Essentials of Rehabilitation Research: A Statistical Guide to Clinical Practice

Richard P. Di Fabio

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Essentials of Rehabilitation Research: A Statistical Guide to Clinical Practice achieves a level of knowledge translation that the rehabilitation science field has been waiting for to strengthen the link between clinical and research environments. Written for a clinical audience to help facilitate evidence-based practice, this volume unifies clinical practice and rehabilitation research through a common understanding and appreciation for statistics. Its 11 chapters are designed to address clear clinical questions: “How much change must a patient demonstrate to be functionally meaningful?”; “Do clinical tests accurately determine the patient’s classification for diagnoses?”; “Does my clinical assessment adequately identify changes in the patient’s status?” Author Richard P. Di Fabio guides the reader through the evaluative process, illustrating the application of the appropriate statistical methods through relevant examples that reflect the current practice environment. As the chapters progress, so does the detail of the statistical content. Each chapter presents an exercise, accompanied by an experimental data set, so that readers can test the application of their knowledge. The accompanying DVD augments this statistical content with video tutorials detailing the steps of statistical analysis.

This clear and well-organized book is both a useful reference for individuals involved in clinical care, programme management, and evaluation and a helpful resource for novice researchers seeking an overview of quantitative methodology. Clinical questions at the beginning of each chapter provide perspective for the reader and highlight the clinical applicability of the chapter. Each chapter builds on the concepts covered in earlier chapters and refers back to them for definitions and concepts when necessary. Statistical topics, including contingency tables, correlation coefficients, and linear predictions, are covered at foundation level and presented through a clinical lens. The concepts of sensitivity, specificity, and validity are demonstrated through examples using relevant clinical measures, including the Functional Independence Measure (FIM), the timed up-and-go (TUG) test, the Roland–Morris Questionnaire (RMQ), and clinical decision rules for spinal manipulation. By capturing the breadth of the profession through the selection of outcome measures, Di Fabio has designed a resource that relates to all areas of clinical practice.

Essentials of Rehabilitation Research offers clinicians an immediate means to self-evaluate both their practice and their assessment strategies, elevating anecdotal evidence to statistically sound results. Where appropriate, appendices on statistical foundations allow the reader to explore concepts in greater detail. This design is ideal for a clinical audience: the intricacies of

the statistical foundation do not distract from the primary objective of each chapter, which is to apply the statistics to clinical practice. Furthermore, it provides clinicians with a critical lens through which they can effectively understand, appraise, and apply results from the rehabilitation literature.

Overall, *Essentials of Rehabilitation Research* is a valuable resource not only for clinicians but for the profession as a whole. Health care demands evidence-based practice, and Di Fabio’s book equips the physical therapy profession with a resource to translate its wealth of clinical knowledge into research evidence. Armed with this resource, clinicians and managers will be able to use statistical knowledge to support protocols and highlight the effectiveness of policies and procedures used in the clinical setting.

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Physical Therapy Case Files: Orthopaedics

Jason Brumitt

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This paperback handbook compiles 34 case reviews of orthopaedic conditions that physiotherapists are likely to encounter in the outpatient clinical setting. Author Jason Brumitt and series editor Erin E. Jobst are assistant and associate professors, respectively, in the School of Physical Therapy, College of Health Professions, Pacific University, in Hillsboro, Oregon. Brumitt contributed eight of the case reviews; the remainder were contributed by “top physical therapy researchers, educators, and master clinicians” (p. 2), all of them from different parts of the United States with the exception of one contributor from Scotland. Each case is presented in seven sections: “Key Definitions”; “Understanding the Health Conditions,” which provides background information about the condition or impairment; “Physical Therapy Patient/Client Management”; “Examination, Evaluation and Diagnosis”; “Plan of Care and Interventions”; “Evidence-Based Clinical Recommendations,” which rates clinical recommendations by the strength of the evidence; and “Comprehension Questions and Answers,” which reviews the highlights of the case and reinforces the take-home messages presented.

The majority of the cases are between 10 and 13 pages in length, including references. Readers can choose any case of interest as a starting point. It is, however, unfortunate that the