constantly move between the ease (total health) and disease (total absence of health) poles. On this continuum, the occurrence of stressors is common. A stressor is a demand made by the internal or external environment and whose resolution requires a non-automatic, energy-expending action (Antonovsky, 1979). For example, the physical and social barriers faced by students with disabilities at the academic level can be thought of as stressors.

Then, Antonovsky identified resources that contribute to the resolution of the tension generated by a variety of stressors and called them generalized resistance resources (GRRs). Along with GRRs, Antonovsky also introduced the concept of specific resistance resources (SRRs), which are mobilized to deal with a specific stressor. The distinction between GRRs and SRRs has been further clarified by Mittelmark et al. (2016, p. 75), who specified that, whereas a GRR is a generality, an SRR is a particularity “whose meanings are defined in terms of the particular stressors they are invoked to manage.”

The ability to mobilize such resources effectively depends on the individual’s sense of coherence (SOC), defined by Antonovsky (1987) as a global orientation that expresses the extent to which a person feels that the world is comprehensible, manageable, and meaningful. GRRs and SRRs originate from the social, cultural, and historical context in which people live, and they provide individuals with meaningful life experiences that further shape their SOC. In particular, it was found that, given a certain degree of disability, a person with a strong SOC is more likely to move towards the healthy pole of the ease/dis-ease continuum, thus suffering fewer handicaps than a person with a weak SOC (Schnyder, Büchi, Mörgeli, Sensky, & Klaghofer, 1999).

SOC was initially thought to develop mainly during childhood, reaching full development by the age of 30, after which it was expected to remain relatively stable (Bengel, Strittmatter, & Willmann, 1999). Nevertheless, Rena, Moshe, and Abraham (1996) argued that SOC’s stability is an open issue, requiring further longitudinal research. Boström and Lassen (2006) pointed out that learning and meta-learning processes have the potential to shape the development of SOC. More recently, it was also found that both the stimulation of reflexive processes and empowerment can strengthen SOC (Super, Wagemakers, Picavet, Verkooijen, & Koelen, 2015). Nonetheless, a lack of qualitative studies in the salutogenic literature has been identified, along with a knowledge gap regarding how SOC is “shaped by historical and structural processes of which individuals are a part” (Harrop, Addis, Elliott, & Williams, 2006, p. 9). Given the complexity of these processes, it has been argued that their investigation requires qualitative research methods such as life histories.

Study Aim and Rationale

The salutogenic theory has not been used frequently in studies addressing individuals with disabilities (Lustig, Rosenthal, Strauser, & Haynes, 2000) and students (Heiman, 2004), and yet a call for the inclusion of their voices in research studies has been made in the past, to take their perspectives into account seriously (Healey, Bradley, Fuller, & Hall, 2006; Hurst, 1996; Preece, 1995). This study answers this call by involving students with disabilities at Wageningen University (the Netherlands) as, according to a national survey of students with disabilities in Dutch universities, they have a more positive experience than their Dutch peers (i.e., students with disabilities in the other Dutch universities) with their university’s disability services, particularly in the following areas: intake, information, education adjustments, teachers’

knowledge and understanding, available resources, and guidance received (Steenkamp, 2013).

At the time of this study, disability in The Netherlands was regulated mainly by the Act on Equal Treatment of Disabled and Chronically Ill People (2003), which gives people with disabilities the right to access facilities and services that let them participate fully in society. In Dutch postsecondary education, students with disabilities were found to spend more time on their studies, make slower academic progress, and have lower exam grades and higher dropout rates than students without disabilities (see Table 1) (van den Broek, Muskens, & Winkels, 2013).

The focus of this study is twofold, consisting in the exploration of the applicability of the salutogenic model to the population of college students with disabilities and the identification and description of the life experiences of students with disabilities. Therefore, the aim of this study is to explain how these students identify and use the available GRRs and SRRs in order to reach their academic goals, and to understand how their SOC (namely, the ability to mobilize such resources) developed over time.

In order to achieve the study aim, the students' main stressors, GRRs, SRRs, and life experiences were investigated. This study, therefore, not only contributes to the aforementioned knowledge gap, but also allows for the development of recommendations for universities and society as a whole to foster the opportunities for success for students with disabilities.

Methodology

This research adopts a life course perspective, which locates individuals in their historical, social, and cultural contexts, and examines the life course as a multilevel phenomenon in which multiple pathways intertwine (Elder, 1998; Elder & Rockwell, 1979). In this study, retrospective data about the participants' lives were collected (Wadsworth et al., 2003). Prior to participation, each participant read and signed an informed consent form. An oral consent process was designed for a participant with visual impairments. This study was conducted with the approval of Wageningen University Social Sciences Ethics Committee.

Sampling Process

The target group for this study consists of students with disabilities attending Wageningen University. Criteria for inclusion in the study sample were attending Wageningen University as a student and having a disability. With respect to this latter criterion, a "student with disabilities" is here intended as any

student with an impairment, "who requires additional support, advice or guidance to enjoy equal access to educational provision" (Baron, Phillips, & Stalker, 1996, p. 364). Exclusion criteria were not being a university student (e.g., Ph.D. researcher, high school intern) and not being able or willing to speak English during the interviews.

The sample was recruited through three non-probability sampling strategies: purposive sampling, snowball sampling, and self-selection sampling. The latter strategy is reflected in the diffusion of leaflets, emails, and Facebook posts to publicize the study. Any student interested in participating in the study could contact the first author, and a meeting was planned. Finally, 20 students were reached, and 11 eventually joined the study (Table 2). The reasons for non-participation and dropout were having health problems and being too busy.

The final study sample includes only women, as no men contacted the researcher to join the study. Therefore, attempts were made to include men: two men were reached through purposive sampling, but they said that they were too busy and did not participate. Further attempts to reach men were curtailed by time constraints. Participants' ages ranged from 19 to 35 years, with the average age being 24.3 years. Nine participants were Dutch, one was Chinese, and one was German. The participants' real names are not reported in this paper; pseudonyms are used to protect their privacy. A summary of the participants' characteristics is provided in Table 3.

As shown in Table 3, the disabilities of three participants were reported as both visible and hidden. This arises because these participants would sometimes (but not always) use crutches or a wheelchair to cope with chronic tiredness, thus making their impairment visible to external observers. Another difference between the participants lay in the time that passed between the emergence of the symptoms and the diagnosis. For example, one participant waited for four years to receive a proper diagnosis, another waited for one year; others received a diagnosis as soon as the first symptoms appeared. However, for confidentiality purposes, this information is not included in Table 3.

Study Design and Data Collection

This research employs a case study design, as this allows for the detailed examination of a set of phenomena (Abercrombie, Hill, & Turner, 1984), and undertakes a life history approach, which is particularly suited to unveil the processes that take place in individuals' lives (Bakar & Abdullah, 2008). The first author collected data in October and November

2015. Two meetings were planned with each participant. A first, preliminary meeting was organized to start developing a relationship between the interviewer and the interviewee (DiCicco-Bloom & Crabtree, 2006) and to inform the potential participants about the study's aim and methods. At this meeting, the students were asked to design a timeline of their lives (i.e., a series of events written down in chronological order) prior to the second meeting. A timeline was requested not only to minimize the chances of recall bias, which is frequent in retrospective studies (Kruijshaar et al., 2005; Shiffman et al., 1997), but also because it is a useful tool for qualitative researchers to explore changes over time and contextual factors contributing to such changes (Deacon, 2000). Life experiences were explained to the participants as defining moments, or moments that they perceived as particularly important in their lives; then, examples of timelines were provided to the participants in order to facilitate their timeline design process. The participants were also asked whether they needed any kind of special accommodations; five of them requested to be interviewed in a specific place (i.e., at home or in their preferred campus building), and such requests were always fulfilled. At the second meeting, an in-depth interview was conducted. After an initial phase of familiarization with the participant, the timeline was discussed. The questions were not too rigid, and probes and follow-up questions were employed to unveil any potentially meaningful paths of inquiry. An interview guide was developed in order to improve the study's reliability and to provide guidance on the interview's phases and on the sequence of questions. Each interview was audio-recorded and transcribed to be available for data analysis.

Data Analysis

Data analysis was carried out according to Ritchie and Spencer's (2002) Framework Analysis, as this has often been employed in health-related research and is suitable for the development of recommendations (Srivastava & Thomson, 2009). Framework Analysis involves five steps, namely, (1) familiarization, (2) identifying a thematic framework, (3) indexing, (4) charting, and (5) mapping and interpretation.

In the first stage, an overview of the data was gained by reading the transcripts and listening to the recordings, thereby starting to list themes and key ideas. In the second step, the research notes from the previous stage were reduced according to *a priori* issues (i.e., originating from the research questions) and topics of interests (i.e., emerging from the interviews themselves). This process led to the development of five main categories, namely, academic goals, salu-

genic mechanisms, stressors, resources, and life experiences. Each category was further divided into themes that were applied to the transcript during the indexing stage. At this stage, the software ATLAS.ti (Thomas Muhr, Berlin) was used to optimize the coding process, thus facilitating comparisons between quotes. In the fourth step, data were entered on a chart, to allow for thematic analysis. In the mapping and interpretation stage, relations between key dimensions were traced, on the basis of the researcher's interpretation and knowledge of the literature.

Given the interpretative nature of qualitative data analysis and the subjectivity of the researcher's interpretation, the results from the data analysis were cross-checked between the first and the second author. However, no inconsistencies between the two interpretations were found. In addition, all the participants received the study results via email to let them check for any inaccuracies and to protect their privacy.

Results

The participants in this study all had to face various stressful situations throughout their lives. Within the participants' family context, stressors were connected to parents' or siblings' health problems, absence of parents, and lack of child-parent connection. As the participants grew up and started primary and secondary school, new stressors emerged, such as pressure from teachers, exclusion by peers, and work overload. When the participants did not receive any help, additional stressors arose, such as not completing the school year successfully, devaluation of disability experiences, and loss of energy.

[High school] was hell! I was struggling with so much, and I got very little help from my school... I felt invalidated and hindered in my experience, also regarding my disability, I felt invalidated in the accommodations I needed and I didn't get. When things get worse, it gets so difficult to advocate for yourself when you're tired and everything hurts. (Anna)

Stressors within the academic context were studying full-time, not being able to attend lectures, and being prevented from studying and enjoying academic life because of pain and tiredness. Sometimes, students themselves brought on some of these stressors (e.g., studying full-time) as a result of a "pushing through" attitude, which ended up being detrimental to their health.

Some stressors varied depending on the nature of

the disability. Claudia, a student with dyslexia, had to re-sit many exams because it was difficult for her to display all her acquired knowledge in one three-hour exam. Students with attention disorders did not always avail of the extra services to which they were entitled, as they did not always remember to reserve such services in time. Some students with chronic tiredness had difficulty attending morning lectures or studying full-time. When students had muscular pain, handwriting was often perceived as distressing and uncomfortable. Finally, mental illness was associated with specific stressors at the academic level; Juliana reported that giving and receiving feedback was stressful and harsh. However, the students also succeeded in identifying both general and specific resistance resources in order to deal with such difficulties.

General Resistance Resources

Both external and internal GRRs were identified. External GRRs included social support, people's understanding, advice, and supportive environments. These resources often influenced one another, for instance when the students' networks did not merely give them care and understanding, but also helped them to make their disability more manageable.

I asked a friend of mine if he wanted to drive me to the lectures...and I asked my housemates to buy groceries for me. (Sarah)

In other cases, GRRs such as money helped the participants to access more specific resources, for example expensive diagnostic practices that would eventually shed light on their symptoms. The students' main internal GRRs were flexibility, persistence, and awareness of their own skills, limits, and resources. Sometimes, the students' persistence emerged as a consequence of other people's (e.g., doctors, parents, teachers) distrust in their capacities.

[My teacher] was like: "No, you should forget about that, you wouldn't be able to do that." I was crying! It was my life's dream, and it was just flushed in the toilet... And that was really hard... but I was like: "No, this is my life!" (Claudia)

Actually, several study participants did not think of themselves as disabled and complained about other people's paternalistic and belittling attitude.

He started giving me medical recommendations, and I was like "Yeah, I'm already doing that," what makes you think I haven't consulted a doctor? I don't know, people have a very weird thing with giving medical recommendations to people

they barely know, it's really awkward. (Anna)

I'm very smart...and then some stupid doctor tells me: "You're not going to study" ...so I was like: "I will, I will see how it goes" ...I wanted to try myself. That was my decision to make. (Claire)

When students were aware of their limits and resources and were also determined to reach their objectives and/or face their problems, they succeeded in adopting several strategies to overcome their difficulties, such as taking the initiative to understand and solve their problems, looking on the bright side of life, and prioritizing. The latter strategy did not just mean choosing among a list of activities, but also treating health as a priority. However, strategies were particularly effective when they were timely. In fact, when the students ignored their difficulties and waited too long before acting, this resulted in the further exacerbation of their problems.

I couldn't really go on with my normal life...this was really going on for years now, and I was always thinking "yeah, I will be fine after I graduate" ...then I saw I'm almost graduating and I'm not feeling fine, so I should do something, otherwise it will just go on, and on, and on. I don't want to have this for another...has it been fifteen years or something? (Juliana)

[When I suffered from energy loss] I kept going to school but, as a result of always pushing myself, I got those health problems again. (Iris)

Specific Resistance Resources

The identified SRRs were diverse and particular and fell into three main categories: aids and treatments, institutional services, and disease information.

All the participants made use of different aids or treatments depending on the nature of their health problem. For instance, students with chronic tiredness benefited from rest and sleep, but also from means of transport such as electric bikes and cars. Medicines were an SRR for several participants, but they did not always work as expected, and sometimes became a source of harm.

I've got some medication, but it only made me worse, so I stopped recently. But also the therapy, it didn't really work, so I got a new one...Right now it didn't really work, and sometimes it made me worse, but I hope they will find something. (Juliana)

With respect to institutional services, students with disabilities in the Netherlands have the right to extra services during both high school and university. At the academic level, study advisors and student deans were often mentioned by the participants as a precious source of advice and assistance. The resources most frequently listed by the students were exam adjustments (e.g., a 25% extension of the exam's duration, doing the exam on a computer and/or in a separate room, being able to stand up and walk during exams, and being able to go to the toilet anytime during exams); and thesis adjustments (a 50% extension of the time allowed to complete a thesis, support and cooperation from the thesis supervisor at the planning stage, and having a place to work on the thesis).

Finally, disease information refers to the participants' knowledge about their own health problems. In this respect, the diagnosis was often framed as a resource by the participants, as it shed light on their health condition and was usually followed by proper treatment. However, some participants had contrasting feelings regarding their diagnosis.

[When I got the diagnosis I was happy], I finally had some accepted proof that I was different, and that that was not my fault. (Sarah)

[My feeling on getting the diagnosis] was double, I think...because I knew it finally, but I also, it was also like...yeah, my whole life was gone, basically. (Claire)

Timing of the diagnosis also influenced the participants in different ways, and it usually had negative effects both when it was late and when it was early and unexpected.

I think I'm getting crazy, I think I'm getting crazy, everybody says that I'm healthy, and I'm not. (Sarah)

The doctor sent me to the hospital, and...it was bad, I had to have immediate surgery...you become immediately old...A lot of things happen to you, and, from a child, I became an adult in three or four months. (Flora)

According to some participants, the visibility of the disease was also a potential resource, as it could make their friends more willing to help them deal with a specific stressor.

I was walking with crutches, it's something that people can see, it's visible...and people see that and want to help, and at that time it was very nice to rely on people. (Sarah)

Still, visibility and other people's knowledge of the disease were not always regarded as a good thing. Both Sarah and Yoyo had chronic tiredness, but, whereas Sarah found the visibility of her disability helpful, Yoyo wanted to keep her privacy, without sharing any information about her health problems.

My friends, no one knows about this...If one person knows, all people will know, so I don't want to share, because they would think you are a patient, but now I'm not...I want them to treat me like a normal person. That's my issue. (Yoyo)

Therefore, even under similar circumstances, the same SRR could be helpful for one person but perceived as undesirable for another person. An overview of the main GRRs and SRRs identified in this study is included in Table 4.

Life Experiences

Life experiences were investigated as they have the potential to shape SOC (Antonovsky, 1979). Common life experiences included repeating a school year, negotiating accommodations with the school staff, and moving out of home. However, the students' perception of these experiences was varied. For example, two of the participants had to repeat a school year in the past, but timely knowledge of this information helped one of them to make sense of what was happening, and this ultimately influenced her perception of such events.

And then they let me wait for a whole summer, and at the end of the summer they said "no," so that was really bad...That made me lose faith in humanity and everything, and my life fell to pieces, really. (Claudia)

I knew, in December I already knew that I had to repeat the year...so I had a long time to get used to it, and actually it was kind of nice, because it made me enjoy the lessons I could go to. (Marie)

Furthermore, the students' childhood experiences were found to be particularly influential, as the participants who received constant support in serene family settings became more optimistic and resilient than those who grew up in isolation and in stressful family

environments. In the context of the participants' life experiences, learning processes were also identified and were triggered by reflection, experience, and observation of role models. Such processes enabled the participants to recognize useful resources or to understand how to tackle their difficulties.

At the beginning it was not easy to accept that I needed help, but now I do, because I got more life experiences. I just experienced what happens if you do not say things in time, and what happens when you do say things in time. (Esther)

My life, well, it hasn't been all flowers and pretty. As people say, "my life has been a mess" in the end, but I'm happy that I already had the basis to understand the difficulties and try to overcome them, and that gives me a lot of calmness. (Claudia)

Learning processes over the life course could also give rise to negative expectations about the future, in particular, when they were associated with scarce access and use of resistance resources, and with a series of adverse experiences.

Some things I think will always be difficult... Now some things are working, but I think I'll have difficulties later in life. I don't know if a potential employer would accept that, so I'm afraid... Sometimes I think, maybe one day I'll get a job, and then they could tell me "you take too much time," and then they could fire me. I'm afraid about that. (Claudia)

Discussion

As pointed out in previous studies, students with disabilities undergo a lot of stress and face obstacles and barriers in many areas of the educational environment (Agarwal, 2011; Johnson, 2006; Murray et al., 2013; Tinklin & Hall, 1999). This study confirms those observations, in that all the participating students had withstood several stressful situations in both their personal and their academic life. However, the students also showed an ability to mobilize resources to cope with those stressors. Among external GRRs, social support—which was often a source of other resources—had a preponderant role, as also indicated by other research studies (Holloway, 2001; Murray et al., 2013). In addition, this study identified the students' internal GRRs, with awareness (of their own skills and limits) and persistence playing an important role in the determination and effective-

ness of their coping strategies. Similarly, in a study conducted by Swan (2016), women's fortitude at difficult moments was found to help them overcome their difficulties and undertake more healthful eating practices. Furthermore, the importance of self-determination for students with disabilities in postsecondary education has been pointed out by past research studies (Field, Sarver, & Shaw, 2003), along with goal setting, self-management, and self-awareness, which were perceived by students with disabilities as important to stay in school and get the support they needed (Getzel & Thoma, 2008).

Still, divergences were observed among the participants with regard to their perception of stressors and resources. For example, whereas Claudia perceived a specific experience (e.g., repeating a year during high school) as a stressor, Marie perceived it as stimulating. The participants' perception of an experience as either stressful or motivating depended on several factors, such as the time of occurrence of the experience and the participants' ability to make sense of the situation (triggered by their SOC) and to identify and access appropriate resources. In fact, the perception of a stressor as such is very personal, and, although it can be expected that people with similar disabilities face similar barriers, it does not mean that they all perceive such barriers as stressors. In addition, in relation to a specific stressor, the same resource could be seen as helpful for one person but not (or even undesirable) for another. This finding can be interpreted in the light of Antonovsky's (1979) thinking, as he wrote that the usefulness of SRRs sometimes depends on chance or luck, thus being helpful only in particular situations. For instance, medicines were helpful for some participants but did not always have the desired effects for others, and sometimes even made the situation worse.

Insights from the Life Course Perspective

Wadsworth et al. (2003) stated that childhood experiences have the potential to influence an individual's future life. In this study, childhood contextual influences were indeed among the factors that determined the participants' ability (or inability) to cope with stressors later in their lives. Parents' and families' constant support put the participants on a safe developmental trajectory, as they felt confident that there was somebody to back them up if necessary. These students therefore gained more experience with identifying and using resources over the years and became able to identify and use resources as adults. On the other hand, participants with childhood experiences characterized by loneliness and poor communication with their parents and families, once adults, found it

hard to ask for help. Compared with the other participants, these students' positive life experiences, as well as the time they spent accessing and using GRRs and/or SRRs, were more limited. Claudia, for example, had to take care of herself since childhood and never got appropriate support from the high school she attended. Although at the time of this study she reported having access to a relatively large variety of resources and services at Wageningen University, she also believed that she would have difficulties in the future, and this pessimism came from her negative, former experiences, including the scarcity of resources that she could access when she was younger.

However, some participants' limited opportunities for finding and using resources over the years could still be compensated by later events. For instance, given a certain event, its timing could have different consequences for the participants' SOC. In fact, the life course perspective presupposes that the impact of life events depends on when they occur in a person's life (Elder, 1998). Time of receiving help constitutes an example of the difference between optimistic and pessimistic participants, as the students that received support as soon as it was needed eventually learned to find and use resources more easily than the students who started to get help only later in their life. As access to help and/or treatment also depended on the availability of a diagnosis, timing of the diagnosis was crucial as well. In fact, when the diagnosis came late, the participants felt anxious because of the uncertainty of their health conditions, and their symptoms remained untreated for a relatively long time. Similarly, when the diagnosis came unexpectedly, the participants were scared and were not prepared to deal with its implications. Thus, both conditions had a potentially negative impact on SOC. This reflects the fact that events that occur late or early can have adverse effects (Elder, 1998).

Sense of Coherence and Resource Identification

Figure 2 provides a visual description of the mechanisms whereby the participants in this study were able to identify resources, and the way in which this was found to affect their SOC. As premised by Antonovsky (1987), the foundation of individuals' SOC is laid during childhood. The combination of salutogenesis and the life course perspective in this study allowed for further confirmation of this statement. Still, later experiences also shaped SOC. Interestingly, the life course perspective did not allow for the identification of any intrinsically negative or positive events for the development of SOC, but rather disclosed that the same event could have either a positive or a negative impact on SOC, depending on its timing.

The participants' life histories consisted of a variety of experiences that included dealing with stressors. The salutogenic theory postulates that a person needs to mobilize GRRs and/or SRRs to deal with the tension caused by a stressor. The participants in this study first engaged in a reflexive process that enabled them to understand the characteristics of the stressor they were facing, such as its causes and implications. Then, learning processes fostered by experience, reflection, and observation of role models helped them to identify the most appropriate resource for dealing with such stressor. In particular, the participants' awareness of their own skills and limits, previously identified among their main GRRs, fostered such reflexive processes. This finding further clarified the relationship between GRRs and SRRs, whereby the former "enable one to recognize, pick up and use specific resistance resources in ways that keep tension from turning into debilitating stress" (Mittelmark et al., 2016, p. 74). In fact, GRRs may help people identify, access, and use SRRs; for example, the GRR "money" was used by one of the participants to access the SRR "specialized diagnostic services". If the participant had access to such a resource, she used it to deal with the tension generated by the stressor. The described mechanisms are coherent with Boström and Lassen's (2006) observations, which emphasized that learning experiences originating from specific situations may have a profound effect on SOC. Finally, according to the salutogenic model, using resistance resources to deal with a stressor provides the individual with meaningful life experiences, which in turn shape his/her SOC.

Disabled or Not?

Although this study focused on disability, it is worth noting that several of our study participants did not always define themselves as disabled. This was also observed by Tinklin and Hall (1999) in their research involving students with disabilities in higher education. After all, although an impairment is easily acknowledgeable, the same cannot be said for a disability. In fact, whereas the World Health Organization defined the term impairment as "any loss or abnormality of psychological, physiological, or anatomical structure or function" (World Health Organization, 1980, p. 47), the concept of disability is multifaceted and has been explained by a variety of models. According to the medical model, disability is caused by an impairment, and its origin lies "in the individual's supposed deficiency" (Abberley, 1998, p. 79). The social model, on the other hand, moves the source of the disability from the individual to society as a whole. In this case, individuals with dis-

abilities are confronted with a disablist society that disables them because of their impairments (Oliver, 1996). The participants in this study felt closer to the interpretation provided by the social model, as they rejected people's paternalistic attitudes, which often drew on the medical model. Furthermore, whereas an impairment can be documented, there are no "requirements" to belong to the "community" of people with disabilities (Watson, 2002). The reflection upon the distinction between disability and impairment can be taken even further. For example, according to Scully (2004), many people consider deafness a disability, whereas deaf people think of themselves as a linguistic minority, and "the presence of impaired hearing" is different than the "absence of subtitling on TV."

Likewise, the majority of the participants in this study, although facing barriers of many kinds, also managed to enroll and study at a university, sometimes with very good academic results. Therefore, it is questionable whether any labels would be appropriate to describe this study population; ultimately, people with disabilities may take different positions on the ease/dis-ease continuum (Rena et al., 1996), and their variations in health over the life course are no different than those of any other person (Rimmer, 1999). However, it must be acknowledged that the participants' perception of their disability status may depend on several factors; for example, this study's participants were all able to study at the academic level and to participate in interviews; it can be assumed that students with more serious health impairments may have decided not to participate in this study. Furthermore, the participants' ability to identify, access, and use GRRs and SRRs may also have influenced the perception of their disability, as SOC is known to influence the psychosocial effects of a given health problem (Schnyder et al., 1999).

Limitations and Strengths of the Study

Although several measures were taken to avoid any source of bias, this study presents some limitations that are worth addressing. Firstly, some characteristics of the sample (e.g., socioeconomic status and religious beliefs) could not always be collected, and generalizability of the findings is prevented by the sample size ($n=11$) and the absence of men in the sample. In fact, no men spontaneously contacted the researcher to express interest in participating. This may be due to the fact that women have a greater tendency than men to report functional problems and are more involved with health and healthcare (Merrill, Seeman, Kasl, & Berkman, 1997), whereas men are more likely to internalize public stigma (Vogel, Wade, & Hackler, 2007). Future studies may anticipate this

possibility, and several strategies may be planned to involve men, such as writing gender-tailored recruitment messages, designing recruitment advertisements so that the definition of disability is in no way perceived as stigmatizing, and empowering potential participants by making the meaningfulness of their contribution clear. However, generalizability of the findings was not of primary importance, as this study rather aimed to obtain richer and in-depth accounts, which would not have been achievable with a large sample. Furthermore, issues related to non-response must be considered. In particular, the reasons behind non-participation and/or dropout were health problems and being too busy (the latter often being a consequence of the former). This tendency seems to point to the phenomenon of selective attrition, which may thus be more likely to occur among this study population.

A limitation concerning the study methodology is recall bias. Recall bias usually occurred when the participants were describing their childhood years or when they were confused about the actual sequence of events. However, the timeline design addressed this limitation by letting the participants reflect on their lives prior to the interview. On the other hand, a strength of this study's methodology lies in the combination of salutogenesis and a life course perspective, which allowed the authors to investigate the contextual influences shaping SOC and unveil the effect of timing on its development.

Conclusions and Recommendations

The salutogenic framework was employed to understand how students with disabilities identify and use resources in order to deal with stressors. GRRs for students with disabilities included social support and supportive environments, as well as flexibility, persistence, and awareness of their own skills and limits. SRRs ranged from aids and treatments to institutional services and disease knowledge. Nevertheless, the same resource could be perceived as useful by one student and as undesirable by another student. The effectiveness of resource mobilization depended on the timely activation of learning processes that enabled the students to understand the nature of the stressor that they were facing and the resources they needed to cope with such stressor.

Further research can be recommended to acquire more knowledge about salutogenesis and the life course perspective. For example, as this study sample included only women, future research studies may also address men with disabilities, to unveil any possible differences in life experiences and access to resources between men and women. Moreover, fu-

ture research may focus on the life experiences of students without disabilities, to offer a comparative perspective with respect to their life histories and salutogenic pathways.

Based on this study's findings, some recommendations can be made for the implementation of academic—and, more generally, social—disability services. For example, building and strengthening networks can help students with disabilities to access new resources and to receive social support. Furthermore, as it was found that the same thing could be considered a resource by one person and a stressor by someone else, it is important to tailor advice to the complexity of students' life experiences, rather than to their specific health impairment. Some students were not even aware of their own limits and resources until someone brought them to their attention, and such situations might require proper education of the school staff (at all educational levels) about disability and its implications, as students mostly have contact with teachers and mentors/advisors. Disability service providers (DSPs) at university level may therefore investigate students' experiences, resources, and assets rather than focusing only on their problems and impairments. In this respect, DSPs may consider developing a list of questions to employ while counseling, to understand and explore students' experiences, paying particular attention to their childhood, adolescence, and former educational experiences. Some students may acquire a disability during their time in college. As observed by Lustig et al. (2000), the occurrence of a disability in the life of a person may disrupt the balance between demands and available resources (thus compromising life's manageability) and lead some people to experience their world as chaotic (thus compromising life's comprehensibility); therefore, it might be an idea for DSPs to assess students' SOC, for example by using the SOC scale (Antonovsky, 1993), and to consequently look for ways to strengthen their SOC. In any case, it is important for DSPs to be visible, or easily traceable (through social networks, the university's website, Facebook groups, and so forth), so that students know where to go when they need help.

With respect to possible ways to strengthen students' SOC, Super et al. (2015) suggested the stimulation of reflexive processes and empowerment. At the academic level, learning opportunities can be created by providing students with adequate preparation to actively and independently carry out a task (for example, training courses could be organized to help students to undertake a thesis project independently), or by adopting teaching methods that foster students' responsibility, encourage capacity building, and stim-

ulate students to identify and use the resources that are present within their group.

Finally, the adoption of a life course perspective allowed for the emergence of the importance of timing within salutogenic processes. This suggests not only that disability services and interventions should be provided from the beginning of each new educational level, but also that they should be provided as early as needed during the lives of people with disabilities.

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Table 1

Disability in Dutch Postsecondary Education

Students who reported having one or more disabilities in Dutch postsecondary education	Between 10 and 14% (Steenkamp, 2013)
Disabilities that university students perceive as the most hindering	Concentration problems, dyslexia, tiredness, mental health problems, and ADHD (Steenkamp, 2013)
Students with at least 150 study credits by the spring of their third year	31% among students with disabilities; 39% among students without disabilities (van den Broek et al., 2013)
College dropout rates	4% among students with disabilities; 2% among students without disabilities (van den Broek et al., 2013)

Table 2

Participants Recruited through each Sampling Strategy

Sampling strategies	Students reached	Students who participated
Self-selection sampling	13	7
Purposive sampling	4	2
Snowball sampling	3	2
Total number of students	20	11

Table 3

Participant Characteristics

Name	Type of disability	Acquired or congenital	Hidden or visible
Yoyo	Chronic tiredness	Acquired	Hidden
Flora	Chronic tiredness	Acquired	Hidden
Iris	Chronic tiredness	Acquired	Hidden
Anna	Mental health problems, chronic tiredness, and pain	Acquired	Hidden and visible
Marie	Chronic tiredness and pain	Acquired	Hidden and visible
Sarah	Concentration problems, chronic tiredness, and pain	Acquired	Hidden and visible
Claire	Chronic pain	Acquired	Hidden
Monika	Migraine	Acquired	Hidden
Claudia	Learning disability	Congenital	Hidden
Juliana	Mental health problems	Acquired	Hidden
Esther	Blindness	Congenital	Visible

Table 4

Participants' GRRs and SRRs

GRRs	Social network, care and understanding, advice, supportive environments; flexibility, persistence, awareness of one's own needs, limits and resources, and confidence in one's own skills/resources
SRRs	Aids and treatments (e.g., pain relief medication, guide dog to assist a visually impaired person to move around), institutional services (e.g., legislation, disability services) and disease awareness (—timely— knowledge of one's own disease, diagnosis, visibility)

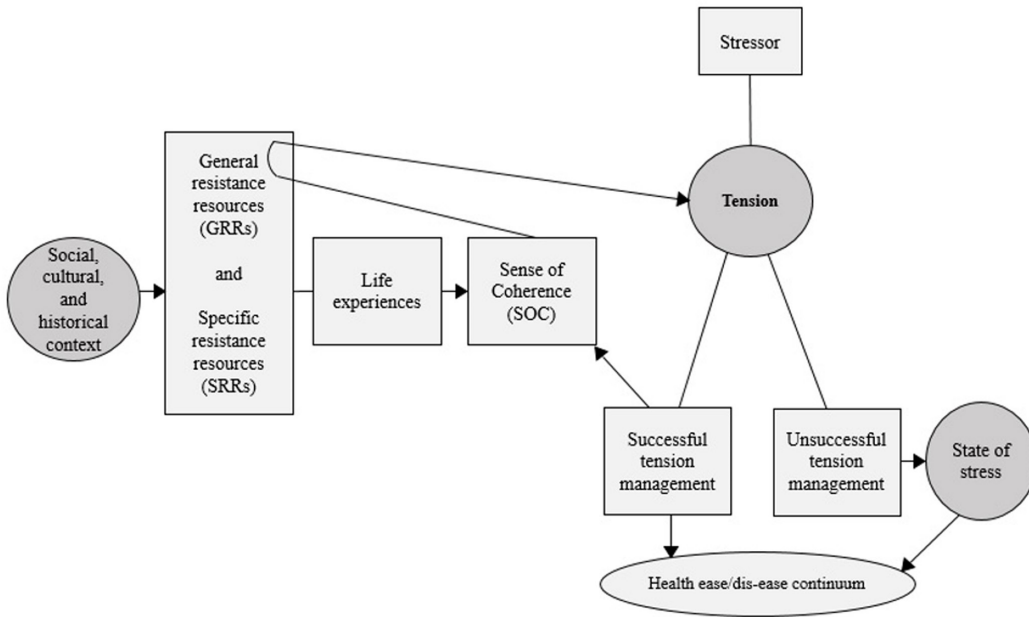


Figure 1. The salutogenic model of health (adapted from Antonovsky, 1979, pp. 184–185).

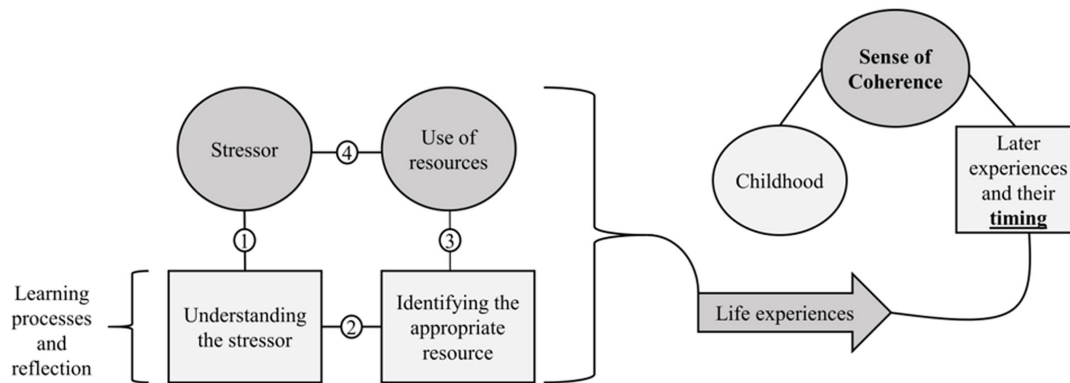


Figure 2. Visual description of the participants' salutogenic mechanisms. The numbers in the picture indicate the sequence of the steps leading to the identification and use of resources.