Surgical Coaching

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Overview of Surgical Coaching


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Surgical coaching offers an innovative approach to continuous professional development and performance improvement that can be utilized throughout one's career. Broadly, coaching is "partnering with clients in a thought-provoking and creative process that inspires them to maximize their personal and professional potential" according to The International Coaching Federation. [1] Coaching is a familiar practice in athletics, education, business, and music to achieve mastery. In order to generate performance improvement, coaching utilizes experiential learning —a crucial component of adult education that requires active involvement in reflection and analysis of an experience. [2] This is a departure from the current surgical professional development models that rely on didactics and short courses without incorporating self-reflection. In surgery, coaching is a partnership between a trained surgeon coach and a surgeon with self-identified goals that are pursued through collaborative analysis and constructive feedback. [3] This interaction aims to refine technical, cognitive, interpersonal, and stress management skills to produce practice change and improved performance. Surgical coaching has broad applicability across a variety of contexts.

Types of Surgical Coaching

There are two main types of surgical coaching: expert coaching and peer coaching. Expert coaching is when the surgeon coach imparts a new skill or knowledge to the surgeon being coached. Peer coaching is when the two surgeons have a similar level of experience and knowledge, and engage in a collaborative learning process.[4]

The effectiveness of expert surgical coaching has been demonstrated for medical students, residents, and practicing surgeons.[2,5,6] In one randomized controlled trial by Singh et al., medical students performed virtual reality and porcine laparoscopic cholecystectomies with the intervention group receiving video-based surgical coaching by an expert laparoscopic surgeon. The coached medical students outperformed the control medical students in all three global rating scores used, although the coached students took longer to operate.[5] The study demonstrated that coaching is effective for novice surgeons in a simulation environment but requires increased time. In another randomized controlled trial by Bonrath et al., residents and fellows performed the jejunostomy portion of laparoscopic roux-en-Y gastric bypass with the intervention group receiving video-based surgical coaching. Residents who underwent coaching had higher technical skills scores as well as an increased ability for self-assessment.[2] Residents benefit from surgical coaching and gain the valuable skill of self-directed performance improvement.

Expert coaching can also apply to surgeons in practice who are learning a new procedure. One program, Assuring and Defining Outcomes through Procedural Training (ADOPT), employed coaching as part of a program to teach total extraperitoneal laparoscopic (TEP) hernia repair to practicing surgeons.[6] The program included introductory materials, didactic orientation, simulation training with coaching, hands-on intraoperative training with a TEP expert at the coach's institution and the participating surgeon's institution, and video-based coaching for the first independent cases.[6] This demonstrates the successful application of coaching for the adoption of new procedures, but, like the above student and trainee programs, it is time-intensive.

Peer coaching works well for surgeons in independent practice. An evidence-based peer coaching program was recently implemented in the state of Wisconsin.[3] Coaches were identified based on nomination by peers at the state surgical society. Selected coaches underwent a four-hour training session and received a coach's training manual and instructional videos. Participant surgeons were recruited via an e-mail from the state surgical society, received an information manual, and underwent a one-hour online orientation. Coaches and

participants were matched and held a pre-call to discuss goals of the coaching sessions and develop an action plan. The participant then recorded cases that were reviewed by the coach. Coaching sessions were then held and were directed by the participant's goals. While there were challenges with audio-video data capture and the time required, both the coach and participant surgeons found the coaching program to be highly valuable.[3]

Surgical Coaching Programs

Surgical coaching is beneficial for surgeons throughout the continuum of surgical practice. Medical students, residents, fellows, and practicing surgeons all stand to benefit from the implementation of surgical coaching programs. The Wisconsin Surgical Coaching Framework is a useful tool for the creation of surgical coaching programs (Figure 1).[3] In order to develop a coaching program, the coaching context must first be defined (video versus live, expert versus peer, institutional versus regional versus national) in accordance with the goals of the program. Coach recruitment should be performed based on those identified by their peers as experts with the appropriate interpersonal skills. Interested participant surgeons should be matched with coaches that fit with the participant's self-identified goals, practice setting, and geography while avoiding direct competitors. Coach training should include the development of the coach mindset through understanding the focus of coaching (technical, cognitive, interpersonal, and stress management) as well as the activities of coaching (goal setting, inquiry, constructive feedback, and action planning).[3] Coaching session scheduling can be challenging and should be adapted to each coaching pair.

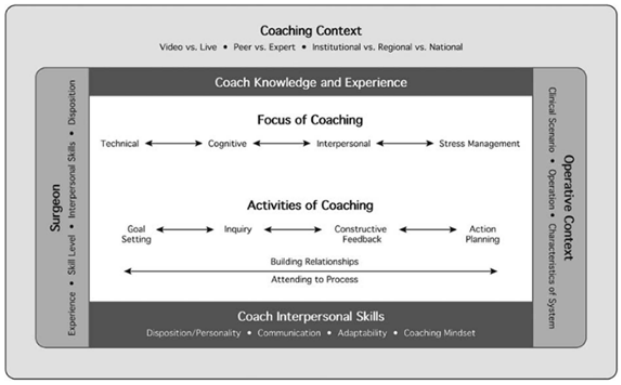

Figure 1. Wisconsin Surgical Coaching Framework

Conclusions

In order to harness the power of surgical coaching, some of the logistical challenges must be overcome. Both regional and national surgical societies and quality collaboratives can play a critical role in developing these solutions. Such established networks can facilitate dissemination of coaching programs and identification of coaches and participants. Importantly, their existing meetings could provide a forum and convenient time for coaching sessions.

The use of collaborative analysis and self-reflection in surgical coaching represents a paradigm shift in surgical education, providing an evidence-based approach to continued professional development that can lead to practice change. Through implementation of surgical coaching programs, we can create a surgical community that is continuously improving and collaboratively learning.

About the Authors

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