

Codie A. Primeau, PT, PhD ^{1,2}, Deniz Bayraktar, PT, PhD ^{1,2,3}, Michelle E. Kho, PT, PhD ^{4,5}, Christopher Tong, PT ² & Linda C. Li, PT, PhD ^{1,2}

¹Arthritis Research Canada, Canada, ²Department of Physical Therapy, University of British Columbia, Canada, ³Department of Physiotherapy and Rehabilitation, Izmir Katip Celebi University, Turkey, ⁴School of Rehabilitation Science, McMaster University, Canada, ⁵Department of Physiotherapy, St. Joseph's Healthcare Hamilton, Canada

Background

- Emerging evidence suggests physical activity, sedentary behavior & sleep, referred to as the “24-hour activity cycle”, are interdependent and synergistically impact health¹.
- Individuals with arthritis face challenges in balancing activity, rest, and sleep².
- This challenge is compounded by the presence of common symptoms such as pain and fatigue, which can also disrupt activity and sleep patterns³.
- Physical therapists routinely address activity, but sleep health is often overlooked, despite evidence showing improved sleep leads to better outcomes in arthritis⁴.

Objective

To investigate facilitators and barriers reported by physical therapists and students in incorporating sleep health in practice.

Methods

Study Design & Participants:

- We conducted a self-administered electronic survey among physical therapists and students enrolled in entry-level physical therapy programs in Canada.

Survey Development:

- We developed a 28-item survey using two complementary and interrelated frameworks of behaviour change: the Capability-Opportunity-Motivation-Behaviour (COM-B) system and the Theoretical Domains Framework.

- Participants rated agreement for each (Fig. 1) on a 7-pt Likert scale (7=strongly agree).

Analyses:

- We report means (95% confidence interval) and identified facilitators (mean>5/7) and barriers (mean<4/7) by individual item.

References

- Rosenberger et al. The 24-hour activity cycle: a new paradigm for physical activity. *Med Sci Sports Exerc.* 2019
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- O'Brien CM, et al. Pain and fatigue are longitudinally and bi-directionally associated with more sedentary time and less standing time in rheumatoid arthritis. *Rheumatology.* 2021
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Results

Table 1. Sample characteristics

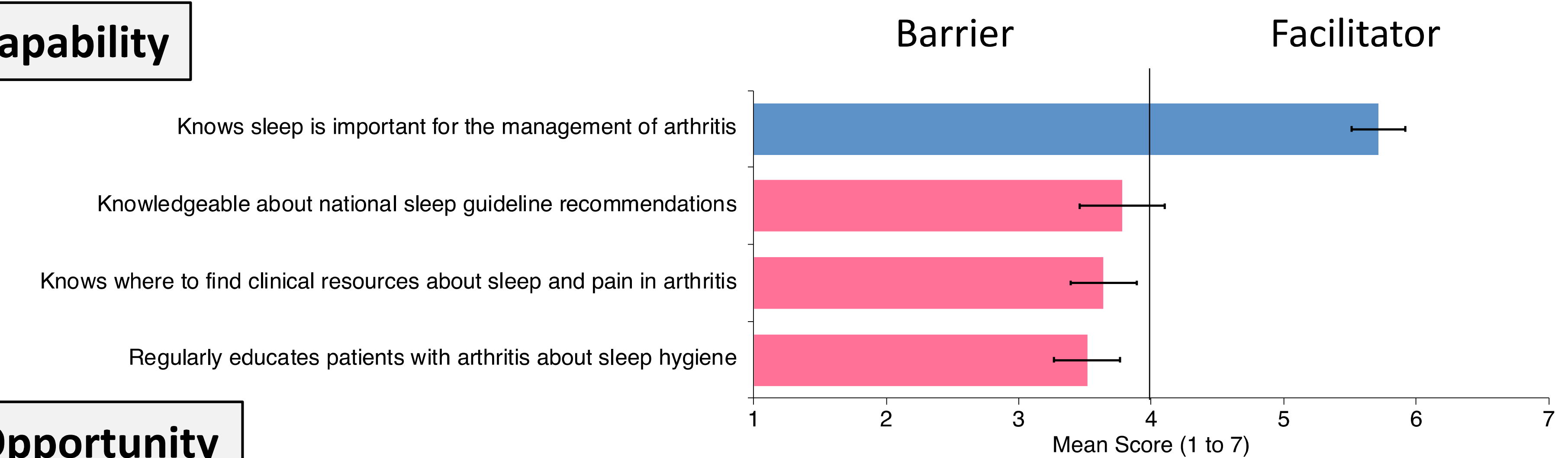
Characteristics	Full cohort (n=191)	Physical therapists (n=149)	Students (n=42)
Age, years (standard deviation)	35 ± 11	37 ± 10	27 ± 4
Gender, no (%)			
Man	41 (21.5)	29 (19.5)	12 (28.6)
Woman	148 (77.5)	119 (79.9)	29 (69.1)
Non-binary	2 (1.1)	1 (0.7)	1 (2.4)
Province or Territory, no (%)			
Alberta	21 (11.0)	20 (13.4)	1 (2.4)
British Columbia	66 (35.6)	42 (28.2)	24 (57.1)
Ontario	81 (42.4)	76 (51.0)	5 (11.9)
Another province/territory *	23 (12.0)	11 (7.4)	12 (28.6)
Years of Practice, no (%)			
Physical therapy student	42 (22.0)	0 (0)	42 (100)
Between 0 and 5 years	51 (26.7)	51 (34.2)	0 (0)
>5 years	98 (51.0)	98 (65.8)	0 (0)
Arthritis Caseload, no (%)			
Do not have a clinical caseload	37 (19.4)	2 (1.3)	35 (83.3)
No caseload with arthritis	1 (0.5)	1 (0.7)	0 (0)
1 to 39%	83 (43.5)	76 (51.0)	7 (16.7) ^a
≥40%	70 (36.6)	70 (47.0)	0 (0)
Rural Setting, no (%)			
No	129 (67.5)	120 (80.5)	9 (21.4) ^a
Yes	30 (15.7)	28 (18.8)	2 (4.8) ^a
Not applicable	32 (16.8)	1 (0.7)	31 (73.8)
Sleep Education Training, no (%)			
No	179 (93.7)	138 (97.6)	41 (97.6)
Yes*	12 (6.3)	11 (7.4)	1 (2.4)

*Additional provinces included New Brunswick (n=2), Newfoundland & Labrador (n=2), Nova Scotia (n=5), Québec (n=13), the Yukon (n=1). No respondents from the following provinces or territories: Manitoba, Northwest Territories, Nunavut, Prince Edward Island, Saskatchewan.
^aOf those with sleep education training, examples included advanced training programs (n=6), independent reading/research (n=5), webinars (n=1), in-services (n=1).
^aResults reflect student experiences while on clinical placement.

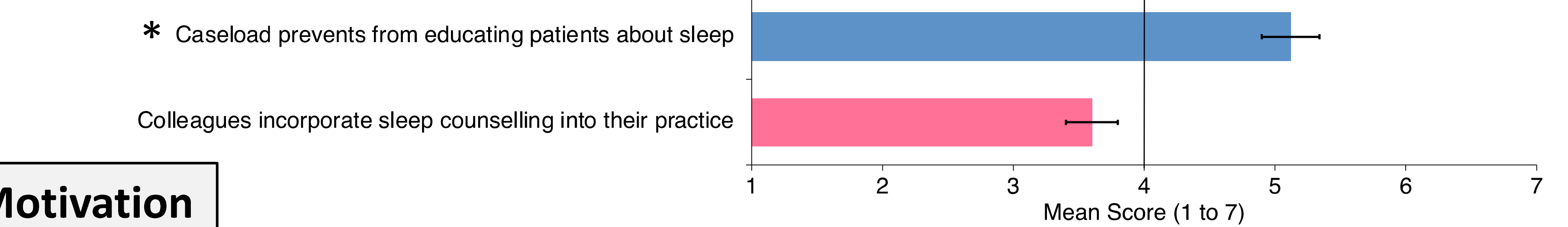
For a copy of the poster PDF and full list of all 28 survey items, please scan the QR code:



Capability



Opportunity



Motivation

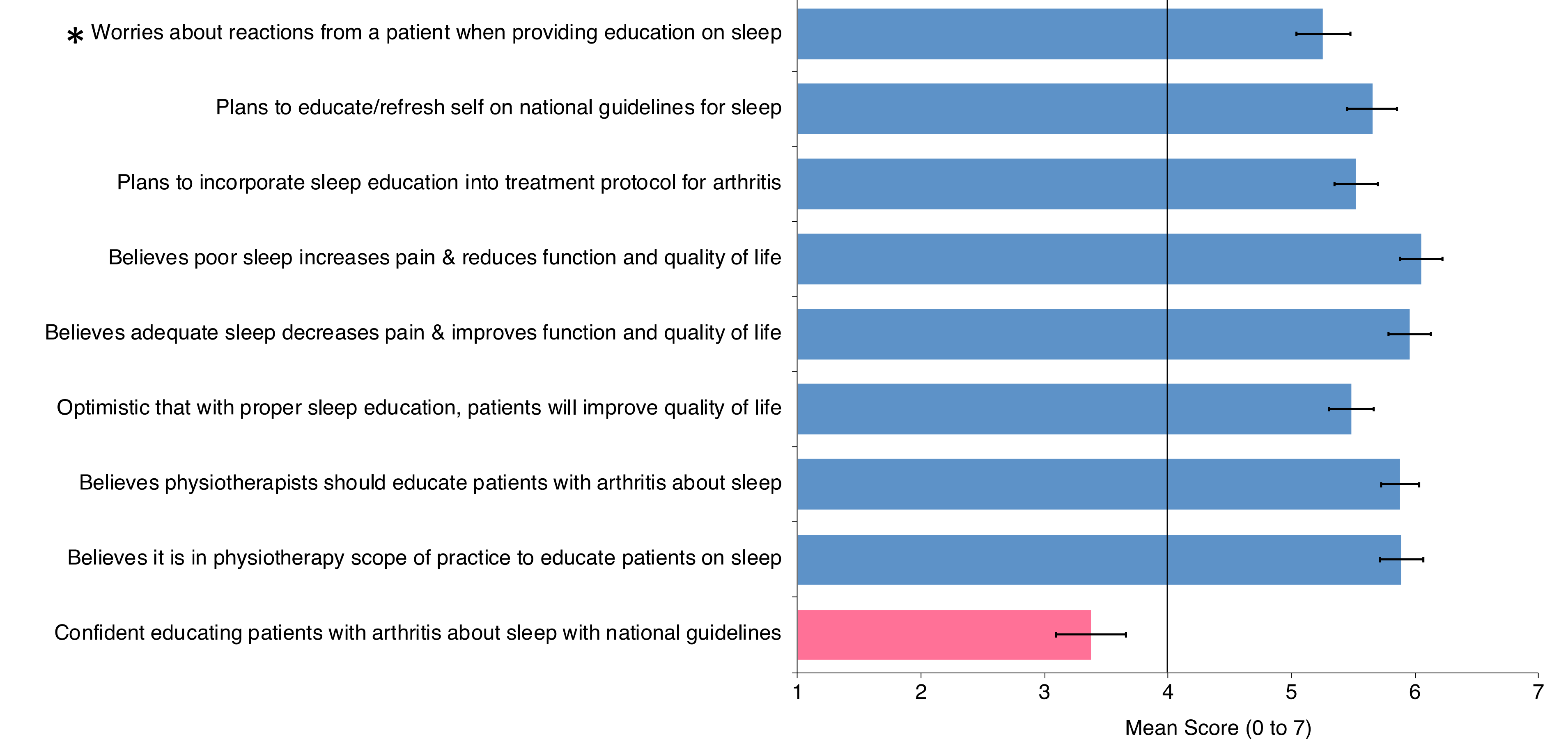


Figure 1. Mean respondent scores (with 95% confidence intervals) of the identified ten facilitators (in blue) and five barriers (in pink) on a 7-point agreement Likert scale, organized under the COM-B system for behavior change as Capability, Opportunity, or Motivation. The whiskers for each bar represent 95% confidence intervals around the mean at the upper and lower limits. We reversed negatively framed question responses for uniform polarity across all questions, identified with an asterisk.

Ten facilitators and five barriers to integrating sleep health among physical therapists and students

- Participants recognize the importance of sleep, are not limited by caseload & are motivated to incorporate sleep in practice
- Challenges include a lack of knowledge about sleep guidelines & resources, sleep integration from colleagues & confidence

Conclusion

- While physical therapists and students show positive perceptions about sleep health in practice, challenges remain for effective implementation.
- These findings can inform development of theory-informed behaviour change interventions to engage physical therapists in greater sleep integration in practice.