

## BACKGROUND

- Multiple sclerosis (MS) is associated with many symptoms which may lead to functional impairment and loss of independence<sup>1</sup>
- Rehabilitation is imperative for this condition as full recovery is not possible<sup>1</sup>
- It is important to understand the focus on MS rehabilitation research over time

## OBJECTIVE

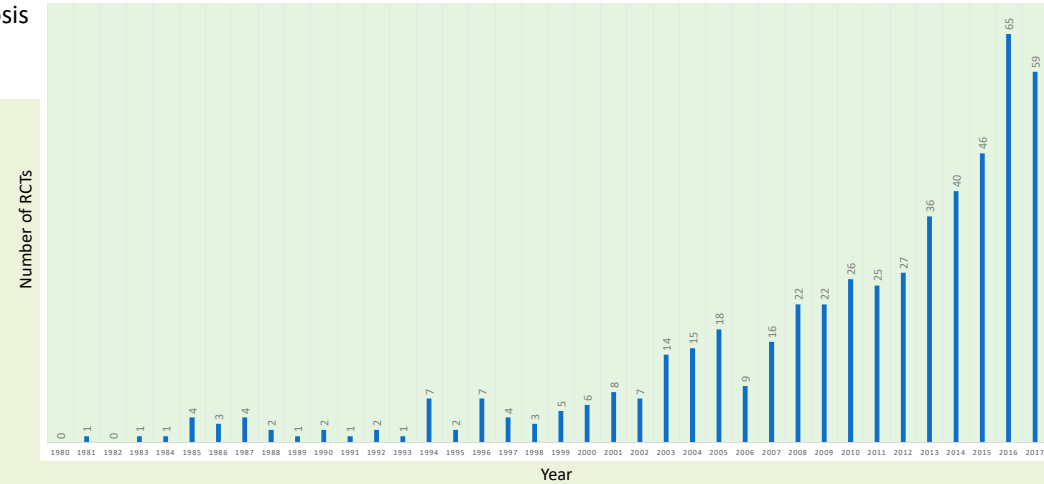
To investigate the growth of MS rehabilitation randomized controlled trials (RCTs) in the literature over time and to examine trends in RCTs with respect to geographical area of publication, methodological quality, and sample size

## METHODS

- A literature search for English RCTs published from January 1980 to December 2017 was conducted using PubMed, MEDLINE, CINAHL, and EMBASE
- Studies were included if:
  - (1) the study population was 100% MS
  - (2) the study participants were adults (≥18 years)
  - (3) there were ≥3 participants included in the study sample
  - (4) an intervention for MS rehabilitation was investigated
  - (5) clinical outcomes were used to assess the symptomatic effect of treatment
- RCTs investigating disease-modifying or immunomodulatory therapies, secondary analyses of RCTs, and/or RCTs using only measures of disease activity or progression were excluded
- Extracted data included: author, year and country of publication, world region<sup>2</sup>, methodological quality (Physiotherapy Evidence Database score), and sample size

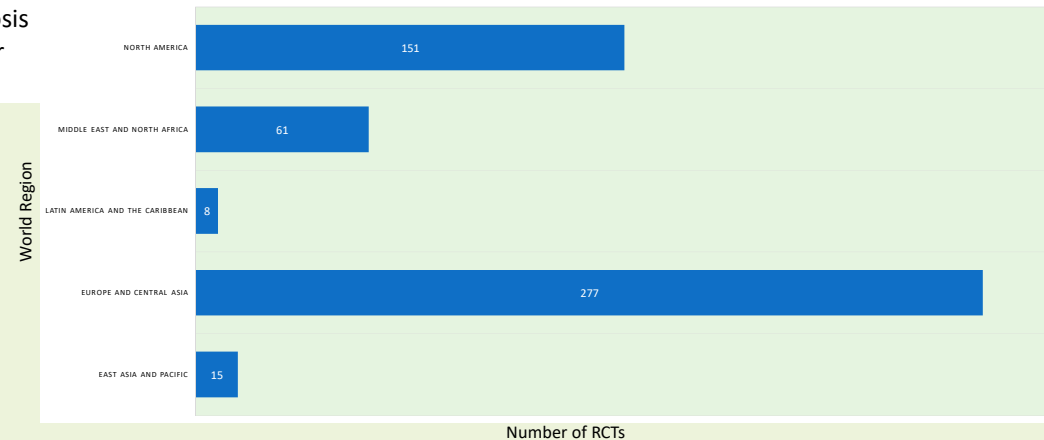
## RESULTS

**Figure 1.** Total number of multiple sclerosis rehabilitation RCTs per year over time (1980-2017)



- From a total of 9863 search results, 512 RCTs met inclusion criteria, published between 1981 and 2017
- Overall, the number of RCTs has increased by a rate of 58 times between 1981 (n=1) and 2017 (n=59)
- This increase has been particularly evident in recent years, with >20 studies published annually since 2008, compared to <20 studies per year prior to 2008

**Figure 2.** Total number of multiple sclerosis rehabilitation RCTs per world region over time (1980-2017)



- Relative to the other world regions, Europe and Central Asia have published the majority (54%) of RCTs since 1981, followed by North America (29%)
- Of Europe and Central Asia, the United Kingdom (27%) and Italy (16%) have published RCTs most often

## CONCLUSIONS & FUTURE DIRECTIONS

- There has been a substantial growth in MS rehabilitation RCTs over time, signifying the increasing importance of evidence-based rehabilitation approaches for this clinical population
- RCT publication volume has been greater in certain world regions relative to others, indicating a potential association between a region's publication rate and MS incidence/prevalence rate
- Future analyses will investigate trends among RCTs with respect to methodological quality and sample size

## REFERENCES

- Kesselring, J., & Beer, S. (2005). Symptomatic therapy and neurorehabilitation in multiple sclerosis. *The Lancet Neurology*, 4(10), 643-652.
- The World Bank Group. World Bank Country and Lending Groups. <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>

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