



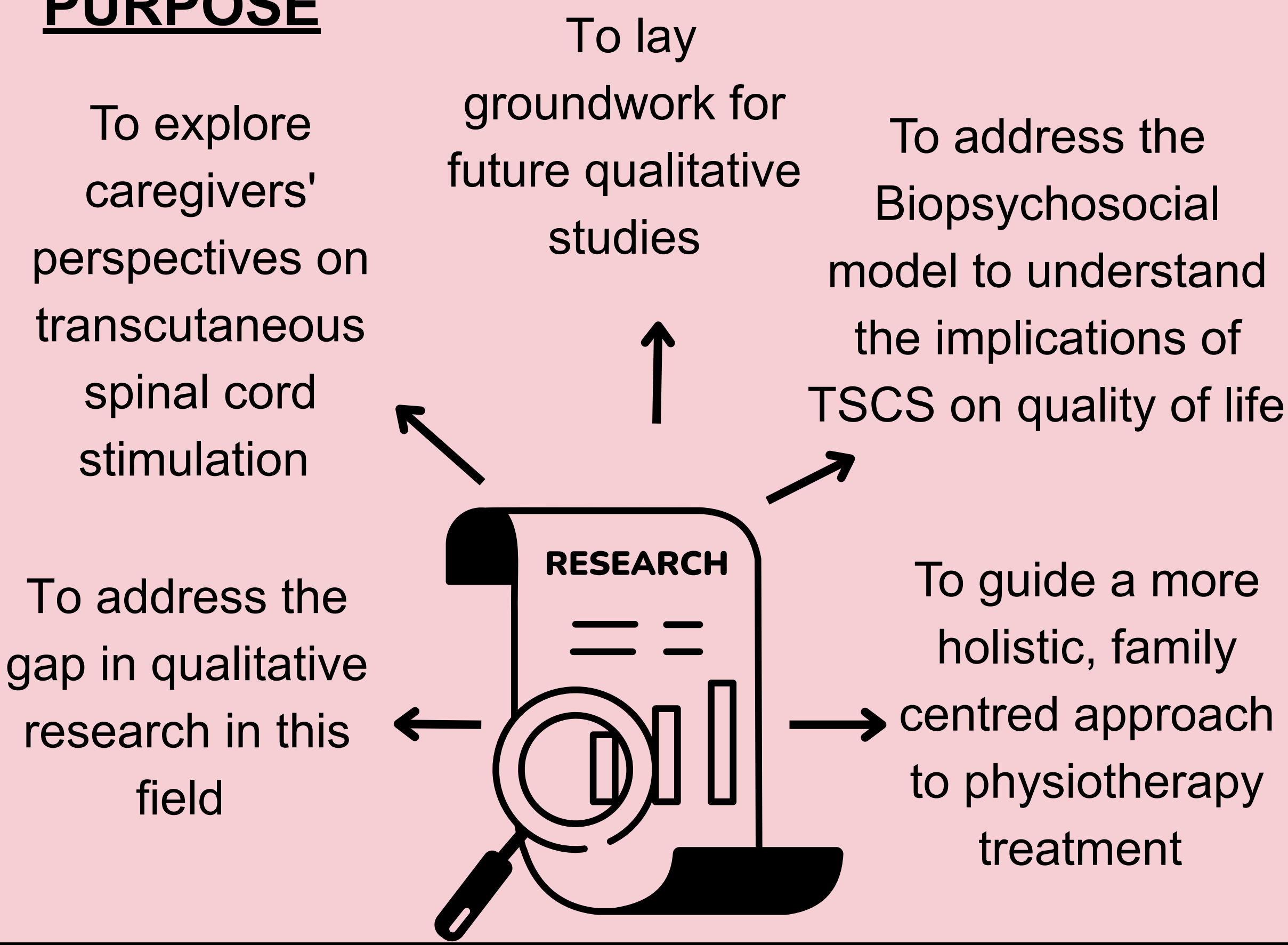
Carers' Perspectives on How Transcutaneous Spinal-Cord Stimulation Impacts Quality of Life of Children with Spina-Bifida

INTRODUCTION

- Spina Bifida is a congenital condition leading to physical and neurological impairments.¹
- There are various management strategies for the condition.²
- Transcutaneous Spinal Cord Stimulation (TSCS) is an emerging rehabilitation tool.³⁻⁴
- There is limited research on the perspectives of carers who use the treatment to manage their children's condition.
- By investigating carers' perspectives, the practical and emotional effects of using TSCS on children can be better understood.⁵
- The study aims to bridge the gap by gaining insights into lived experiences of carers who use the stimulation on their children with Spina Bifida.



PURPOSE



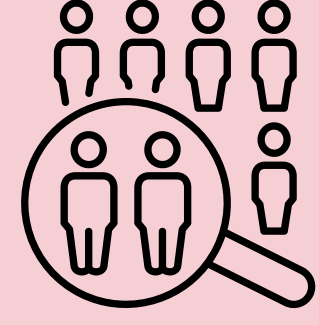
METHODOLOGY



Ethical Approval from School Committee



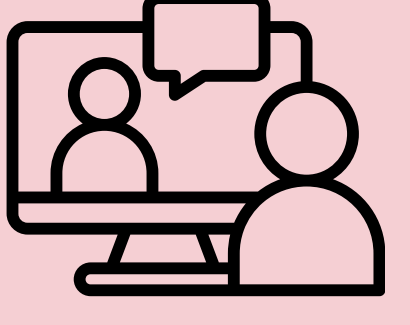
Inclusion Criteria



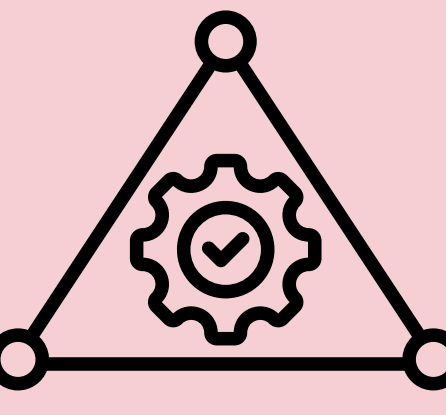
Purposive Sampling



Participants volunteered



Remote 3 Semi - structured interviews via Zoom



Methods of Triangulation



Braun and Clarke Thematic Analysis

RESULTS

Perspectives on Early Intervention

"The early sort of intervention... has definitely helped support [Y]'s physical ability now"
"Early intervention for everything is really really important"

Future Use

"I think that [Y] will only go from strength to strength ... no plans to stop at any point..."
"I'm very happy with what I've seen so far, and I believe there's a lot left to see."

Adjusting To Treatment

"[Y] comes down every day with the bag ... we know the order".
"Usually when [X] has it on, [X]'s eating, [X]'s playing... so [X]'s happy. I can't ask [X], but it doesn't seem to upset them."

Opportunities

"People offered to take the kids to soft play. I always stayed away from those places... but now [Y] can access it independently"

Perspectives on Quality of Life

"We want [X] to be independent. So that would be good quality of life for them"

Exploratory Goals

"Not really, I didn't know what to expect... there's no harm there... it could only be beneficial".

Mobility and Quality of Life

"Yes, so, [X] was less mobile than [X] is now. I'd say that much."
"We started seeing a lot of those different movements...that was the E-stim."

Alternative Physical Improvements

"[Y] is dry all day now... it has helped [Y] become continent and be able to be toilet trained."

Family Engagement

"[Y] won't lose the gains [Y]'s made ... it is helpful to me, to not feel super guilty that we are not as consistent..."
"Because it is not intensive, it is okay that it does not have to be done every day, it's fine."

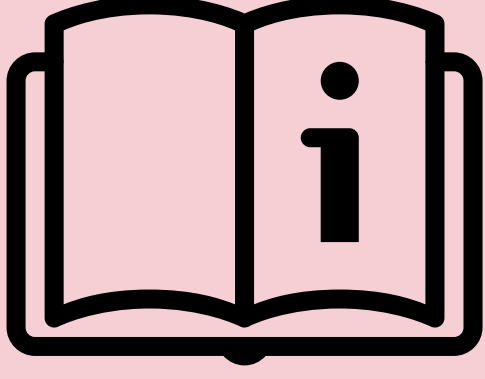
Harmless Treatment Approach

"It does not negatively impact us like in any way"

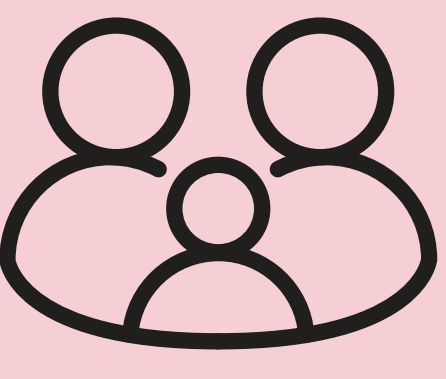
IMPLICATIONS



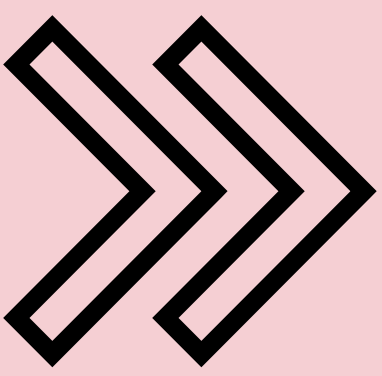
This is the **first known study** exploring carers' perspectives on quality of life influenced by the use of stimulation on children with Spina Bifida.



Guides physiotherapists on how to tailor future transcutaneous spinal cord stimulation treatment plans.



Enables physiotherapy practice to provide a family centred and holistic approach to treatment.



Provides a foundation for future qualitative research in this field.

LIMITATIONS

- Limited sample size, limiting transferability of findings.
- Risk of over interpretation, despite the use of Braun and Clarke's reflexive thematic analysis.
- Possibility of self-selection bias due to all participants volunteering.
- Specific contextual data such as the child's age, baseline mobility or duration of TSCS use was not collected.

CONCLUSION

- Study findings suggest that TSCS, when used alongside exercise-based activity, positively impacts carers' perceived quality of life of children with spina bifida.
- The benefits included both social and physical improvements, allowing children to participate in different activities.
- This research highlights the importance of further investigation, particularly the viewpoint of the child using TSCS.