



Inconsistencies of Spurling's Test in Chiropractic Education: A Survey Study Design

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Objectives

- To explore the inconsistencies of Spurling's test in chiropractic education.
- To identify areas of discrepancy in methodology, interpretation and utility of Spurling's test in the chiropractic profession.
- To encourage other fields of practice to evaluate Spurling's test in both clinical and educational settings.
- To contribute valuable data in efforts to make Spurling's test a more dependable orthopedic exam.

Introduction

Neck pain affects up to 72% of the general population, implicating substantive costs. Healthcare professionals who encounter patients with such a complaint include primary care physicians, physical therapists, chiropractors and others. Appropriate assessment is critical in providing accurate diagnoses, which lead to effective treatments.

Orthopedic testing is necessary to examine a patient's chief complaint. Spurling's test is one that is widely accepted as a useful diagnostic tool to evaluate those with neck pain. It is known best for its high specificity to rule in cervical radiculopathy, a clinical condition of the nerve root involving symptoms of the neck and upper extremities. However, the literature shows variability in the way it is performed to the way it is interpreted. Figure 1 shows six known different representations of the Spurling's test.

It is important to identify the potential areas of discrepancy and to address them. This includes references, available research and the training provided in educational institutions. The aim of this study design is to provide the first survey study to identify a disparity in chiropractic education.

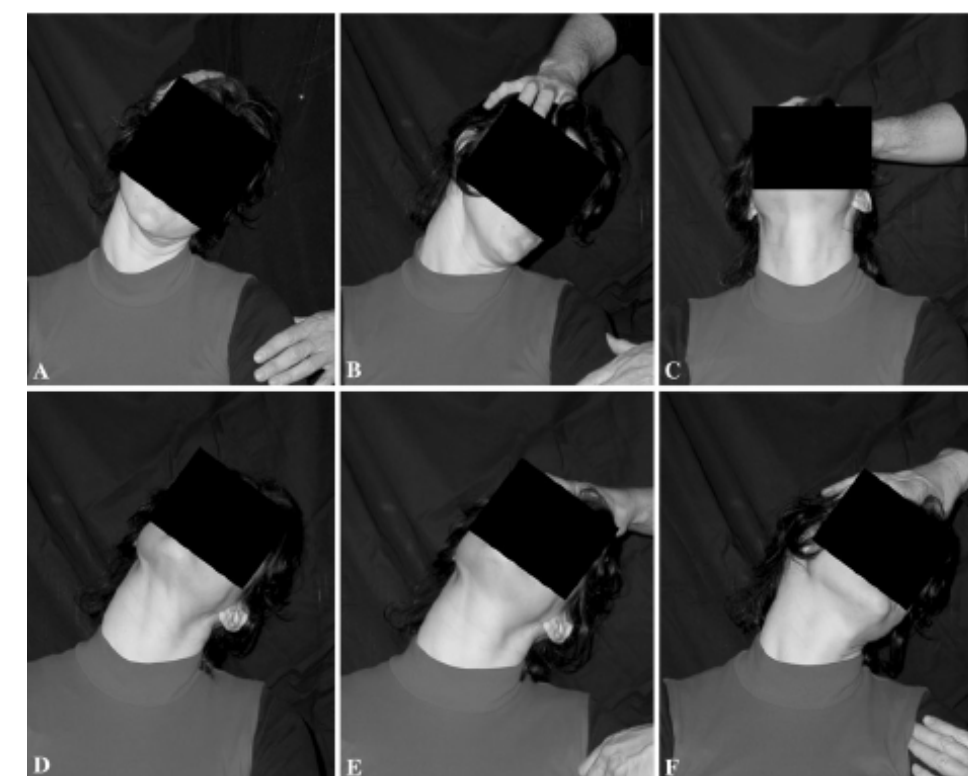


Figure 1 Six varieties of the Spurling's test

Methods

- Design a convenient web-based survey containing questions regarding professional profile and Spurling's test (as depicted in Figure 2).
- Provide access to academic instructors at sixteen accredited chiropractic institutions recognized by the Council on Chiropractic Education.
- Collect survey data for approximately one month upon opening.
- Interpretation of results will be determined with the assistance of professional statistician.
- Account for bias and adjust results.
- Report significant findings and discuss future potential in a research article.

Professional Profile	
Name of Institution:	_____
City, State:	_____
1. What course(s) do you teach?	_____
2. What is your institution's required textbook(s) used for orthopedic or neurological assessment?	_____
3. Do you teach Spurling's Test?	<input type="checkbox"/> Yes <input type="checkbox"/> No
a. If YES, how do you teach your students?	<input type="checkbox"/> As specified in the referenced textbook in question #2 <input type="checkbox"/> As specified in the literature <input type="checkbox"/> Clinical experience and personal preference
Spurling's Test	
1. What is the correct way to perform Spurling's Test? (please check <u>one</u> box only)	
a. Patient position:	<input type="checkbox"/> Seated <input type="checkbox"/> Standing <input type="checkbox"/> Supine <input type="checkbox"/> Other: _____
b. Patient head position:	<input type="checkbox"/> Neutral <input type="checkbox"/> Ipsilateral lateral flexion ONLY <input type="checkbox"/> Ipsilateral rotation ONLY <input type="checkbox"/> Extension ONLY <input type="checkbox"/> Ipsilateral lateral flexion, rotation <input type="checkbox"/> Ipsilateral lateral flexion, extension <input type="checkbox"/> Ipsilateral rotation, extension <input type="checkbox"/> Ipsilateral lateral flexion, rotation, extension
c. Examiner instruction:	<input type="checkbox"/> Downward compression <input type="checkbox"/> Vertical blow to uppermost portion of patient's head <input type="checkbox"/> Downward force then vertical blow to uppermost portion of patient's head if pain-free
2. What is a POSITIVE test? (please check <u>one</u> box only)	
a. Symptom:	<input type="checkbox"/> Pain ONLY <input type="checkbox"/> Paresthesia ONLY <input type="checkbox"/> Pain and/or paresthesia
b. Location:	<input type="checkbox"/> Neck to shoulder <input type="checkbox"/> Neck and scapular region <input type="checkbox"/> Neck and proximal upper extremity to elbow <input type="checkbox"/> Neck throughout upper extremity extending to hand
3. What condition does a positive test indicate?	_____
4. From 0 to 5, how significant is a positive Spurling's Test?	<input type="checkbox"/> 0 (not important at all) <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 (extremely important)
5. From 0 to 5, how significant is a negative Spurling's Test?	<input type="checkbox"/> 0 (not important at all) <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 (extremely important)
Comments:	

Figure 2 Survey design

Discussion

A 2019 survey study of physical therapists identified the inconsistencies of Spurling's test in clinical practice. Major findings include variability in methodology, interpretation as well as the significance of the test's diagnostic utility. The conclusion of the study aid in emphasizing a problem in clinical practice. An appropriate response involves further investigation at both interprofessional as well as extraprofessional sectors. Furthermore, because literature reviews have been performed, there is a need to look elsewhere, especially within educational institutions.

By emulating the 2019 survey study, this design will assess the inconsistencies of the Spurling's test in the chiropractic profession and the discrepancy in the education system. We expect to see a variation in the methodology, the interpretation and the importance of Spurling's test in the chiropractic field.

Conclusion

In conclusion, Spurling's test has the potential to have great diagnostic utility. But due to the inconsistencies identified in the literature, it is difficult to classify its dependable value. All professions using Spurling's test as part of its clinical guidelines should evaluate its true worth and contribute to the validity and reliability. Furthermore, research in both clinical and educational settings can corroborate the widely used Spurling's Test. A step that the chiropractic profession can take is to implement this survey study design.

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