

LAND ACKNOWLEDGEMENT

Nova Scotia Health is located in Mi'kma'ki, the ancestral and unceded territory of the Mi'kmaq People, and we acknowledge them as the past, present, and future caretakers of this land.

May this acknowledgment demonstrate a commitment to working to dismantle ongoing legacies of oppression and inequities and recognize the current and future contributions of Indigenous communities in Nova Scotia.



Disclaimer

The goal of the ABI Journal club is to foster skills of research critique, promote interprofessional interaction and encourage the inclusion of evidence-based practice.

Please join us in creating a safe and approachable learning environment.

Please note that although presenters may have an interest in the article that is presented, they may not necessarily be an expert in that field.

This event is for your learning only. Please do not distribute slides or recordings. Recordings can be distributed by Journal Club organizers only.



ATTENDANCE

If you are participating as a group, please enter the names of everyone in attendance in the chat.

Thank you!





ABI JOURNAL CLUB

Patient-Centered Outcomes in a Randomized trial
Investigating a Multimodal Prevention Program
After Transient Ischemic Attack or Minor Stroke:
The INSPIRE-TMS Trial

Presented by: Katerina Miller, Physiotherapist, and
Lynn Renton, Occupational Therapist



Patient-Centered Outcomes in a Randomized trial Investigating a Multimodal Prevention Program After Transient Ischemic Attack or Minor Stroke: The INSPIRE-TMS Trial

Why did I select this article?

- it included patient centered outcomes.
- It is recent- published in 2022



This article is part of a set of articles to be published about the **INSPIRE-TMS Trial**

This article was about patient centered outcomes, which were actually secondary outcomes to the main study.

The primary outcome was the incidence of future major vascular events.



HISTORICAL INITIATIVES

-Individuals who experience a first-ever cerebrovascular events often have good initial recovery but are at high risk of:

- Recurrent cardiovascular events
- Cognitive decline
- Loss of independence
- Socioeconomic issues
- Emotional problems



HISTORICAL INITIATIVES

Secondary prevention programs are recommended by AHA

Studies to date show risk factor control is sub-optimal

Mixed results in previous studies on educational/behavioural interventions



BACKGROUND/ADDITIONAL INFORMATION

This article focused on Patient-Centered Outcome Measures (PCOMs)

Physical Fitness: Stair climbing power test

Independence: Modified Rankin Scale (mRS)

Quality of Life: European Quality of Life 5 Dimension 3 Level assessment (EQ5D-3L)

Cognition: Montreal Cognitive Assessment (MoCA)



Table 2: Modified Rankin Scale for Measuring the Degree of Disability or Dependence in the Daily Activities of People who experience a Stroke

Level	Description
0	No symptoms
1	No significant disability, despite symptoms; able to perform all usual duties and activities
2	Slight disability; unable to perform all previous activities but able to look after own affairs without assistance
3	Moderate disability; requires some help, but able to walk without assistance
4	Moderately severe disability; unable to walk without assistance and unable to attend to own bodily needs without assistance
5	Severe disability; bedridden, incontinent and requires nursing care and attention

Adapted from Rankin, 1957²¹ and van Swieten et al., 1988²²

Figure 1/UK (English) EQ-5D-3L Paper Self-Complete (sample version)

Under each heading, please tick the ONE box that best describes your health TODAY.

MOBILITY

- I have no problems in walking about
- I have some problems in walking about
- I am confined to bed

SELF-CARE

- I have no problems with self-care
- I have some problems washing or dressing myself
- I am unable to wash or dress myself

USUAL ACTIVITIES (e.g. work, study, housework, family or leisure activities)

- I have no problems with performing my usual activities
- I have some problems with performing my usual activities
- I am unable to perform my usual activities

PAIN / DISCOMFORT

- I have no pain or discomfort
- I have moderate pain or discomfort
- I have extreme pain or discomfort

ANXIETY / DEPRESSION

- I am not anxious or depressed
- I am moderately anxious or depressed
- I am extremely anxious or depressed



WHAT WERE THE INTENDED OUTCOMES OF THIS RESEARCH?

Compared whether an intensified support program provided by doctors and nurses improved outcomes

The targeted outcomes were to show :

- Improved PCOMs in the intensive care group
- Reduction in secondary cerebrovascular events in intensive care group



Participants

Subjects were recruited from 7 German and 1 Danish stroke centre between 2011-2017

Inclusion criteria:

TIA, central artery occlusion, ICH, minor stroke

18 years or older

proximity to stroke centre

had at least 1 modifiable risk factor



Participants

Exclusion Criteria:

malignant disease

relevant cognitive deficits

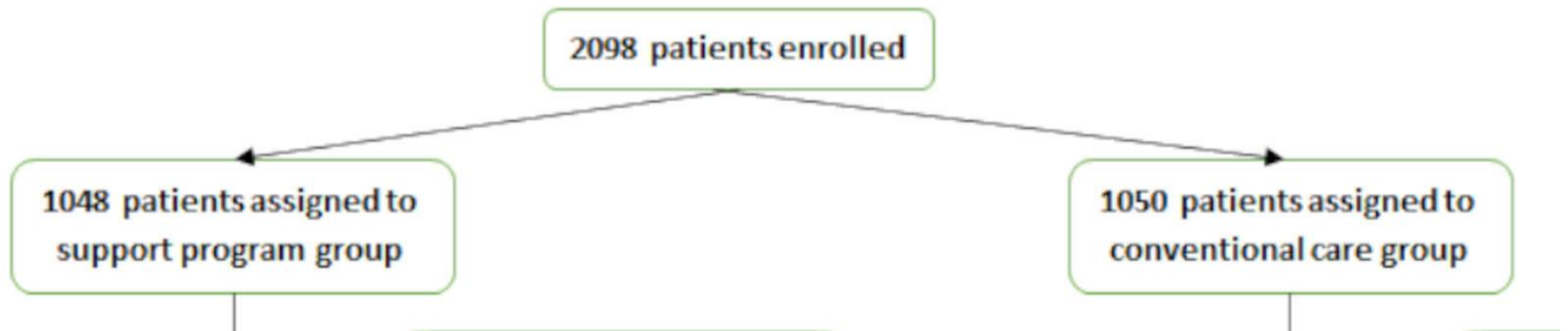
current substance dependency

strokes/TIA's with atypical causes



METHODS

Randomized within 14 days of event



METHODS

Intensified Group

- checked by trained nurses and specialized stroke physicians at 8 appointments over 2 years
- received instruction in classical risk factor control, pharmaceutical interventions, and lifestyle changes
- physician actively asked about problems of adherence, mood, barriers for physical activities
- supported client in finding solutions
- provided info on complimentary programs
- used motivational interviewing, feedback, and written report to clients



METHODS

Conventional Care Group

Not described

Annual outcome measures were completed by trained nurses in both groups.

Compared scores in PCOM's in both groups



RESULTS

2098 participants

1048 intense group

1050 control group

PCOM information up until Oct 30, 2019 was included,
with at least 2 years follow-up in all subjects

mRS scores were available for 1771

877 intense, 894 control



RESULTS

Baseline characteristics of the 1771 subjects were evenly matched between both groups

Subjects in the intense group attended 6.8 of 7.7 possible outpatient appointments (87.6%)

RESULTS

Results on of intensified secondary prevention program on PCOMs were inconsistent

Did not translate into reduced major vascular events

Physical Activity:

improved in both groups

better in intense group at all follow ups



RESULTS

Independence:

Better for intense group at 1 year
no difference at 2 or 3 years

Quality of Life:

Did not improve for either group
no difference between groups at any time



RESULTS

Cognitive Function:

improved over time for both groups

no difference between groups in year 1 or 2

worse for intense group at year 3; no difference when analyzed further to account for baseline differences/mortality rate

COMPARISON/EVALUATION OF METHODS

Randomized 2-arm study

Members of allocation committee were blinded to allocation

Patients, study nurses, physicians, were not

Statistical analysis



Highlight what reference standards they

DISCUSSION

Fade effect of interventions

Follow up period may have been too short to detect cognitive or QOL differences

Cognition was impaired for both groups at the start and improved for both (practice effect?)

Surprised at no correlation between mRS and QOL (?ceiling effect of EQOL)

DISCUSSION

Study Limitations

- study nurses not blinded to allocation
- underrepresentation of women
- did not correct for multiple testing
- PCOM's assessed during on-site appointments leading to missing data
- more missing data later in study
- difficult to compare to other secondary prevention trials

AUTHOR'S CONCLUSIONS

Showed that a multifaceted support program leads to better achievement of secondary prevention targets

With increased physical activity and fitness associated with favorable functional outcome 1 year post event

No effects were observed on other PCOMs including cognition, mood, or health-related QOL

Recommend evaluating programs with longer period of intervention

Recommend investigating whether more aggressive treatment of mental health comorbidities may enhance QOL



JOURNAL ARTICLE EVALUATION

Are the methods described in sufficient detail? Do they make sense?
Should they have done something differently?

Could you figure out how to implement the intervention from what
they wrote?

Did they evaluate the method appropriately?

Did the authors make unrealistic simplifying assumptions?



Was there any issues with sampling? Do the participants adequately reflect that the group that they represent?

Was this paper published in the right journal to find the audience who should care the most about it?

What do you like about the method, implementation, and evaluation, especially with reference to the Acquired Brain Injury content?

What don't you like?

Can the results be used to solve other problems? How generalizable are the results?

What might come next?



REFERENCES & RECOMMENDED READING

Patient-Centered Outcomes in a Randomized trial Investigating a Multimodal Prevention Program After Transient Ischemic Attack or Minor Stroke: The INSPIRE-TMS Trial

Altman, R. & Bagley, S. (2012). BMI Journal Club Template.



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<http://anniesplacecafe.ca/>

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