

Book reviews

Title: **Introductory Biomechanics**

Author:

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Book information:

Publisher: Churchill Livingstone Elsevier
Publication date: 2010
ISBN no: 978- 0- 443- 06944-4
Paperback
Number of pages: 150 pages with accompanying CD
Price: 28,99€

Introductory Biomechanics is a clear, non- intimidating introductory text on the subject of Biomechanics. The introduction to this book clearly states that the book is intended for students in the health

professions, including occupational therapy, and more specifically for those students who find the basic sciences intimidating.

The concepts of biomechanics are simply explained in layman's terms and explanations are accompanied by easy to understand examples. As topics are developed there is a "what you need to remember so far" section which summarises sections of the chapters which are necessary for understanding the subsequent ideas.

The book is accompanied by an interactive CD which is very helpful. The CD has logical explanations and interactive videos and pictures. Also included on the CD are activities which the student can use to assess their understanding.

The book is logically and unambiguously laid out. As concepts arise that will be covered in later sections there are references to where this information may be found. Similarly as concepts are introduced, previously mentioned topics that these are built on are briefly recapped. It contains clear tables, relevant outcomes and



reader friendly information boxes which augment the information discussed.

The author attempts to link the biomechanical concepts back to clinical practice continually. This is not always occupational therapy specific as the book is aimed at health professionals in general, but it does make the text relevant and applicable to patients seen in occupational therapy practice.

Chapter 1 - Fundamentals of force discusses the types of forces, the way forces happen, and the response of objects to forces. These principles are accompanied by examples. The above theory is also applied specifically to forces within muscles and joints. The videos on the accompanying CD explain muscle contraction and force plainly.

Chapter 2 - Gravity, mass and stability introduces gravity and centre of mass in simple terms. Fun activities are suggested to illustrate the differences between mass and weight. The theoretical concepts of centre of mass and base of support are linked straightforwardly to patient examples and different diagnoses.

Chapter 3 - Force analysis: graphs and mass introduces the reader to examining more than one force at a time and combining forces. Again, the author explains the concepts simply and uses repetition to drive home important points. The chapter also looks at measuring force. This section involves technical details that are less relevant to clinical practice. The section on resolving forces into Maths is especially technical but the author suggests skipping this section and just reading the summary if it doesn't interest you.

Chapter 4 - Forces and motion discusses inertia and linear and rotational momentum. The author splits movements up so the reader can better understand momentum. This chapter also discusses action and reaction, incorporating everyday examples and examples from the body. Finally the chapter relates pressure and friction to the clinical areas for example pressure sores.

Chapter 5 - Work and machines highlights the body as a machine and specifically focuses on muscular work. The questions found in this section are applied and consolidate these newly learned ideas. The introduction to levers is well explained and clarifies the importance of mechanical advantage. The chapter provides many practice activities about levers. Finally this chapter discusses power and the difference between muscle strength and power.

Chapter 6 - Stress and strain immediately relates stress and strain to our understanding of tissue injury and repair. There is exciting and applicable information on how tissues behave. The

chapter concludes with the relationship between stress and strain, specifically in the body.

Chapter 7 - Composition and mechanical properties of connective tissue is a useful and relevant chapter that takes theory and applies it specifically to the body. The chapter includes detail on skin, muscle, bone and articular cartilage. The examples are of everyday things and particularly easy to understand. The link to rehabilitation issues of immobilisation, maturation, aging, stretching and temperature is especially pertinent to occupational therapy practitioners.

Chapter 8 - Flow introduces flow of fluids and gases. Again the relevance of this is highlighted with examples from the body (the vascular system) and rehabilitation (water based exercise programmes). Hydrostatic pressure is discussed with practical examples to consolidate the concept.

Chapter 9 - Energy and movement provides information about how humans move and how similar this is across all people. The chapter recaps energy and how muscles act as springs with stored potential energy to minimise the energy needed to move. The CD contains a tutorial on the gait cycle and the chapter relates most of the examples to gait.

Chapter 10 - Therapeutic application of force essentially summarises the way rehabilitation professionals apply and manipulate forces to the body and as a part of treatment. The chapter covers mobilisation, static stretching, respiratory techniques, hydrotherapy, orthoses and splinting. The section on splinting is very relevant to occupational therapists and recaps the properties of connective tissue and the need for evenly distributed forces in splinting.

Introductory Biomechanics is an easy to understand introductory text of the often confusing, complicated subject of Biomechanics. I would recommend it as a textbook for undergraduate students and any therapist who wants to recap this information and improve their clinical practice. The book is also relevant to the South African context as all the examples are universally applicable. The well explained and relevant examples make it a pleasure to read.

Reviewer:

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Title: Occupational Therapy without borders: Learning from the spirit of survivors

Editors

Frank Kronenberg, Salvador Simô Algago and Nick Pollard.

Book Information:

Publisher:	Elsevier Limited
Date of publication:	2005
ISBN number:	0 443 07440 2
Number of pages:	459
Price:	\$30.46 from Amazon.com and \$53.98 from the publisher

This is a book with a difference! According to the editors, the book is intended to facilitate debate about "the development and implementation of occupational therapy initiatives with marginalized populations from an occupational justice perspective of health"¹. It explores factors that prevent individuals, groups and communities from engaging in everyday activities and gives a voice to marginalised groups that have previously not been considered as traditional occupational therapy client groups, for example survivors of war, refugees and people under political occupation. It guides occupational therapists in considering the cultural and sociopolitical issues influencing peoples' abilities to engage freely in daily occupations and gives practical examples of how issues could be addressed.

This book is divided into 4 sections:

Section 1 — Voices of the survivors

This section gives an opportunity to marginalised people to tell their own stories. These marginalised people or 'survivors' mentioned in the title are people who, deprived from engaging in occupations, whether due to society's inability to accommodate their disability, or to poverty or to political, racial or gender discrimination, had managed to overcome these obstacles.

Chapters in this section focus on, amongst others, the journeys of street children, people who are blind and the residents of Bethlehem, a Palestinian city which has been occupied by Israel. It tells their story and highlights the difficulties they have been experiencing engaging in everyday occupations. It also looks at what opportunities they used to empower themselves.

Section 2 — Philosophical and Theoretical arguments

This section summarises and reflects on the theory that underpins the practice of occupational therapy aimed at overcoming marginalisation. It focuses on occupational therapy within society and forces occupational therapists to consider their social and ethical responsibilities in addressing and eradicating marginalisation. Topics discussed include: occupational apartheid, occupational therapy and the social field, occupational justice, child spirituality and challenges



of community based rehabilitation. The section concludes with three chapters on various models and how these models could help occupational therapists to understand marginalised individuals and communities.

Section 3 — Occupational Therapy practice without borders

In the first section, the survivors highlight the problems, while the second section looks at the theory occupational therapists need to take cognisance of to address the problems. It focuses on theory and philosophies to enhance our understanding on factors that could cause these problems and that could contribute to solving the problems.

The focus of section 3 is two-fold. Firstly, it describes practical examples of programmes being implemented to address problems identified in section 1. Secondly it describes the personal healing journeys of the survivors involved in these projects. Projects highlighted are mostly implemented in third world countries which could make it a valuable learning resource for clinicians in SA. Some of the chapters I found interesting were:

- ❖ Connecting health and social justice: a Lebanese experience,
- ❖ Inclusive education in Pakistan: an Occupational therapist's contribution to teacher education,
- ❖ The return of the con men: an intervention project with Mayan community of Guatemalan retornos.

Section 4 — Critical education and research.

This section focuses on the critical issues that need to be considered when ensuring that new generations of Occupational Therapists become politically aware of their society. It describes how one particular programme was analysed to see whether it facilitated awareness of occupational justice amongst their students. Further more it describes strategies that educational institutions could use

to develop their students' political literacy.

It continues to describe how development projects could be used to educate students and it proposes that the method of Participatory Action Research be used as a research design by occupational therapists who wish to enhance their understanding of occupation within a social context, as this design is very emancipatory.

Relevance to the South African Context

In South Africa there are many issues with which we are still dealing, from the legacy of the apartheid regime that marginalised communities and created dependency, to violence against women and children which is significantly high in our country. This book could help occupational therapists in SA to address the bigger issues that we have traditionally avoided. It urges us to look at why marginalisation is still taking place in SA and highlights the need for occupational therapists to become activists for the rights of their clients and to create opportunity for the clients to become activists for themselves. As many of the underlying issues experienced by the survivors are also relevant in the SA context, the practical examples given in the book could guide practice in many settings in SA. If you are a clinician who is passionate about ensuring equal opportunities for the clients and communities you serve, this book is for you.

Although this book was authored by a range of brilliant international authors, the five South African authors who contributed to the book give it a South African flavor. Enjoy!

References

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Fasloen Adams

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Title: A Political Practice of Occupational Therapy

Editors:

Nick Pollard DipCOT, SRAT, MA, MSc

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Franciscus Kronenberg BSc(OT), BA(Ed)

Book Information:

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Price: \$59.95

At first glance the chapter headings in Pollard, Sakellariou and Kronenberg's book titled 'A Political Practice of Occupational Therapy' promises broad coverage of topics relevant for occupational therapists interested in the political dimension of practice – the book lives up to this promise.

The three sections namely 'theory', 'explorations of context' and 'practice' are helpful categories that guide the reader to appreciate the different levels at which political concepts require consideration in education and practice. In the Foreword, Hanneke van Bruggen situates the relevance of the book within the key objectives of the European Year of Equal Opportunities for All, namely, rights, representation, recognition and respect and the main objectives of the African Decade of Persons with Disabilities (1999-2009). She points to the roots of the word 'politics' in ideas by Plato and Aristotle being "to create the 'ideal' society or community (*polis*)"^{1:xiv} and illustrates the wisdom of "identifying the right chances for occupational therapy at the right time with the right partners and in the right political climate"^{1:xiv}. The editors emphasise two key elements required for transformational practice, (1) an emerging political understanding and (2) reframing of the concept of occupation. They invite dialogue in order to continue development of ideas in the book that they put forward

as explorative ideas.

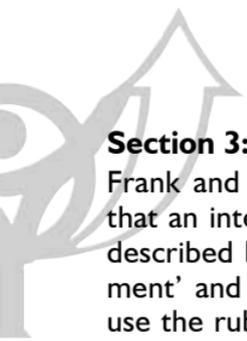
Section 1:

The authors distinguish 'political activities of daily living' (represented by the acronym pADL – with a small *p*) that emphasises political literacy and political engagement in every-day occupational therapy practice from the concept 'Politics' (represented with a capital *P*) that refers to structures of government, state or public administration. This distinction is required to understand the political nature of occupational therapy practice. Occupational therapists are called upon to recognise situations of occupational injustice, - deprivation and – apartheid confronted by people, despite rhetoric of human rights and the potential of occupational opportunities. The concepts 'conflict' and 'cooperation', proposed by Van Eijk² to be the "motor of all political engagement"^{3:32} are normalised with the explanation that conflict is not always bad and co-operation not always good. The concept of 'power' is considered in an appraisal of the occupational therapy profession's credibility as a force that can bring change. An argument for education and literacy, proposed to be prerequisites for democracy⁴, is used to make a case for occupational literacy being the foundational for political occupational therapy practice.

Section 2:

Contextual influences on occupation are discussed in this section. The term 'occupational apartheid' is defined clearly and situated in occupational therapy practice. The case is made that class, gender and sexuality are strong influences on occupational opportunities and identities; as such these factors require scrutiny where they compromise access to opportunities for meaningful and dignified occupation. Holism is historically situated and its place in occupational therapy rhetoric confirmed, then, challenged as not offering sufficient guidance to occupational therapists who want to be relevant in a complex heteroglossic world.





Section 3:

Frank and Zemke set the tone of this section by confirming that an international movement is underway towards practice described by Watson⁵ as 'community and population development' and that Galheigo⁶ and her colleagues from the South use the rubric 'social occupational therapy'. The authors then set out to explore what kinds of knowledge and competencies are relevant and useful for practice that is focused on social transformation. Their comprehensive discussion of theoretical contributions by authors from the South makes this chapter a valuable resource. Chapters to follow provide a broad range of education and practice examples.

Pollard, Sakellariou and Kronenberg and contributing authors are congratulated on this book. It provides comprehensive discussion with clear definitions of theoretical concepts whilst illustrating the importance and relevance of such concepts. The book makes a convincing argument for occupational therapists to improve their occupational literacy and to ensure that students are better prepared for practice in a complex world; recognition of the political dimensions of occupation and occupational therapy are essential for relevant education and practice. I am of the opinion that the invitation by editors of this book to join them in developing ideas should be taken up by South African occupational therapists.

Review by:

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