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Global Reach and Clinical Impact of a Blended Online Course in Conservative Scoliosis Management

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Background

Evidence-based medicine (EBM) in the conservative management of scoliosis is critical to improving outcomes. Online continuing education can overcome geographic and resource barriers, but its global reach is not well described.

Study Design

Observational descriptive study

Objective (s)

To verify the perceived quality, the clinical usefulness, and the worldwide penetration of an online Course focused on the conservative treatment of scoliosis

Methods

The Course was delivered entirely online using a blended pedagogical model. Asynchronous components included pre-recorded video lectures, selected scientific readings, interactive assignments, and unmoderated discussion forums designed to foster clinical reasoning and collaborative learning. Synchronous activities consisted of live online sessions focused on case discussions and module summaries.

The curriculum comprised 16 modules, each lasting two to three weeks. Each module included three recorded lectures of approximately 45 minutes and selected readings. Discussion group activities addressed specific topics and required participants to analyze clinical cases. Each module concluded with a 60-minute live session to review key concepts, discuss clinical cases, and address questions.

All activities were hosted on the Canvas learning management system. Student evaluation was based on participation in module activities and a final case-based examination. Course evaluation followed a mixed Kirkpatrick model (levels 1–3), assessing learner satisfaction, knowledge acquisition, and self-reported impact on clinical practice. Administrative enrollment data and aggregated learner feedback from the 2021–2025 editions were analyzed descriptively, with free-text responses thematically coded to identify recurrent issues and priorities for improvement.

Results

Feedback from Participants	Response option	%	N
Usefulness of discussion groups	Very important	73.7	114
	Important	25.4	
	Not useful	0.9	
Performance of recorded videos	Excellent	45.3	117
	Very good	39.3	
	Good	15.4	
Performance of live lectures	Excellent	66.7	117
	Very good	23.9	
	Good	9.4	
Digital Learning Framework usability	Easy to use	69	116
	Some difficulties	30.2	
	Very difficult	0.9	
Workload of the course	Acceptable	65.8	117
	Highly demanding	31.6	
	Excessive	2.6	

The course expanded from 15 participating countries in 2016 to 66 by 2025 (34% of UN Countries), including 20 of 75 LMICs (26%). Editions were delivered mainly in English (10); two Chinese and one Spanish editions were organized to increase accessibility. Participants (337) comprised a multidisciplinary audience: 127 medical doctors, 107 physiotherapists, 67 chiropractors, 26 CPOs, 10 researchers and allied professionals.

Aggregated learner feedback indicated high perceived educational value. The digital platform was generally rated as easy to use. The overall workload was considered acceptable by most participants. The main strengths of the clinical impact included improved radiographic assessment, more informed bracing decisions, clearer treatment planning, and enhanced multidisciplinary collaboration. Most participants reported that they immediately applying what they learned in their clinical practice. Key areas identified for improvement included increased availability of practical demonstration materials, enhanced audiovisual and language accessibility, extended access to course resources, greater interactivity, and targeted support for participants from resource-constrained settings.

Conclusion(s)

The blended online Course proved effective: by lowering travel and training costs and enabling asynchronous access, it extended EB scoliosis treatment. High ratings for recorded and live content and the value attributed to discussion groups support this approach.

Clinical significance

An immediate change in everyday clinical practice is one of the main strengths of the course.