

# Superior multiple sclerosis competencies in physical therapy students who participate in optional 2-year specialty education track

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## INTRODUCTION

- Residency is an increasingly popular path for physical therapy graduates to develop advanced clinical skills and knowledge
- MS STEP UP improves clinical knowledge and skills of PT students, as assessed using the MS Competencies Rating Scale (MSCRS)<sup>1,2</sup>
- Whether scholar competencies are greater than those who receive the traditional curriculum is not known

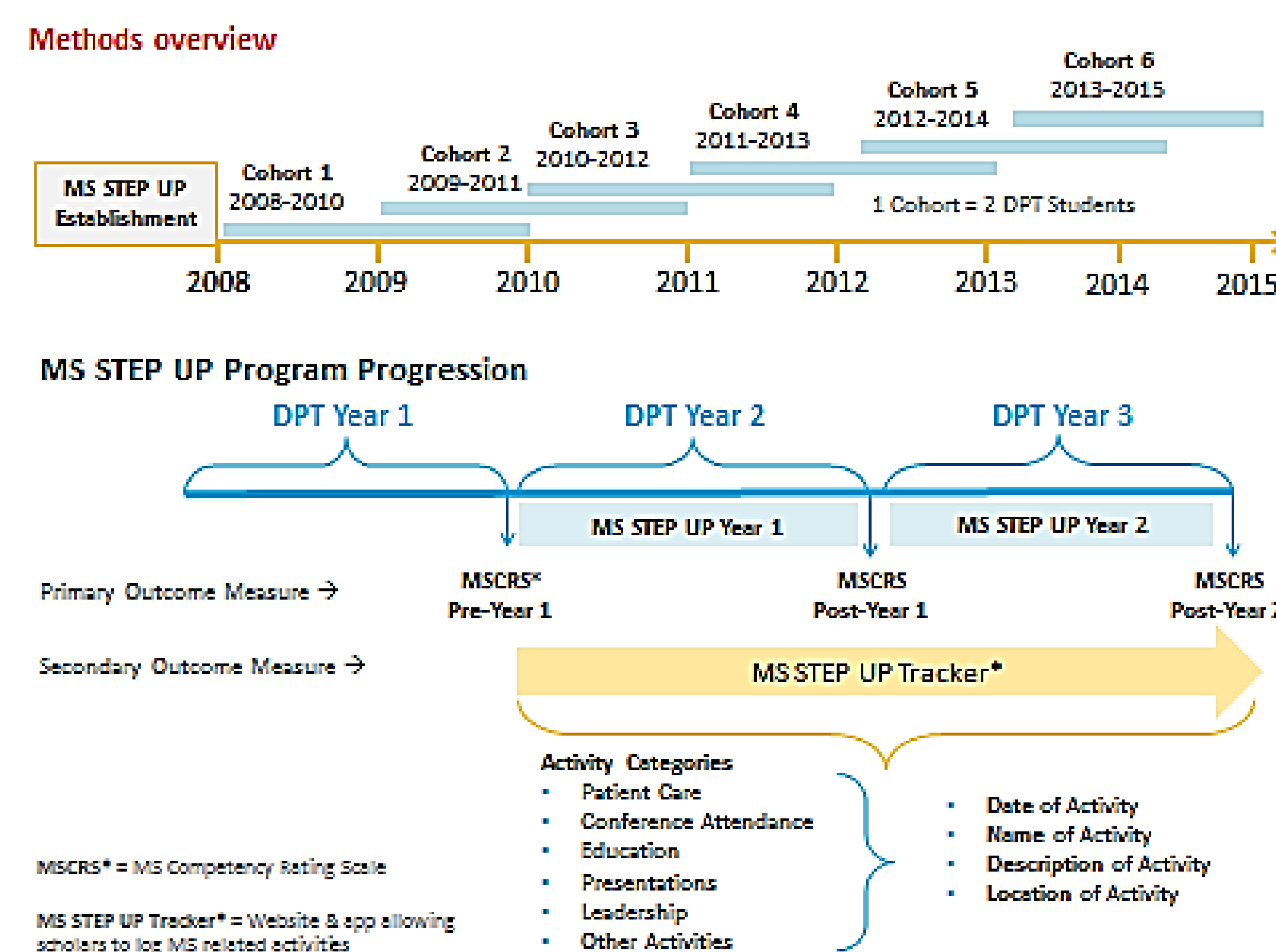
## OBJECTIVES

To examine the outcomes of a specialized MS training and education program for physical therapy students (MS STEP UP) on self-rated competencies compared to students who did not participate in MS STEP UP

## METHODS

- Program timeline, activities, and outcome measures are illustrated in **Figure 1, Figure 2, and Figure 3**
- Data from 14 scholars (7 cohorts) who have completed the 2-year program were analyzed
- We analyzed the number of items on which the scholars rated their knowledge as “above average” or “excellent” across time and compared the to entry-level DPT students after year 1 of the program (**Figure 4**)

**Figure 1: MS STEP UP program overview**

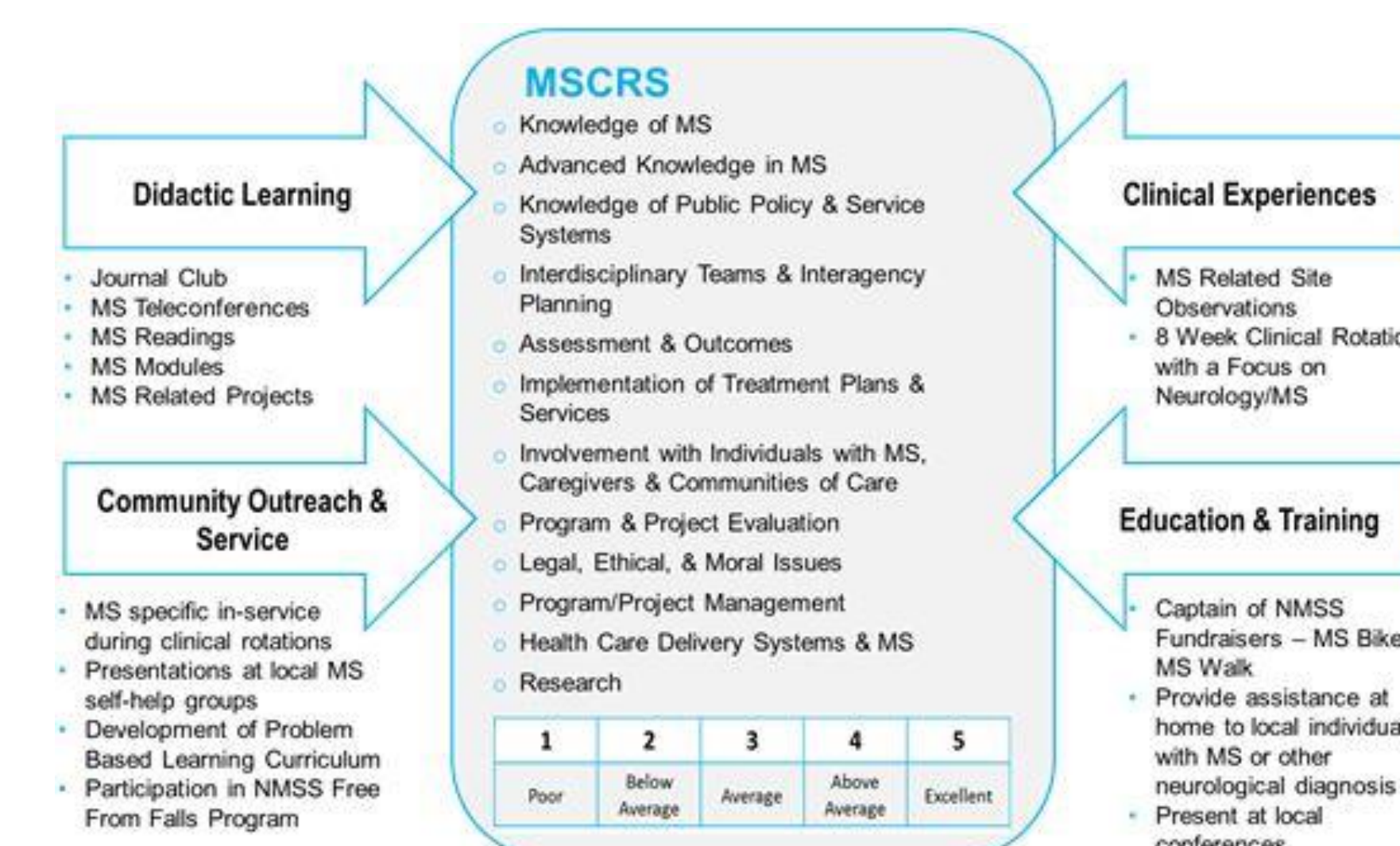


## RESULTS AND OUTCOMES

**Figure 2: Summary of 12 domains of MSCRS competency rating scale items**

<b>Knowledge of MS</b> Etiology, associated disability, and general prognosis	<b>Advanced Knowledge in MS</b> Evidence-based knowledge of current therapies
<b>Knowledge of Public Policy and Service Systems</b> Service delivery network, legislation and public policy	<b>Interdisciplinary Teams and Interagency Planning</b> Decision making with interdisciplinary teams
<b>Assessment and Outcomes</b> Implementing and documenting neurological assessments	<b>Implementation of Treatment Plans and Services</b> Management and development of care plans through the interdisciplinary team process
<b>Involvement with Individuals with MS, Caregivers and Communities of Care</b> Increased experiences in advocacy, interviews and assessments	<b>Program and Project Evaluation</b> Understanding role of the evaluation process using qualitative and quantitative methods
<b>Legal, Ethical, and Moral Issues</b> Working knowledge of practice that is consistent with client rights as well as legal standards	<b>Program/Project Management</b> Understanding of the basic concepts and implementation of project management
<b>Health Care Delivery Systems and MS</b> Knowledge of various types of payers and services for individuals with MS	<b>Research</b> Understanding of the critical role of MS research in diagnosis, treatment and delay of disability

**Figure 3: MSCRS and associated activities**

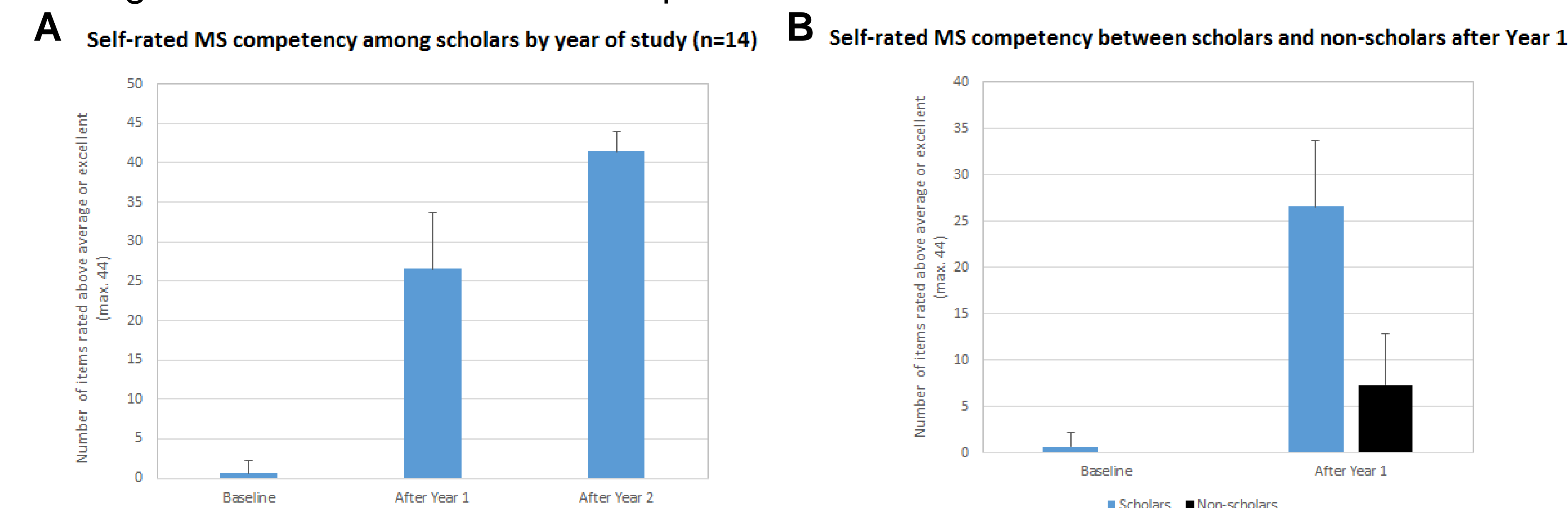


Scholars teach education programs to clinicians



Scholars coordinate UNC DPT's MS Walk team: S'myelin Striders

**Figure 4: Number of MSCRS items in each of the 4 domain categories rated as “above average” or “excellent” at each time point**



**4A.** The number of competency items (max. 44) on which the scholars rated their knowledge as “above average” or “excellent” increased significantly each year ( $p < .001$ ) from a mean ( $\pm$ SD) of  $0.64 \pm 1.6$  items (0%) at baseline to  $26.6 \pm 7.1$  items (60%) after the first year, and  $41.4 \pm 2.5$  items (94%) after the second year

**4B.** The number of items rated “above average” or “excellent” after the first year was significantly greater among the MS STEP UP scholars (60% of items) than the students in the regular curriculum (17% of items,  $p < .001$ )

## SUMMARY

- MS STEP UP improves the clinical skills and knowledge of DPT students, as demonstrated by self-related competencies
- Scholars report greater MS-related competencies than general curriculum students, even after neuro-rehabilitation coursework
- Whether greater knowledge and competence transfers to more efficient clinical reasoning is yet to be determined
- MS patient care will most likely benefit from the national expansion of MS STEP UP among DPT programs



Scholars meet with legislative and political representatives and participate in other advocacy events

Scholars attend MS-specific educational events: NMSS Interprofessional Program for Students, “Multiple Sclerosis: A Clinical Perspective”



Scholars help PTs treat people with MS and work on clinical research projects in MS

## REFERENCES

1. Plummer P, Rosenberg A, Williams AA, Bohling CJ, Eustis HL, Miller J, Meyer D, Gooch K, Johnston L. Multiple sclerosis education track improves self-rated competencies in physical therapy students. *International Journal of MS Care*. 2015;17(S1):78.
2. Plummer P, Rosenberg A, Eustis HL, Miller J, Osinski A, Jacobs C, Meyer D, Gooch K, Johnston L. Four-year evaluation of a multiple sclerosis educational track for physical therapy students. *International Journal of MS Care*. 2014;16(S3):86-87.

## ACKNOWLEDGEMENTS

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