Interventions for Stroke Rehabilitation: Analysis of the Research Contained in the OTseeker Evidence Database

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Purpose: To analyse the stroke content in OTseeker in terms of the quantity of the research evidence, the quality of the randomised controlled trials (RCTs), and the types of interventions and outcome measures used. **Method:** A survey of stroke-related content in the OTseeker database was conducted in 2007. The year of publication and intervention categories used in each stroke-related RCT and systematic review (SR) were recorded. The internal validity of RCTs using the PEDro scale (partitioned) and the outcome measures used were also recorded. **Results:** Of the 4,369 articles indexed on OTseeker, 452 (10.3%) related to stroke were conducted between 1979 and 2006. The five most frequently studied intervention categories were movement training (43.2%), models of service delivery (31.2%), physical modalities/orthotics/splinting (30.1%), exercise/stretching/strength training (19.5%), and skill acquisition/training (9.3%). Random allocation (96.1%) was the most frequently satisfied internal validity criterion and therapist blinding (3.1%) was least often satisfied. The five most frequently used outcome measurement categories were basic and extended activities of daily living (70.1%), hand and upper limb function (56.1%), walking/gait (44.1%), movement/motor function (32.7%), and quality of life/general overall health (27.9%). **Conclusion:** The stroke-related content on OTseeker is useful for allied health professionals. This study highlights a need for better definitions of interventions and consensus about the best outcome measures. Few interventions or outcome measures were participation focused. **Key words:** *evidence-based practice, participation, rehabilitation, research, stroke*

Stroke is a major cause of long-term disability in adults[1] and is one of the most common diagnoses seen by allied health professionals, including occupational therapists in acute care, rehabilitation, and community settings.[2] As a result, therapists frequently seek research about the effectiveness of stroke rehabilitation therapies.[3]

There are increasing numbers of randomised controlled trials (RCTs) and systematic reviews (SRs) published about the effectiveness of occupational therapy interventions.[4,5] Despite the increase in research being published, concerns have been raised about the limited quantity and quality of occupational therapy research.[6] In the area of stroke rehabilitation, several SRs have identified that occupational therapy after stroke can improve people's performance of functional activities and remediate some impairments.[5,7] However, details regarding the actual interventions and activities used by occupational therapists are often lacking.[8]

Steultjens et al.[5] reported that evidence for specific poststroke interventions, such as splinting for hypertonicity, was sparse and recommended occupational therapists take a critical look at their practice with the objective of incorporating

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effective interventions. A lack of evidence was also found by Teasell et al.[9] who identified many gaps in stroke research and evidence. A study by Gustafsson and McKenna[10] reported on a wide variability in the practice of occupational therapy in adult stroke rehabilitation and found that clinical decision making in this field is often based on undergraduate training, clinical experience, and informal continuing education opportunities, often without consideration of available research evidence.

In this era of ever-increasing accountability within health care, changing guidelines, demand for maximum quality of care, and increasing fiscal restraints, it is a constant challenge for occupational therapists to use effective treatment interventions based on high-quality research evidence.[6] The variety, methodological quality, and availability of high quality research evidence present challenges for occupational therapists when attempting to locate and appraise and integrate it into practice.[6]

An urgent need has been identified for the collation and dissemination of the best current stroke evidence to assist evidence-based practice.[10] Knowledge about the quantity and quality of research in stroke rehabilitation, including the types of interventions and outcome measures that have been researched, would help occupational therapists in their efforts to integrate evidence into practice.

OTseeker

OTseeker refers to Occupational Therapy Systematic Evaluation of Evidence, a database that is freely accessible online (www.otseeker.com) anywhere in the world. OTseeker provides occupational therapists and others with fast access to high-quality research evidence.[6] The database contains over 4,000 RCTs and SRs relevant to occupational therapy practice, many pertaining to interventions for people following stroke. Only RCTs and SRs are included because they have the potential to provide strong evidence about the effectiveness of interventions.[11] Details about how articles are located and the criteria that are used to decide whether an article should be included on OTseeker are available at http://www.otseeker.com/questions.htm.

RCTs may vary in methodological quality, therefore each RCT in OTseeker is critically appraised for internal validity and statistical interpretability using the PEDro scale (partitioned) by two independent raters.[6] The PEDro scale contains eight internal validity items (presence of randomisation, concealed allocation, baseline comparability, blinding of assessors, therapist and participants, intention-to-treat analysis, and adequate follow-up) and two statistical reporting items (presence of between-group statistical comparisons and point measures and measures of variability for at least one key outcome). The presence of internal validity items are displayed in OTseeker for each RCT, allowing users to make judgments about the risk of bias for each study. The statistical reporting items enable users to determine whether the article contains information about both the statistical and clinical significance of the study's results.[6]

A summary of the quantity, quality, and content of research about stroke in OTseeker would provide occupational therapists and others with information about the evidence available for stroke interventions, support the integration of research into practice, and enable the identification of areas requiring greater research effort. Therefore, the aims of this study were to analyse the stroke content in OTseeker in terms of (1) the quality of RCTs and (2) the types of interventions and outcome measures used.

Method

In February 2007, the OTseeker database was searched for entries relating to stroke. For each entry, the year of publication and intervention categories reported on OTseeker were recorded. The intervention categories used on OTseeker include a number relevant to stroke, for example, movement training (e.g., motor learning), physical modalities (e.g., splinting), and skill acquisition and training. For an explanation of all categories used on OTseeker, see http:www.otseeker.com/inthelp.aspx. The full-text article was obtained for all RCTs and the abstract was obtained for SRs. Details about the number and type of outcome measures used in each RCT were extracted from the full text. For RCTs, details about the PEDro scale

(partitioned) score were also extracted to provide information regarding the trials' susceptibility to bias.

Six of the broader OTseeker intervention categories were further subdivided into new subcategories (see **Table 1** for intervention categories) using aspects of the taxonomy of rehabilitation outlined by DeJong et al.[12] as a guide. The purpose of subdividing categories was to provide more detail about specific interventions. Each article can be allocated up to five intervention codes, therefore percentages in **Table 1** do not equal 100%.

The outcome measures used in each of the RCTs were recorded and categorized. They consisted of occupational performance areas (e.g., activities of daily living, productive activities, leisure activities), performance component areas (e.g., strength, tone, mood, sensorimotor), and other outcomes that did not fit into the more specific categories (e.g., use of services/resources). Outcome measures were analysed for RCTs but not for SRs for two reasons: first, to prevent the duplication of information, as many of the RCTs were also included in the SRs; second, to avoid the need to obtain unpublished primary papers included in the SRs. Data were analysed using Excel, and descriptive statistics were computed. As neither human participants nor confidential documents were involved in this study, ethical approval was not required.

Results

Quantity of articles about stroke in OTseeker

At the time of searching, a total of 4,369 articles were indexed on OTseeker. Of these, 452 (10.3%) related to stroke, making stroke the largest diagnostic subcategory indexed. Of the 452 papers, 358 (79.2%) were RCTs and the remaining 94 (20.8%) were SRs. **Figure 1** illustrates the number of RCTs and SRs relating to stroke indexed in OTseeker published in each 5-year period from pre-1980 to 2006 inclusive. Over half (59.1%) of all articles about stroke indexed in OTseeker were published between 2000 and 2006. During this time period, 75.5% of all the SRs and 54.7% of all the RCTs on OTseeker (n = 4,369) were published.

Internal validity and statistical criteria

Figure 2 illustrates the percentage of RCTs relating to stroke that (a) satisfied each of the 10 PEDro scale (partitioned) criteria and (b) were published within each time interval (pre-1980, 1980–89, 1990–99, 2000–06, and total). Random allocation was the most frequently satisfied internal validity criterion, with 96.1% of RCTs using a valid method of randomization for participant allocation. Over 75% of RCTs that satisfied this criterion were published after 1989, with 54.2% of these being after 1999. Therapist blinding was the least frequently satisfied criterion (3.1%), followed by participant blinding (3.9%). No instances of participant and therapist blinding were recorded before 1989. The incidence of assessor blinding being reported in RCTs increased from 0.6% pre-1980 to 38.8% between 2000 and 2006. Of the statistical criteria, between-group statistical analysis was the more frequently satisfied criterion (94.1%). Of RCTs satisfying both statistical criteria, over 75% were published after 1989.

Intervention categories

Across all articles (RCTs and SRs), the 10 most frequent interventions evaluated were movement training (43.2%), service delivery (31.2%), physical modalities/orthotics/splinting (30.1%), exercise/stretching/strength training (19.5%), skill acquisition/training (9.3%), basic activities of daily living (ADLs; 8.4%), consumer education (6.6%), psychosocial techniques (5.1%), interventions targeting perception (4.4%), and assistive technology/adaptive equipment (4.0%; refer to **Table 1**).

A further subdivision of the OTseeker intervention categories is presented in **Table 1**. In the movement training category, *interventions focusing on the upper extremity* and *motor control* were the most frequently studied interventions. *Place of service* (for example, hospital or home-based intervention) was the most frequently investigated service delivery intervention. In the physical modalities category, *electrical stimulation* and *biofeedback/other types of feedback* were the two most frequently studied interventions.

Table 1. Number and percentage of RCTs and SRs related to stroke in OTseeker according to intervention category

Intervention category	Combined RCTs & SRs (*n*=452) *n* (% of total)	RCTs (*n*=358) *n* (% of RCTs)	SRs (*n*=94) *n* (% of SRs)
Movement training	195 (43.2)	162 (45.2)	33 (35.2)
Balance training	*32 (7.1)*	*27 (7.5)*	*5 (5.3)*
Postural awareness	*9 (2.0)*	*8 (2.2)*	*1 (1.1)*
Motor control	*38 (8.4)*	*32 (8.9)*	*6 (6.4)*
Motor learning (including Carr and Shepherd approach/Movement Science)	*9 (2.0)*	*5 (1.4)*	*4 (4.3)*
Proprioceptive neuromuscular facilitation (PNF)	*3 (0.7)*	*3 (0.8)*	*0 (0.0)*
Neurodevelopmental treatment (NDT/Bobath)	*25 (5.5)*	*22 (6.1)*	*3 (3.2)*
Gait retraining /gait practice	*26 (5.8)*	*21 (5.9)*	*5 (5.3)*
Gait with body weight support	*13 (2.9)*	*7 (2.0)*	*6 (6.4)*
Interventions focusing on the upper extremity	*80 (17.7)*	*65 (18.2)*	*15 (16.0)*
Constraint-induced movement therapy	*18 (4.0)*	*12 (3.4)*	*6 (6.4)*
Models of service delivery	141 (31.2)	107 (29.9)	34 (36.2)
Intensity/timing of therapy	*22 (9.3)*	*18 (5.0)*	*4 (4.3)*
Early supported discharge	*20 (7.9)*	*17 (4.7)*	*3 (3.2)*
Location of service	*59 (25.9)*	*47 (13.1)*	*12 (12.8)*
Service delivery—other	*41 (24.0)*	*25 (7.0)*	*16 (17.0)*
	136 (30.1)	103 (28.8)	33 (35.1)
Physicial modalities/orthotics/splinting			
Splinting	*14 (3.1)*	*8 (2.2)*	*6 (6.4)*
Pneumatic compression	*5 (1.1)*	*4 (1.1)*	*1 (1.1)*
Orthotics—general	*9 (2.0)*	*6 (1.7)*	*3 (3.2)*
Compression stockings	*2 (0.4)*	*1 (0.3)*	*1 (1.1)*
Electrical stimulation (such as TENS, FES)	*68 (15.0)*	*48 (13.4)*	*20 (21.3)*
Biofeedback/feedback (audio, visual, force)	*51 (11.3)*	*35 (9.8)*	*16 (17.0)*
Shoulder slings/strapping	*7 (1.5)*	*3 (0.8)*	*4 (4.3)*
Botulinum toxin	*9 (2.0)*	*7 (2.0)*	*2 (2.1)*
Robotic therapy	*6 (1.3)*	*5 (1.4)*	*1 (1.1)*
	88 (19.5)	73 (20.4)	15 (16.0)
Exercise/stretching/strength training			
Strengthening	*36 (8.0)*	*30 (8.4)*	*6 (6.4)*
Manipulation (mobilization /manual therapy)	*2 (0.4)*	*2 (0.6)*	*0 (0.0)*
Passive range of motion /stretching	*29 (6.4)*	*26 (7.3)*	*3 (3.2)*
Aerobic/conditioning exercises	*21 (4.6)*	*15 (4.2)*	*6 (6.4)*
Skill acquisition/training	42 (9.3)	36 (10.1)	6 (6.4)
Basic activities of daily living (ADL)	38 (8.4)	32 (8.9)	6 (6.4)
Consumer education	30 (6.6)	26 (7.3)	4 (4.3)
Patient	*25 (5.5)*	*21 (5.9)*	*4 (4.3)*
Family/caregiver	*19 (4.2)*	*17 (4.7)*	*2 (2.1)*
Staff/other	*2 (0.4)*	*2 (0.6)*	*0 (0.0)*
Psychosocial techniques (includes counselling, social skills)	23 (5.1)	19 (5.3)	4 (4.3)
Perception/perceptual rehabilitation	20 (4.4)	13 (3.6)	7 (0.0)
Assistive technology/adaptive equipment	18 (4.0)	17 (4.7)	1 (1.1)
Cognition/cognitive rehabilitation	18 (4.0)	9 (2.5)	9 (9.6)
Carer training	18 (4.0)	16 (4.5)	2 (2.1)
Sensation/sensory retraining	14 (3.1)	13 (3.6)	1 (1.1)
Leisure/recreation therapy	10 (2.2)	7 (2.0)	3 (3.2)

Table 1. Number and percentage of RCTs and SRs related to stroke in OTseeker according to intervention category (continued)

Intervention category	Combined RCTs & SRs (*n*=452) *n* (% of total)	RCTs (*n*=358) *n* (% of RCTs)	SRs (*n*=94) *n* (% of SRs)
Purposeful activity	8 (1.8)	8 (2.2)	0 (0.0)
Extended activities of daily living	8 (1.8)	7 (2.0)	1 (1.1)
Home modification/access	7 (1.5)	6 (1.7)	1 (1.1)
Complementary therapies	6 (1.3)	5 (1.4)	1 (1.1)
Community living skills	4 (0.9)	4 (1.1)	0 (0.0)
Health promotion/risk assessment	3 (0.7)	2 (0.6)	1 (1.1)
Relaxation/stress management	1 (0.2)	1 (0.3)	0 (0.0)
Creative therapies	1 (0.0)	1 (0.3)	0 (0.0)
Other	10 (2.2)	6 (1.7)	4 (4.3)

Note: Interventions in italics are subdivisions of original OTseeker intervention categories developed in collaboration with the OTseeker team and based on the taxonomy of rehabilitation.[12]

Subdivided categories do not add up to the "umbrella" category as not all articles contained sufficient intervention details to allow further subdivision and some were allocated into more than one subcategory. TENS = transcutaneous electrical nerve stimulation; FES = functional electrical stimulation.

Outcome measures

The number of outcome measures used per RCT was variable, ranging from 1 to 18. Thirty-six papers (10.1%) reported using 10 or more outcome measures. The most frequently used number of outcome measures was four, which was the case for 58 (16.2%) articles. Across all RCTs, there was much variation in the type of outcome measures used, therefore only the 25 most frequently used categories (of a possible 68) are presented (see **Table 2**). Measures of basic and extended ADLs (70.1%) were most frequently used, followed by measures targeting hand and upper limb function (56.1%), walking/gait (44.1%), movement/motor function (32.7%), and quality of life/general overall health (27.9%). Of the top five outcome measure categories, the three most popular measures used within each category are presented in **Table 3**.

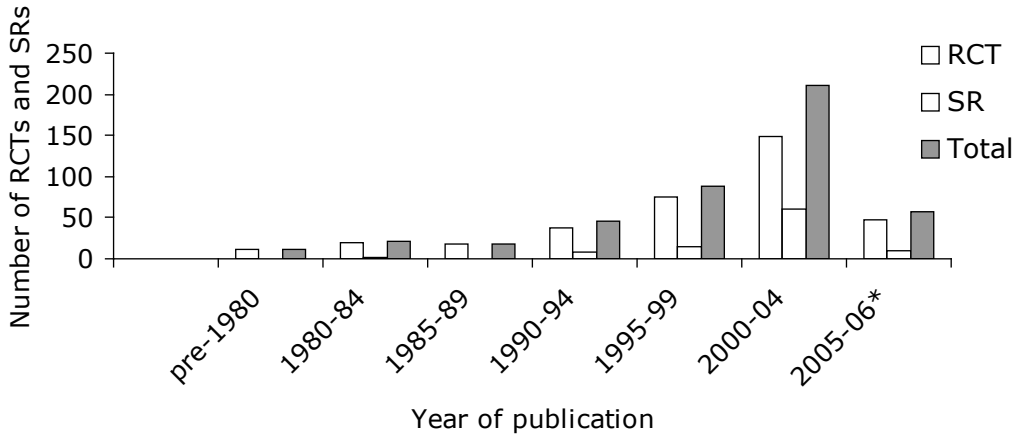

Figure 1. Number of RCTs and SRs related to stroke in OTseeker published from pre-1980 to 2006. Asterisk indicates 2 years.

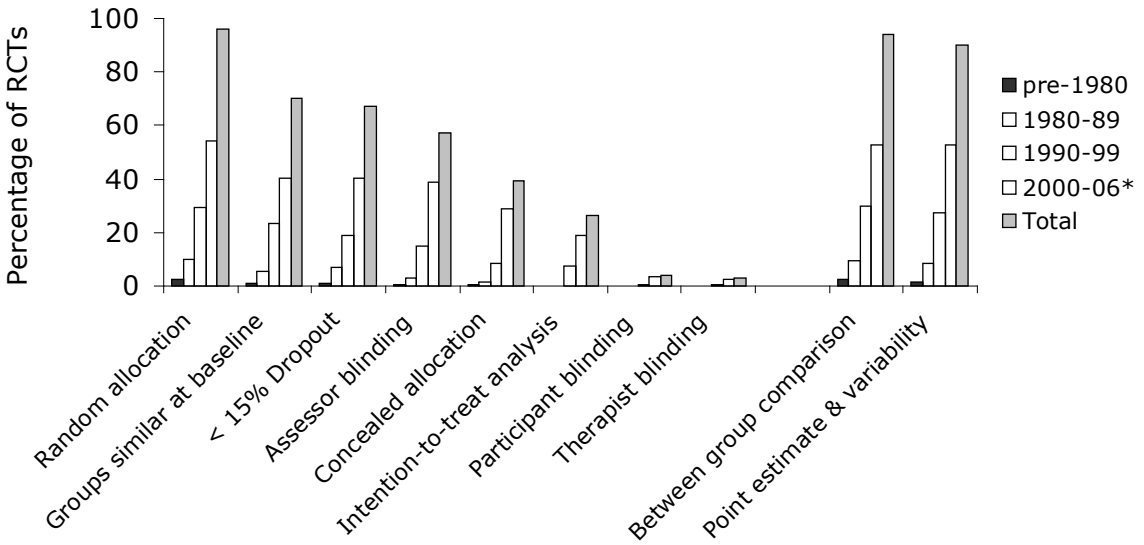

Figure 2. Percentage of RCTs related to stroke that satisfy each PEDro criteria from pre-1980 to 2006. Asterisk indicates 7 years.

Table 2. The 25 most frequent categories of outcome measurement across 358 RCTs

Category of outcome measurement	*n* (% of all RCTs)
Basic/extended activities of daily living	251 (70.1)
Hand/upper limb (function, dexterity, coordination, grip strength)	201 (56.1)
Walking/gait	158 (44.1)
Movement/motor function	117 (32.7)
Quality of life/general overall health	100 (27.9)
Range of motion	55 (15.4)
Muscle strength[a]	49 (13.7)
Mood (anxiety, depression)	48 (13.4)
Tone/spasticity	47 (13.1)
Balance	44 (12.3)
Pain	42 (11.7)
Death/survival	42 (11.7)
Activity/leisure	40 (11.2)
Allied health therapy time/content	38 (10.6)
Carer mood/general health	37 (10.3)
Discharge location/institutionalisation	36 (10.1)
Length of stay	36 (10.1)
Patient satisfaction	29 (8.1)
Other (arm girth, skin temperature)	27 (7.5)
General stroke scale	26 (7.3)
Utilisation of health care services/community resources/services	26 (7.3)
Muscle activity/surface electromyographic activity potentials	25 (7.0)
Cognition	23 (6.4)
Carer strain / burden / stress	23 (6.4)
Carer satisfaction	19 (5.3)

[a]Does not include grip strength.

Table 3. The three most frequently cited outcome measures used in the top five outcome categories

Intervention category	*n* (% of total in that category)
Basic/extended activities of daily living	120 (47.8)
Barthel Index (BI)/Modified Barthel Index (MBI)	31 (12.4)
FIM™	30 (12.0)
Nottingham Extended Activities of Daily Living (NEADL) scale	
Hand/upper limb	
Fugl-Meyer assessment of motor function (upper limb section)	29 (14.4)
Action Research Arm Test (ARAT)	23 (11.4)
Peg test (9 hole, Purdue, grooved)	16 (8.0)
Walking/gait	
Walking speed	69 (43.7)
Walking capacity	25 (15.8)
Gait quality	18 (11.4)
Movement/motor function	
Fugl-Meyer assessment of motor function	15 (12.8)
Motor Assessment Scale (MAS)	13 (11.1)
Motor Activity Log (MAL)	13 (11.1)
Quality of life/general overall health	
Nottingham Health Profile	26 (26.0)
Short Form (SF-36), Short Form (SF-20)	19 (19.0)
EuroQOL	12 (12.0)

Discussion

Quantity of articles about stroke in OTseeker

The OTseeker database contains a substantial number of RCTs and SRs relating to stroke. OTseeker represents a large and valuable repository of research citations for therapists working in the area of stroke. The number of RCTs and SRs increased dramatically from pre-1980 to 2006. The first SR indexed in OTseeker was published in 1982, and the greatest increase occurred between 2000 and 2006 with an additional 71 (75.5%) being published. From 1989, the number of RCTs approximately doubled every 5 years until 2004.

This increase in the amount of research over time is not unique to stroke. A similar increase has been reported in paediatrics,[13] work-related injury prevention and management,[14] and rehabilitation in general.[15] This increase reflects an awareness of the need for high-level evidence—RCTs and SRs—about the effectiveness or ineffectiveness of interventions.[11]

Quality of research relating to stroke in OTseeker

There was an increase in the use of methods to minimise risk of bias over time. Trials published in later years were more likely to use adequate randomisation procedures, concealed allocation, assessor blinding, intention-to-treat analysis or were more likely to have greater than 85% follow-up. Similar improvements in the quality of RCTs were reported for studies of work-related injury prevention and management indexed on OTseeker[14] and physiotherapy RCTs indexed on the PEDro database.[16] This increase in RCT quality over time may be due to an increase in the amount and availability of knowledge and literature regarding how to appropriately conduct and report the methodology and results of an RCT.[17]

Of the eight PEDro internal validity criteria, random allocation is one of the simplest to achieve[18] and was subsequently the most frequently satisfied by 344 (96.1%) of the articles. However, concealed allocation was only achieved in 39.4% of articles. Concealed allocation is theoretically possible in all RCTs using a sealed envelope technique, ideally

performed by an independent third party to the study.[19] This lack of concealed allocation exposes a trial to participant allocation bias or to a potential overestimation of the treatment effects.[19] Baseline comparability was achieved in the majority of articles (70.1%). However, for the 30% that did not satisfy this criterion, questions arise as to whether significant differences following an intervention were due to the intervention or differences in sample characteristics.[20]

Participant and therapist blinding were the least satisfied criteria, with only 3.9% and 3.1% of articles achieving these criterion, respectively. The difficulty, and often impossibility, of blinding participants and therapists in rehabilitation trials has been acknowledged. This difficulty is attributed to the complex and collaborative nature of rehabilitation interventions, where both participants and therapists need to be aware of the intervention in order to participate.[20] Blinding of assessors is usually possible but was only achieved in just over half of all RCTs (57.3%). Without assessor blinding, observer bias can influence the trial by affecting the measurement of outcomes and consequently trial validity.[20]

Intention-to-treat analysis was the third most poorly reported internal validity criterion, with only 27% of articles clearly stating that this procedure had been performed. Therefore, over 70% of RCTs may have been exposed to reduced power, bias, and an overestimation of clinical effectiveness.[21]

Although the quality of stroke-related RCTs in OTseeker has improved over time, further improvement is still needed. The CONSORT (Consolidated Standards of Reporting Trials) statement is one strategy that can improve trial reporting. The CONSORT statement represents a set of guidelines developed to help authors improve the quality of reporting of RCTs by using a checklist and a flow diagram to ensure a clear and standard method of reporting is followed.[17] Use of the checklist early in research planning can help to ensure that a trial is appropriately planned and conducted but also allows readers to assess the validity of study methods and results.[17] A recent study of RCTs relevant to occupational therapy found that the RCTs only met half of the CONSORT criteria and recommended routine use of CONSORT guidelines to help improve clarity of interpretation of trial results.[22]

Intervention categories

The most commonly studied intervention was movement training (43.2%), which is not surprising since motor impairments are a common consequence of stroke.[23] However, Richards and colleagues[24] have noted the lack of detail about interventions delivered by occupational therapists. The same problem was evident in this study; nearly half of the papers within the movement category fell into the generic subcategory of *interventions focusing on the upper extremity* (17.7%), because many studies did not provide specific detail about the intervention provided. One of the barriers to determining the effectiveness of rehabilitation interventions is the ability to characterise the interventions under review, as they are often multidisciplinary in nature, customised to the client, and lack standardisation in definition and measurement.[12]

This analysis highlighted gaps between the interventions used by occupational therapists and research evidence.[3] For example, there is limited evidence for common occupational therapy interventions such as assistive devices (4.0% of RCTs), splinting (3.1%), and compression stockings (0.4%). Teasell and colleagues[9] found similar research gaps, reporting that no RCTs had specifically investigated the use of assistive devices for people following stroke.[9] Although movement training was the largest category overall, many of its subcategories such as motor learning, proprioceptive neuromuscular facilitation, and the Bobath approach contained few articles. Only 5.5% of RCTs have researched the neurodevelopmental or Bobath approach, one of the most commonly used approaches by occupational therapists working with stroke patients.[25]

The majority of intervention techniques studied were impairment focused. Few interventions (less than 5%) focussed on activity or participation, such as community living or leisure skills. Occupational therapists aim to address more

than impairments,[4,26] however to date there is still limited research to support participation-focused interventions.[9]

Outcome measures

Across all stroke-related RCTs in OTseeker, 68 outcome measurement categories were identified. The large number of measurement categories and outcome measures reflects not only the multidisciplinary nature of stroke-related research contained in OTseeker but also the vast number of outcome measures available to an occupational therapist. A high proportion of outcome measures were only used in one or two RCTs. This poses a problem when attempting to compare study outcomes when different outcome measures have been used to measure the same outcome trait.[26] Activities of daily living was the most frequently used outcome measure category, represented in nearly three quarters of the RCTs. However, within this category alone, 17 different outcome measures were used. Of the top 25 outcome measurement categories, the majority were impairment focused.

Further research is needed to gain consensus on the most appropriate outcome measures for use across studies and countries in acute care, rehabilitation, and community settings. Many measures have a narrow scope and were developed over 30 years ago to capture the modest expectations of therapy.[26] As the goals of people with stroke and community-based rehabilitation teams have changed to include community integration and participation,[26] rehabilitation professionals have needed to change their practice to appropriately address these needs. They also need appropriate outcome measures to support the effectiveness of interventions within these areas. It is recommended that new outcome instruments be linked to the World Heath Organization's (WHO) International Classification of Functioning, Disability and Health (ICF).[26] This linking process will help to focus rehabilitation and measurement on relevant ADLs and community participation as defined by the ICF.[26,27]

Limitations and future research

It is anticipated that this article will provide a basis for further investigation into the available stroke evidence for occupational therapists, highlight the gaps in stroke-related research to guide future research, and provide a model to investigate the research in other areas of practice. A limitation of this study is that the strength of the evidence regarding the degree of change in outcome measures post intervention was not analysed, as this is anticipated to be a complex analysis and ventures beyond the scope of this article. However, further investigation into both the statistical and clinical significance of the interventions researched is warranted to determine the efficacy of stroke interventions and facilitate evidence-based practice.

Conclusion

The OTseeker database contains a large and valuable resource of high-level research within the practice area of stroke, providing occupational therapists with fast access to a collation of the available evidence to support clinical decisions within this practice field. However, further research is still needed to ensure that high-quality research evidence supports the efficacy of stroke interventions. The adoption of the CONSORT statement is anticipated to increase the sophistication with which occupational therapy RCTs are conducted and reported in the future.

This study has implications for both occupational therapy clinicians and researchers, as it presents a comprehensive overview of the quantity, quality, and content of stroke-related research in OTseeker and also identifies the gap between current practice and research. This will be beneficial when contemplating future research directions. Of particular note, very few interventions or outcome measures were concerned with enabling the participation of people who have had a stroke, and future studies should aim to enhance the quality and quantity of knowledge in this important area.

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