JÖNKÖPING UNIVERSITY
School of Health and Welfare

Description of Orthotists Level of Involvement in Early Post Stroke Management in Denmark: A Cross-Sectional Survey

PAPER WITHIN: Prosthetics & Orthotics

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Abstract

Background: Following a stroke the ability to walk is often impaired due to compromised motor-control, muscle weakness and spasticity, resulting in deviations during gait. Ankle-foot orthoses (AFO) can be used for people with hemiparesis to improve stability during stance phase and clearance during swing phase. There has been much discussion whether AFOs have a positive effect during early rehabilitation post stroke (in this study defined as six weeks from the initial stroke onset).

Objectives: The aim was to describe the level of involvement of Danish Certified Prosthetists and Orthotists (CPO) in early rehabilitation of stroke patients in Denmark, and to describe danish orthotists view on their involvement in early rehabilitation of stroke patients.

Method: A cross-sectional survey, in form of a self-administered questionnaire, was conducted during March and April 2021 in Denmark. The survey was sent to Danish CPOs who were currently members of the Danish professional organization for prosthetists/orthotists. A total of 110 members received the questionnaire by e-mail, 80 of which were registered as certified. The questionnaire consisted of 43 items (of which a minimum of 26 questions needed answering) with mainly closed ended questions. Descriptive statistics were used for data analysis, with frequencies, percentage and summarizing tables.

Results: The response rate was 31.25 % (n=25). The survey demonstrated that only few participants (n=3) were involved in early gait rehabilitation, stroke patients were seen as out-patients in orthotic clinics (92%, n=23), usually 4–6-month post stoke (44%, n=11) and often with a referral from another member of the multidisciplinary team (MDT) (56%, n=14). Danish CPOs believed that orthotic assessment was an essential part of gait re-education (80% n=20), and that the orthotist should be part of the early gait rehabilitation (88%, n=22). Most of the orthotists (72%, n=18) were confident in recommending a treatment plan including lower extremity orthosis and were confident in advising the multidisciplinary team (MDT) in the use of orthosis (80%, n=20).

Conclusion: It is uncommon for danish CPOs to be involved in the early rehabilitation of stroke patients and the Danish CPOs often first meet the patient late in the rehabilitation process. The CPOs believe that they should be part of early gait rehabilitation and that orthotic assessment should be part of gait re-education.

Keywords: orthotist; perception; involvement; early gait rehabilitation; post stroke.

Beskrivelse af bandagisters niveau af involvering i tidlig håndtering af post apopleksi i Danmark: et tværsnitsstudie

Resumé

Baggrund: Evnen til at gå er ofte nedsat som følge af apopleksi grundet svækket motor-kontrol, muskel svaghed og spasticitet, der kan føre til gang deviationer. Ankel-fod ortoser kan bruges af personer med hemiparese til, at forbedre stabiliteten i standfasen og frigørelse af gulvet i benets svingfase. Der har været meget diskussion om, hvorvidt ankel-fod ortoser har en positiv effekt under tidlig gangrehabilitering efter apopleksi (i dette studie, defineret som seks uger efter infarktet).
Formål: Formålet var at beskrive niveauet af involvering blandt autoriserede danske bandagister under tidlig rehabilitering af apopleksipatienter i Danmark og, at beskrive danske bandagisters synspunkt på deres involvering i tidlig rehabilitering af apopleksipatienter.
Metode: Et tværsnitsstudie i form af et selvadministreret spørgeskema blev udført i Danmark i marts og april 2021. Spørgeskemaet blev sendt ud til autoriserede bandagister, som på daværende tidspunkt var medlem af Danske Bandagister. 110 medlemmer modtog spørgeskemaet via e-mail, 80 medlemmer var registreret som autoriserede. Spørgeskemaet bestod af 43 spørgsmål (hvoraf minimum 26 skulle besvares) af typen lukkede spørgsmål. Beskrivende statistik blev anvendt som dataanalyse, med frekvenser, procentdel og opsummerende tabeller.
Resultater: Svar procenten var 31.25 % (n=25). Studiet viste, at kun få deltagere (n=3) var involveret i tidlig gangrehabilitering, at apopleksipatienter ses ambulante i privat klinik (92%, n=23), oftest 4-6 måneder efter infarktet (44%, n=11) og ofte med en henvisning fra andet medlem af det tværfaglige team (56%, n=14). Danske bandagister mener, at ortose vurdering er en essentiel del af ganggenoptræningen (80% n=20) og, at bandagister bør være en del af den tidlige gangrehabilitering (88%, n=22). En overrepræsentation af danske bandagister (72%, n=18) er sikre i, at anbefale en behandlingsplan der inkluderer nedre ekstremitets ortose og er sikre i, at vejlede det tværfaglige team i brugen af ortosen (80%, n=20).
Konklusion: Det er ikke normalt, at danske bandagister er en del af den tidlige rehabilitering af apopleksipatienter, og det er oftest at bandagisten først ser patienten sent i rehabiliteringsforløbet. Bandagisterne mener, at de bør være en del af tidlig gangrehabilitering og, at ortose vurdering bør være en essentiel del af ganggenoptræningen.

Nøgleord: bandagist; mening; involvering; tidlig gangrehabilitering; apopleksi.

Table of Contents

Introduction

The decision to provide ankle-foot orthoses (AFO) early in stroke rehabilitation has been a point of much discussion among health professionals, while some believe that the use of orthoses can facilitate stability and aid recovery in the early stages of stroke, others are rather critical because they believe that orthoses prevent or delay recovery of normal movement. In this thesis, the issue is addressed through a cross-sectional study which aims to investigate how early, and in what degree, Danish orthotists are involved in early gait rehabilitation post stroke and their perception of how and when the orthotist should be involved.

Background

In Denmark, stroke is the most common cause of disability in adults, and it is estimated that, each year, around 12.000 people are hospitalized with stroke (Sundhedsstyrelsen, 2020b). Stroke is defined as an acute onset of neurological damage to the brain either due to blockage of a blood vessel (ischemic stroke; 85% of cases in DK) or rupture of a blood vessel (hemorrhagic stroke; 15% of cases in DK) (Sundhedsstyrelsen, 2020b).

Impairments post stroke

Stroke interferes with how the brain communicates with the body. The clinical symptoms of a stroke are highly dependent on which parts of the brain are injured. The middle cerebral artery (MCA) supplies part of the frontal lobe, the lateral surface of the temporal- and the parietal lobe, as well as some of the deeper structures of the brain, and is the artery most often occluded in stroke events (Mohr & Kejda-Scharler, 2010, p. 344). This is why typical neuropsychological damage involves memory, speech and language, vision, change of behavior, and emotion (Pedersen, 2009, pp. 300-301).
Impairments of mobility include muscle weakness (hemiparesis), paralysis (hemiplegia) and/or disturbance in sensation (hemisensory loss) on the side of the body contralateral to the side of the brain of where the injury is located (Pedersen, 2009, pp. 300-301). The consequences of a stroke vary broadly which emphasizes the importance of a multidisciplinary approach for rehabilitation.

Gait characteristics post stroke

Not all stroke patients will develop the same mobility impairments, but characteristics often seen are described as hemiparetic gait. Hemiparetic gait is characterized by reduced velocity and cadence, asymmetry in step length, in the form of prolonged swing duration on the affected side and prolonged stance duration on the non-affected side (Brandstater et al. 1986).

Gait deviations often encountered by people who have had a stroke will often present themselves during both phases of gait. At initial contact (IC) the lateral forefoot typically make contact with the ground first, due to tone-induced equinovarus. Throughout stance, supination of the foot compromises ankle stability and balance. From midstance (MSt) to pre-swing (PSw), hyperextension of the knee is common, which hinders the forward progression of tibia. Weakness of the hip flexors can make it difficult to initiate swing. During swing phase, circumduction is a common gait deviation due to reduced or absent hip/knee flexion and ankle dorsiflexion (Hou et al., 2019, p. 290).
Muscle weakness at the ankle, sometimes in combination with spasticity, leads to a drop-foot, resulting in loss of the ability to lift and advance the foot during swing phase (Perry & Burnfield, 2010, p. 172), posing a risk of falling.
When spasticity is present the use of primitive locomotor patterns become an alternative to voluntary control. During swing phase, a mass flexion pattern allows the patient to deliberately take a step, by flexing the knee and hip simultaneously while dorsiflexing and inverting the ankle. During stance phase, the mass extensor pattern is used to create stability, by extending the knee and hip, and plantar flexing the ankle. The inability of combining flexion and extension between the movement patterns limits the smooth transition between the two phases (Perry & Burnfield, 2010, pp. 171-173).

Management of mobility impairments post stroke

Early mobilization of the patient is essential and normally the patient enters a rehabilitation program within six to ten days after the stroke onset (Perry & Burnfield, 2010, p. 304). Training of gait and balance is traditionally handled by physiotherapists (Pedersen, 2009, p. 299).
Orthotic interventions may be used as a strategy to manage the mobility impairments post stroke. An orthosis is a devise applied externally with the aim of modifying structural or functional impairments (Yamane, 2019, p. 3). The purpose being stabilizing or immobilizing abnormal motion of one or multiple body segments around a joint, encouraging correct positioning, preventing deformities, protecting against injury or supporting weakened muscles (Yamane, 2019, p. 3). By applying counteracting external forces at either side of the joint, the internal forces acting on the joint are redistributed and the position and movement of the joint is controlled and/or limited (Richards et al., 2018, p. 292).

Different kinds of orthoses exist, and the right kind of orthosis is chosen depending on the extent of the damage. If the damage is limited around the ankle, options like Functional Electrical Stimulation (FES) and AFOs are present. AFOs are numerous and come in different designs and functions depending on the functional limitations of the user (Hou et al., 2019 pp. 292-295).
The main function of AFOs, for individuals post stroke, are providing moderate resistance during loading response (LR) to avoid foot slap, free dorsiflexion during stance, plantarflexion resistance during swing to provide foot clearance and assist in plantarflexion during PSw (Alam et al., 2014). Passive ankle range of motion is important when considering which AFO is appropriate. Both articulated and rigid AFOs show improved dorsiflexion during swing and at IC regardless of the ankle mobility (Mulroy et al., 2010). Whereas an AFO with a posterior design has showed to increase dorsiflexion all throughout the gait cycle as compared to an AFO with an anterior design (Daryabor et al., 2018). Rigid

AFOs have no positive effect on walking ability in patients with normal range of motion but helps prevent hyperextension of the knee when plantar flexion contractures are present (Mulroy et al., 2010). The plantar-flexion-stop AFO (PS AFO) has also been shown to prevent hyperextension of the knee (Mulroy et al., 2010). Furthermore, the PS AFO managed to keep the ankle in dorsi flexion during the first rocker and showed the largest amount of dorsiflexion during stance (Daryabor et al., 2018). Dorsiflexion-assist/dorsiflexion-stop AFOs (DA-DS AFO) provided resistance to tibial advancement during single limb support and stabilized the tibia when moderate dorsiflexion of the ankle (Mulroy et al., 2010).

An alternative to AFOs could be a FES. FES is a band with electrodes that is worn around the calf, sending electrical impulses stimulating the peroneal nerve activating the dorsiflexors (Hou, et al., 2019 p. 292). FES has shown positive outcomes when drop foot is present after stroke, resulting in both increased gait velocity (Karinel, 2021; Kottink et al., 2004), swing duration, and step length symmetry indicating better gait symmetry, which reduced the risk for falling (Karinel, 2021). However, FES had limited effects when mediolateral instability of the ankle was present and the stimulation did not work for everybody (Kottink et al., 2004).

When the support from an AFO is insufficient, a knee-ankle-foot orthosis (KAFO) might be necessary to provide the sufficient stability (Hou et. a., 2019, p. 294). When more severe neurological impairments are present, leading to poor proprioception, balance, cognitive function, and reduced kinematics such as insufficient hip flexion/extension, knee extension and dorsiflexion, a KAFO was indicated (Fujii et al., 2020). A KAFO is used to stabilize the knee during weight bearing in the stance phase (Fujji et al., 2020) or when severe genu recurvatum, which cannot be controlled with an AFO, or genu- varum or valgum were present (Tian et al., 2015).

Throughout the years, AFOs in rehabilitation post stroke have been reason for much discussion. While some believe that the use of orthoses can facilitate stability and aid to motor recovery (Pak & Patten, 2008; Teasell et al., 2001), others suggested that the use of orthoses were contributing to reduced muscle strength and to delayed recovery (Hesse et al., 1999; Geboers et al., 2002; Lairamore et al., 2011). Hesse et al. (1999) showed a more dynamic and balanced gait in hemiparetic subjects when they wore an AFO, however, expressed concern that reduced activity of the tibialis muscles would lead to atrophy and consequently long-term dependence on the orthosis. Furthermore, a study from 2019 (Nikamp et al.) showed that post stroke patients had a reduced tibialis anterior muscle activity during swing phase when wearing an AFO. However, this same study demonstrated that tibialis anterior muscle activity was not affected by long-term use.
Similar to Hesse et al. (1999), a study from 2002 (Geboers et al.) expressed concern whether the reduced muscle activity from wearing an AFO would induce disuse effects while wearing the orthosis, resulting in worsening of the existing loss of strength and thereby possibly delay the recovery. Also, Lairamore et al. (2011), expressed that healthcare therapists had been hesitant in providing AFOs for individuals who had suffered a stroke, due to the concern that using an AFO would encourage disuse of the tibialis anterior muscle and thereby decrease the opportunity for motor re-learning, resulting in permanent gait impairments and the patient being dependent upon the AFO. This same study concluded that bracing

could lead to a decline in the activity of the tibialis anterior muscle during swing, which supported the view of the healthcare therapists. In contrast, Pak and Patten (2008) associated greater functional recovery with increased walking speed, which could be caused by using an AFO. Likewise, Teasell et al. (2001) pointed out the importance of an AFO in functional improvement, while showing improvement in the quality of gait and reduction in fall incidents and their associated morbidities.

The effectiveness of the use of AFOs in early stroke gait rehabilitation has been examined from multiple aspects. A systematic review by Tyson and Kent (2013), showed that studies (including 282 participants) that reported on walking speed showed a significant improvement when the AFO was worn and, also a significant increase in step or stride length. Balance, measured by weight distribution improved significantly and so did mobility assessed with the Functional Ambulation Categories. Statistical significance was not reached for three of the outcome measures (postural sway, Timed Up and Go and Stairs Ascent/Descent) even though the comparisons favored the AFO for the two mobility tests. Finally, studies that reported on balance using the Berg Balance Scale showed mixed results.

Similarly, Nikamp et al. (2017b), aimed to study the effects on walking speed, ability and independence (10-metre walk test, 6-minute walk test and FAC), balance (Bergs Balance Scale), functional mobility (Timed Up and Go, Stairs Test) and mobility during activities of daily life (Rivermead Mobility Index and Barthel Index), of using an AFO post-stroke and whether the time at which an AFO was provided post stroke had any influence on these effects. The study found that participants assigned to the early-AFO-provision group showed significant positive effects on all outcome measures (eight in total) two weeks after provision. Whereas the delayed-AFO-provision group only showed significant improvement on three out of eight outcome measures when tested two weeks after provision, that being on balance (Bergs Balance Scale), walking ability (6-minute walk test) and functional mobility (Timed Up and Go).

Another study by Nikamp et al. (2017c), showed that different levels of independence were reached earlier when AFOs were provided early compared to delayed provision. Patients who were provided with an AFO early could walk up to 10 weeks earlier without physical support compared to the delayed provision. Also, improvement of balance related to falls and walking speed was reached 4-6 weeks earlier. It was suggested that there might be a specific point in time, where early provision increased the ability to perform specific tasks related to rehabilitation exercises and reduced the length of in-clinic stays. As an extension to this, the study (Nikamp et al., 2019) on tibialis anterior muscle activity when wearing an AFO, showed no difference between early and late provision.

Another study by Nikamp et al. (2017a), studied the short-term kinematic and spaciotemporal effects of AFO provision and the effect in relation to timing. Where provision of an AFO showed significant positive effects on all outcome parameters on ankle-level (except max. dorsiflexion during stance phase - probably since the AFO kept the ankle at a fixed position), noticeably the ankle kinematic in the sagittal plane, in the form of improved ankle dorsiflexion during IC, foot-off and throughout swing phase. Also, inversion of the foot was significantly improved. In regards to the effect of timing, the study found no

significant difference for kinematic effects between the early- and delayed-provision group, nor for the spaciotemporal parameters except for a significant improvement during single limb support.

Guidelines

In September 2020 (updated in March 2021) the newest national guideline on rehabilitation processes for adults with acquired brain damage was released by the National Board of Health in Denmark (Sundhedsstyrelsen, 2020a). This guideline described the comprehensive interdisciplinary, cross-sectoral and coordinated effort that should be provided nationwide to ensure uniformity, high quality, and consistency in the rehabilitation itself and in the effort of the rehabilitation.
The first section of the guideline pointed out that rehabilitation post stroke may be handled by both non-certified and certified healthcare professionals, the orthotist is mentioned as an example of the latter, along with physiotherapists, occupational therapists, nurses and doctors. Later, the guideline specifies which interdisciplinary competencies should be used, the orthotist is not mentioned. The guideline explains that there might be a need to include other professions apart from the mentioned professionals but does not specify further who that might include.
The section dedicated to interventions targeting the physical and sensory functions of the body, mentions the physiotherapist and occupational therapist as primary health care professions and the importance of ongoing examination and treatment by specialists in neurology. According to the guideline the need for rehabilitation of the individual is precisely specified and organized on three different levels: a basic level, an advanced level and a specialized level. Under examples of referral to rehabilitation on a specialized level, under severe muscle overactivity (spasticity and dystonia) and severe pain problems (such as complex regional pain syndrome) the primary effort was specialized clinical and instrumental assessment coordinated with medical treatment simultaneously with rehabilitation. Individual brace treatment is mentioned as possible, but not further specified.

Regarding the allocation of aids and who is responsible for financing these, in Denmark the responsibility lies with both the region and the municipality, depending on how far the individual person is with treatment and rehabilitation. A management audit analysis regarding aids from 2014/15 carried out by the region of Midtjylland (Ernst & Young P/S, 2014), pointed to challenges on the area due to lack of transparency. By default, aids are lent in accordance with § 140 of the Danish Health Act (Retsinformation, 2019) and permanent aids are only granted when the individual person has a permanent reduced functional ability in accordance with § 112 of the Danish Service Act (Retsinformation, 2017).

In Scotland the NHS Quality Improvement created a Best Practice Statement for use of AFOs. The Best Practice Statement was created by a practicing working group of orthotists, physiotherapists, stroke nurses, bioengineers, staff from the NHS Quality Improvement and patient representatives. The Best Practice Statement contained information about function of AFOs, the importance of both the use of AFOs and a high level of experience of the orthotists (NHS QIS, 2009).

The guideline published by the Danish National Board of Health (Sundhedsstyrelsen, 2020a), mentioned the orthotist briefly, but did not specify the time of involvement or the level of involvement. The same applies to the use of orthoses, which were not specified. Concerning the orthotist and the use of orthotic intervention it is rather difficult to identify how much the orthotist is involved in rehabilitation post stroke and on which terms. A study investigating Danish orthotists involvement in rehabilitation of stroke patients and their perception of their involvement, is highly relevant.

Aim

The overall aim of the thesis was to describe the level of involvement of Danish orthotists in early rehabilitation of stroke patients in Denmark, and to describe Danish orthotists view on their involvement in early in early rehabilitation. Questions addressed are:

What is the current level of involvement that Danish orthotists have in early rehabilitation of stroke patients?

What level of involvement do Danish orthotists think they should have?

Methods

Study design

A cross-sectional survey was conducted using a self-administered questionnaire to investigate practice and attitudes of certified Danish orthotists concerning early rehabilitation following stroke. The design enabled gathering of information on the variables of interest to describe Danish orthotists level of involvement in early rehabilitation of patients post stroke, and orthotists perception on their level of involvement in early rehabilitation. The survey was administered during March and April 2021.

Participants

According to the certification register presented by the Authority for Patient Safety (n.d.) there were 158 registered CPOs in Denmark at the time this study took place. Of these 158, not all were currently practicing in Denmark. Orthotists were recruited via the Danish professional organization for prosthetists/orthotists, in order to ensure that participants were certified by the National Board of Health in Denmark and to monitor exactly how many received the questionnaire. According to Jacobsen (2017, pp. 110-111), when a target population is relatively small all registered members can be asked to participate in a survey – the approach chosen in this study.

The process of recruitment included taking contact to the Danish professional organization for prosthetists/orthotists, with the request of having the survey sent out through them to their members. It was stated by the Danish professional organization for prosthetists/orthotists, that from their 110 members, 80 of these were registered as certified. The additional 30 were students and not yet certified.

The inclusion criteria, that had to be fulfilled to be eligible to partake in the survey, were prosthetists and orthotists certified by the National Board of Health in Denmark, CPOs who were currently practicing or had at some point been practicing in Denmark and was capable of understanding written Danish. The exclusion criteria were not yet certified orthotist doing their postgraduate apprenticeship. The criterions were met by having the participant confirm being certified as part of the survey.

Questionnaire

The instrument used was the English questionnaire *Scoping the orthotic profession for current views on involvement in early gait rehabilitation following stroke (SOGRES)* (Appendix A, pp. 27-40).

The questionnaire consisted of a total of 45 items, mainly closed-ended. The questionnaire was divided into four parts described below:

I. Participation consent – This section contained six dichotomous questions in order to ensure that the participant had read the information letter and consented to partake in the survey.

II. Demographics – Four multiple-choice questions related to demographics: level of education, level of clinical experience and type of employment.

III. Service 1 – This section contained eight questions, seven of which were multiple-choice and one with a five-point Likert scale response on frequency. The participant was given the opportunity to repeat this part of the survey twice (service 2 and service 3), if she/he happened to practice in multiple services. If so, a dichotomous question before service 2 and 3 were answered yes or no.

IV. Perception on current practice – This section contained eight questions, one multiple-choice, six with a five-point Likert scale response on level of agreement and one open-ended question allowing the participant to specify or add thoughts or opinions in open text format and finally the participant was given the opportunity to fill in her/his e-mail address for contact in future follow-up research.

The original questionnaire was in English and had to be translated. To ensure accuracy in the Danish translated version, the guidelines (Figure 1) for forward and back-translation presented by the World Health Organization ([WHO], n.d.) were followed.

Forward and back-translation

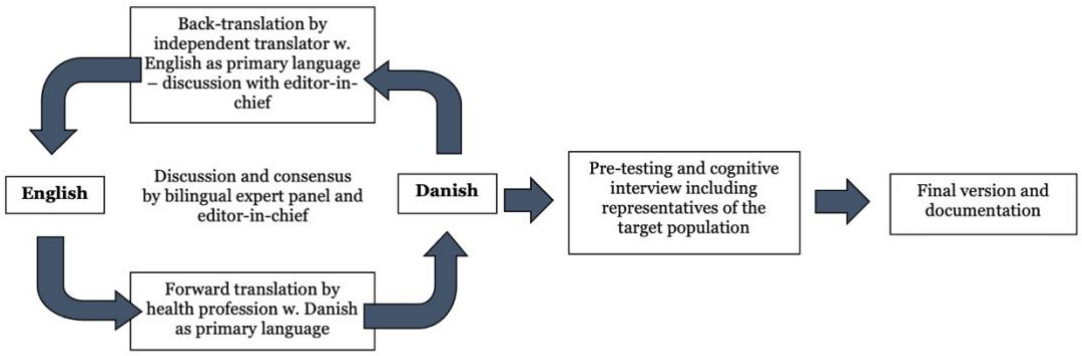

Figure 1. Translation, adaption and validation process according to guidelines from WHO (n.d.).

Each question was forward translated (Appendix B, pp. 41-51) from the original language, English, into the target language, Danish, by native speakers of Danish who were familiar with both English and Danish terminology related to the subject area. Second, the back-translation (Appendix C, pp. 52-62) was performed by a native speaker of English with Danish as a second language, and who was familiar with the terminology related to the subject area.

Differences and ambiguities between the two translations were subsequently identified, discussed and corrected by the authors of this thesis, with support from the supervising teacher, who was native speaker of English. In question 11a (Figure 2) we identified differences in the meaning of the chosen word, this was discussed and changed in the final questionnaire.

Question 11a in the original questionnaire:

☐ Other members of the MDT or the referrer formulates the orthotic prescription.

Question 11a in the initial forward translation:

- Andre tværfaglige professioner eller henviseren formulerer den ortopædiske behandlingsplan.

Question 11 a in the back-translation:

- Other multidisciplinary professions or the referrer formulates the orthopaedic treatment plan.

Question 11a in the final questionnaire:

- Andre tværfaglige professioner eller henviseren formulerer den ortopædtekniske behandlingsplan.

Figure 2. Example of wrong word chosen in the initial forward translation and how it yielded a different meaning in the back-translation when compared with the original questionnaire.

Internal validity refers to the degree to which the questionnaire actually measured what it was supposed to be measuring, and was assessed by pre-testing the questionnaire. Assessments for face validity (measuring target construction) and content validity (indicating the relevance, balance and comprehensiveness) (Thomas, 2017, p.146), were done by having others answer the questionnaire.

A group of five native Danish speakers received the revised version of the Danish questionnaire, all were students within the Prosthetics and Orthotics program at the time (three enrolled in semester 4, two enrolled in semester 6). First, the pre-test participants completed the questionnaire individually, then a brief discussion followed. Feedback was minor and related to grammar. It was deemed that the questionnaire measured the intended; orthotists involvement and perception hereof. Two of the pre-test participants were asked to monitor the time it took for them to complete the questionnaire, the authoring students also monitored themselves going through the questionnaire. The time it took to complete the questionnaire was estimated 10 to 15 minutes. After corrections were done the final version of the questionnaire was considered ready.

The final questionnaire (Appendix D, pp. 63-76) ended up including all questions from the original questionnaire, apart from question 6 in the participation consent (Appendix A, p. 27) and the last question requesting the participants e-mail address (Appendix A, p. 40). This discission was made since future follow-up research would not be part of the thesis. The final questionnaire consisted of a total of 43 items. All included questions were given the same options for answering as the original questionnaire, in order to provide the option to compare results.

Data collection

Ruel et al. (2016), suggested that survey response rates are maximized when: 1) an advance letter is sent to introduce the reader to the study, 2) a short information sheet and the actual survey, and 3) a reminder to answer the survey. The approach described was chosen as a method for increasing the response rate and possible participants were contacted first with an advance letter introducing to the study (Appendix

E, p. 77), then a short letter containing a link to the questionnaire (Appendix F, p. 78), and lastly two separate reminders containing a link to the questionnaire (Appendix G, pp. 79-80).

Data was collected between March 15, 2021 to April 9, 2021, via the online survey tool esMaker and in accordance with the following timeline:

I. Friday March 12 – The advance letter was sent out.
II. Monday March 15 – A short letter containing a link for the questionnaire was sent out.
III. Monday March 22 – The first reminder containing a link for the questionnaire was sent out.
IV. Monday March 29 – The second reminder containing a link for the questionnaire was sent out.

All content was sent out via the Danish professional organization for prosthetists/orthotists to a total of 110 members, of which 80 members meet the inclusion criteria.

Ethical considerations

The study was viewed and approved by the Research Ethics Committee at the School of Health and Welfare, Jönköping University, who found that no research ethical dilemmas were posed with the study.

The recipients of the questionnaire were informed about the goals of the study and its procedures. The recipients were made aware that participation was voluntary, that all data provided in the questionnaire was anonymous and would be handled in a confidential manner. This meant that as soon as the participant had submitted her/his answers they could not withdraw from the study, this was made clear both as part of the advance letter, the information sheet and the participant consent in the questionnaire. The recipients were informed of when and in which setting the data collected was to be presented, alongside the possibility to contact the students (via email or phone) undertaking the study if questions would arise or if they wished to receive the final thesis, contact (email) information for the supervising teacher was also provided. Informed consent was assumed if the recipient chose to participate in answering the questionnaire. Furthermore, participants provided written consent in the participant consent at the very beginning of the questionnaire. All procedures in the study that involved participants abide by the European General Data Protection Regulation (GDPR.DK, n.d.), since the survey did not ask any questions that was considered to contain sensitive personal data.

Statistical analysis

All data analysis was performed using the Statistical Package for Social Science (SPSS) IMB SPSS software program (version 27.0). Descriptive statistics for variables used and frequencies were displayed as percentages and summarized in tables.

Results

A total of 80 certified orthotists were invited to partake in the survey. After 26 days, 25 responses were received, yielding a response rate of 31.25%. From the 25 people who responded to the survey, four people chose to not fully answer the questionnaire, one person stopped responding after question 12a, another person did not answer question 15 and another two people did not answer question 19. All responses that were provided were included in the data analysis. The participants were given the option to add further comments at the end of the questionnaire, these comments were included under the sections where they were deemed fit, see Appendix H (pp. 81-82) for the original comments in Danish.

Demographics

Among the participants, 92% (n=23) indicated that they had a bachelor's degree, 4% (n=1) had a diploma and 4% (n=1) a master's, as their highest level of education. 100% (n=25) confirmed that they were a certified orthotist by the Danish National Board of Health. More than half (56%) of the participants had been certified for more than 10 years. Throughout the questionnaire, the participants were given the option of choosing multiple answers for some questions, which is why some questions have more than 25 responses. For the questions where the participants had the option to check all options that apply, the multiple-column structure was used to analyze the data, and the result was presented as percentage of respondents.

Table 1. Years of being certified as an orthotist and primary employer (n=25)

Variables	
Q 3: Years as certified orthotist	(n=25)
0-2 years	2 (8.0%)
3-5 years	3 (12.0%)
6-10 years	6 (24.0%)
More than 10 years	14 (56.0%)
Q 4: Primary employer	% of respondents (n=25)
Danish National Healthcare Service	3 (12.0%)
Private clinic servicing hospitals	6 (24.0%)
Private clinic	17 (68.0%)
Self-employed	3 (12.0%)
Municipality	2 (8.0%)

Current practice for orthotic management of stroke

The responses to answers regarding current practice for orthotic management of stroke are presented in Table 2. When asked which clinical setting the participant primarily worked in, 88% (n=22) indicated that they worked in a private clinic, which is also the clinical setting in which the patient is typically seen in (92%, n=23). The participants had the option of answering the questions 5-12 multiple times if they

practiced in multiple services. Three participants choose to answer the questionnaire from a secondary service, the three worked at respectively hospital with inpatients (n=1) and rehabilitation clinics (n=2).

Table 2. Current practice for how stroke is managed

Varible	Primary Service (n=25)	Secondary Service (n=3)
Q 5: Clinical setting the orthotist work in		
Hospital - inpatients		1 (33.3%)
Rehabilitation clinic	1 (4.0%)	2 (66.6%)
Patients own home	1 (4.0%)	
Privat clinic	22 (88.0%)	
Other	1 (4.0%)	
Q 6: Stroke patients as part of normal clinical caseload		
More than one a day	1 (4.0%)	
About once a day	1 (4.0%)	
Several times a week	8 (32.0%)	1 (33.3%)
About once a week	4 (16.0%)	
Several times a month	7 (28.0%)	1 (33.3%)
About once a month	2 (8.0%)	1 (33.3%)
Less frequently than once a month	2 (8.0%)	
Q 7: Clinical setting stroke patients appears in	% of respondents (n=25)	% of respondents (n=3)
Out patients in orthotic clinic	23 (92.0%)	2 (66.7%)
Out-patients in dedicated neurological clinic	4 (16.0%)	
In-patients on hospitals	5 (20.0%)	1 (33.3%)
In-patients rehabilitations center	6 (24.0%)	1 (33.3%)
Out-patients rehabilitations center	8 (32.0%)	
patients own home	7 (28.0%)	
Q 8: How often stroke patients are seen and treated in MDT		
Never	1 (4.0%)	
Rarely	10 (40.0%)	1 (33.3%)
Some of the time	7 (28.0%)	1 (33.3%)
Often	7 (28.0%)	1 (33.3%)
Q 9: Time post stroke the patient is typically met		
3-6 weeks post stroke	2 (8.0%)	1 (33.3%)
7-12 weeks post stroke	5 (20.0%)	
4-6 month post stroke	11 (44.0%)	2 (66.7%)
7-12 month post stroke	5 (20.0%)	
>12 month post stroke	2 (8.0%)	
Q 10: Involvement in early gaitrehabilitation		
I am not involved	7 (28.0%)	
I am involved but only with referral	14 (56.0%)	3 (100.0%)
I am routinely involved with out referral	4 (16.0%)	
Q 11: When involved, how is the treatment plan made		
Other members of the MDT formulates treatment plan	13 (52.0%)	
MDT and I formulates treatment plane	5 (20.0%)	3 (100.0%)
I formulates treatment plan independently	6 (24.0%)	
Q 12: Who decide the use of the orthosis		
Other members of the MDT	2 (8.0%)	
MDT and I	6 (24.0%)	1 (33.3%)
I do, indenpendtly	17 (68.0%)	2 (66.7%)

When asked how often the participants (n=25) saw stroke patients as part of their normal clinical caseload, the most frequent answers were several times a week (32%, n=8), several times a month (28%, n=7) and about once a month (16%, n=4). On the contrary, when asked how often the participants (n=25) saw and treated stroke patients as part of a multidisciplinary team (MDT), about half (44%, n=11) responded with rarely or never. One participant commented that if the patient was seen in the MDT, it was usually not as part of the early rehabilitation: *"Most of the stroke patients I see today are finished*

with their rehabilitation. So, the multidisciplinary work often happens when worsening of the walking ability/distance etc. Then it is not in the acute special team, but with a municipal physiotherapist." (Participant 1).

When asked about the duration of the time frame post stroke the patient was met, 72% (n=18) of the responses were 4 months or more. One participant commented: "*In general, I think we see stroke patients too late in the process. Many are discharged from the hospital and rehabilitation without having seen an orthotist ..."* (Participant 4).

When asked (n=25) about their involvement in early gait rehabilitation, more than half (56%, n=14) reported that they were involved, but only with a referral made by another MDT member. Only 16.0% (n=4) reported being involved without a referral and 28% (n=7) reported not being involved at all. One participant commented on why involvement in early rehabilitation can be complicated: *"... due to training versus permanent helping aid and if the patient is discharged from specialized rehabilitation to municipal rehabilitation since improvement can still occur. Due to this, some municipalities will not accept an application for a helping aid before the patient is finished with the rehabilitation process ..."* (Participant 2).

When asked (n=25) about how assessment and detailed prescription was decided when involved with early gait rehabilitation for stroke patients, approximately half (52%, n=13) reported that the formulation was handled by other members of the MDT, 20% (n=5) reported that the formulation was handled together and only 24% (n=6) reported that they formulated the orthotic prescription independently. One participant commented: *"... The team without the orthotist will typically formulate the treatment plan, set the boundaries and prescribe a short referral for a specific helping aid. The orthotist is then reduced to a simple supplier."* (Participant 3).

When asked (n=25) about how the use of the orthosis was decided, most (68%, n=17) reported that they independently determined the use of the orthosis and advised the patient in how to best use the orthosis.

Perception of how stroke is currently managed

The responses to answers regarding perception among orthotists of how stroke is currently managed are presented in Table 3. Approximately half (52%) of the participants (n=24) were of the opinion that the orthotist should be involved in early gait rehabilitation with a referral from the MDT, one participant commented: *"A multidisciplinary team with participation of orthotist on e.g., stroke clinics could have a positive effect on early gait rehabilitation ..."* (Participant 3).

When asked if orthotic assessment should be an essential part of gait rehabilitation, the most frequent answers were strongly agree (40%, n=10) and agree (40%, n=10). Participants' (n=24) confidence in recommending a treatment plan and advising the MDT on use of an orthosis, respectively 72% (44% + 28%) and 80.0% (36% + 44%), either strongly agreed or agreed. However, when asked (n=24) about

confidence in recommending training for potential recovery, more than half (64%) of the respondents were either neutral, disagreed or strongly disagreed.

Table 3. Perception among orthotists on how stroke is managed

Variable	
Q 13: Orthotists level of involvement in early gait rehabilitation	(n=24)
Orthotist should not be involved	2 (8.0%)
Orthotist should be involved with a referal from MDT member	13 (52.0%)
Orhotist should be involved with out referal	9 (36.0%)
Q 14: I am confident in recomending an orthotic treatment plan to a MDT	(n=24)
Strongly agree	5 (20.0%)
Agree	9 (36.0%)
Neutral	5 (20.0%)
Disagree	4 (16.0%)
Strongly disagree	1 (4.0%)
Q 15: Orthotic assesment should be essential in gait reeducation	(n=23)
Strongly agree	10 (40.0%)
Agree	10 (40.0%)
Neutral	2 (8.0%)
Disagree	1 (4.0%)
Strongly disagree	
Q 16: I am confident in recomending a treatment plan including lower extremity orthosis	(n=24)
Strongly agree	11 (44.0%)
agree	7 (28.0%)
Neutral	4 (16.0%)
Disagree	2 (8.0%)
Strongly disagree	
Q 17: I am confident in advising the use of an orthosis to a MDT team	(n=24)
Strongly agree	9 (36.0%)
agree	11 (44.0%)
Neutral	2 (8.0%)
Disagree	2 (8.0%)
Strongly disagree	
Q 18: I am confident in recommending traning for potential recovery	(n=24)
Strongly agree	3 (12.0%)
Agree	5 (20.0%)
Neutral	5 (20.0%)
Disagree	10 (40.0%)
Strongly disagree	1 (4.0%)
Q 19: I am satisfied with the frequency of my involvement in early rehabilitation	(n=22)
Agree	9 (36.0%)
Neutral	4 (16.0%)
Disagree	6 (24.0%)
Strongly disagree	3 (12.0%)

When asked (n=22) about their satisfaction regarding the frequency with which orthotists were currently involved in early gait rehabilitation, responses were rather inconsistent. 36% (n=9) reported that they were happy with the level of involvement, 16% (n=4) were neutral, whereas 36% (24%+12%, n=6+3) reported that they were not happy with the level of involvement. One participant expressed this dissatisfaction and pointed out the potential issues from seeing patients long after being discharged from rehabilitation: *"... It is so much easier adapting and using a drop foot orthosis if we see the patient before contractures and malalignments develop. I often see patient who have walked without an*

orthosis for many years and is overcompensating in the rest of the body since their walking pattern are very demanding." (Participant 4).

One participant commented on the orthotist not being part of the early rehabilitation team and how this is associated with the legislation on the matter: *"... since regions does not want to pay for e.g., individual drop foot orthoses as part of the treatment, and the municipalities will first pay when the rehabilitation is over, there is not any money left in the system for multidisciplinary cooperation in the rehabilitation phase ... this is luckily different in other parts of the country."* (Participant 5).

Another participant commented on why this might be the case: "*... competition considerations weight heavily in Danish municipalities and regions, establishment of such a team can be avoided, simply to avoid signing with a single supplier."* (Participant 3). Legislation was further commented on by another participants: *"It is essential who is paying for the orthosis, in the training process, where the citizen starts with an orthosis and within a short time ... must change model ..."* (Participant 6).

Discussion

This thesis aimed to describe Danish orthotists' level of involvement in the early gait rehabilitation of patients post stroke. A secondary aim was to describe orthotists' perception of their level of involvement in early gait rehabilitation. Results of the study demonstrated that few orthotists are involved in early gait rehabilitation, defined as the period six weeks from the initial stroke onset. Participants believed that orthotists should be included in earlier in gait rehabilitation of stroke patients and that orthotic assessment of the patient is an essential part of the gait re-education during recovery.

The study showed that Danish orthotists work regularly with chronic stroke patients in their normal caseload and that the majority of clinicians see stroke patients on a weekly basis. Only 8 % indicated that they consulted patient within 3-6 weeks after stroke onset, while 44% typically met patients 4-6 month after the stroke onset. It is possible that the late involvement of the orthotist might be due to the Danish legislation regarding allocation of assistive technologies. The allocation of funding for orthotic devices in Denmark has been criticized as not being transparent (Ernst & Young P/S, 2014) and long delays are often experienced in obtaining funding approval. Some municipalities will not accept an application for funding of an orthosis before the patient has finished their rehabilitation. This is supported by the Danish Service Act §112 (Retsinformation, 2017) which states that the municipality will only grant an assistive device if the patients' reduction in functional ability is permanent. Given that the early phase of stroke is characterized by changes in the patient's health condition, this permanency is difficult to establish when requesting funding for an assistive device. The rapid change in the patient's physical status sometimes necessitates a change in the design of an orthosis, which could also be one of the reasons why the allocation of an orthosis in the rehabilitation process is difficult and expensive. Results of this study are in contrast with recommendations from the Best Practice Statement by the Scottish NHS (2009). This document states that all patients who have suffered from stroke should be screened multiple times during their recovery for mobility problems and AFOs should be considered as part of both the early and late management of these. Furthermore, the Best Practice Statement states that when orthoses are prescribed, routine assessment of the patient and review of the device should be performed, due to the significant potential for change in the patient's ability. This aligns with the fact that when an AFO is provided earlier, independence and the ability to walk are reached up to 10 weeks earlier and therefore have a potential of reducing the length of the in-clinic stay (Nikamp 2017c).

Results from the present study suggested that treatment and rehabilitation may differ depending on the region in which the orthotist is practicing. This became evident when participants were asked if they were involved in the decisions regarding early gait rehabilitation for stroke patients. The spread in answers indicated that the CPOs are not involved in the same way and that the funding of the allocation and the prescription process is different depending on what region the CPO is practicing in the extent to which the CPO is part of the process. This is supported by a participant commenting that allocation of assistive devices early in the rehabilitation process differs depending on where in the country the

orthotist is located. The Danish Health Act § 2 (Retsinformation, 2018) that declares equal access to care for all individuals, along with high quality treatment and coherence between services.

The results indicated that a little over half of the participants assessed and treated stroke patients within a MDT setting, either some of the time or often. However, the reported amount of time that passed before the participants usually saw stroke patients indicated that even though little over half of the participants were part of a MDT, the majority were not part of the early rehabilitation team. Only 8% reported seeing patients within the first six weeks (the study defined early stroke as within six weeks of onset).
72% of participants reported thet they usually don't see stroke patients within the first 4 months after stroke onset. One participant commented that they usually see stroke patients that had finished their rehabilitation and were in need of an orthosis due to worsening of their walking ability. This typically resulted from multidisciplinary work with a physiotherapist in the municipality, and was not instigated by the acute care team. Branco et al. (2018), conclude that, in post stroke patients, most of the functional recovery is achieved within the first 12 weeks after stroke onset, but the patient keeps improving until at least 24 weeks after the stroke onset. Studies have shown that when AFOs are provided in the early rehabilitation phase, improved walking speed (Nikamp et al., 2017b, 2017a), levels of independence (Nikamp et al., 2017b, 2017c) and the ability to perform specific tasks related to rehabilitation exercises (Nikamp et al., 2017b) is achieved significantly earlier when compared to late provision. Norrving et al. (2018) have created an action plan for stroke management in Europe with targets for 2030. A target for rehabilitation is that early supported discharge should be provided for at least 20% of stroke survivors in all countries. The article does not mention the use of orthoses as a mean to early discharge even though evidence suggests that early prescription of AFO can reduce the in hospital stay (Nikamp et al., 2017c).

Among the participants, 72% reported being confident in recommending a lower limb orthotic treatment plan within early stroke rehabilitation and 80% reported being confident in advising the MDT on use of an orthosis. This may be reflective of the fact that CPOs, in other contexts, are used to being part of the MDT and work closely together with doctors, physiotherapists, occupational therapists and nurses (Danske Bandagister, n.d.). However, more than half of the respondents were either neutral or disagreed when reporting on confidence in recommending training for potential recovery, this is probably related to the fact that training is typically managed by physiotherapists (Sundhedsstyrelsen, 2020a).

When asked about the level of involvement in early gait rehabilitation decision-making, only 16% declared being routinely involved in the MDT setting, without a specific referral made by others. When asked of their perception of this, 36% reported that they believed that orthotists should be a regular part of the early team without the need for specific referral made by others. This finding is supported by Ramstrand and Ramstrand (2018), who reviewed competency standards for newly graduated prosthetists and orthotists in Sweden and highlighted multidisciplinary practice as a core competency for orthotists.

When asked who formulated the treatment plan when the orthotist was involved in early rehabilitation of stroke patients, half of the participants reported that another member from the MDT team formulated the treatment plan, suggesting that another member of the MDT determined if a stroke patient may need an orthosis. One participant even commented that rehabilitation teams, not including an orthotist, set the boundaries and prescribe assistive devices. This is consistent with results found in the UK survey by Golding-Day et al. (2018), where the majority of occupational therapists and physiotherapists were accustomed to prescribing and fitting simple orthotic devises. This Resulted in them becoming gateway for orthotic intervention provided to stroke patients, without them having specialist orthotic skills and despite of the recommendation of access to orthotic intervention found in the national stroke guideline in the UK (Intercollegiate Stroke Working Party, 2016).This could mean that the orthotist only sees patients who have a referral for an orthosis and that other stroke patients may never encounter an orthotist even though an orthosis may be helpful from an orthotist's perspective. When asked who decided how the orthosis is best used, the majority reported that they did this independently, which might indicate that, when the orthotist is brought in to assess for the need of an orthosis, they also have a say in how the orthosis should be used, even though some participants felt that the orthotist is reduced to a simple supplier.

The general perception among the participants regarding early rehabilitation using orthoses were positive. Almost all believed that the orthotist should be part of the early gait rehabilitation, either with or without a referral. When it comes to orthotic assessment, 80% either strongly agreed or agreed that it should be an essential part of gait re-education. This aligns with the fact that it has been showed that early orthotic intervention has a positive effect on kinematics at the ankle in the sagittal plane and thereby improve both IC, foot-off and swing phase (Nikamp et al., 2017a). Early positive effects have also been shown on both walking speed, ability and independence when early provision is compared to delayed provision (Nikamp et al., 2017b).

It was pointed out by one participant, that personal experience had shown that access to an orthosis early was important in preventing contractures and malalignments. Furthermore, the participant writes that adapting an orthosis is a lot easier if the patient is met early. This is consistent with recommendations from the Best Practice Statement by the Scottish NHS (2009), that states that AFOs should be used in the early acute phase in non-weight bearing patients to prevent contractures and deformities. It helped prevent the patient from adapting to the primitive locomotor pattern seen in patients with spasticity (Perry & Burnfield, 2010, pp. 171-173) or the gait deviation associated with a flaccid paralysis (Hou et al., 2019, p. 290).

Future research

In our study the focus was to describe the level of involvement of Danish orthotists in early rehabilitation of stroke patients and Danish orthotists perception of their involvement in early rehabilitation. In future studies it would be very interesting to examine and describe the perception, on the role and level of involvement of the orthotist, among other members of the Danish stroke rehabilitation MDT, such as physiotherapist and occupational therapist.

It would be interesting doing a qualitative study in form of interviews for a more in-depth description of CPOs level of involvement and perception hereof in the rehabilitation of stroke patients. Furthermore, investigating the requirements and procedures in different regions and municipalities in Denmark, in order to systemize these and get a more transparent understanding of the allocation process.

Strengths and limitations

There are some limitations to this study. The main limitation being the small sample size, with a response rate of 31.25%, which is reflected in the results. Had the sample size been larger, the results would have been more representative for the population. Nevertheless, every effort was taken to try and increase the sample size. The potential participants were contacted at multiple occasions in effort to improve the response rate. Four steps were included: an advance letter, an information letter (including the questionnaire) and two reminders (including the questionnaire).

The limited number of responses also meant that we were unable to do a detailed statistical analysis to see if there were differences within cohorts of the sample, for example, years of experience as a certified orthotist. Moreover, the nature of the study is descriptive, which excludes the need for detailed statistical analysis. Another limitation to this study, was that the original questionnaire that this study was based upon had not been validated at the time this study took place. In order to validate the questionnaire used, further research is required using the same population.

Internal validity

Internal validity refers to the establishing evidence of cause and effect between the variables being investigated (Johnson & Christensen, 2012, p. 285). When only the independent variable has an effect on the results, the study is said to be internal validated (Kazdin, 2003, p. 24). Other effects or factors that could explain the result except the independent variable are said to be threats to the internal validity (Kazdin, 2003, p. 24).

In an effort to strengthen face and content validity of the translated questionnaire, a group of five pre-test participants who were Danish student on the Prosthetics and Orthotics program completed the questionnaire individually whereafter points of discussion and feedback were received. To further increase the construct and internal validity, pre-testing should next time be done with people from the target population (Balnaves & Caputi, 2001, p 87).

External validity

External validity refers to the generalizability of the study and if it can be generalized beyond the study to other groups, settings and situations so that the sample is representative of those in the population (Johnson & Christensen, 2012, pp. 293-294). Problems related to the random selection between these parameters poses threats to the external validity.

Sampling was done using the Danish professional organization for prosthetists/orthotists as a gatekeeper to the members. Sampling bias may occur since not all CPOs in Denmark are part of the interest organization and therefore did not get the opportunity to answer the questionnaire. Sampling

biases possess a threat to the external validity. The decision was still made to send out the questionnaire through the interest organization since the majority of CPOs in Denmark are members of it. This made it possible to keep track of how many received the questionnaires and keep full anonymity.

Reliability

Reliability refers to the consistency and stability of the result in a study. The study is said to be reliable when the result is the same on every occasion (Johnson & Christensen, 2012, p. 164).

As a way of measuring repeatability, the questionnaire could be administered twice to the same person without any intervention, and thereby evaluating the test-retest or rater reliability. Correlations between the two answered questionnaires could be calculated using the intraclass correlation coefficient (ICC), which would indicate the level of reliability (Portney, 2020, p. 486).

Conclusion

The study demonstrated that it was not common for Danish orthotists to be involved in the early rehabilitation of stroke patients. Danish orthotists routinely see stroke patients after their rehabilitation phase has been complete, but results of this study suggest that orthotists are rarely involved during the rehabilitation phase.
The perception among orthotists was that they should be involved in gait rehabilitation even in the early phases of rehabilitation and that orthotic assessment should be an essential element in gait re-education. Results of this study can be used to lobby for increased involvement of orthotists in stroke rehabilitation teams in Denmark.

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Appendices

Appendix A: Original questionnaire

JÖNKÖPING UNIVERSITY

Scoping the orthotic profession for current views on involvement in early gait rehabilitation following stroke (SOGRES)

Participant consent:

1. I have read and understood the information sheet/ letter explaining this study

☐ Yes

☐ No

2. I understand that I can ask any further questions I may have at any time during the study (if I decide to participate)

☐ Yes

☐ No

3. I understand that my participation in this study is entirely voluntary and that I may withdraw from the study at any time, without giving any reason, should I choose to do so. As data is anonymised, any data already submitted will not be able to be withdrawn.

☐ Yes

☐ No

5. I understand that the results of the study may be published, but that my identity will be protected at all times.

☐ Yes

☐ No

6. I understand my e-mail address, if provided, will be stored securely and only used for the purpose of the study

- ☐ Yes
- ☐ No

7. I hereby freely consent to take part in this study

- ☐ Yes
- ☐ No

Question 1

- ☐ I confirm I am a registered orthotist (health and care professionals' council hcpc)
- ☐ I confirm I am a non-practicing orthotist
- ☐ I confirm I am a retired orthotist

Question 2 What is the highest degree or level of education you have completed?

- ☐ Diploma
- ☐ Degree
- ☐ Masters
- ☐ PhD
- ☐ Other (please specify)

_____

Question 3 How long have you been qualified as an orthotist?

- ☐ 0-2 years

- ☐ 3-5 years
- ☐ 6-10 years
- ☐ More than 10 years

Question 4. Which of these options most accurately describes your primary employer?

- ☐ NHS
- ☐ Private company providing NHS clinics
- ☐ Private company providing private clinics
- ☐ Self-employed/Locum
- ☐ Higher education institute
- ☐ Charity/ social enterprise
- ☐ Local authority
- ☐ Other (please specify)

_____

We appreciate that some orthotists may practice in multiple services. You will have the option to repeat question 5 to 12 for each service.

Service 1

Question 5a What kind of clinical setting do you predominantly work in?

- ☐ Hospital setting – Ward
- ☐ Hospital setting – Outpatients
- ☐ Clinical in building not on hospital site
- ☐ Community team seeing people at their usual place of residence (home, care home, etc.)

- ☐ Private clinic
- ☐ Other (please specify)

Question 6a How regularly do you see adult stroke patients in your normal clinical caseload?

- ☐ More than one a day
- ☐ About once a day
- ☐ Several times a week
- ☐ About once a week
- ☐ Several times a month
- ☐ About once a month
- ☐ Less frequently than once a month

Question 7a What kind of clinical setting do you normally see stroke patients in? (Please identify all that apply)

- ☐ I see stroke patients as out-patients in a general orthotic clinic
- ☐ I see stroke patients as out-patients in a dedicated neurological clinic
- ☐ I see stroke patients as in-patients on a stroke or general ward within the acute hospital site
- ☐ I see stroke patients within a dedicated in-patient stroke service in a Multi-Disciplinary Team (MDT) setting.
- ☐ I see stroke patients within a dedicated out-patient stroke service in a MDT setting
- ☐ I see stroke patients within a dedicated community stroke service in a MDT setting

Question 8a How regularly do you assess and treat stroke patients within an MDT setting (defined as: at least 2 different professions treating the patient in the same clinic, including orthotist)

- ☐ Never
- ☐ Rarely

- ☐ Some of the time
- ☐ Often
- ☐ All of the time

Question 9a How long after the stroke event do you usually see patients?

- ☐ 1-2 weeks post stroke
- ☐ 3-6 weeks post stroke
- ☐ 7-12 weeks post stroke
- ☐ 4-6 months post stroke
- ☐ 7-12 months post stroke
- ☐ >12 months post stroke

Question 10a How involved are you in the early gait rehabilitation decisions being made for stroke patients?

- ☐ I am not involved at all.
- ☐ I am involved but only when a specific referral for orthotic assessment is made by another MDT member.
- ☐ I am routinely involved without a specific referral for orthotic assessment being made (e.g. I join the MDT meetings or routine assessment clinic).

Question 11a When involved with early gait rehabilitation for stroke patients, how do you make your assessment and detailed prescription decisions?

- ☐ Other members of the MDT or the referrer formulates the orthotic prescription.
- ☐ I work with the MDT to formulate the orthotic prescription.
- ☐ I formulate the orthotic prescription independently.

Question 12a After assessment and prescription, how is the use of the orthosis determined?

- ☐ Other members of the MDT or the referrer will determine and advise the patient how the orthosis should be best used.
- ☐ I work with the MDT to determine and advise the patient how the orthosis should be best used.
- ☐ I independently determine and advise the patient how the orthosis should be best used.

Would you like to repeat questions 5-12 to register responses for another service that you are employed within?

- ☐ Yes
- ☐ No

Service 2

Question 5b What kind of clinical setting do you work in? (service 2)

- ☐ Hospital setting – Ward
- ☐ Hospital setting – Outpatients
- ☐ Clinical in building not on hospital site
- ☐ Community team seeing people at their usual place of residence (home, care home, etc.)
- ☐ Private clinic
- ☐ Other (please state)

_____

Question 6b How regularly do you see adult stroke patients in your normal clinical caseload?

- ☐ More than one a day
- ☐ About once a day

- ☐ Several times a week
- ☐ About once a week
- ☐ Several times a month
- ☐ About once a month
- ☐ Less frequently than once a month

Question 7b What kind of clinical setting do you normally see stroke patients in? (Please identify all that apply)

- ☐ I see stroke patients as out-patients in a general orthotic clinic
- ☐ I see stroke patients as out-patients in a dedicated neurological clinic
- ☐ I see stroke patients as in-patients on a stroke or general ward within the acute hospital site
- ☐ I see stroke patients within a dedicated in-patient stroke service in a Multi-Disciplinary Team (MDT) setting.
- ☐ I see stroke patients within a dedicated out-patient stroke service in a MDT setting
- ☐ I see stroke patients within a dedicated community stroke service in a MDT setting

Question 8b How regularly do you assess and treat stroke patients within an MDT setting (defined as: at least 2 different professions treating the patient in the same clinic, including orthotist)

- ☐ Never
- ☐ Rarely
- ☐ Some of the time
- ☐ Often
- ☐ All of the time

Question 9b How long after the stroke event do you usually see patients?

- ☐ 1-2 weeks post stroke

- ☐ 3-6 weeks post stroke
- ☐ 7-12 weeks post stroke
- ☐ 4-6 months post stroke
- ☐ 7-12 months post stroke
- ☐ >12 months post stroke

Question 10b How involved are you in the early gait rehabilitation decisions being made for stroke patients?

- ☐ I am not involved at all.
- ☐ I am involved but only when a specific referral for orthotic assessment is made by another MDT member.
- ☐ I am routinely involved without a specific referral for orthotic assessment being made (e.g. I join the MDT meetings or routine assessment clinic).

Question 11b When involved with early gait rehabilitation for stroke patients, how do you make your assessment and detailed prescription decisions?

- ☐ Other members of the MDT or the referrer formulates the orthotic prescription.
- ☐ I work with the MDT to formulate the orthotic prescription.
- ☐ I formulate the orthotic prescription independently.

Question 12b After assessment and prescription, how is the use of the orthosis determined?

- ☐ Other members of the MDT or the referrer will determine and advise the patient how the orthosis should be best used.
- ☐ I work with the MDT to determine and advise the patient how the orthosis should be best used.
- ☐ I independently determine and advise the patient how the orthosis should be best used.

Would you like to repeat questions 5-12 to register responses for another service that you are employed within?

- ☐ Yes
- ☐ No

Service 3

Question 5c What kind of clinical setting do you work in? (Service 3)

- ☐ Hospital setting – Ward
- ☐ Hospital setting – Outpatients
- ☐ Clinical in building not on hospital site
- ☐ Community team seeing people at their usual place of residence (home, care home, etc.)
- ☐ Private clinic
- ☐ Other (please specify)

_____

Question 6c How regularly do you see adult stroke patients in your normal clinical caseload?

- ☐ More than one a day
- ☐ About once a day
- ☐ Several times a week
- ☐ About once a week
- ☐ Several times a month
- ☐ About once a month
- ☐ Less frequently than once a month

Question 7c What kind of clinical setting do you normally see stroke patients in? (Please identify all that apply)

- ☐ I see stroke patients as out-patients in a general orthotic clinic
- ☐ I see stroke patients as out-patients in a dedicated neurological clinic
- ☐ I see stroke patients as in-patients on a stroke or general ward within the acute hospital site
- ☐ I see stroke patients within a dedicated in-patient stroke service in a Multi-Disciplinary Team (MDT) setting.
- ☐ I see stroke patients within a dedicated out-patient stroke service in a MDT setting
- ☐ I see stroke patients within a dedicated community stroke service in a MDT setting

Question 8c How regularly do you assess and treat stroke patients within an MDT setting (defined as: at least 2 different professions treating the patient in the same clinic, including orthotist)

- ☐ Never
- ☐ Rarely
- ☐ Some of the time
- ☐ Often
- ☐ All of the time

Question 9c How long after the stroke event do you usually see patients?

- ☐ 1-2 weeks post stroke
- ☐ 3-6 weeks post stroke
- ☐ 7-12 weeks post stroke
- ☐ 4-6 months post stroke
- ☐ 7-12 months post stroke
- ☐ >12 months post stroke

Question 10c How involved are you in the early gait rehabilitation decisions being made for stroke patients?

- ☐ I am not involved at all.
- ☐ I am involved but only when a specific referral for orthotic assessment is made by another MDT member.
- ☐ I am routinely involved without a specific referral for orthotic assessment being made (e.g. I join the MDT meetings or routine assessment clinic).

Question 11c When involved with early gait rehabilitation for stroke patients, how do you make your assessment and detailed prescription decisions?

- ☐ Other members of the MDT or the referrer formulates the orthotic prescription.
- ☐ I work with the MDT to formulate the orthotic prescription.
- ☐ I formulate the orthotic prescription independently.

Question 12c After assessment and prescription, how is the use of the orthosis determined?

- ☐ Other members of the MDT or the referrer will determine and advise the patient how the orthosis should be best used.
- ☐ I work with the MDT to determine and advise the patient how the orthosis should be best used.
- ☐ I independently determine and advise the patient how the orthosis should be best used.

Question 13 How involved do you think Orthotists should be in the early gait rehabilitation decisions being made for stroke patients? For the purposes of this study, we are identifying early stroke as within six weeks of onset.

- ☐ I don't think Orthotists should be involved at all.
- ☐ I think Orthotists should be involved but only when a specific referral for orthotic assessment is made by another MDT member.
- ☐ I think Orthotists should be routinely involved without a specific referral for orthotic assessment being made (e.g. join the MDT meetings or routine assessment clinic).

Question 14 I am confident in recommending a comprehensive orthotic treatment plan to the MDT (A comprehensive plan would include when and when not to use the orthosis and recommending complimentary treatment such as strengthening, facilitation, stretching, casting)

- ☐ Strongly agree
- ☐ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly Disagree

Question 15 Orthotic assessment should be an essential element of gait re-education as part of recovery

- ☐ Strongly agree
- ☐ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly disagree

Question 16 I am confident in recommending a lower limb orthotic treatment plan within early stroke rehabilitation

- ☐ Strongly agree
- ☐ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly Disagree

Question 17 I am confident advising on use of the orthosis within an MDT including duration of use both daily and longer term.

- ☐ Strongly agree
- ☐ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly disagree

Question 18 I am confident advising therapy and activity to progress potential recovery (as a lead member of the therapy team?).

- ☐ Strongly agree
- ☐ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly disagree

Question 19 I am satisfied with the frequency of involvement I have with early stroke rehabilitation patients.

- ☐ Strongly agree
- ☐ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly disagree

Question 20 If there is anything further you wish to mention regarding Orthotist involvement in early gait rehabilitation for stroke patients please state it here:

_____

_____

_____

We may like to contact you in the future for follow-up research. If you are happy for us to do this then please add your email address below.

E-mail:

_____

Many thanks for your time and expertise in completing our survey.

Appendix B: Forward translation

Deltager samtykke:

1. Jeg har læst og forstået informationsbrevet vedrørende dette studie.
    - Ja
    - Nej

2. Jeg har forstået at jeg til hver en tid under dette studie kan stille yderligere spørgsmål (hvis jeg vælger at deltage).
    - Ja
    - Nej

3. Jeg har forstået at min deltagelse i dette studie er frivillig og at jeg kan trække mig fra studiet til hver en tid, uden at give en årsag. Da data er anonymiseret, kan al afgivet data ikke trækkes tilbage.
    - Ja
    - Nej

4. Jeg har forstået at resultaterne af dette studie kan offentliggøres, men at min identitet forbliver beskyttet.
    - Ja
    - Nej

5. Jeg giver hermed samtykke til min deltagelse i dette studie.
    - Ja
    - Nej

Spørgsmål 1.

- jeg bekræfter hermed at jeg er autoriseret bandagist (af Sundhedsstyrelsen)
- jeg bekræfter hermed at jeg er ikke-praktiserende bandagist
- jeg bekræfter hermed at jeg er pensioneret bandagist

Spørgsmål 2. Hvad er det højeste niveau af uddannelse du har gennemført?

- Professionsbachelor
- Kandidat
- Ph.d.
- Andet (venligst uddyb):_____

Spørgsmål 3. Hvor længe har du været autoriseret bandagist?

- 0-2 år
- 3-5 år
- 6-10 år
- Mere end 10 år

Spørgsmål 4. Hvilke af disse muligheder beskriver bedst din primære arbejdsgiver?

- Privat klinik
- Andet (venligst uddyb):_____

Vi anerkender at nogle bandagister praktiserer i flere tjenester. Du har mulighed for at besvare spørgsmål 5 til 12 for hver tjeneste.

Tjeneste 1

Spørgsmål 5a. Hvilket klinisk miljø arbejder du primært i?

- Hospital – med indlagte patienter
- Hospital – med ambulante patienter
- Rehabiliteringscenter
- Patientens eget hjem
- Privat klinik
- Andet (venligst uddyb):_____

Spørgsmål 6a. Hvor ofte ser du voksne apopleksipatienter som del af din normale arbejdsopgave?

- Mere end en gang dagligt
- Ca. en gang dagligt
- Flere gange ugentligt
- Ca. en gang ugentligt
- Flere gange månedligt
- Ca. en gang månedligt
- Mindre end en gang månedligt

Spørgsmål 7a. I hvilken klinisk sammenhæng ser du normalt apopleksi patienter? (Kryds gerne flere af.)

- Jeg ser ambulante apopleksipatienter i bandageriet
- Jeg ser ambulante apopleksipatienter i neurologiske klinikker/afdelinger
- Jeg ser indlagte apopleksipatienter på hospitalet
- Jeg ser indlagte apopleksipatienter i et rehabiliteringscenter
- Jeg ser ambulante apopleksipatienter i rehabiliteringscenter
- Jeg ser apopleksipatienter i deres eget hjem

Spørgsmål 8a. Hvor ofte vurdere og behandler du apopleksipatienter i et tværfagligt team (defineres som minimum to forskellige professioner (hvoraf en bandagist) der behandler patienten på samme behandlingssted.)

- Aldrig

- Sjældent
- Nogle gange
- Ofte
- Hele tiden

Spørgsmål 9a. Hvor lang tid efter patientens infarkt møder du typisk patienten?

- 1-2 uger post infarkt
- 3-6 uger post infarkt
- 7-12 uger post infarkt
- 4-6 måneder post infarkt
- 7-12 måneder post infarkt
- >12 måneder post infarkt

Spørgsmål 10a. Hvor involveret er du i beslutningerne vedrørende tidlig gangrehabilitering af apopleksipatienter?

- Jeg er slet ikke involveret
- Jeg er involveret, men kun med henvisning til ortopædisk vurdering fra andet tværfagligt personale.
- Jeg er regelmæssigt involveret uden henvisning til ortopædisk vurdering (jeg er en del af tværfaglige teammøder eller rehabiliteringsklinik)

Spørgsmål 11a. Når du er involveret i tidlig gangrehabilitering af apopleksipatienter, hvordan vurdere og udarbejder du da en detaljeret behandlingsplan?

- Andre tværfaglige professioner eller henviseren formulerer den ortopædiske behandlingsplan
- Jeg udarbejder i samarbejde med det tværfaglige team den ortopædiske behandlingsplan
- Jeg udarbejder selv den ortopædiske behandlingsplan

Spørgsmål 12a. Efter vurdering og udarbejdning af behandlingsplanen, hvordan bestemmes brugen af ortosen?

- Andre tværfaglige professioner eller henviseren bestemmer og vejleder patienten i hvordan ortosen bruges bedst.

- Jeg bestemmer og vejleder, i samarbejde med det tværfaglige team, patienten i hvordan ortosen bruges bedst.
- Jeg bestemmer og vejleder patienten i hvordan ortosen bruges bedst.

Vil du gentage spørgsmål 5-12 og besvare for en anden tjeneste du arbejder i.

- Ja
- Nej

Tjeneste 2

Spørgsmål 5b. Hvilket klinisk miljø arbejder du ellers i?

- Hospital – med indlagte patienter
- Hospital – med ambulante patienter
- Rehabiliteringscenter
- Patientens eget hjem
- Privat klinik
- Andet (venligst uddyb):_____

Spørgsmål 6b. Hvor ofte ser du voksne apopleksipatienter i dit daglige arbejde?

- Mere end en gang dagligt
- Ca. en gang dagligt
- Flere gange ugentligt
- Ca. en gang ugentligt
- Flere gange månedligt
- Ca. en gang månedligt
- Mindre end en gang månedligt

Spørgsmål 7b. I hvilken klinisk sammenhæng ser du normalt apopleksipatienter? (Kryds gerne flere af.)

- Jeg ser ambulante apopleksipatienter i bandageriet

- Jeg ser ambulante apopleksipatienter i neurologiske klinikker/afdelinger
- Jeg ser indlagte apopleksipatienter på hospitalet
- Jeg ser indlagte apopleksipatienter i et rehabiliteringscenter
- Jeg ser ambulante apopleksipatienter i rehabiliteringscenter
- Jeg ser apopleksipatienter i deres eget hjem

Spørgsmål 8b. Hvor ofte vurdere og behandler du apopleksipatienter i et tværfagligt team (defineres som minimum to forskellige professioner (hvoraf en bandagist) der behandler patienten på samme behandlingssted.)

- Aldrig
- Sjældent
- Nogle gange
- Ofte
- Hele tiden

Spørgsmål 9b. Hvor lang tid efter patientens infarkt møder du typisk patienten?

- 1-2 uger post infarkt
- 3-6 uger post infarkt
- 7-12 uger post infarkt
- 4-6 måneder post infarkt
- 7-12 måneder post infarkt
- >12 måneder post infarkt

Spørgsmål 10b. Hvor involveret er du i beslutningerne vedrørende tidlig gangrehabilitering af apopleksipatienter?

- Jeg er slet ikke involveret
- Jeg er involveret, men kun med henvisning til ortopædisk vurdering fra andet tværfagligt personale.
- Jeg er regelmæssigt involveret uden henvisning til ortopædisk vurdering (jeg er en del af tværfaglige teammøder eller rehabiliteringsklinik)

Spørgsmål 11b. Når du er involveret i tidlig gangrehabilitering af apopleksipatienter, hvordan vurdere og udarbejder du en detaljeret behandlingsplan?

- Andre tværfaglige professioner eller henviseren formulerer den ortopædiske behandlingsplan
- Jeg udarbejder i samarbejde med det tværfaglige team den ortopædiske behandlingsplan
- Jeg udarbejder selv den ortopædiske behandlingsplan

Spørgsmål 12b. Efter vurdering og udarbejdning af behandlingsplanen, hvordan bestemmes brugen af ortosen?

- Andre tværfaglige professioner eller henviseren bestemmer og vejleder patienten i hvordan ortosen bruges bedst.
- Jeg bestemmer og vejleder, i samarbejde med det tværfaglige team, patienten i hvordan ortosen bruges bedst.
- Jeg bestemmer og vejleder patienten i hvordan ortosen bruges bedst.

Vil du gentage spørgsmål 5-12 og besvare for en anden tjeneste du arbejder i.

- Ja
- Nej

Tjeneste 3

Spørgsmål 5c. Hvilket klinisk miljø arbejder du ellers i?

- Hospital – med indlagte patienter
- Hospital – med ambulante patienter
- Rehabiliteringscenter
- Patientens eget hjem
- Privat klinik
- Andet (venligst uddyb):_____

Spørgsmål 6c. Hvor ofte ser du voksne apopleksipatienter i dit daglige arbejde?

- Mere end en gang dagligt
- Ca. en gang dagligt
- Flere gange ugentligt
- Ca. en gang ugentligt
- Flere gange månedligt
- Ca. en gang månedligt
- Mindre end en gang månedligt

Spørgsmål 7c. I hvilken klinisk sammenhæng ser du normalt apopleksipatienter? (Kryds gerne flere af.)

- Jeg ser ambulante apopleksipatienter i bandageriet
- Jeg ser ambulante apopleksipatienter i neurologiske klinikker/afdelinger
- Jeg ser indlagte apopleksipatienter på hospitalet
- Jeg ser indlagte apopleksipatienter i et rehabiliteringscenter
- Jeg ser ambulante apopleksipatienter i rehabiliteringscenter
- Jeg ser apopleksipatienter i deres eget hjem

Spørgsmål 8c. Hvor ofte vurdere og behandler du apopleksipatienter i et tværfagligt team (defineres som minimum to forskellige professioner (hvoraf en bandagist) der behandler patienten på samme behandlingssted.)

- Aldrig
- Sjældent
- Nogle gange
- Ofte
- Hele tiden

Spørgsmål 9c. Hvor lang tid efter patientens infarkt møder du typisk patienten?

- 1-2 uger post infarkt
- 3-6 uger post infarkt
- 7-12 uger post infarkt
- 4-6 måneder post infarkt

- 7-12 måneder post infarkt
- >12 måneder post infarkt

Spørgsmål 10c. Hvor involveret er du i beslutningerne vedrørende tidlig gangrehabilitering af apopleksipatienter?

- Jeg er slet ikke involveret
- Jeg er involveret, men kun med henvisning til ortopædisk vurdering fra andet tværfagligt personale.
- Jeg er regelmæssigt involveret uden henvisning til ortopædisk vurdering (jeg er en del af tværfaglige teammøder eller rehabiliteringsklinik)

Spørgsmål 11c. Når du er involveret i tidlig gangrehabilitering af apopleksipatienter, hvordan vurdere og udarbejder du en detaljeret behandlingsplan?

- Andre tværfaglige professioner eller henviseren formulerer den ortopædiske behandlingsplan
- Jeg udarbejder i samarbejde med det tværfaglige team den ortopædiske behandlingsplan
- Jeg udarbejder selv den ortopædiske behandlingsplan

Spørgsmål 12c. Efter vurdering og udarbejdning af behandlingsplanen, hvordan bestemmes brugen af ortosen?

- Andre tværfaglige professioner eller henviseren bestemmer og vejleder patienten i hvordan ortosen bruges bedst.
- Jeg bestemmer og vejleder, i samarbejde med det tværfaglige team, patienten i hvordan ortosen bruges bedst.
- Jeg bestemmer og vejleder patienten i hvordan ortosen bruges bedst.

Spørgsmål 13. Hvor involveret synes du bandagisten bør være i beslutninger vedrørende tidlig gangrehabilitering af apopleksipatienter? I dette studie identificerer vi tidlig apopleksi som værende indenfor 6 uger efter infarktet.

- Jeg synes ikke bandagister skal være involveret.
- Jeg synes bandagister skal være involveret, men kun med henvisning til ortopædisk vurdering fra andre tværfaglige professioner.

- Jeg synes bandagister skal være rutinemæssigt involveret uden henvisning til ortopædisk vurdering (fx deltage i tværfaglige møder eller rehabiliteringsklinik).

Spørgsmål 14. Jeg er sikker i at anbefale en omfattende ortopædisk behandlingsplan til det tværfaglige team. (En omfattende behandlingsplan inkluderer hvornår/hvornår ikke at ortosen skal bruges og anbefalinger til anden behandling såsom styrketræning, facilitering, udstrækning, gipsning).

- Jeg er meget enig
- Jeg er enig
- Neutral
- Jeg er uenig
- Jeg er meget uenig

Spørgsmål 15. Ortopædisk vurdering bør være en essentiel del af ganggenoptræning som del af behandlingen.

- Jeg er meget enig
- Jeg er enig
- Neutral
- Jeg er uenig
- Jeg er meget uenig

Spørgsmål 16. Jeg er sikker i at anbefale en behandlingsplan der inkluderer nedre ekstremitets ortose til tidlig apopleksi genoptræning.

- Jeg er meget enig
- Jeg er enig
- Neutral
- Jeg er uenig
- Jeg er meget uenig

Spørgsmål 17. Jeg er sikker i at vejlede et tværfagligt team om både daglig og langvarig brug af en ortose.

- Jeg er meget enig

- Jeg er enig
- Neutral
- Jeg er uenig
- Jeg er meget uenig

Spørgsmål 18. Jeg er sikker i at vejlede om træning og aktiviteter der fremmer potentiel bedring (som et ledende medlem af træningsteamet?).

- Jeg er meget enig
- Jeg er enig
- Neutral
- Jeg er uenig
- Jeg er meget uenig

Spørgsmål 19. Jeg er tilfreds med hyppigheden af involveringen, jeg har med tidlig rehabilitering af apopleksipatienter.

- Jeg er meget enig
- Jeg er enig
- Neutral
- Jeg er uenig
- Jeg er meget uenig

Spørgsmål 20. Hvis der er noget yderligere du ønsker at tilføje om bandagistens involvering i tidlig gangrehabilitering af apopleksipatienter, venligst uddyb her:

_____

_____

_____

Mange tak for din tid og ekspertise i at gennemføre vores spørgeskema.

Appendix C: Back translation

Participant consent:

1. I have read and understood the information letter regarding this study.
    - Yes
    - No

2. I have understood that I can ask further questions at any time during this study (if I choose to participate).
    - Yes
    - No

3. I have understood that my participance in this study is voluntary and that I can remove myself from the study without reason. Because the data is anonymous, all given data will not be able to be retracted.
    - Yes
    - No

4. I have understood that the results of this study can be published, but that my identity remains protected.
    - Yes
    - No

5. I hereby give consent to my participation in this study.
    - Yes
    - No

Question 1.

- I hereby confirm that I am a certified Prosthetist/Orthotist (by the Sundhedsstyrelsen/Health ministry)
- I hereby confirm that I am a non-practicing Prosthetist/Orthotist
- I hereby confirm that I am a retired Prosthetist/Orthotist

Question 2. What is the highest level of education you have completed?

- Bachelor's degree
- Master's degree
- Ph.d.
- Other (please elborate):_____

Question 3. How long have you been a certified Prosthetist/Orthotist?

- 0-2 years
- 3-5 years
- 6-10 years
- More than 10 years

Question 4. Which of these options best describes your primary employer?

- Private clinic
- Other (please elaborate):_____

We recognise that some Prosthetist/Orthotists practice at several locations. You have the option to answer questions 5 to 12 for each location.

Location 1

Question 5a. Which clinical environment do you primarily work in?

- Hospital – with inpatients
- Hospital – with outpatients
- Rehabilitation centre
- The patients own house
- Private clinic
- Other (please elaborate):_____

Question 6a. How often do you see adult stroke patients as part of your normal work tasks?

- More than once daily
- Ca. once daily
- Several times weekly
- Ca. once weekly
- Several times monthly
- Ca. once monthly
- Less than once monthly

Question 7a. In which clinical context do you normally see stroke patients? (Several can be crossed off)

- I see stroke outpatients in the Prosthetic/Orthotic clinic
- I see stroke outpatients in neurological clinics/departments.
- I see stroke inpatients at the hospital.
- I see stroke inpatients in a rehabilitation centre.
- I see stroke outpatients in a rehabilitation centre.
- I see stroke patients in their own home.

Question 8a. How often do you assess and treat stroke patients in a multi-professional team (defined as a minimum of two different professions (one being the Prosthetist/Orthotist) that treats the patient at the same place of treatment.)

- Never
- Not often
- Sometimes
- Often
- All the time

Question 9a. How long after the patient's stroke do you typically meet the patient?

- 1-2 weeks post stroke
- 3-6 weeks post stroke
- 7-12 weeks post stroke
- 4-6 months post stroke
- 7-12 months post stroke
- >12 months post stroke

Question 10a. How involved are you in the decisions regarding early gait rehabilitation of stroke patients?

- I am completely uninvolved
- I am involved, but only with reference to orthopaedic assessment from other multidisciplinary personnel.
- I am regularly involved without reference to orthopaedic assessment (I am part of multidisciplinary team meetings or rehabilitation clinic)

Question 11a. When you are involved in early gait rehabilitation of stroke patients, how do you assess and prepare a detailed treatment plan?

- Other multidisciplinary professions or the referrer formulates the orthopaedic treatment plan
- I prepare the orthopaedic treatment plan in cooperation with the multidisciplinary team
- I prepare the orthopaedic treatment plan myself

Question 12a. After assessment and preparation of the treatment plan, how is the use of the orthosis decided?

- Other multidisciplinary professions or referrers decide and guide the patient in how the orthosis is best used.

- I decide and guide, in cooperation with the multidisciplinary team, the patient in how the orthosis is best used.
- I decide and guide the patient in how the orthosis is best used.

Do you want to repeat questions 5-12 and answer for another location you work in?

- Yes
- No

Location 2

Question 5b. Which clinical environment do you else work in?

- Hospital – with inpatients
- Hospital – with outpatients
- Rehabilitation centre
- The patients own house
- Private clinic
- Other (please elaborate):_____

Question 6b. How often do you see adult stroke patients as part of your normal work tasks?

- More than once daily
- Ca. once daily
- Several times weekly
- Ca. once weekly
- Several times monthly
- Ca. once monthly
- Less than once monthly

Question 7b. In which clinical context do you normally see stroke patients? (Several can be crossed off)

- I see stroke outpatients in the Prosthetic/Orthotic clinic.
- I see stroke outpatients in neurological clinics/departments.
- I see stroke inpatients at the hospital.
- I see stroke inpatients in a rehabilitation centre.
- I see stroke outpatients in a rehabilitation centre.
- I see stroke patients in their own home.

Question 8b. How often do you assess and treat stroke patients in a multi-professional team (defined as a minimum of two different professions (one being the Prosthetist/Orthotist) that treats the patient at the same place of treatment.)

- Never
- Not often
- Sometimes
- Often
- All the time

Question 9b. How long after the patient's stroke do you typically meet the patient?

- 1-2 weeks post stroke
- 3-6 weeks post stroke
- 7-12 weeks post stroke
- 4-6 months post stroke
- 7-12 months post stroke
- >12 months post stroke

Question 10b. How involved are you in the decisions regarding early gait rehabilitation of stroke patients?

- I am completely uninvolved
- I am involved, but only with reference to orthopaedic assessment from other multidisciplinary personnel.

- I am regularly involved without reference to orthopaedic assessment (I am part of multidisciplinary team meetings or rehabilitation clinic)

Question 11b. When you are involved in early gait rehabilitation of stroke patients, how do you assess and prepare a detailed treatment plan?

- Other multidisciplinary professions or the referrer formulates the orthopaedic treatment plan
- I prepare the orthopaedic treatment plan in cooperation with the multidisciplinary team
- I prepare the orthopaedic treatment plan myself

Question 12b. After assessment and preparation of the treatment plan, how is the use of the orthosis decided?

- Other multidisciplinary professions or referrers decide and guide the patient in how the orthosis is best used.
- I decide and guide, in cooperation with the multidisciplinary team, the patient in how the orthosis is best used.
- I decide and guide the patient in how the orthosis is best used.

Do you want to repeat questions 5-12 and answer for another location you work in?

- Yes
- No

Location 3

Question 5c. Which clinical environment do you else work in?

- Hospital – with inpatients
- Hospital – with outpatients
- Rehabilitation centre
- The patients own house
- Private clinic
- Other (please elaborate):_____

Question 6c. How often do you see adult stroke patients as part of your normal work tasks?

- More than once daily
- Ca. once daily
- Several times weekly
- Ca. once weekly
- Several times monthly
- Ca. once monthly
- Less than once monthly

Question 7c. In which clinical context do you normally see stroke patients? (Several can be crossed off)

- I see stroke outpatients in the Prosthetic/Orthotic clinic.
- I see stroke outpatients in neurological clinics/departments.
- I see stroke inpatients at the hospital.
- I see stroke inpatients in a rehabilitation centre.
- I see stroke outpatients in a rehabilitation centre.
- I see stroke patients in their own home.

Question 8c. How often do you assess and treat stroke patients in a multi-professional team (defined as a minimum of two different professions (one being the Prosthetist/Orthotist) that treats the patient at the same place of treatment.)

- Never
- Not often
- Sometimes
- Often
- All the time

Question 9c. How long after the patient's stroke do you typically meet the patient?

- 1-2 weeks post stroke
- 3-6 weeks post stroke
- 7-12 weeks post stroke
- 4-6 months post stroke

- 7-12 months post stroke
- >12 months post stroke

Question 10c. How involved are you in the decisions regarding early gait rehabilitation of stroke patients?

- I am completely uninvolved
- I am involved, but only with reference to orthopaedic assessment from other multidisciplinary personnel.
- I am regularly involved without reference to orthopaedic assessment (I am part of multidisciplinary team meetings or rehabilitation clinic)

Question 11c. When you are involved in early gait rehabilitation of stroke patients, how do you assess and prepare a detailed treatment plan?

- Other multidisciplinary professions or the referrer formulates the orthopaedic treatment plan
- I prepare the orthopaedic treatment plan in cooperation with the multidisciplinary team
- I prepare the orthopaedic treatment plan myself

Question 12c. After assessment and preparation of the treatment plan, how is the use of the orthosis decided?

- Other multidisciplinary professions or referrers decide and guide the patient in how the orthosis is best used.
- I decide and guide, in cooperation with the multidisciplinary team, the patient in how the orthosis is best used.
- I decide and guide the patient in how the orthosis is best used.

Question 13. How involved do you think Prosthetist/Orthotists should be in decisions regarding early gait rehabilitation of stroke patients? In this study, we are identifying early stroke as being within 6 weeks after the infarction.

- I don’t think Prosthetist/Orthotists should be involved.
- I think Prosthetist/Orthotists should be involved, but only with reference to orthopaedic assessment from other multidisciplinary professions.

- I think Prosthetist/Orthotists should be routinely involved without reference to orthopaedic assessment (e.g. partake in multidisciplinary meetings or…)

Question 14. I am confident in recommending a comprehensive orthopaedic treatment plan to the multidisciplinary team. (A comprehensive treatment plan includes when to/when not to use the orthosis and recommendations for other treatment like strength training, facilitation, stretching, plastering).

- I strongly agree
- I agree
- Neither agree nor disagree
- I disagree
- I strongly disagree

Question 15. Orthopaedic assessment should be an essential part of gait rehabilitation as part of the treatment.

- I strongly agree
- I agree
- Neither agree nor disagree
- I disagree
- I strongly disagree

Question 16. I am confident in recommending a treatment plan that includes lower extremity orthoses for early stroke rehabilitation.

- I strongly agree
- I agree
- Neither agree nor disagree
- I disagree
- I strongly disagree

Question 17. I am confident in providing guidance to a multidisciplinary team on both daily and long-term use of an orthosis

- I strongly agree

- I agree
- Neither agree nor disagree
- I disagree
- I strongly disagree

Question 18. I am confident in providing guidance on training and activities that promote potential improvement (as a leading member of the training-team)

- I strongly agree
- I agree
- Neither agree nor disagree
- I disagree
- I strongly disagree

Question 19. I am content with the frequency of the involvement I have with early rehabilitation of stroke patients.

- I strongly agree
- I agree
- Neither agree nor disagree
- I disagree
- I strongly disagree

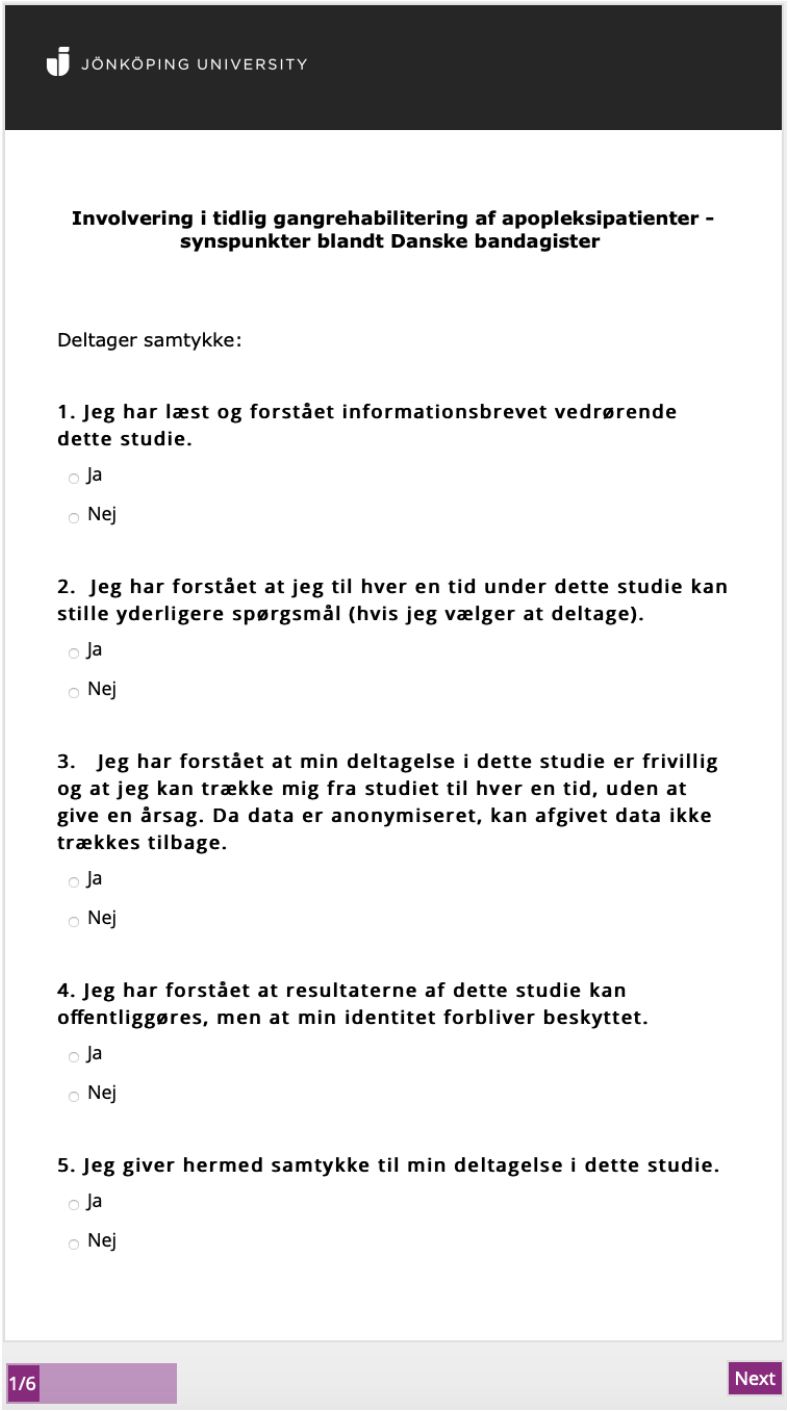
Question 20. If there is something more you wish to add to Prosthetist/Orthotists' involvement in early gait rehabilitation of stroke patients, please elaborate here:

_____

_____

Many thanks for your time and expertise in completing our questionnaire.

Appendix D: Final questionnaire



JÖNKÖPING UNIVERSITY

Involvering i tidlig gangrehabilitering af apopleksipatienter - synspunkter blandt Danske bandagister

Deltager samtykke:

1. Jeg har læst og forstået informationsbrevet vedrørende dette studie.

- Ja
- Nej

2. Jeg har forstået at jeg til hver en tid under dette studie kan stille yderligere spørgsmål (hvis jeg vælger at deltage).

- Ja
- Nej

3. Jeg har forstået at min deltagelse i dette studie er frivillig og at jeg kan trække mig fra studiet til hver en tid, uden at give en årsag. Da data er anonymiseret, kan afgivet data ikke trækkes tilbage.

- Ja
- Nej

4. Jeg har forstået at resultaterne af dette studie kan offentliggøres, men at min identitet forbliver beskyttet.

- Ja
- Nej

5. Jeg giver hermed samtykke til min deltagelse i dette studie.

- Ja
- Nej

1/6

Next

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Spørgsmål 1.

- Jeg bekræfter hermed at jeg er autoriseret bandagist (af Sundhedsstyrelsen)
- Jeg bekræfter hermed at jeg er ikke-praktiserende autoriseret bandagist
- Jeg bekræfter hermed at jeg er pensioneret autoriseret bandagist

Spørgsmål 2.
Hvad er det højeste niveau af uddannelse du har gennemført?

- Diplom
- Bachelor
- Kandidat
- Ph.d.
- Andet (venligst udbyd)

Spørgsmål 3.
Hvor længe har du været autoriseret bandagist?

- 0-2 år
- 3-5 år
- 6-10 år
- Mere end 10 år

Spørgsmål 4.
Hvilke af disse muligheder beskriver bedst din primære arbejdsgiver?

- Det danske Sundhedsvæsen
- Privat klinik med aftale på hospital
- Privat Klinik
- Selvstændig
- Højere uddannelses institut
- Velgørenhed/social virksomhed
- Kommune
- Andet (venligst uddyb):

2/6

Back Next

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Vi anerkender at nogle bandagister praktiserer i flere forskellige kliniske miljøer (ansat af en eller flere arbejdsgivere og har udkørende opgaver på fx hospitaler, rehabiliteringscenter e.l.). Du har mulighed for at besvare spørgsmål 5 til 12 for hvert klinisk miljø.

Klinisk miljø 1

Spørgsmål 5a.
Hvilket klinisk miljø arbejder du primært i?

- ○ Hospital – med indlagte patienter
- ○ Hospital – med ambulante patienter
- ○ Rehabiliteringscenter
- ○ Patientens eget hjem
- ○ Privat klinik
- ○ Andet (venligst uddyb)

Spørgsmål 6a.
Hvor ofte ser du voksne apopleksipatienter som del af din normale arbejdsopgave?

- ○ Mere end en gang dagligt
- ○ Ca. en gang dagligt
- ○ Flere gange ugentligt
- ○ Ca. en gang ugentlig
- ○ Flere gange månedligt
- ○ Ca. en gang månedligt
- ○ Mindre end en gang månedligt

Spørgsmål 7a.
I hvilken klinisk sammenhæng ser du normalt apopleksi patienter? (Kryds gerne flere af.)

- ☐ Jeg ser ambulante apopleksipatienter i bandageriet
- ☐ Jeg ser ambulante apopleksipatienter i neurologiske klinikker/afdelinger
- ☐ Jeg ser indlagte apopleksipatienter på hospitalet
- ☐ Jeg ser indlagte apopleksipatienter i et rehabiliteringscenter
- ☐ Jeg ser ambulante apopleksipatienter i rehabiliteringscenter
- ☐ Jeg ser apopleksipatienter i deres eget hjem

Spørgsmål 8a.
Hvor ofte vurderer og behandler du apopleksipatienter i et tværfagligt team (defineres som minimum to forskellige professioner (hvoraf en bandagist) der behandler patienten på samme behandlingssted.)

- Aldrig
- Sjældent
- Nogle gange
- Ofte
- Hele tiden

Spørgsmål 9a.
Hvor lang tid efter patientens infarkt møder du typisk patienten?

- 1-2 uger post infarkt
- 3-6 uger post infarkt
- 7-12 uger post infarkt
- 4-6 måneder post infarkt
- 7-12 måneder post infarkt
- >12 måneder post infarkt

Spørgsmål 10a.
Hvor involveret er du i beslutningerne vedrørende tidlig gangrehabilitering af apopleksipatienter?

- Jeg er slet ikke involveret
- Jeg er involveret, men kun med henvisning til vurdering til ortose fra andet tværfagligt personale
- Jeg er regelmæssigt involveret uden henvisning til ortose vurdering (jeg er en del af tværfaglige teammøder eller rehabiliteringsklinik)

Spørgsmål 11a.
Når du er involveret i tidlig gangrehabilitering af apopleksipatienter, hvordan vurderer og udarbejder du da en detaljeret behandlingsplan?

- Andre tværfaglige professioner eller henviseren formulerer den ortopædtekniske behandlingsplan
- Det tværfaglige team og jeg udarbejder sammen den ortopædtekniske behandlingsplan
- Jeg udarbejder selv den ortopædtekniske behandlingsplan

Spørgsmål 12a.
Efter vurdering og udarbejdning af behandlingsplanen, hvordan bestemmes brugen af ortosen?

- Andre tværfaglige professioner eller henviseren bestemmer og vejleder patienten i hvordan ortosen bruges beds
- Det tværfaglige team og jeg udarbejder og vejleder sammen patienten i hvordan ortosen bruges bedst
- Jeg bestemmer og vejleder patienten i hvordan ortosen bruges bedst

Vil du gentage spørgsmål 5-12 og besvare for et andet klinisk miljø du arbejder i?

- Ja
- Nej

3/6

Back Next

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Klinisk miljø 2

Spørgsmål 5b.
Hvilket klinisk miljø arbejder du ellers i?

- ○ Hospital – med indlagte patienter
- ○ Hospital – med ambulante patienter
- ○ Rehabiliteringscenter
- ○ Patientens eget hjem
- ○ Privat klinik
- ○ Andet (venligst uddyb)

Spørgsmål 6b.
Hvor ofte ser du voksne apopleksipatienter som del af din normale arbejdsopgave?

- ○ Mere end en gang dagligt
- ○ Ca. en gang dagligt
- ○ Flere gange ugentligt
- ○ Ca. en gang ugentlig
- ○ Flere gange månedligt
- ○ Ca. en gang månedligt
- ○ Mindre end en gang månedligt

Spørgsmål 7b.
I hvilken klinisk sammenhæng ser du normalt apopleksi patienter? (Kryds gerne flere af.)

- ☐ Jeg ser ambulante apopleksipatienter i bandageriet
- ☐ Jeg ser ambulante apopleksipatienter i neurologiske klinikker/afdelinger
- ☐ Jeg ser indlagte apopleksipatienter på hospitalet
- ☐ Jeg ser indlagte apopleksipatienter i et rehabiliteringscenter
- ☐ Jeg ser ambulante apopleksipatienter i rehabiliteringscenter
- ☐ Jeg ser apopleksipatienter i deres eget hjem

Spørgsmål 8b.
Hvor ofte vurderer og behandler du apopleksipatienter i et tværfagligt team (defineres som minimum to forskellige professioner (hvoraf en bandagist) der behandler patienten på samme behandlingssted.)

- Aldrig
- Sjældent
- Nogle gange
- Ofte
- Hele tiden

Spørgsmål 9b.
Hvor lang tid efter patientens infarkt møder du typisk patienten?

- 1-2 uger post infarkt
- 3-6 uger post infarkt
- 7-12 uger post infarkt
- 4-6 måneder post infarkt
- 7-12 måneder post infarkt
- >12 måneder post infarkt

Spørgsmål 10b.
Hvor involveret er du i beslutningerne vedrørende tidlig gangrehabilitering af apopleksipatienter?

- Jeg er slet ikke involveret
- Jeg er involveret, men kun med henvisning til vurdering til ortose fra andet tværfagligt personale
- Jeg er regelmæssigt involveret uden henvisning til ortose vurdering (jeg er en del af tværfaglige teammøder eller rehabiliteringsklinik)

Spørgsmål 11b.
Når du er involveret i tidlig gangrehabilitering af apopleksipatienter, hvordan vurderer og udarbejder du da en detaljeret behandlingsplan?

- Andre tværfaglige professioner eller henviseren formulerer den ortopædtekniske behandlingsplan
- Det tværfaglige team og jeg udarbejder sammen den ortopædtekniske behandlingsplan
- Jeg udarbejder selv den ortopædtekniske behandlingsplan

Spørgsmål 12b.
Efter vurdering og udarbejdning af behandlingsplanen, hvordan bestemmes brugen af ortosen?

- Andre tværfaglige professioner eller henviseren bestemmer og vejleder patienten i hvordan ortosen bruges beds
- Det tværfaglige team og jeg udarbejder og vejleder sammen patienten i hvordan ortosen bruges bedst
- Jeg bestemmer og vejleder patienten i hvordan ortosen bruges bedst

Vil du gentage spørgsmål 5-12 og besvare for et andet klinisk miljø du arbejder i?

- Ja
- Nej

4/6

Back Next

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Klinisk miljø 3

Spørgsmål 5c.
Hvilket klinisk miljø arbejder du ellers i?

- ○ Hospital – med indlagte patienter
- ○ Hospital – med ambulante patienter
- ○ Clinical in building not on hospital site
- ○ Rehabiliteringscenter
- ○ Patientens eget hjem
- ○ Andet (venligst uddyb)

Spørgsmål 6c.
Hvor ofte ser du voksne apopleksipatienter i dit daglige arbejde?

- ○ Mere end en gang dagligt
- ○ Ca. en gang dagligt
- ○ Flere gange ugentligt
- ○ Ca. en gang ugentligt
- ○ Flere gange månedligt
- ○ Ca. en gang månedligt
- ○ Mindre end en gang månedligt

Spørgsmål 7c.
I hvilken klinisk sammenhæng ser du normalt apopleksipatienter? (Kryds gerne flere af.)

- ☐ Jeg ser ambulante apopleksipatienter i bandageriet
- ☐ Jeg ser ambulante apopleksipatienter i neurologiske klinikker/afdelinger
- ☐ Jeg ser indlagte apopleksipatienter på hospitalet
- ☐ Jeg ser indlagte apopleksipatienter i et rehabiliteringscenter
- ☐ Jeg ser ambulante apopleksipatienter i rehabiliteringscenter
- ☐ Jeg ser apopleksipatienter i deres eget hjem

Spørgsmål 8c.
Hvor ofte vurderer og behandler du apopleksipatienter i et tværfagligt team (defineres som minimum to forskellige professioner (hvoraf en bandagist) der behandler patienten på samme behandlingssted.)

- Aldrigt
- Sjældent
- Nogle gange
- Ofte
- Hele tiden

Spørgsmål 9c.
Hvor lang tid efter patientens infarkt møder du typisk patienten?

- 1-2 uger post infarkt
- 3-6 uger post infarkt
- 7-12 uger post infarkt
- 4-6 måneder post infarkt
- 7-12 måneder post infarkt
- >12 måneder post infarkt

Spørgsmål 10c.
Hvor involveret er du i beslutningerne vedrørende tidlig gangrehabilitering af apopleksipatienter?

- Jeg er slet ikke involveret
- Jeg er involveret, men kun med henvisning til ortose vurdering fra andet tværfagligt personale
- Jeg er regelmæssigt involveret uden henvisning til ortose vurdering (jeg er en del af tværfaglige teammøder eller rehabiliteringsklinik)

Spørgsmål 11c.
Når du er involveret i tidlig gangrehabilitering af apopleksipatienter, hvordan vurderer og udarbejder du da en detaljeret behandlingsplan?

- Andre tværfaglige professioner eller henviseren formulerer den ortopædtekniske behandlingsplan
- Det tværfaglige team og jeg udarbejder sammen den ortopædtekniske behandlingsplan
- Jeg udarbejder selv den ortopædtekniske behandlingsplan

Spørgsmål 12c.
Efter vurdering og udarbejdning af behandlingsplanen, hvordan bestemmes brugen af ortosen?

- Andre tværfaglige professioner eller henviseren bestemmer og vejleder patienten i hvordan ortosen bruges bedst
- Det tværfaglige team og jeg udarbejder og vejleder sammen patienten i hvordan ortosen bruges bedst
- Jeg bestemmer og vejleder patienten i hvordan ortosen bruges bedst

5/6

Back Next

JÖNKÖPING UNIVERSITY

Spørgsmål 13. Hvor involveret synes du bandagisten bør være i beslutninger vedrørende tidlig gangrehabilitering af apopleksipatienter? I dette studie identificerer vi tidlig apopleksi som værende indenfor 6 uger efter infarktet.

- Jeg synes ikke bandagister skal være involveret
- Jeg synes bandagister skal være involveret, men kun med henvisning til ortose vurdering fra andre tværfaglige professioner
- Jeg synes bandagister skal være rutinemæssigt involveret uden henvisning til ortose vurdering (fx deltage i tværfaglige møder eller rehabiliteringsklinik)

Spørgsmål 14. Jeg er sikker i at anbefale en omfattende ortopædteknisk behandlingsplan til det tværfaglige team. (En omfattende behandlingsplan inkluderer hvornår ortosen skal bruges og hvornår ortosen ikke skal bruges, samt anbefalinger til anden behandling såsom styrketræning, facilitering, udstrækning, gipsning)

- Jeg er meget enig
- Jeg er enig
- Neutral
- Jeg er uenig
- Jeg er meget uenig

Spørgsmål 15.
Ortose vurdering bør være en essentiel del af at lære at gå igen, som en del af genoptræningen

- Jeg er meget enig
- Jeg er enig
- Neutral
- Jeg er uenig
- Jeg er meget uenig

Spørgsmål 16. Jeg er sikker i at anbefale en behandlingsplan der inkluderer nedre ekstremitets ortose til tidlig apopleksi genoptræning

- Jeg er meget enig
- Jeg er enig
- Neutral
- Jeg er uenig
- Jeg er meget uenig

Spørgsmål 17.
Jeg er sikker i at vejlede et tværfagligt team i brugen af ortosen samt om varigheden af både daglig og langsigtet brug

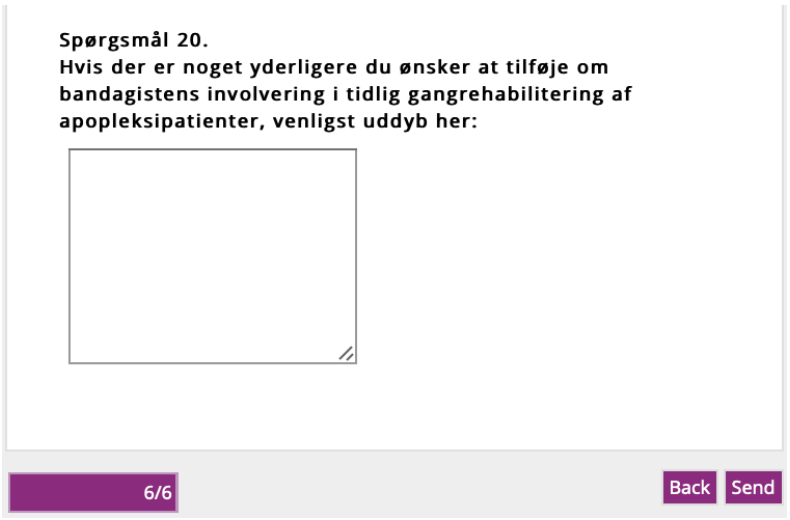
- Jeg er meget enig
- Jeg er enig
- Neutral
- Jeg er uenig
- Jeg er uenig

Spørgsmål 18.
Jeg er sikker i at vejlede om træning og aktiviteter der fremmer potentiel bedring (som et ledende medlem af rehabiliteringsteamet)

- Jeg er meget enig
- Jeg er enig
- Neutral
- Jeg er uenig
- Jeg er meget uenig

Spørgsmål 19.
Jeg er tilfreds med hyppigheden af involveringen, jeg har med tidlig rehabilitering af apopleksipatienter.

- Jeg er meget enig
- Jeg er enig
- Neutral
- Jeg er uenig
- Jeg er meget uenig


Spørgsmål 20.
Hvis der er noget yderligere du ønsker at tilføje om bandagistens involvering i tidlig gangrehabilitering af apopleksipatienter, venligst uddyb her:
6/6
Back
Send

Appendix E: Advance letter

***Bachelorprojekt* – Tidlig gangrehabilitering med ortoser af apopleksipatienter**

Vi er to bandagiststuderende, som er i fuld gang med vores afsluttende bachelorprojekt ved Jönköping Universitet. Vi ønsker at undersøge graden af danske bandagisters involvering i tidlig gangrehabilitering af apopleksipatienter. Vores mål er at belyse en problemstilling vi forventer er tilstede på baggrund af den danske lovgivning om brug af ortoser som en del af genoptræning, samt det at bandagisten ikke er nævnt i Sundhedsstyrelsens *Forløbsprogram for rehabilitering af voksne med erhvervet hjerneskade*.
Dette sker i samarbejde med engelske senior ortopædist Paul Charlton, hvis spørgeskema vi har oversat til dansk, samt vejleder Nerrolyn Ramstrand (nerrolyn.ramstrand@ju.se).

Spørgeskemaet modtager du i starten af uge 11, det tager ca. 10-15 min at besvare. Al indsendt data behandles anonymt og i overensstemmelse med GDPR, vil ønsker at fremlægge et generelt billede af resultaterne og ikke enkelte besvarelser.

Det er frivilligt at deltage og du kan til enhver tid trække dig uden begrundelse! Indsendte besvarelser kan dog ikke trækkes tilbage.

Besvarelserne skal bruges til vores bachelorprojekt som vi afleverer d. 30/4-2021, hvorefter vi d. 6/5-2021 vil præsentere og forsvare vores projekt for undervisere og medstuderende.

Har du spørgsmål eller ønsker du at læse vores færdige bachelorprojekt, er du velkommen til at kontakte:

Laura Ane Jakobsen
jala1793@student.ju.se
0045 91 25 59 25

Mille Bjerregaard Jørgensen
bjmi18jj@student.ju.se
0045 29 80 69 03

Med venlig hilsen Laura og Mille

Appendix F: Information letter with link to questionnaire

Kære Bandagist

I Danmark er apopleksi den mest hyppige årsag til erhvervet hjerneskade blandt voksne og ifølge Sundhedsstyrelsen rammes omkring 12.000 årligt. Flere udenlandske studier viser en signifikant effekt i brug af ankel-fod-ortoser som del af tidlig rehabilitering af apopleksipatienter og vi ønsker at beskrive hvordan dette forholder sig i Danmark.
Som lovet, modtager du her et link til vores spørgeskema angående danske bandagisters involvering i tidlig gangrehabilitering af apopleksipatienter. Det er frivilligt at deltage, men vi håber at du har lyst til at hjælpe os på vej med vores bachelorprojekt.

Deadline for indsendt besvarelse er 31. marts 2021

Link til spørgeskema: https://www.esmaker.net/nx2/s.aspx?id=fa726bcae94e

Med venlig hilsen Laura og Mille

Har du spørgsmål eller ønsker du at læse vores færdige bachelorprojekt, er du velkommen til at kontakte:

Laura Ane Jakobsen
jala1793@student.ju.se
0045 91 25 59 25

Mille Bjerregaard Jørgensen
bjmi18jj@student.ju.se
0045 29 80 69 03

Appendix G: Reminders with link to questionnaire

Kære Bandagist

Vi har for nylig inviteret dig til at besvare vores spørgeskema omkring bandagisters involvering i tidlig gangrehabilitering af apopleksipatienter, som del af vores bachelorprojekt. Hvis du allerede har besvaret spørgeskemaet, kan du se bort fra denne mail og hvis ikke, finder du et link til spørgeskemaet herunder:

https://www.esmaker.net/nx2/s.aspx?id=fa726bcae94e

Deadline for indsendt besvarelse er 31. marts 2021

Som tidligere nævnt behandles data anonymt og det er frivilligt at deltage, vi håber at du har lyst til at deltage! Har du spørgsmål eller ønsker du at læse vores færdige bachelorprojekt, er du velkommen til at kontakte:

Laura Ane Jakobsen
jala1793@student.ju.se
0045 91 25 59 25

Mille Bjerregaard Jørgensen
bjmi18jj@student.ju.se
0045 29 80 69 03

Mvh Laura og Mille

Kære Bandagist

Da vi desværre ikke har modtaget tilstrækkeligt med besvarelser, har vi besluttet at forlænge fristen for besvarelse af spørgeskemaet, i håb om flere besvarelser. Vi har for nylig inviteret dig til at besvare vores spørgeskema omkring bandagisters involvering i tidlig gangrehabilitering af apopleksipatienter, som del af vores bachelorprojekt. Linket til spørgeskemaet finder du herunder:

https://www.esmaker.net/nx2/s.aspx?id=fa726bcae94e

Deadline for indsendt besvarelse er fredag, d. 9. april 2021.

Mvh Laura og Mille

Appendix H: Comments in Danish

Participant 1:

"De fleste nuværende apopleksipatienter jeg ser er færdig i deres rehabilitering. Så det tværfaglige arbejde er ofte ved forværring af gangevne/distance osv. Så er det ikke i det akutte specialteam, men med en kommunal fysioterapeut."

"Most of the stroke patients I see today are finished with their rehabilitation. So, the multidisciplinary work often happens when worsening of the walking ability/distance etc. Then it is not in the acute special team, but with a municipal physiotherapist."

Participant 2:

"Der kan opstå problemer ift. bevillinger på hjælpemidler m.v. når patienten ikke er færdig i behandlings-/genoptræningsforløb. Dette pga. træning versus varig hjælpemiddel og hvis patienten udskrives fra specialiseret genoptræning til kommunal genoptræning, da der stadig kan ske en udvikling af behovet. Derfor vil nogle kommuner ikke acceptere ansøgning på hjælpemiddel, før patienten slippes helt af genoptræningsforløb. Dette gør tidlig involvering meget kompliceret som det er nu."

"Problems can emerge as to the granting for the helping aid when the patient is not finished in the treatment/rehabilitation process. This due to training versus permanent helping aid and if the patient is discharged from specialized rehabilitation to municipal rehabilitation since improvement can still occur. Due to this, some municipalities will not accept an application for a helping aid before the patient is finished with the rehabilitation process. This make early involvement very complicated as it is now."

Participant 3:

"Et tværfagligt team med deltagelse af ortosekyndige bandagister på fx en stroke-/apopleksi-klinik kunne gavne den tidlige rehabilitering. Jeg deltager ikke et sådant team og da konkurrencehensyn vejer meget tungt i Danmarks kommuner og regioner, kan etableringen af faste teams blive direkte undgået, da de nødigt vil binde sig til en fast leverandør. Teamet uden om bandagisten vil så typisk formulere indsatsen, sætte rammerne og forfatte en kort henvisning til et specifikt hjælpemiddel. Bandagisten bliver dermed reduceret til en simpel underleverandør."

"*A multidisciplinary team with participation of orthotist on e.g., stroke clinics could have a positive effect on early rehabilitation. I am not participating in such a team and because the competition considerations weigh heavily in Danish municipalities and regions, establishment of such a team can be avoided, since they avoid signing with a single supplier. The team without the orthotist will typically formulate the treatment plan, set the boundaries and prescribe a short referral for a specific helping aid. The orthotist is then reduced to a simple supplier."*

Participant 4:

"Generelt syntes jeg vi ser apopleksipatienterne alt for sent i forløbet. Mange bliver udskrevet fra hospitalet og genoptræning uden at have set en bandagist. Det er så meget lettere at tilpasse og anvende en dropfodsskinne, hvis vi ser patienterne INDEN der opstår kontrakturer og fejlstillinger. Jeg ser jævnligt nogle, som har gået uden skinne i mange år, og overkompenseret i resten af kroppen, da deres gangmønster er meget krævende."

"*In general, I think we see stroke patients too late in the process. Many are discharged from the hospital and rehabilitation without having seen an orthotist. It is so much easier adapting and using a drop foot orthosis if we see the patient before contractures and mal alignments develops. I often see patient who have walked without an orthosis for many years and is overcompensating in the rest of the body since their walking pattern are very demanding."*

Participant 5:

"Jeg har før i tiden været involveret meget tidligere i behandlingen, men da regionerne ikke vil betale for eksempelvis individuelle dropfodsskinner som et led i behandlingen og kommunerne først vil betale når rehabiliteringen er overstået er der ikke penge i systemet til tværfagligt samarbejde i rehabiliteringsfasen. I hvert fald ikke med de regionale samarbejdspartnere der er i den region hvor jeg arbejder. Det er heldigvis anderledes i andre landsdele."

"*I have earlier been much involved earlier in the treatment, but since the regions does not want to pay for e.g., individual drop foot orthosis as part of the treatment and the municipalities first will pay when the rehabilitation is over, there is not any money left in the system for multidisciplinary cooperation in the rehabilitation phase. At least not with the regional partners in the region I am working in. This is luckily different in other parts of the country."*

Participant 6:

"Det afgørende er hvem der skal betale ortosen, i træningsprocessen, hvor borger starter med en ortose og inden for kort tid måske 3 mdr. skal have en anden model, fordi de har trænet sig op til et andet niveau."

"It is essential who is paying for the orthosis, in the training process, where the citizen starts with an orthosis and within a short time, maybe 3 months, must change model because they have trained and reached another level."