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A survey of patient's perceptions of what is ''adverse'' in manual physiotherapy and predicting who is likely to say so

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Abstract

Objectives: The primary objective was to describe the patient perspective regarding the identification and occurrence of adverse responses related to manual therapy. A secondary objective evaluated predictors of the incidence rate of adverse responses identified by patients receiving manual physiotherapy.

Study Design and Setting: A cross-sectional survey of patients receiving manual physiotherapy recruited by physiotherapists in Canada was conducted. The survey included questions about the symptoms patients identified as adverse, causal associations with treatment, and the impact of contextual factors. Descriptive statistics are reported, and Poisson modeling predicted factors associated with identification of adverse responses.

Results: A response rate of 76.2% (324 of 425) was obtained. Having lumbar spine dysfunction was a significant predictor of all adverse responses (incidence rate ratio [IRR] 95% confidence interval [CI] = 1.513 [1.025, 2.235], $P = 0.037$) and was associated with 51% greater identification of adverse responses compared with those with an extremity disorder. Expectation of soreness was ''protective'' against identifying major adverse responses (IRR [95% CI] = 0.915 [0.838, 0.999], $P = 0.047$); they had an 8.5% lower rate of identifying major adverse responses relative to those without this expectation.

Conclusions: The patient perspective is important to consider if a comprehensive framework for defining adverse responses in manual therapies is to be developed.

Keywords: Adverse responses; Manual therapy; Patient beliefs; Physiotherapy; Classification; Survey

1. Introduction

Part of the validity of a clinical practice guideline is based on its inclusion of patient viewpoints when consolidating the evidence base and making recommendations for clinical practice [1]. Using a patient-centered approach is also considered to be good clinical practice so that a shared decision-making process can arrive at ''optimal'' treatment options [2]. In the area of manual therapy, recent publications have drawn attention to the need for a standard definition of adverse responses, their classification, and terminology [3,4], but patient perspectives have not been included as of yet. Differences in patient values from those of practitioners have been demonstrated in their perspectives on adverse responses [5,6].

A qualitative study [7] with patients receiving manual therapy from different disciplines has provided some pilot data that both overlap and diverge from those proposed in an initial framework for defining adverse responses in manual therapy created by various practitioners and researchers [4]. Methodologically, the two studies differed as the former used individual interviews, whereas the latter used a Delphi process ($n = 50$ participants from eight different disciplines) to categorize adverse events as mild, moderate, or major based on duration, severity, and constructs of the terms. The area of greatest similarity between the two studies pertained to the consideration of function within the mild adverse responses category. Both the patients and practitioners agreed that a mild adverse response would have no functional impact. There was divergence regarding the duration of an adverse response. Patients described a mild adverse response as lasting hours to 2 days, whereas the practitioner framework described mild to hours only

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What is new?

- Patients with low back dysfunction will identify adverse responses 51% more than patients with extremity disorders.
- Patients with an expectation of posttreatment soreness are 9% less likely to identify an adverse response compared with those without this expectation.
- Contextual factors such as whether the patient is advised about potential adverse responses by the physiotherapist or whether the patient is getting better overall are important to how patients decide whether a symptom is adverse.
- A comprehensive framework for adverse response definition in manual therapy should include the patient perspective as it is reflective of the complex decision-making process undertaken by patients.

[7]. Furthermore, the patient-identified durations for the various categories were expressed only in hours and days, whereas the Delphi study considered hours (short term), days (medium term), and weeks (long term). The Delphi study did not explore the idea of establishing causation [4]. Further comparison was limited because of differences in study design.

Additionally, the qualitative patient data suggest that contextual factors surrounding the patients' judgment influence whether a symptom is perceived as an adverse response or not. Contextual factors that have been identified, such as communication and expectation of the treatment, have been linked to patient satisfaction [8]. Extrapolating this reasoning, it is obvious that patient's satisfaction with care may in turn be influenced by the occurrence (or their perceptions) of adverse responses. This qualitative study provides the first framework for patients' perceptions regarding adverse responses related to manual therapy by demonstrating the interrelationship of the central concept of defining an adverse response to elements that are antecedent, sequelae, and universal. Its two overarching themes, posttreatment responses to manual therapy (sequelae) as well as beliefs and expectations of manual treatment (antecedent and universal) and the related subthemes informed the development of this study providing material for each section of the questionnaire.

Although this qualitative analysis provided insight into the patient perspective on adverse responses, it did not allow understanding of the prevalence of these attitudes or their relative importance. Previous studies that have reported adverse response or side effect data with manual therapy have typically done so with a list of symptoms generated by practitioners, researchers, or the literature [9,10]. The evidence suggests that patient perceptions of adverse responses differ from that of practitioners. There is evidence that practitioners report adverse responses that predict clinical events, whereas patients report adverse responses that reflect health status [6]; also, practitioners have reported observable signs, whereas patients have reported subjective events [5]. This suggests that the lack of patient input regarding what symptoms they actually consider to be adverse is important.

The primary objective of this study was to describe the patient perspective regarding identification and occurrence of adverse responses related to manual therapy, and the secondary objective was to identify predictors of the incidence rates of the symptoms identified by patients as adverse responses.

2. Methods

A cross-sectional survey of patients currently receiving outpatient orthopedic manual physiotherapy was conducted from September 2010 to January 2011. The survey tool was developed based on findings from previous studies and consisted of 18 questions and a patient characteristics section (see Appendix at www.jclinepi.com).

Orthopedic manual physiotherapists working in private clinics across Canada were contacted electronically via the Canadian Academy of Manipulative Physiotherapy and the Orthopaedic Division of the Canadian Physiotherapy Association's e-mail lists and invited to recruit eligible patients to complete the survey. The membership lists were 485 and 4,336, respectively. Eligible patients included those who were at least 18 years of age, currently attending physiotherapy treatment for any musculoskeletal problem for which manual therapy had been deemed appropriate by the treating physiotherapist, and had received at least one session of manual therapy to any part of the body. We specifically did not require that patients had experienced an adverse response as this study is part of the ongoing process of trying to determine what types of symptoms and reactions patients actually define as adverse. This will then contribute their unique perspective when considering a comprehensive framework for definition and classification of adverse responses in manual therapy. Patients were excluded if they were not receiving manual therapy as part of their care and were not fluent in the English language. Sample size calculations used the formula for proportions from the study by Aday and Cornelius [11], with proportions set at 50.0%, precision of 0.05, and adjustments made for nonrespondents (10%). The target sample size was 422. Patients who were approached and expressed an interest in completing the survey were given a letter of information and a copy of the survey. Those patients wishing to complete the survey online provided their e-mail address and consented to being contacted by the investigators. Patients completing the paper version of the survey were provided with the survey at their appointment and asked to complete