

## Identifying Inconsistencies and Reporting Deficits in Therapeutic Massage and Bodywork (TMB) Case Reports: A Systematic Review and TMB Adapted Case Report (CARE) Guidelines Audit

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**Introduction:** Case reports are a fundamental tool through which practitioners in applied disciplines are able to inform research and impact their field by detailing the presentation, treatment, and follow-up of a single individual they've encountered in practice. Ideally, published case reports contribute to reductions in the research/practice gap by allowing practitioners to describe current practice situations and outcomes to researchers. Unfortunately, inconsistencies in case reporting across applied disciplines have limited the impact of these fundamental sources of clinical evidence. In 2013, reporting guidelines for case reports (CARE guidelines) were published to standardize the reporting of medical case reports. In recognition of discipline differences and reporting needs, the therapeutic massage and bodywork (TMB) adapted CARE guidelines were published in late 2014 to specifically guide reporting of case reports involving massage therapy applied as a treatment. The TMB adapted CARE guidelines identified 5 primary case report components (pre-manuscript, Introduction, Case Presentation, Results, and Discussion), each with unique subcomponents (e.g., title, keywords, abstract for the pre-manuscript component) ranging in number from 6 - 31. By checking off each component and subcomponent included in any given case report, a summary score for TMB adapted CARE guidelines compliance (range: 0 – 65) can be derived. In order to determine whether the consistency of TMB case reporting is improved after publication of the TMB adapted CARE guidelines, a pre-guideline state of TMB case reports is needed. The current study seeks to provide rich descriptive statistics about the state of TMB related case reports in the literature prior to 2015.

**Methods:** A systematic review using PubMed and CINAHL databases identified 935 unique citations using first the MeSH term "Therapy, Soft Tissue" as the subject heading and publication type "case reports" and then a keyword search in PubMed (acupressure, shiatsu, zhi ya, chih ya, reflexology, rolfing, bodywork, massage, case report, case reports, case study, case studies NOT carotid sinus massage, heart massage, cardiac massage, animals) and CINAHL (subject headings: massage therapists, massage, reflexology, case study). Study inclusion/exclusion criteria required: case report, human, English, peer-reviewed, published prior to 2015. Administered massage treatment(s) had to have been from a professional TMB practitioner who had a role in the case's reporting and publication. N=34 articles met inclusion criteria and were reviewed by two independent reviewers. Through a REDCap data collection form, components and subcomponents of the TMB adapted CARE reporting guidelines included in each article were identified. Variable coding and descriptive statistics were completed using SAS 9.3 by a non-reviewing team member. TMB adapted CARE reporting compliance scores were determined for each case report.

**Results:** Preliminary results for n=30 (final presentation to include all N=34) indicate mean compliance scores = 40.3 ( $\pm 9.2$ ) and ranged from 10-50. Article sections with the most robust scoring included pre-manuscript items and introduction with average section scores obtaining 75% and 70% of the possible points, respectively. Case presentation and results sections scored the poorest, obtaining an average of 58% and 53% of the possible points, respectively.

**Conclusions:** Case reports in the TMB field published before possible exposure to the TMB adapted CARE guidelines demonstrate inconsistent and deficient reporting. If case reports in the TMB field are to have an impact, consistent and rigorous reporting must be adopted. In an effort to improve the state and impact of TMB case reports in the literature, TMB practitioners should use the TMB adapted CARE guidelines as a checklist when preparing their case reports for publication.