# Non-specialist Physiotherapist Confidence in Treating Spinal Cord Injuries: An Online Survey

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# Background

- ► The Queen Elizabeth National Spinal Injuries Unit (QENSIU) in Glasgow is the national spinal injuries unit for Scotland
- QENSIU provides inpatient spinal cord injury (SCI) rehabilitation and relies on non-specialist services around Scotland to meet physical rehabilitation needs on discharge
- Perception that physiotherapy (PT) colleagues around Scotland have low confidence in managing people with spinal cord injury (PwSCI)

# Background

- PwSCI report a lack of specialist support and reduced activity levels following discharge from a spinal injuries unit [1-3]
- Physiotherapy is important in treating PwSCI and recommendations for clinical practice have been made [4-6]
- Lack of research investigating the limitations of providing these interventions to PwSCI in non-specialist settings.

# Background

- ► It has been reported that non-specialist PTs lack confidence and face barriers in managing PwSCI [7-8]
- Poor confidence and knowledge from a healthcare professional can result in a poor standard of care [9]
- Lack of understanding on the confidence of PTs in the UK working with PwSCI and the barriers to improving their knowledge and confidence in this area

### Aim

➤ To investigate the knowledge and confidence of physiotherapists working in non-specialist services in treating PwSCI in Scotland.



#### Methods

- Research led by a physiotherapy student at Glasgow Caledonian University (GCU) as part of a BSc in Physiotherapy in collaboration with GCU and QENSIU
- ► A cross-sectional online survey was developed and reported according to the Checklist for Reporting Results of Internet E-Surveys (CHERRIES) [10]
- ► Ethical approval gained from GCU School of Health and Life Sciences Allied Health Research Ethics Committee

SURVEY

#### Methods



- The survey was shared through:
  - > PT Team Leads across all Scottish Health Boards
  - Trauma and Major Trauma Networks across Scotland
  - Providers of private neuro-physiotherapy across Scotland
  - Research team networks via email and social media
- Respondents were encouraged to share the survey with their networks

#### Non-specialist Physiotherapist confidence in treating spinal cord injuries: An Online Survey

#### What is the survey about?

The aim of this study is to explore the confidence of physiotherapists working in non-specialist services in treating people with spinal cord injury (SCI) in Scotland.

- Participation criteria:Work as a Physiotherapist in Scotland
- Currently work as a non-SCI specialist
- Practice face-to-face with patients currently or within the last 12 months



#### How can I get involved?

If you would like to take part, please follow the link or QR code for more participant information and to complete the anonymous survey if you wish to continue.

The survey should take around 20 minutes.

#### https://forms.office.com/e/ckr1M1cj9i



Any questions regarding the study?

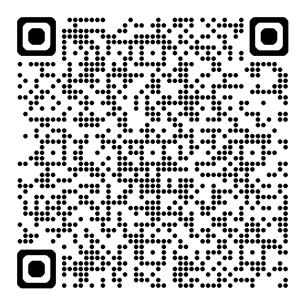
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#### Methods

- ▶ 43 questions with responses ranging from yes / no, multiple choice, likert scale and open text:
  - Demographics
  - SCI experience
  - Confidence in SCI management
  - ▶ Barriers to improving SCI knowledge and skills
  - > SCI future training needs



Link to copy of survey

## Results - Demographics

- Data collected over an 8 week period starting in November 2024
- ► 168 responses:
  - ▶ 85% female
  - ▶ 87% completed their training in Scotland
  - > 74% had completed a BSc / Diploma
  - ▶ 67% had 1-19 years of clinical experience
  - > 95% worked solely in the NHS



# **Health Board Areas**

Geographical Location	Number	%
Greater Glasgow and Clyde	82	48
Ayrshire and Arran	20	12
Lothian	20	12
Fife	6	4
Grampian	6	4
Lanarkshire	6	4
Borders	5	3
Dumfries and Galloway	5	3
Forth Valley	5	3
Highlands	5	3
Tayside	5	3
Western Isles	3	1

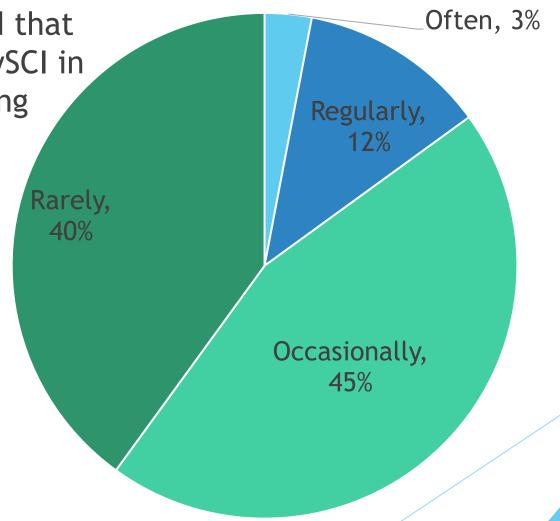


# Results - Work Environment

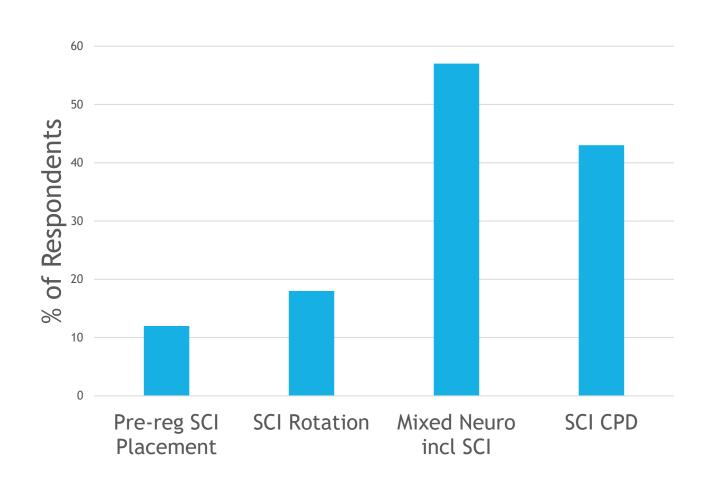
Work Environment	Number	%
Acute in-patient setting (non-SCI specialist setting)	66	40
Out-patient clinic (health centre/hospital)	42	25
Patient's home	20	12
Rehab in-patient setting (non-SCI specialist setting)	18	11
Community hospital	11	6
Community or leisure centre	11	6
Nursing home	0	0
Charity/third sector setting	0	0

## Results - Clinical Experience

► 80% (N=134) reported that they have treated PwSCI in a non-specialist setting



# Results - Clinical Experience



41% (N=57) had not completed any SCI clinical training or CPD

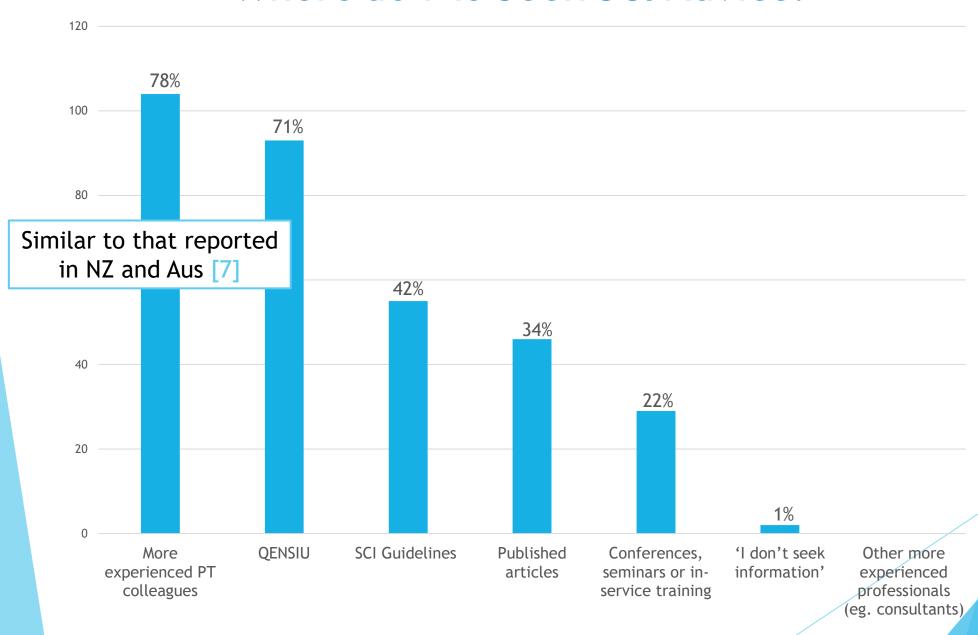
# Confidence Levels in Treating PwSCI

Question	Answer	Total treating SCI (n=134)			
		n	<b>%</b>		
Do you feel knowledgeable in the pathophysiology of a SCI?	Not at all knowledgeable	12	9	61% low levels of	
	Slightly knowledgeable	70	52	knowledge	
	Moderately knowledgeable	47	35	39% higher levels of knowledge	
	Completely knowledgeable	5	4		
Do you feel confident in your ability to assess and treat a person with SCI?	Not confident at all	23	17	57% low levels of	
	Slightly confident	53	40	confidence	
	Moderately confident	52	39	43% higher levels	
	Completely confident	6	4	of confidence	

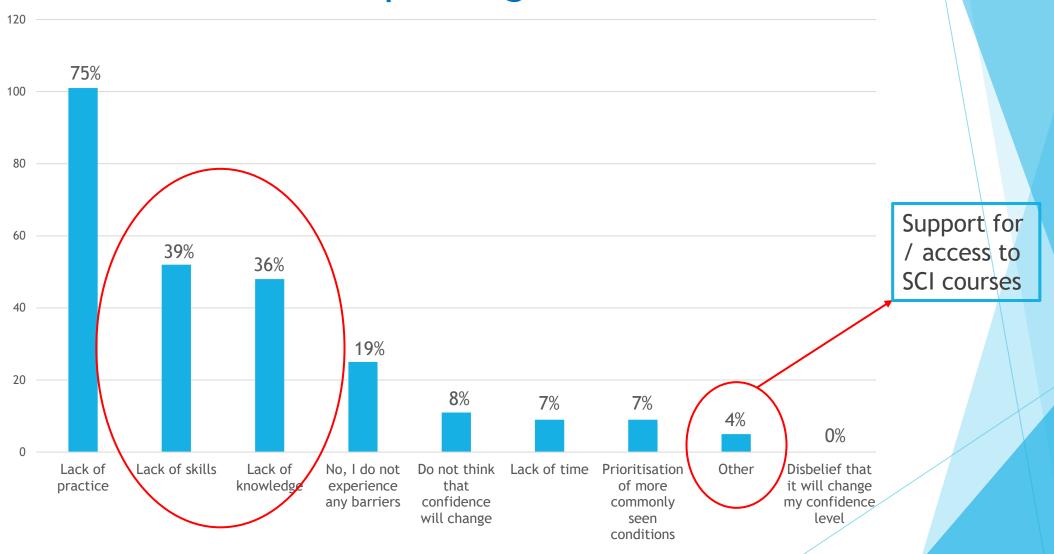
# Confidence Levels in Treating PwSCI

- Trends towards lower levels of confidence in PTs who treat SCI infrequently, have less years of clinical experience and have not completed a placement / rotation in SCI or a rotation in a mixed neurological population with SCI
- Those who reported to be completely confident in managing SCI had been qualified for an average of 26.5 years and all had clinical / CPD training in SCI
- Higher levels of confidence in management of joint mobility, UL and LL function, general mobility (bed mobility, transfers, gait)
- Lower levels of confidence in respiratory care and pain management

#### Where do PTs Seek SCI Advice?



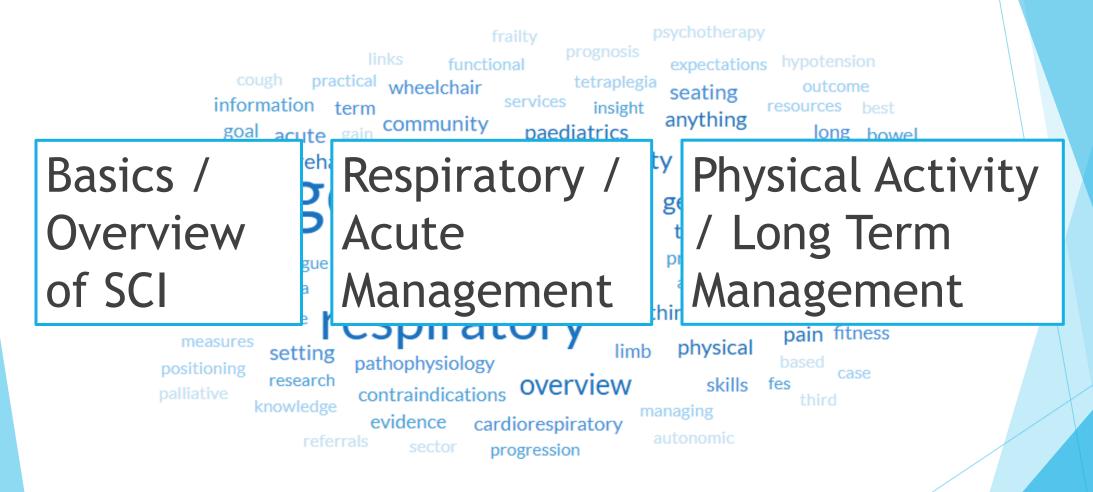
## Barriers to Improving Confidence



## Implications for Education

- ▶ 8% of PTs treating PwSCI had some awareness off the SCI PA Guidelines which is much lower than reported in Canada and The Netherlands [8]
- ► Low levels of confidence in managing SCI even in those who have undertaken SCI CPD
- ▶ 64% dissatisfied with their current knowledge and skills, 26% unsure
- 81% expressed interest in attended further SCI specific training, most preferring online training / webinar format

## Are There Any Specific Topics for Training / Webinar?



#### Limitations

- Some confusion in the definition of 'non-specialist SCI physiotherapist' which may have led to some PTs not completing the survey
- Did not include perceptions of PwSCI on the knowledge and quality of care from non-specialist PT (studies in Canada and Switzerland suggest that it does [1-3])

# Summary

- To the best of our knowledge, this study is the first to investigate the knowledge and confidence for PTs treating PwSCI in non-specialist areas in Scotland
- PTs working in non-specialist settings have low levels of confidence in managing SCI, particularly regarding pain and respiratory care
- PTs working in non-specialist settings are keen for further training in a webinar format
- Improving the confidence of PTs treating PwSCI in nonspecialist areas will likely improve SCI care



Roll out to the rest of the UK? Please contact:

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#### References

- Beauregard L, Guindon A, Noreau L, Lefebvre H, Boucher N. Community Needs of People Living With Spinal Cord Injury and Their Family. Top Spinal Cord Inj Rehabil [internet] 2012 [cited 2025 February 6];18:122-5. Available from: <a href="https://doi.org/10.1310/sci1802-122">https://doi.org/10.1310/sci1802-122</a>.
- 2. Trezzini B, Brach M, Post M, Gemperli A. Prevalence of and factors associated with expressed and unmet service needs reported by persons with spinal cord injury living in the community. Spinal Cord [internet] 2019 [cited 2025 January 25];57:490-500. Available at: <a href="https://doi.org/10.1038/s41393-019-0243-y">https://doi.org/10.1038/s41393-019-0243-y</a>.
- 3. Ma J, Walden K, McBride CB, Levett CLC, Colistro R, Plashkes T, et al. Implementation of the spinal cord injury exercise guidelines in the hospital and community settings: Protocol for a type II hybrid trial. Spinal Cord [internet] 2021 [cited 2025 February 16];60:53-57. Available from: https://doi.org/10.1038/s41393-021-00685-7.
- 4. Glinsky J V, Harvey LA. Physiotherapy management of people with spinal cord injuries: an update. J Physiother [internet] 2024 [cited 2024 November 23];70:256-64. Available from: https://doi.org/10.1016/j.jphys.2024.09.008.
- 5. Ginis KAM, van der Scheer JW, Latimer-Cheung A, Barrow A, Bourne C, Carruthers P, et al. Evidence-based scientific exercise guidelines for adults with spinal cord injury: an update and a new guideline. Spinal Cord [internet] 2017 [cited 2025 January 15];56:308-321. Available from: <a href="https://doi.org/10.1038/s41393-017-0017-3">https://doi.org/10.1038/s41393-017-0017-3</a>.

#### References

- 6. Pelletier C. Exercise Prescription for Persons with Spinal Cord Injury: a review of physiological considerations and evidence-based guidelines. Applied Physiology, Nutrition, and Metabolism. [internet] 2023 [cited 2024 December 10]. 48(12): 882-895. Available from: https://doi.org/10.1139/apnm-2023-0227
- 7. Nunnerley JL, Glinsky J V, Dunn JA, Stavric VA, Haber A, Denis S, et al. Developing spinal cord injury physiotherapy clinical practice guidelines: a qualitative study to determine how physiotherapists and people living with spinal cord injury use evidence. Spinal Cord [internet] 2023 [cited 2024 December 10];61:160-8. Available from: https://doi.org/10.1038/s41393-022-00867-x
- 8. Kuipers L, Hoekstra T, Hoekstra F. Professionals' knowledge, skills and confidence on using the best practices for spinal cord injury physical activity counselling in Canada and the Netherlands. J Spinal Cord Med [internet] 2024 September [cited 2024 December 6]; 1-10. Available from: https://doi.org/10.1080/10790268.2024.2391595
- 9. Owens KM, Keller S. Exploring workforce confidence and patient experiences: A quantitative analysis. Patient Exp J [internet] 2018 [cited 2025 February 20];5:97-105. Available from: https://doi.org/10.35680/2372-0247.1210.
- 10. Eysenbach G. Improving the Quality of Web Surveys: The Checklist for Reporting Results of Internet E-Surveys (CHERRIES). Journal of Medical Internet Research [internet] 2004 [cited 2024 November 27];6:34-34. Available from: <a href="https://doi.org/10.2196/jmir.6.3.e34">https://doi.org/10.2196/jmir.6.3.e34</a>.