Satisfaction Outcome Measures in Orthotics: A Systematic Literature Review
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Introduction
Patient satisfaction is recognized as an important component of modern health care outcomes. In support of evidence-based care, there have been increased efforts to develop standardized patient-reported outcome measures (PROM's) for the evaluation of satisfaction with rehabilitation services. The attention given to patient satisfaction comes from a desire to improve the quality of care. Additionally, as an orthotics and prosthetics (O&P) business, higher consumer satisfaction rates may provide a competitive advantage and contribute to economic prosperity.

However, quantifying satisfaction presents different challenges than performance-based outcome measures. In O&P, satisfaction is determined by how well the patient’s experience met their expectations for both the device and the services provided. Furthermore, while prosthetic and orthotic devices share fundamental principles, some factors contributing to patients' satisfaction may vary based on which type of device they receive.

Orthotic patients' dependence on their device may vary greatly when compared to prosthetic patients. An orthotic user that does not rely on their orthosis may be less inclined to abandon a device if they are dissatisfied. Also, given that orthotic devices often serve as temporary interventions, users may be less invested in pursuing a satisfactory outcome. In light of these differences, it may be appropriate to evaluate orthotic users’ satisfaction using a PROM that incorporates issues of importance to this patient population.

The purpose of this literature review was to identify and appraise the PROM's that have been used to assess satisfaction with orthotic devices and services.

Method
A systematic search was conducted in PubMed, CINAHL, and RECAL using a combination of the terms “satisfaction” and “orthotic” and their synonyms (i.e., patient satisfaction, orthosis, orthoses, etc.).

Selection Criteria: 1. The PROM used in the study was administered with clear and standardized methods 2. If participants were involved, they must have had a diagnosis indicating orthotic intervention 3. The intervention was fit by an orthotist/prosthetist

Assessment: The reviewed PROM's were identified as either formal (had established psychometric development) or ad-hoc (no evidence to support psychometric properties). For each reviewed PROM, the sub-domains (i.e., determining factors of satisfaction) were identified in the measure's items and the body of the publication.

Results
After application of the established selection criteria, 14 publications were chosen for review. The reviewed publications ranged in dates from 1989 to 2009 and addressed a variety of orthotic devices (e.g. AFO’s, KAFO’s, cranial helmets, spinal, etc.). Of the 14 publications, 7 used PROM's that were classified as ad hoc and 7 used formal measures. However, only four unique formal measures were identified (several publications used the same formal measure). The formal measures included the Orthotics and Prosthetics User Survey (OPUS) (Heinemann 2003), the modified SERVQUAL instrument (Geertzen 2002), the Quebec Users’ Evaluation of Satisfaction with assistive Technology (QUEST 2.0) (Demers 2002), and the Scoliosis Research Society's questionnaire (SRS-22/24) (Asher 2000).

Nineteen sub-domains of satisfaction were identified within the reviewed outcome measures. Nine of these sub-domains pertained to device satisfaction (e.g. cosmesis and comfort), while ten sub-domains contributed to satisfaction with services (e.g. attention/wait and communication).

Discussion
Patient satisfaction is an abstract and multidimensional concept. It has been established that there are numerous factors that contribute to a patient’s satisfaction with their health care experience (Ware 1983). In this review, many sub-domains were identified that may contribute to a patient’s satisfaction with O&P devices and services. Clinically, it seems prudent to explore the factors that contribute to patient satisfaction using a psychometrically-tested PROM. The authors of this literature review are currently conducting a multi-center study to investigate the benefits and challenges associated with administering a patient satisfaction outcome measure, OPUS, in an O&P clinical setting.

References
Ware, JE. Eval and Program Plan. 6, 247-263, 1983.