Motor Skills Training in Orthopedic Sports Medicine

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Teaching is essential in our profession. As our Mentors taught us, we are committed to the education of those following in our path so they may excel beyond us in the future. The practice of medicine has changed drastically in recent years so that teaching comes in a variety of modalities such as research, courses, publications, and hands on trainings in clinics. We dedicate this book to those who passionately support education, in its many forms, in their practice.

Foreword

Designing an ideal teaching environment is a difficult task. Most important part of it is finding motivated faculty. This book provides a lesser important part which is concise collection of information on how to create a teaching environment.

Preface

Orthopaedic sports medicine is based on knowledge but mostly executed through motor skills. Throughout orthopedic surgery residency programs, directors place major emphasis on skills training. Many additional opportunities are available to supplement the trainee for proper skills training. An orthopedic surgeon interested in wholeness of the profession in essence should be a practitioner, teacher and a researcher. Teaching inspires us and is an historical element of the medical profession. Even the surgeons who are not in the academic environment are interested in teaching juniors. Motivations for teaching are manyfold, therefore is an attractive activity thus increasing the number of courses. Colleagues with goodwill wish to run courses and share their knowledge and meanwhile take the steps up in the career ladder.

The enthusiasm to run courses unfortunately does not always reflect into competence in setting up courses. The surgeon designs and runs courses based on his/her previous experience. Orthopedic surgeons have not traditionally tapped into the discipline of designing courses which is actually the "Science of Education". This book is an attempt to bring multi-professionals into answering the basic question "How can we optimally design and run an orthopedic sports medicine motor skills course ?". The question was approached from various aspects.

Initially, Professor Kurosaka, past president of ISAKOS, and his team aimed to define what it takes to be a "sports surgeon". They described what modern sports medicine is and what it takes to have the "orthopedic sports medicine surgeon" title. It was underlined that continuous education, training, assessment or decision-making are required to be successful.

In the second chapter, we took a trivial dive into the "Principles of psychomotor skills training". We as surgeons are excessively involved in the practical side of teaching. There is an ocean of "Science of teaching" that we surgeons need to be familiar with if we want to be more effective teachers.

Professor Chan and his team detailed how to teach concepts of surgical skill and strategy of designing a program. His team being very experienced in holding courses for so many years had a lot of examples to refer to.

Courses themselves should follow a curriculum within a wholeness. The course as a whole then should be within a major curriculum. Dr Pitts, an expert in curriculum development, provided the elements of how to set up a curriculum.

An engineer by training, Gabrielle Tuijthof presented the essential arthroscopic skills that is required to be taught in the courses based on the available evidence reflecting the Dutch experience gathered over the years.

Professors Tauro and Pedowitz wrote about the basic training modalities focusing on the FAST system adopted by the AANA. They also informed about the animal/human cadavers in addition to the bench models in wide usage.

Virtual simulators are the promising future of the motor skills education. Dr. Tuijthof describes in detail the current situation and the future of simulators in surgical skills training.

Aspects of a course design in practical detail are beautifully presented by the Australian team composed of Professors Alasdair Thomas, Greg Bain and Donald Bramwell. The chapter ends with a checklist, tips for a succesful course in addition to do's and don't do's of a course.

It is general knowledge that "one cannot progress, if you cannot measure it". Professor Cohen, past president of ISAKOS, wrote about the validation methods and how progress can be measured. Most popular global rating scales are included in his chapter.

As we mentioned earlier, a teaching event should be made in a continuum which should end with a certification. Naturally the trainee will be certified within the boundaries of the course. However, how the course will be positioned within a major certification program such as national or continental or even global is an important issue under focus. Professor Mineiro, President of the European Board of Orthopaedics and Traumatology Examination Committee, has undertaken this task and wrote certification of surgical skills.

We have not encountered a book at a global scale on a similar topic addressing our community. We heartily wish that it will be a contribution to training better surgeons for the future.

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