

A US Delphi consensus on the usage of Spinal Cord Stimulation for the treatment of chronic back pain in patients ineligible for spine surgery

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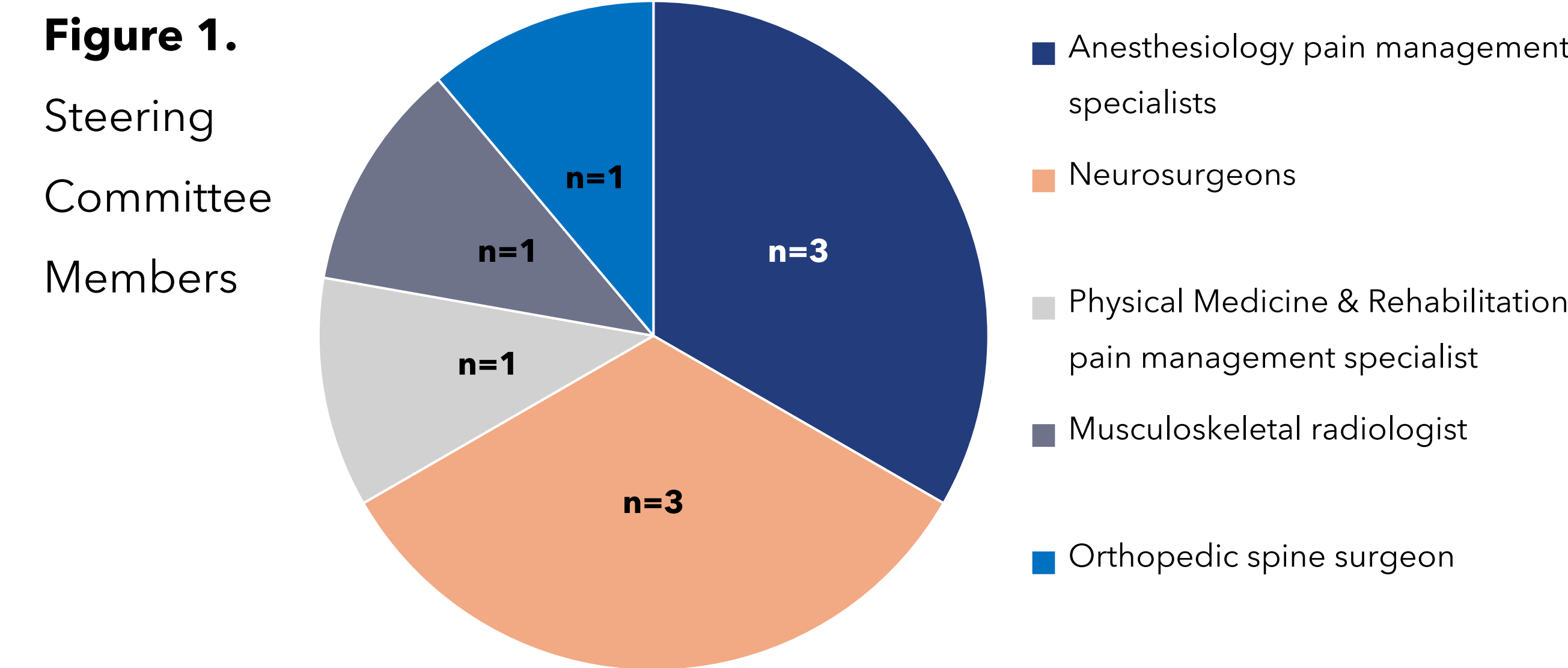
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Introduction

- Chronic low back pain (CLBP) affects nearly 16 million adults annually, representing the sixth most costly condition in the US¹.
- Spine surgery is a common treatment modality for CLBP, however treatment options are limited for patients ineligible for spine surgery.
- Spinal cord stimulation (SCS) has been demonstrated as a safe and effective treatment for chronic back pain in patients ineligible for spine surgery.²⁻⁸ Nevertheless, SCS selection criteria needs to be better understood, accepted, and implemented in the US.
- A Delphi consensus was conducted to identify optimal patient cohort(s) for SCS and to establish the role of SCS in the management of patients with chronic back pain who are ineligible for spine surgery in the US.

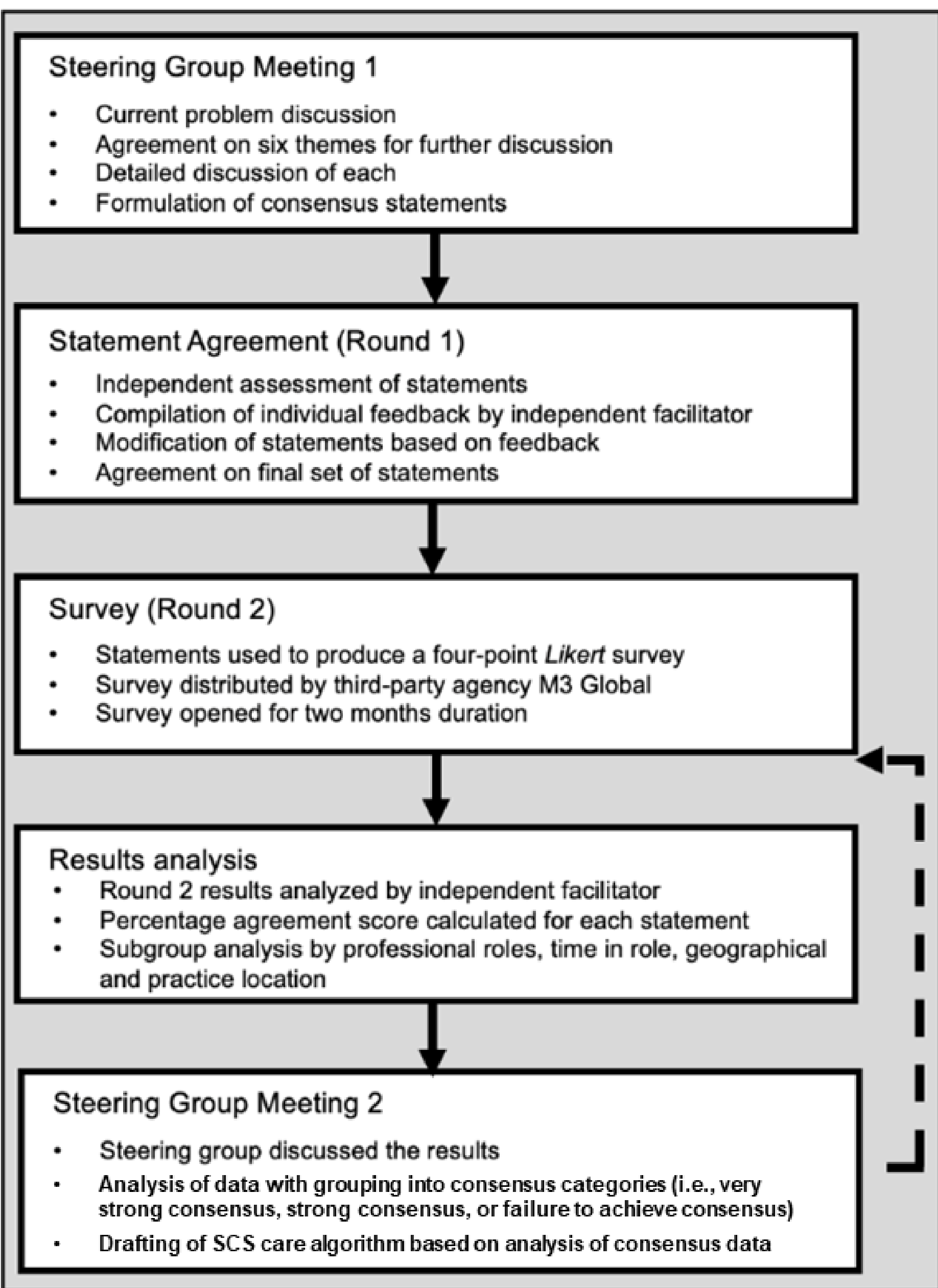
Materials & Methods

- A steering group of US experts in chronic pain generated 35 statements across 6 main themes regarding SCS for back pain in patients ineligible for spine surgery.



- An online survey was created in which respondents could anonymously indicate their level of agreement with each statement using a 4-point Likert scale.
 - The ~20 minute survey was distributed to health care providers across the United States with experience working in back pain, that were anonymously identified by an independent agency database.
 - Survey respondents were not required to be SCS users or implanters, and each respondent received compensation for their participation.
 - The survey results were independently analyzed to produce an aggregated agreement level for each statement. The threshold for consensus agreement was set at 75%, which was defined as strong consensus, and ≥90% agreement was considered very strong consensus.

Figure 2. Modified Delphi study steps & objectives



Results

Survey Content

Drawing on the results of the literature review, the steering group discussed aspects of SCS therapy and agreed on 6 domains for further discussion (Table 1).

Table 1. Topics identified by steering committee for further discussion

Topic #	Topic Description
1	Describing/identifying SCS patient profile (chronic back pain without prior spine surgery)
2	Identification of additional interventions to be tried after conventional treatments but before SCS
3	Referral processes and practices
4	Need for continued imaging/magnetic resonance imaging (MRI) access for patient condition
5	Assessment of existing/forthcoming clinical evidence to use SCS in this patient population
6	Appropriate terms used to categorize/describe this patient population

Respondent Demographics

A total of 211 responses were received from the following specialties: pain physician (18%; n=38), physical therapists (18%; n=38), orthopedic surgeon (18%; n=37), neurosurgeon (17%; n=36), primary care physician (15%; n=32), and musculoskeletal radiologist (14%; n=30).

Figure 3. Survey Respondent Time in Current Role (in years)

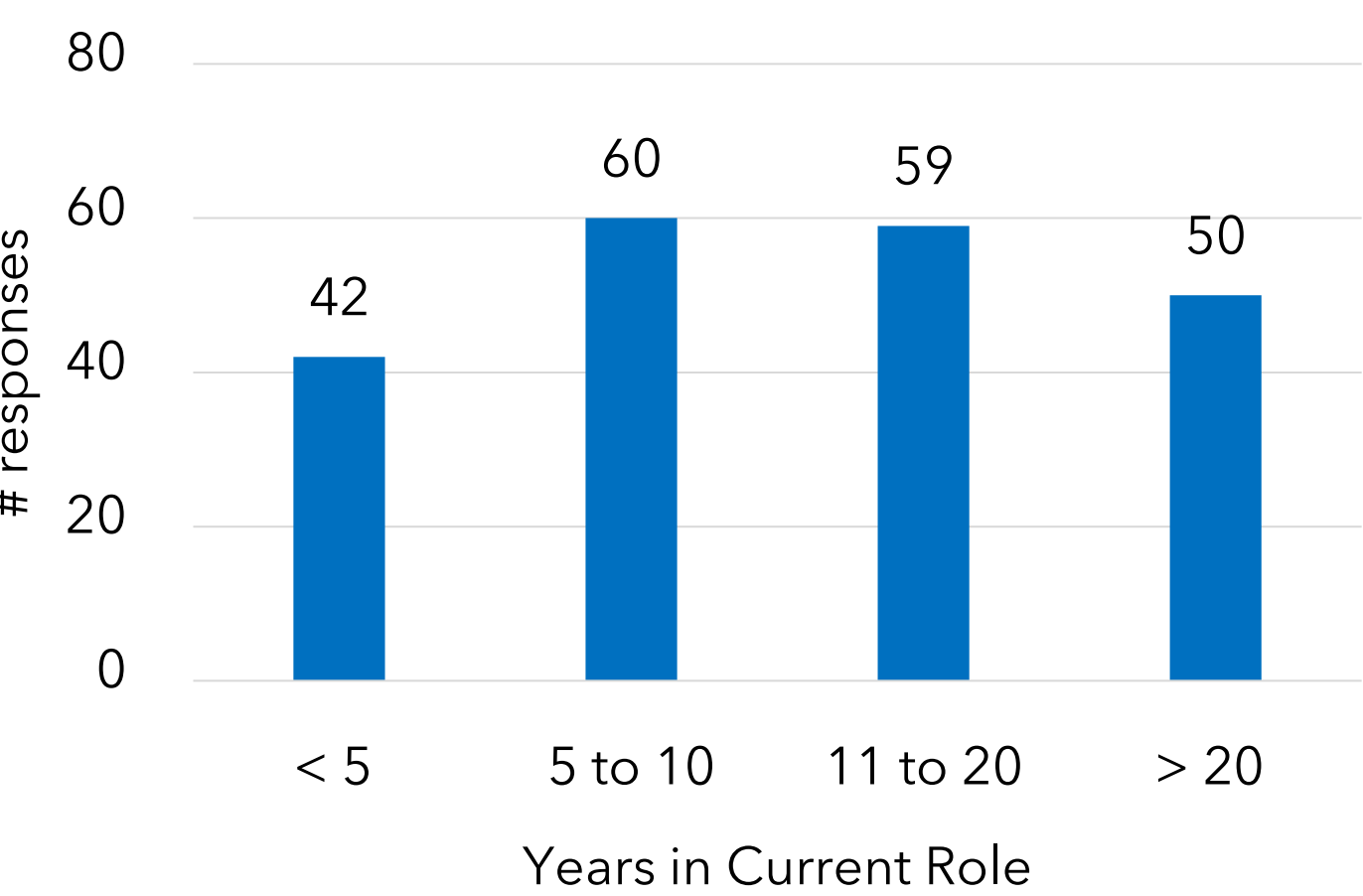
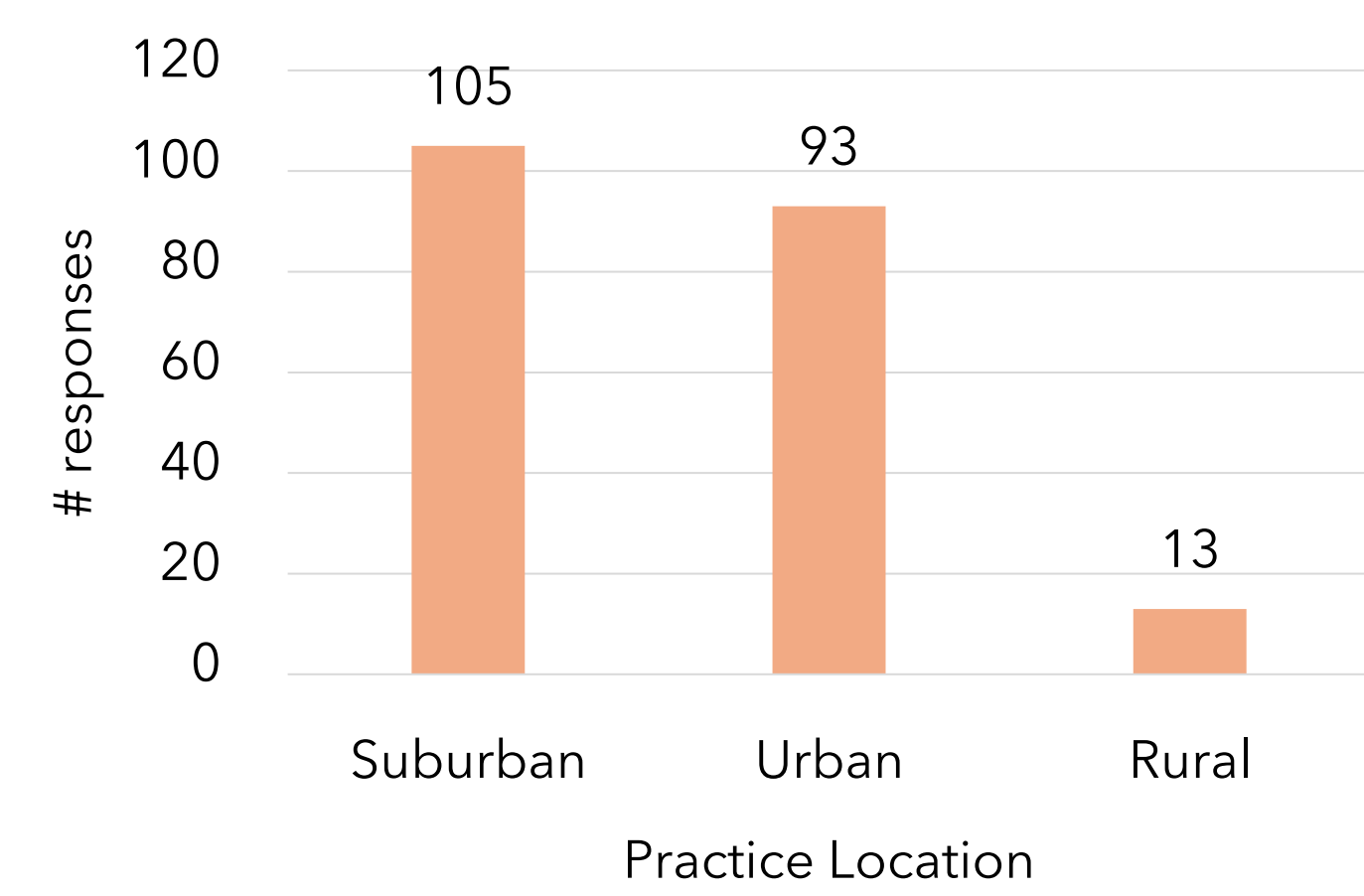


Figure 4. Survey Respondent Practice Location



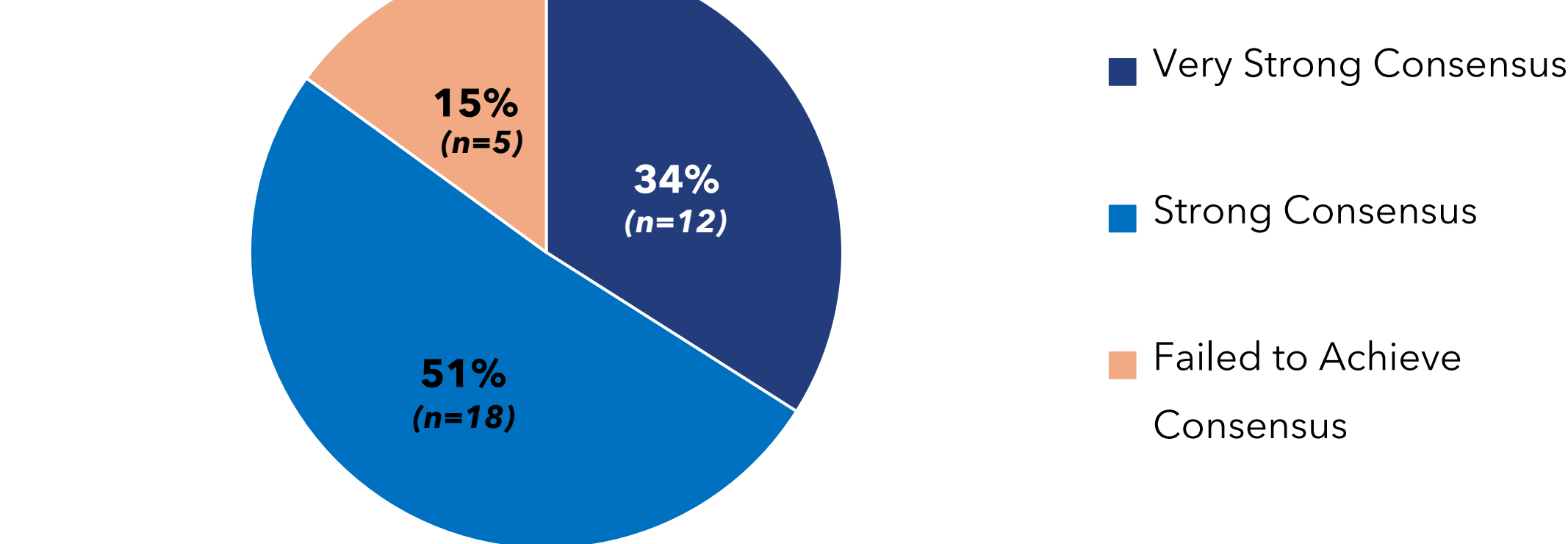
Discussion

- This large, US-based consensus on patients with chronic back pain that are ineligible for spine surgery could be used for SCS therapy patient selection and timing of intervention.
- Survey respondents spanned specialties relevant to this patient population, years of experience, and geographic location.
- These results can help identify patients who are candidates for SCS, clarify the treatment algorithm for patients with non-surgical back pain, and support appropriate reimbursement for SCS therapy in the treatment of chronic back pain.

Survey Results

- The majority of statements assessed generated strong or very strong consensus (Figure 5).

Figure 5. Consensus Reached Across 35 Statements Surveyed



- Respondents were in strong agreement that appropriate SCS candidates included patients with refractory, chronic back pain who are ineligible for spine surgery based on imaging, with functionally limiting symptoms affecting their daily activities and quality of life.
- Respondents also strongly agreed that the following were important considerations for patients with chronic back pain who are ineligible for spine surgery:
 - Timeliness of pain management interventions
 - Trying tailored interventions prior to SCS
 - Interdisciplinary team approach for SCS patient selection
 - Full-body magnetic resonance imaging (MRI)-conditional devices.

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