Disability and Rehabilitation

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/idre20

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To cite this article: Ingrid Lindgren , Christina Brogårdh , Hélène Pessah-Rasmussen , Stina B. Jonasson & Gunvor Gard (2020): Work conditions, support, and changing personal priorities are perceived important for return to work and for stay at work after stroke – a qualitative study, Disability and Rehabilitation, DOI: 10.1080/09638288.2020.1836522

To link to this article: https://doi.org/10.1080/09638288.2020.1836522

Published online: 26 Oct 2020.

DISABILITY AND REHABILITATION
https://doi.org/10.1080/09638288.2020.1836522

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ORIGINAL ARTICLE

Work conditions, support, and changing personal priorities are perceived important for return to work and for stay at work after stroke – a qualitative study

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ABSTRACT

Purpose: To explore work related and personal facilitators and barriers for return to work (RTW) and stay at work after stroke.

Materials and methods: Twenty individuals post-stroke (median age 52 years; seven women) were interviewed in focus groups. Data were analyzed by using qualitative content analysis.

Results: An overall theme "Work conditions, support and changed personal priorities influenced RTW and stay at work after stroke" emerged and covered three categories: "Adjustments and flexibility at the work place facilitated RTW and a sustainable work situation", "Psychosocial support and knowledge about stroke consequences facilitated work and reduced stress", and "Changed view of work and other personal priorities". Physical adjustments at the work place and flexibility in the work schedule were perceived facilitators. Support from family and colleagues were important, whereas lack of knowledge of stroke disabilities at the work place was perceived a barrier. Also changed personal priorities in relation to the work and the current life situation influenced RTW in various ways.

Conclusions: The individual's opportunities to influence the work situation is a key factor for RTW and the ability to stay at work after stroke. Adjustments, flexibility, support, knowledge of stroke, and receptivity to a changed view of work are important for a sustainable work situation.

➤ IMPLICATIONS FOR REHABILITATION

- Physical adjustments at the work place, a flexible work schedule and support increase the individual's possibility to RTW and maintain a sustainable work situation after stroke.
- Changed work and life priorities after a stroke need attention in the RTW process.
- Rehabilitation professionals have an important role in providing knowledge about the disabilities following stroke, and how they impact work ability. Individually tailored recommendations for work place adjustments which enable RTW and a sustainable work situation are warranted.

ARTICLE HISTORY
Received 6 May 2019
Revised 9 October 2020
Accepted 10 October 2020

KEYWORDS
Stroke; impairments; qualitative study; vocational rehabilitation; adjustment

Introduction

Return to work (RTW) and stay at work after stroke are important for an individual's health and well-being [1], but also from an economic and societal perspective [2]. Stroke is a leading cause of disability in adults and affects about 25 000 persons in Sweden annually [3]. About 20–30% of the stroke population are of working age, i.e., younger than 65 years, which is below the Swedish retirement age [4]. Although the incidence of stroke has decreased over the past decades, the incidence for those younger than 65 years has increased [5] or remained unchanged [6]. Impairments following stroke, such as sensorimotor [7] and cognitive impairments [7–9], depression [9], and fatigue [10,11] can lead to activity limitations and participation restrictions [12,13] which impede RTW and the ability to stay at work [1].

Several facilitating and hindering factors for RTW after stroke have been reported.

Having a stroke of mild severity has in quantitative studies been associated with greater likelihood of RTW than more severe strokes [14,15], whereas fatigue [10] and initial cognitive impairments [8] have been reported as hindrances.

Also, a qualified occupation, large company organizational size [16], a positive self attitude toward work [17], and good self-rated health [14] have been reported to facilitate RTW. Moreover, social support and understanding from others are of importance [17]. In qualitative studies, participants have expressed that the degree of impairments and motivation, type of job, workplace adaptations, support [18–20] and rehabilitation services [18] influence RTW. Thus, the ability to RTW depends on personal, social, and organizational factors, and the various stakeholders in the RTW process

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are required to cooperate. In Sweden, four stakeholders provide support for RTW in vocational rehabilitation: the health care organization, the Social Insurance Office, the Labour Exchange, and the employers [21].

The RTW rate among stroke survivors varies between 7% and 75% across countries [15]. Differences in social insurance systems across countries as well as the definition of RTW might impact the RTW rate [7,15]. According to a recent Swedish study from the Riksstroke registry, about 70% of persons 18–58 years had returned to work one year after their stroke [22]. However, many persons who have returned to work following stroke, still have impairments and problems that imped the work situation. Lallukka et al. [23] reported that persons who had RTW after stroke had high levels of work disability several years later, due to stroke related impairments and also because of developed mental and musculoskeletal disorders [23]. In two studies [16,24], the participants described that invisible impairments impeded the work situation in a longer perspective. They also described mixed feelings regarding their work; on one hand they were grateful to be able to work, but on the other hand they felt restricted and some had a fear of losing their jobs. Taken together, the ability to RTW and stay at work after stroke involve complex processes, and all factors that may affect these processes are not yet fully understood [15]. More knowledge about how to obtain a sustainable work situation, despite persistent impairments is requested [16,24,25]. A deepened knowledge about stroke survivors' experience of work related and personal facilitators and barriers for RTW and stay at work are warranted, which may improve the work rehabilitation process and enable a sustainable work situation. Therefore, the aim of this study was to explore work related as well as personal facilitators and barriers for RTW and stay at work after stroke.

Methods

The present study is part of a larger project on RTW after stroke, where quantitative data were collected by a postal survey (ongoing study) and qualitative data by focus group interviews.

The qualitative data include facilitators and barriers for RTW and stay at work, and cover both work and healthcare related factors, as well as personal factors [26]. In this study, only qualitative data exploring work-related and personal factors in relation to RTW and stay at work after stroke are presented.

Recruitment of participants

Participants were recruited from the postal survey, with the following inclusion criteria: admitted to Skåne University Hospital (Sweden) for acute care due to stroke; aged 18–64 years at stroke onset; referred to the hospital's stroke rehabilitation outpatient clinic within 180 days after stroke onset; worked at least 10 h per week prior to the stroke onset; and having stroke as their main reason for being sick-listed. Exclusion criteria were: not fluent in Swedish; and severe cognitive and/or language deficits following stroke. Data about potential participants were obtained through medical records. Between March and September 2017, 59 eligible persons were invited by mail to participate in the postal survey, whereof 40 accepted to participate. After they returned the postal survey, an invitation letter to take part in a focus group interview was sent to 39 of the 40 responders (one person was excluded due to dysarthria). Thereafter, the potential participants were contacted by telephone, informed about the study and asked to participate. Twenty-two persons accepted, but two of those were then unable to complete the interviews. Finally, 20 persons participated in this study.

Table 1. Characteristics of the 20 participants.

Gender (woman), *n*	7
Age (years) at stroke onset, median (range)	52 (39–62)
Self-rated recovery from stroke[a], median % (range)	90 (54–100)
Fatigue[b], median (range)	9 (0–20)
Highest passed education level, *n*	
Elementary school	4
High school	9
University/college	7
Employed in, *n*	
Private sector	14
Public sector	6
Type of work, *n*	
Mobile	7
Sedentary	7
Change between mobile and sedentary	6
Working hours per week after stroke, *n*	
30–40	12
20–29	3
10–19	2
Work training	3

[a]Assessed by the Stroke Impact Scale, item 9. The item ranges from 0 to 100%; higher = better [27].
[b]Assessed by the Mental Fatigue Scale. The scale ranges from 0 to 42 points; higher = worse [28].

Participants

Of the 20 participants, seven (35%) were women. Their median age at stroke onset was 52 (range 39–62) years. They were considered to have mild stroke impairments (median 90% self-rated recovery according to the Stroke Impact Scale (SIS) [27]. Some reported slight difficulties regarding memory, thinking, conversation, and mobility. Seven had fatigue problems, i.e., scored >10.5 on the MFS [28,29]. The data regarding age at stroke onset, self-perceived recovery from stroke and mental fatigue were retrieved from the postal survey. At the time of the interviews (median 14 months post stroke), 17 of the participants had returned to their earlier employment to some extent. Most of them worked 30–40 h per week. Three were in work training, whereof two had changed work due to their impairments following stroke (Table 1). The spread of occupations among the 20 participants included heavy physical work (e.g., cook, paver, and concrete worker), administrative work (e.g., IT consultant, manager, and customer services) as well as academic work (e.g., researcher and laboratory engineer).

Interviews

The interviews were performed in focus groups, which have been described suitable for exploring new research areas from the participants' perspective [30]. The participants had not met each other before the interviews and had no relation to the researchers. All researchers had professional experience of persons who had suffered a stroke.

Before the interviews, the authors developed an interview guide with open-ended questions, focusing on facilitators and barriers for RTW after stroke. Examples of questions were "Which factors have facilitated RTW or the RTW process for you?" and "Which factors have been a hindrance for RTW or in the RTW process for you?"

Six focus group interviews were conducted between April 2017 and April 2018. They took place in a calm and quiet room at the Department of Rehabilitation, to which the participants were

familiar. Each focus group consisted of three to five participants, plus one moderator (GG or IL) and one observer. The moderator led the discussions and strived to create a non-threatening and supportive environment to encourage all participants to share their views. Additional questions, for example, "Can you tell more about how you think" and "In what way" were posed in order to clarify perceptions or to facilitate and deepen the discussions. The observer listened to the discussions and posed additional questions when needed. The focus groups lasted median 60 (range 40–70) minutes. The discussions were digitally recorded and transcribed verbatim by the authors.

Analysis

Data were analyzed using latent content analysis according to Graneheim and Lundman [31]. First, the transcribed interviews were read through several times, to get an overview and sense of the whole. Thereafter, all content that responded to the aim was identified as meaning units across all interviews by two of the authors (GG and IL), independently of each other. All meaning units were coded and sorted into subcategories and categories. The subcategories, categories, and the results were discussed several times, and repeated adjustments were performed. During the whole analytic process, the researchers worked near the text. Finally, an overarching theme that covered the categories emerged. The discussions mainly involved the first and last author, but all authors were involved in the analytic process through repeated meetings. To add transparency and trustworthiness to the findings, quotations (with participants' numbers, gender, age category (over or under median age), fatigue according to MFS and occupation) are reported [31]. Examples illustrating the coding tree are presented in Table 2.

Ethics

The project was conducted in accordance with the Helsinki Declaration and approved by the Regional Ethical Review Board in Lund, Sweden (Dnr 2016/1064). Written informed consent was obtained from all participants. The data of the participants were confidential and kept in a locked cupboard to which only the researchers had access. The researchers had no professional relationship to the participants. The COREQ checklist was followed [32].

Results

From the analysis, an overall theme "Work conditions, support and changed personal priorities influenced RTW and the ability to stay at work after stroke" and three categories emerged: "Adjustments and flexibility at the work place facilitated RTW and a sustainable work situation"; "Psychosocial support and knowledge about stroke consequences facilitated work and reduced stress", and "Changed view of work and other personal priorities" (Table 3). The participants described several types of adjustments at the work place, which reduced the effect of their stroke related disabilities, and facilitated RTW and the ability to stay at work in a longer perspective. They described also that practical and psychosocial support from their families as well as support at the work place helped them to manage their work. However, sometimes they felt misunderstood, and a lack of knowledge at the work place about stroke consequences was problematic. The participants also described an altered view of work and other personal priorities that influenced their work.

Adjustments and flexibility at the work place facilitated RTW and a sustainable work situation

Adjusting work tasks to meet the participant's needs was for many a prerequisite for RTW and the ability to stay at work. The described individualized adaptations were diverse physical work place adjustments as well as adjustments to the work schedule, pace and load.

Physical adaptations facilitated the ability to work

Some participants, who had jobs involving heavy lifting or other strenuous labor, described that a reduction of heavy work tasks facilitated RTW. Those who worked in industries with high noise levels, in shared offices and those who participated in multi person meetings had difficulties in concentrating. Adjustments that facilitated their work ability included the possibility to work in a

Table 2. Examples illustrating the coding tree.

Meaning unit (citation)	Condensed meaning unit	Code	Subcategory	Category	Theme
… I've worked from home two days a week, with the option of being able to work from home if I don't feel well. Do it at your own pace and in your own time. I can control my working hours quite a lot. (Informant 12)	Work from home partly Work in own work pace.	Flexible work schedule	Flexible working schedule facilitated work	Adjustments and flexibility at the work place facilitated RTW and a sustainable work situation	Work conditions, support and changed personal priorities influenced RTW and the ability to stay at work after stroke
And then when you come back, the others think "oh, but you seem back to yourself again". They don't see that, that you're … you're a bit weary … "Everything is fine", they might think. I mean, they probably understand but they might also think that you're like normal, like it's no trouble. (Informant 9)	Colleagues do not understand	Colleagues need knowledge about stroke	Lack of knowledge about stroke consequences at the work place was perceived a hinder	Psychosocial support and knowledge about stroke consequences facilitated work and reduced stress	
I stress less, work out more, rest more. I say NO. I won't be a part of every work group, it's my life, I only have one. (Informant 16)	Stress less, say no Think of other parts in life	Reduce work duties	Trying to reduce stress in the work situation	Changed view of work and other personal priorities	

Table 3. Description of theme, categories, and subcategories.

Theme	Work conditions, support and changed personal priorities influenced RTW and the ability to stay at work after stroke		
Categories	Adjustments and flexibility at the work place facilitated RTW and a sustainable work situation	Psychosocial support and knowledge about stroke consequences facilitated work and reduced stress	Changed view of work and other personal priorities
Subcategories	Physical adaptations facilitated the ability to work Flexible working schedule facilitated work	Need of both psychosocial and practical support from family Various support and understanding from colleagues and boss Lack of knowledge about stroke consequences at the work place was perceived a hinder	Trying to reduce stress in the work situation The stroke led to changed personal priorities

separate room, use of safety ear muffs or to reduce the time spent in a noisy environment.

> I work in a large-scale manufacturing industry. And when I was in there, there was chaos in my head. So I went outside … and did what I felt myself that I could manage. (Informant 3; female, >median age, machine operator, fatigue according to MFS)

The type of work could be a barrier for RTW if adjustments were not possible. For example, jobs that involved heavy lifting, tasks that required a high degree of eye – hand coordination, and a fixed work rate or shift work were described as difficult to manage. Participants who were unable to return to their earlier jobs described difficulties to find a new job adjusted to their disabilities.

> … I won't be returning to driving a bus, which was my main job … It's not adaptable, not for me … the entire right side [is weak] it's useless. No one will put the gas pedal on the left side of a bus. (Informant 20; male, median age, bus driver, no fatigue according to MFS)

Flexible working schedule facilitated work

A common adjustment described by the participants, was a gradual increase in working hours after sick leave. A frequent model was to start with 25% of full-time work, thereafter increase to 50% and then 75% before going up to 100%. However, not all persons were able to work full-time. Also, some persons who got back to working full-time early after their injury, experienced problems. Other adjustments described were changes in work schedules, an adjusted work pace, taking small work breaks and being able to partially work from home. Job flexibility and the ability to influence the work situation were perceived important by the participants, although this was not possible for all.

> … [After the stroke] I increased my working hours pretty quickly up to full-time, but my brain completely shut down … It was very stressful to walk around and wonder "why doesn't my brain function as it should?" A lot more ramp time was needed to get my brain functioning at work … [Two months later] I started to work 25%, after that 50% and it felt really satisfying. Then I increased up to 75% of fulltime and it still felt good. (Informant 4; male, <median age, IT-consultant, fatigue according to MFS)

> … I've worked from home two days a week, with the option of being able to work from home if I don't feel well. Do it at your own pace and in your own time. I can control my working hours quite a lot. Informant 12. (male, < median age, IT-technician, no fatigue according to MFS)

Even though many of the participants had been offered adjustments, not all employers had a positive attitude to the changes. Also, self-employed workers was a vulnerable group; some of them expressed that they had difficulties to be on sick leave at all or to RTW gradually due to economic reasons.

> I haven't been on sick leave at all, I just had to get started again immediately when I got out of the hospital … you're more forced to do so as a self-employed person. You need profitability in your business. (Informant 10; female, median age, seamstress, no fatigue according to MFS)

Psychosocial support and knowledge about stroke consequences facilitated work and reduced stress

Not only work place adjustments, but also support, understanding, and practical help from family and support and understanding from colleagues and bosses facilitated RTW and a sustainable work situation. However, knowledge about the consequences of stroke was needed to give the right support. The participants felt that there was a lack of such knowledge at the work place and they experienced difficulties in explaining their problems to others.

Need of both psychosocial and practical support from family

Support from family members was needed and perceived as helpful for the ability to work. To get an understanding from the family, for example, regarding fatigue problems was of great value even though some felt that family members sometimes held them back. Moreover, the participants experienced difficulties to find an optimal balance in life that enabled them to manage both work, children, and household chores. This implied that they also needed practical help from their family members.

> … my wife had to take care of everything at home. If I had been alone with the kids, I wouldn't have been able to go back to work. (Informant 8, male, <median age, economic consultant, no fatigue according to MFS)

Various support and understanding from colleagues and boss

Psychosocial support and understanding from employers and colleagues was important and perceived to reduce stress. However, not all work places provided such support. On the other hand, some participants described that employers and colleagues did not understand their will to master their own work, and therefore sometimes withdrew work tasks from them or helped them too much.

> I haven't gotten a lot of support, maybe my colleagues don't really understand … Our work is very stressful so we have no time to bother about each other. (Informant 15; female, <median age, service worker, fatigue according to MFS)

> I have wonderful bosses where I work. I was given easier tasks, I could decide myself how much work I felt I was able to do … The boss and the colleagues have asked, can I help you? (Informant 6; female, < median age, production overseer, no fatigue according to MFS)

Lack of knowledge about stroke consequences was perceived a hinder at the work place

Lack of knowledge at the work place about stroke and disabilities following stroke was perceived as a barrier for receiving the proper help. The participants expressed that their functional deficits, especially hidden impairments such as fatigue or concentration difficulties, were difficult to explain to others. A problem was that the hidden disabilities were not evident for their colleagues. The participants realized that it was difficult for their colleagues

to understand and to know how to behave and therefore the colleagues might avoid asking questions. But, the participants were also worried that their employer and colleagues might have talked about their reduced work capacity behind their backs.

> And then when you come back, the others think" oh, but you seem back to yourself again". They don't see that, that you're … you're a bit weary … "Everything is fine", they might think. I mean, they probably understand but they might also think that you're like normal, like it's no trouble. (Informant 9; male, <median age, production manager, no fatigue according to MFS)

Changed view of work and other personal priorities

Many of the participants had concerns about the negative impact of stress on their health. Therefore, they tried to reduce stress at work by doing things a little differently when RTW. Many participants also described that they had gone through a process of change in life after their stroke. While some prioritized work, others expressed that they endeavored to find a new balance between work and other aspects of life. Some planned for earlier retirement.

Trying to reduce stress in the work situation

Prior to their stroke, several participants had stressful jobs and long working days. After the stroke, however, they were much more restrictive regarding overtime hours, and more careful with managing a high work load, even if work demands were high. They tried to work in a more disciplined way, had learned to identify early signs of stress, assigned more time for their work tasks and asked for help when needed.

> Before it was mostly stress, focus on work 24 hours a day; you brought your work home with you. I don't anymore, but rather I try to scale back on it after 8 hours. (Informant 7; male, <median age, production technician, no fatigue according to MFS)

> I stress less, work out more, rest more. I say NO. I won't be a part of every work group, it's my life, I only have one. (Informant 16; female, <median age, group leader, fatigue according to MFS)

The stroke led to changed personal priorities

Differences in thoughts about the meaning and motivation of work were identified among the participants. Some were highly motivated to work even if it was strenuous. For them, work was prioritized. They had a mindset of not being held back by their previous stroke and work helped them to feel healthy. Socializing with others made them feel better and gave them a feeling of being as capable as before the stroke. Others had changed their priorities and thought that other aspects of life than working were of importance, such as finding a balance between job and family life. They were less motivated to work than before the stroke and some considered an earlier retirement.

> … I think it's good to work, even if I don't feel well. It's better to work than to lay at home and stare at the ceiling. (Informant 8; male, <median age, economic consultant, no fatigue according to MFS)

> There are more important things than work … I think that, yeah, I'm not as dedicated anymore, I've lost all of that … Work is totally indifferent, I don't care about it. (Informant 20; male, median age, bus driver, no fatigue according to MFS)

Discussion

In this study, 20 persons with mild impairments after stroke were interviewed in focus groups about facilitators and barriers for RTW and stay at work after stroke. The results showed that both work conditions, support, and changed personal priorities were perceived to be important facilitators or barriers for RTW after stroke.

Even though the participants in this study rated their overall recovery on SIS to median 90% one year after the stroke, many of them perceived that adjustments at the workplace were necessary for RTW and the ability to stay at work. For persons with motor impairments, physical adjustments such as a reduction of heavy work tasks were important, which has been shown previously [33]. Hidden disabilities are common, also in persons with mild stroke [9], which might affect work. The participants in the present study expressed problems related to overload of sensory stimuli, concentration difficulties, fatigue, and fatigability. However, most scored under the cutoff for fatigue according to the MFS, indicating that the scale may not be sensitive enough in this context. Reduction of sensory stimuli and a flexible work schedule were for many participants a prerequisite for RTW.

A stepwise RTW process such as being able to start work later in the day or working from home were experienced to reduce the impact of hidden disabilities. Previous studies have reported that part time work [34], a stepwise RTW process and the implementation of less demanding work tasks [33] may improve successful RTW rates.

In the present study, also less extensive adjustments such as reduction of overtime hours and the ability to take small pauses during the day, were identified as facilitators. This illustrates that many types of adjustments, either initiated by the employer or by the participants themselves, might be necessary. Also, as the impairments might be persistent [16,24], long-term adjustments might be needed. Thus, in the RTW process, it is important to make efforts to adjust the work situation and to find individual solutions [33,35] in order to achieve a sustainable work situation.

Furthermore, the participants in the present study expressed that psychosocial support and practical help from families as well as support at the workplace facilitated RTW. They perceived that it was difficult to manage both work, taking care of the family and household chores. The impact of the home situation on work has previously been described among persons with traumatic brain injuries [36]. After stroke, the need and extent of practical help in the home situation is not so often highlighted in the literature, but needs to be further elucidated. Support from the employer and colleagues was also perceived important by the participants in the present study, which confirm results from previous studies [17,24]. Many participants perceived that there existed a lack of knowledge about the consequences of stroke at the work place, which has also been acknowledged earlier by affected persons [24,37] and by employers' and colleagues [35,38]. In addition, the participants had difficulties to explain their needs to employers and colleagues and sometimes felt misunderstood by others. Therefore, rehabilitation professionals have an important role to provide knowledge and to cooperate with other stakeholders to find individualized work place adjustments. Such knowledge and collaboration have to some extent been developed [21,39].

The participants were also worried about what the employer and colleagues thought about their capacity, and whether they talked behind their backs. The working climate and social contacts are important for RTW [19]. A straightforward communication at the work place, how to balance work demands and work capacity, are important to achieve a reasonable work situation and might facilitate the ability to RTW and stay at work [34,35]. An open-minded communication between all stakeholders and involvement of the affected person is crucial to counteract

misunderstandings, feelings of stigmatization and uncertainty about other peoples' thoughts [35] and should be strived for.

Moreover, many participants had changed their views regarding work after the stroke. For some, work was still important. But for others, the meaning of work in relation to other values in life such as family and leisure time, had changed and persons who were near retirement age had thoughts on earlier retirement. Similar findings have been found in previous studies [15,20,40,41] and indicate that it is important to understand the persons' motivation and attitudes toward work in the RTW and stay at work process.

To summarize, several factors influence the ability to RTW and stay at work after stroke, which is illustrated in the theme. The three categories are considered related to each other. Adjustments and flexibility at the workplace were needed to obtain necessary work conditions for RTW. Support and practical help from families, as well as support and understanding from employers and colleagues were important. Knowledge about stroke impairments at the workplace was perceived important in order to optimally adjust the work and to support the person. Rehabilitation professionals have an important role in providing such knowledge and to cooperate with other stakeholders to find adequate work place adjustments. Furthermore, many participants had changed their work priorities. This indicates that the ability to RTW and stay at work not only depend on the stroke impairments, but also on how successful adjustments at the work place are, if the support is sufficient and the work is perceived meaningful. A key factor for a sustainable work situation is the ability to influence one's working situation.

Methodological considerations

We consider qualitative content analysis to be well-suited for the study, as the aim was to describe the participants' experiences. Moreover, a content analysis approach is close to the text, which ensures that the result describes the participants' perceptions [42]. Focus groups were suitable [30] and the interviews resulted in a diverse and rich experienced-based data. An interview guide with open-ended questions was used to ensure dependability, i.e., that important areas related to the study aim were covered. The focus groups were small to ensure that persons with impairments (e.g., fatigue and concentration problems) felt comfortable [43]. The participants varied regarding gender, social background and represented a variety of occupations, worked both in public and private sectors or were self-employed. Credibility of the study was ensured through the participants various experiences and through two data coders. However, the analysis may have been improved if a third person had been involved in the analysis to resolve any disagreement. During the analytic process and description of the results, the researchers worked close to the text and had many repeated discussions. Quotations were inserted to ensure consistency. According to reflexivity, all researchers had experience of clinical stroke rehabilitation and/or stroke research. The variation in experience and knowledge among the researchers enriched the discussion and ensured that various aspects were covered. However, it cannot be ruled out that our pre-understanding has influenced the interpretation of the results.

We consider the results to be transferable to persons in similar conditions, i.e., persons with mild impairments after stroke, who were employed before stroke and have RTW within one year. Objective measures could have been included to be able to confirm participants recovery after stroke, and it might be considered a limitation that only self-reported outcome measures were used in the present study. Another limitation is that member checking was not performed. All participants in the present study had returned to work. No one from the questionnaire study who had not returned to work volunteered for interviews. Therefore, future studies are needed to explore perceptions of the RTW process among persons who have not RTW, as they may have other experiences.

Conclusions

This study shows that the individual's opportunities to influence the work situation is a key factor for RTW and the ability to stay at work after stroke. Adjustments, flexibility, support, knowledge of stroke, and receptivity to a changed view of work are perceived to be important factors for a sustainable work situation.

Acknowledgements

The authors are grateful to the persons who volunteered to participate in the present study and to RPT, PhD Michael Miller for language editing, Camilla Andersson, Sanna Forsgren and Ann Nilsson for help with background data collection, and MD Åsa Nilsson for her valuable and constructive input during the planning and development of this research work.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

Financial support was received from the Färs and Frosta Foundation, the Swedish Stroke Association, the Promobilia Foundation and the Norrbacka-Eugenia Foundation.

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References

[1] Vestling M, Tufvesson B, Iwarsson S. Indicators for return to work after stroke and the importance of work for subjective well-being and life satisfaction. J Rehabil Med. 2003; 35(3):127–131.
[2] Ghatnekar O, Persson U, Asplund K, et al. Costs for stroke in Sweden 2009 and developments since 1997. Int J Technol Assess Health Care. 2014;30(2):203–209.
[3] Riksstroke the Swedish Stroke Register. Årsrapport stroke TIA 2018. Umeå: Riksstroke the Swedish Stroke Register; 2018 [cited 2020 Jun 24]. Available from: http://www.riks-stroke.org/sve/forskning-statistik-och-verksamhetsutveckling/rapporter/arsrapporter/
[4] Feigin VL, Forouzanfar MH, Krishnamurthi R, et al. Global and regional burden of stroke during 1990–2010: findings from the Global Burden of Disease Study 2010. Lancet. 2014;383(9913):245–254.
[5] Ramirez L, Kim-Tenser MA, Sanossian N, et al. Trends in acute ischemic stroke hospitalizations in the United States. J Am Heart Assoc. 2016;5(5):e003233.
[6] Aked J, Delavaran H, Norrving B, et al. Temporal trends of stroke epidemiology in Southern Sweden: a population-

based study on stroke incidence and early case-fatality. Neuroepidemiology. 2018;50(3–4):174–182.
[7] Treger I, Shames J, Giaquinto S, et al. Return to work in stroke patients. Disabil Rehabil. 2007;29(17):1397–1403.
[8] Kauranen T, Turunen K, Laari S, et al. The severity of cognitive deficits predicts return to work after a first-ever ischaemic stroke. J Neurol Neurosurg Psychiatry. 2013;84(3):316–321.
[9] van der Kemp J, Kruithof WJ, Nijboer TCW, et al. Return to work after mild-to-moderate stroke: work satisfaction and predictive factors. Neuropsychol Rehabil. 2017;29(4):1–16.
[10] Andersen G, Christensen D, Kirkevold M, et al. Post-stroke fatigue and return to work: a 2-year follow-up. Acta Neurol Scand. 2012;125(4):248–253.
[11] Cumming TB, Packer M, Kramer SF, et al. The prevalence of fatigue after stroke: a systematic review and meta-analysis. Int J Stroke. 2016;11(9):968–977.
[12] International Classification of Functioning, Disability and Health (ICF). Geneva: WHO; 2001. Available from: https://www.who.int/classifications/icf/en/
[13] Lexell J, Brogårdh C. The use of ICF in the neurorehabilitation process. NeuroRehabilitation. 2015;36(1):5–9.
[14] Larsen LP, Biering K, Johnsen SP, et al. Self-rated health and return to work after first-time stroke. J Rehabil Med. 2016;48(4):339–345.
[15] Edwards JD, Kapoor A, Linkewich E, et al. Return to work after young stroke: a systematic review. Int J Stroke. 2018;13(3):243–256.
[16] Palstam A, Törnbom M, Sunnerhagen KS. Experiences of returning to work and maintaining work 7 to 8 years after a stroke: a qualitative interview study in Sweden. BMJ Open. 2018;8(7):e021182.
[17] Lindström B, Röding J, Sundelin G. Positive attitudes and preserved high level of motor performance are important factors for return to work in younger persons after stroke: a national survey. J Rehabil Med. 2009;41(9):714–718.
[18] Schwarz B, Claros-Salinas D, Streibelt M. Meta-synthesis of qualitative research on facilitators and barriers of return to work after stroke. J Occup Rehabil. 2018;28(1):28–44.
[19] Alaszewski A, Alaszewski H, Potter J, et al. Working after a stroke: survivors' experiences and perceptions of barriers to and facilitators of the return to paid employment. Disabil Rehabil. 2007;29(24):1858–1869.
[20] Brannigan C, Galvin R, Walsh ME, et al. Barriers and facilitators associated with return to work after stroke: a qualitative meta-synthesis. Disabil Rehabil. 2017;39(3):211–222.
[21] Hellman T, Bergström A, Eriksson G, et al. Return to work after stroke: important aspects shared and contrasted by five stakeholder groups. Work. 2016;55(4):901–911.
[22] Westerlind E, Persson HC, Eriksson M, et al. Return to work after stroke: a Swedish nationwide registry-based study. Acta Neurol Scand. 2020;141(1):56–64.
[23] Lallukka T, Ervasti J, Lundström E, et al. Trends in diagnosis-specific work disability before and after stroke: a longitudinal population-based study in Sweden. J Am Heart Assoc. 2018;7(1):e006991.
[24] Balasooriya-Smeekens C, Bateman A, Mant J, et al. Barriers and facilitators to staying in work after stroke: insight from an online forum. BMJ Open. 2016;6(4):e009974.
[25] Trygged S. Return to work and wellbeing after stroke – a success story? Int J Ther Rehabil. 2012;19(8):431–438.
[26] Gard G, Pessah-Rasmussen H, Brogårdh C, et al. Need for structured healthcare organization and support for return to work after stroke in Sweden: experiences of stroke survivors. J Rehabil Med. 2019;51(10):741–748.
[27] Duncan PW, Wallace D, Lai SM, et al. The stroke impact scale version 2.0. Evaluation of reliability, validity, and sensitivity to change. Stroke. 1999;30(10):2131–2140.
[28] Johansson B, Rönnbäck L. Evaluation of the mental fatigue scale and its relation to cognitive and emotional functioning after traumatic brain injury or stroke. Int J Phys Med Rehabil. 2014;2:182.
[29] Palm S, Rönnbäck L, Johansson B. Long-term mental fatigue after traumatic brain injury and impact on employment status. J Rehabil Med. 2017;49(3):228–233.
[30] Morgan D. Focus groups as qualitative research. 2nd ed. Thousand Oaks: Sage Publications; 1997.
[31] Graneheim UH, Lundman B. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. Nurse Educ Today. 2004;24(2):105–112.
[32] Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. Int J Qual Health Care. 2007;19(6):349–357.
[33] Gilworth G, Phil M, Cert A, et al. Personal experiences of returning to work following stroke: an exploratory study. Work. 2009;34(1):95–103.
[34] Hartke RJ, Trierweiler R. Survey of survivors' perspective on return to work after stroke. Top Stroke Rehabil. 2015;22(5):326–334.
[35] Öst Nilsson A, Eriksson G, Johansson U, et al. Experiences of the return to work process after stroke while participating in a person-centred rehabilitation programme. Scand J Occup Ther. 2017;24(5):349–356.
[36] Donker-Cools B, Schouten MJE, Wind H, et al. Return to work following acquired brain injury: the views of patients and employers. Disabil Rehabil. 2018;40(2):185–191.
[37] Wolfenden B, Grace M. Returning to work after stroke: a review. Int J Rehabil Res. 2009;32(2):93–97.
[38] Coole C, Radford K, Grant M, et al. Returning to work after stroke: perspectives of employer stakeholders, a qualitative study. J Occup Rehabil. 2013;23(3):406–418.
[39] Sinclair E, Radford K, Grant M, et al. Developing stroke-specific vocational rehabilitation: a soft systems analysis of current service provision. Disabil Rehabil. 2014;36(5):409–417.
[40] Törnbom K, Hadartz K, Sunnerhagen KS. Self-perceived participation and autonomy at 1-year post stroke: a part of the stroke arm longitudinal study at the University of Gothenburg (SALGOT Study). J Stroke Cerebrovasc Dis. 2018;27(4):1115–1122.
[41] Culler KH, Wang YC, Byers K, et al. Barriers and facilitators of return to work for individuals with strokes: perspectives of the stroke survivor, vocational specialist, and employer. Top Stroke Rehabil. 2011;18(4):325–340.
[42] Elo S, Kyngäs H. The qualitative content analysis process. J Adv Nurs. 2008;62(1):107–115.
[43] Saywell N, Taylor D. Focus group insights assist trial design for stroke telerehabilitation: a qualitative study. Physiother Theory Pract. 2015;31(3):160–165.