

Title: Investigating peer mentorship conversations between people living with spinal cord injury: A dynamic systems approach

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Background: Peer mentors play a key role in supporting people living with spinal cord injury (SCI) after injury. Motivational Interviewing (MI) and Behaviour Change (BC) techniques used most frequently during phone conversations between SCI peer mentors and mentees (PMM) have been identified. Frequency-based analyses offer only a static summary and may overlook important information about the dynamics of PMM interactions (i.e., durations and sequences) which can be examined using State Space Grids (SSG; dynamic systems approach).

Objectives: Use an Integrated Knowledge Translation approach to identify technique durations and sequences during SCI PMM conversations.

Methods: Conducted in partnership with three Canadian provincial organizations, existing data were examined using SSG analyses via *Gridware*. The duration and sequence of MI and BC techniques were coded and analyzed in twenty-four phone conversations between distinct PMM pairs.

Results: The average duration of the conversations was $M=47.2\text{min}$ ($SD=21.5\text{min}$), with a range of 16-99min. The top techniques (by duration) used by mentors and mentees were alike: 1) Giving Information Personal (GIP), 2) Sharing Perspective (SP), 3) Giving Information General (GIG); differing only in 4) Closed Question (CQ) and 5) Giving Information Others (GIO), with ranks swapped. The top sequences for techniques included: 1) CQ-GIP and 2) Listening (LS)-GIP; 3) GIP-LS; 4) Agree-LS; and 5) LS-SP. Conversation durations and sequences varied widely within and between conversations.

Conclusion: This study reveals insights on the real-time dynamics of MI and BC techniques applied in SCI PMM conversations. Through shared decision making, findings may guide future training of SCI peer mentors.

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