One Size Does Not Fit All – Translating Knowledge to Bridge the Gaps to Diversity and Inclusion of Surgical Teams

Lorenzo Cobianchi, MD, PhD,†* *Francesca Dal Mas, MSc, JD, PhD,‡* *and Peter Angelos, MD, PhD§✉*

Diverse teams have proven their ability to reach superior performance and improve patients' outcomes. Nevertheless, differences in race, gender, age, nationality, skills, education, and experience act as powerful barriers to diversity and inclusion, which negatively impacts multiple healthcare organizations and limit the potential outcome of diverse teams. Knowledge Translation (KT) can help to bridge the gaps among all the various individuals involved, whether they be members of the surgical team or surgical patients.

Keywords: diversity, equity, inclusion, Knowledge Translation

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Society in general, and the healthcare system, in particular, are confronting a crisis related to social injustice stemming from deep-rooted structural racism. Social injustice arises when equals are treated unequally, and the unequal is treated equally. Among the most common examples of social injustice, there are instances of discrimination based on race, gender, ethnic background, age, and sexual orientation. Interestingly, the bias that leads to a lack of diversity and inclusion is not only an ethical issue, but also a problem with overall outcomes since global performance has been shown to be better when the environment of medical care is diverse, and patient satisfaction is also improved in such contexts.[1,2] For example, the American Surgical Association has stated, ''By increasing diversity and equity in surgery departments, we will see more talented persons involved in academic medicine and this will improve the health of our communities.''[1(p16)] Thus, in the last several years, the surgical community has stressed the need for a more inclusive surgical system,[3] building a set of key performance indicators to define and measure policies to enhance equity and diversity.[3]

Although ''the surgical community has made significant and noteworthy strides in developing strategies to address barriers to recruitment and advancement for underrepresented groups that can benefit other specialities,''[2(p426)] it appears increasingly essential to implement rigorous, long-term, and sustainable strategies to accomplishing the diversity, equity, and inclusion goals, looking beyond numbers.[2] In general, issues of diversity and inclusion are mostly commonly focused on sex or race. Still, it is essential to recognize that each individual has numerous other features of personal identity that can lead to discrimination (such as the mistrust and suspicion brought about by racism, sexism, and classism). Differences in age, nationality, skills, job level, and prior experiences act as powerful barriers to increased diversity and greater inclusion, and thus may have significant negative effects on healthcare organizations.[1]

Each individual and institution tends to raise barriers to diversity and inclusion in unique ways, depending on the local contextual factors. As prior authors have highlighted, to achieve diversity, diversity is needed,[2(p425)] since the unknown leads to unconscious or implicit bias, due to the tendency to be more comfortable and safe ''around those individuals who look, think and talk like us.''[1(p9)] This vicious cycle of favoring those ''like us'' eliminates opportunities for greater inclusion and diversity and further leads to the exclusion of others based on the features of personal identity.

Tragically, the diversity for diversity dilemma seems like a classic chicken and egg paradox. To reach diversity, first, people of different backgrounds must be able to understand each other. It is not all sunshine and roses, since, to empower diversity, organizations need to put in place enough managerial practices to bridge the gaps among team members, facilitating their dialogue and interaction.

When people or groups have different characteristics that are hardly understandable to others, translation issues necessarily emerge, which may lead to reductions in performance at work. The term ''Knowledge Translation'' (KT) has been used to define a set of methods and approaches to fill the gaps and thereby make knowledge accessible and transferable among different stakeholders with various characteristics.[4] Sharing knowledge, data, information, and experiences effectively is thus a mandatory requirement to allow diverse people to enhance social trust and reduce suspicion.

KNOWLEDGE TRANSLATION IN HEALTHCARE AND SURGERY

The various characteristics of the stakeholders involved represent relevant obstacles in the effective transfer, sharing, and creation of new knowledge, fostering distancing and scepticism and limiting trust. Thus, there is a need to ''translate'' such knowledge into something different in a novel context,[5] much as happens with a foreign language, being translated in a more familiar one. In medicine, the topic of KT emphasized the need to draw on a series of techniques that can facilitate the dialogue and trust among the various actors.

KT can happen in different ways. The most well-known type of KT recalls the need to translate scientific research into clinical practice. Still, more recent approaches highlight the role of KT as an essential strategy to limit barriers among people, who come from different cultures, races, ethnic backgrounds, and levels of education. Such differences emerge among professional groups, but also occur daily in the relationships between surgeons and patients, each with their own various competencies, feelings, and aims. Surgeons should look to their experiences in their interactions with patients as examples of how skills central to those interactions can be enhanced and also can pave the way for greater diversity and inclusion in the surgical workforce. New tools and techniques are needed to promote effective communication and knowledge transfer to improve outcomes. In this perspective, effective KT can enhance coproduction of identifiable goals between surgeons and patients. This coproduction of goals for surgical care facilitates patient engagement and can help surgeons to fulfil their ethical duties.

Indeed, although having conversations with patients, surgeons should sometimes ''speak less and listen more.''[6] Understanding the patient's needs is a requirement when it comes to clinical decision-making, especially when there are more options to treatment, and

From the *Department of Clinic, Diagnostic and Pediatric Science, University of Pavia, Pavia, Italy; †IRCCS Policlinico San Matteo Foundation, General Surgery, Pavia, Italy; ‡Lincoln International Business School, University of Lincoln, Lincoln, UK; and §Department of Surgery and MacLean Center for Clinical Medical Ethics, The University of Chicago, Chicago, Illinois.
✉pangelos@surgery.bsd.uchicago.edu.
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eventual side effects may significantly impact the patient's life. Most surgeons have frequently encountered the patient asking, ''Doctor, what would you do if you were me?'' But ''being me'' requires understanding the patient's needs, constraints, culture, values, lifestyle, and ambitions. In this perspective, soft-skilled-based KT tools like empathy can help the surgeon to put himself or herself in the patient's shoes, not only to offer the best surgical care but to support the patients' aims. KT tools and techniques have proven to be necessary and efficient when dealing with vulnerable patients in challenging environments. One example is the use of design artefacts (paper dolls) to foster the rehabilitation of children with prostatic legs after amputation in rural Cambodia,[7] or the use of sketches and simple images to promote physical activity for a faster recovery of women after breast surgery.[8] KT can thus be a helpful tool in building diverse teams with widely different backgrounds to care for patients in the healthcare system of the future.

In these complex scenarios, as highlighted above, several tools and KT facilitation strategies have been identified in the literature. Some of them are based on nontechnical[9] or soft skills like leadership and empathy, whereas others rely more on new procedures and technologies, depending on the type of stakeholders involved and the features of the groups.

KNOWLEDGE TRANSLATION IN THE SURGICAL COMMUNITY

Extensive literature highlights how permanent professional groups find it easier to translate and share knowledge among their members, given the high levels of social trust, ethos, and common aims.[10] Moreover, clinical professionals share similar values, backgrounds, and skills. Thus, knowledge flows are usually smoother within professional groups. Still, even in the workforce, differences in terms of experience, level and quality of education, age, and sex emerge.[1,3] As said, the unknown generates distrust and suspicion, often preventing people from sharing their ideas and knowledge. The limitation of shared knowledge has the effect of creating greater distancing and further limits creativity and innovation.

In bridging the gaps, the importance of soft skills such as problem-solving, change management, leadership, empathy, and teamwork emerge, to ensure effective KT facilitation, allowing team members to soften their differences. Enhancing collaboration and leadership may, for instance, help diverse team members to recognize each others' strengths and take advantage of them while defining future tasks, and planning tailored technical training to reduce the competency gaps. For example, one-to-one mentoring and feedback proved to be particularly effective in boosting the performance of young female surgeons, to overcome gender-specific differences in surgical work practice,[11] Storytelling has also been used in surgical teams as an effective technique to reduce gender stereotypes, enrich engagement, and transform culture.[12] Learning histories as an ethnographic method showed its potential in fostering teamwork and eliciting the relationships among professionals with different expertise in the field of pediatric surgical oncology.[13] General soft skills training represents an effective strategy to bridge cultural differences, thereby allowing diverse teams to more fully reach their potential, enhancing the ability ''to act as a we.''[14]

Setting protocols like the creation of mixed and interdisciplinary teams, face-to-face meetings, communities of practices, the use of knowledge synthesis and reviews, question and answer sessions, presentations of clinical case studies, journal clubs, departmental conferences, time dedicated to debates, and boot camps have all proved to be effective tools to facilitate the cooperation of diverse surgical teams.[15]

KNOWLEDGE TRANSLATION IN RESIDENCY

Several KT issues also arise in residency, in the relationship between mentors and residents, especially when different generations and learning styles are at work. Innovative teaching methodologies like gaming[16] may be employed as a tool to share knowledge and bridge the generational gap effectively.

LESSONS LEARNED FROM THE COVID ERA – BRIDGING THE GAPS THROUGH RESOURCE SHARING

Another relevant barrier between individuals is represented by the level of education and past experiences, which largely depends on the possibility to access primary sources, technologies, and opportunities. Free and open access resources help to bridge the gap in terms of experiences, job level, and skills.[1] Although there is debate on optimal resource availability, the recent COVID-19 crisis has pushed the worldwide scientific community to share resources to a greater degree than ever before to study the disease. The leading medical journals have granted fast-track, free-of-charge open access to their publications on COVID-19-related topics, including the clinical and epidemiological studies as well as the organizational aspects of managing the pandemic. Several web portals and social media channels were created to gather and share information quickly, with online conferences, seminars, and debates. Again, the idea was to bridge the knowledge gaps to ensure better care for all COVID patients, as well as to address the ethical concerns that have arisen in other clinical areas such as for nonurgent surgeries. E-learning platforms increased their contents to educate and train physicians,[16] shifting their roles[17] to take care of COVID patients.

The recent COVID experience has thus facilitated the debate on the translation and sharing of knowledge, promoting free access to valuable sources. Resource sharing helps to bridge the competencies gap, and create fewer distances among people. We believe that such lessons learned in response to the current pandemic may be applied to the call for diversity and inclusion of healthcare professionals that must continue in the months and years to come. The dynamic and circular nature of KT is illustrated in Figure 1.

CONCLUSIONS

Society as a whole, and the healthcare ecosystem, in particular, are being challenged by a crisis related to social injustice, which undermines the superior potential outcomes reachable by diverse surgical teams. However, the benefits of diverse surgical teams cannot be achieved without effort. A call for effective tools and policies to bridge the gaps has emerged, to ensure equity and diversity in the clinical workforce and surgical care.

Although diversity and inclusion are on the agenda of most surgical departments, a worrying paradox emerges. Diverse teams experience more troubles in their management due to the barriers among their members. To make sure that diversity becomes an asset, and not a liability, managerial practices must be put in place to ensure that people can gain trust and share knowledge effectively.

The management literature has highlighted several potential practices to facilitate the relationships within the team, such as empowerment and the presence of permanent members.[10] Within this framework, we argue for the importance of KT as a strategy to make the unknown known, and to lower the barriers that prevent social trust among people due to individuals' different characteristics. Employing effective KT tools like soft skills, technological devices, e-learning platforms, managerial practices, and protocols

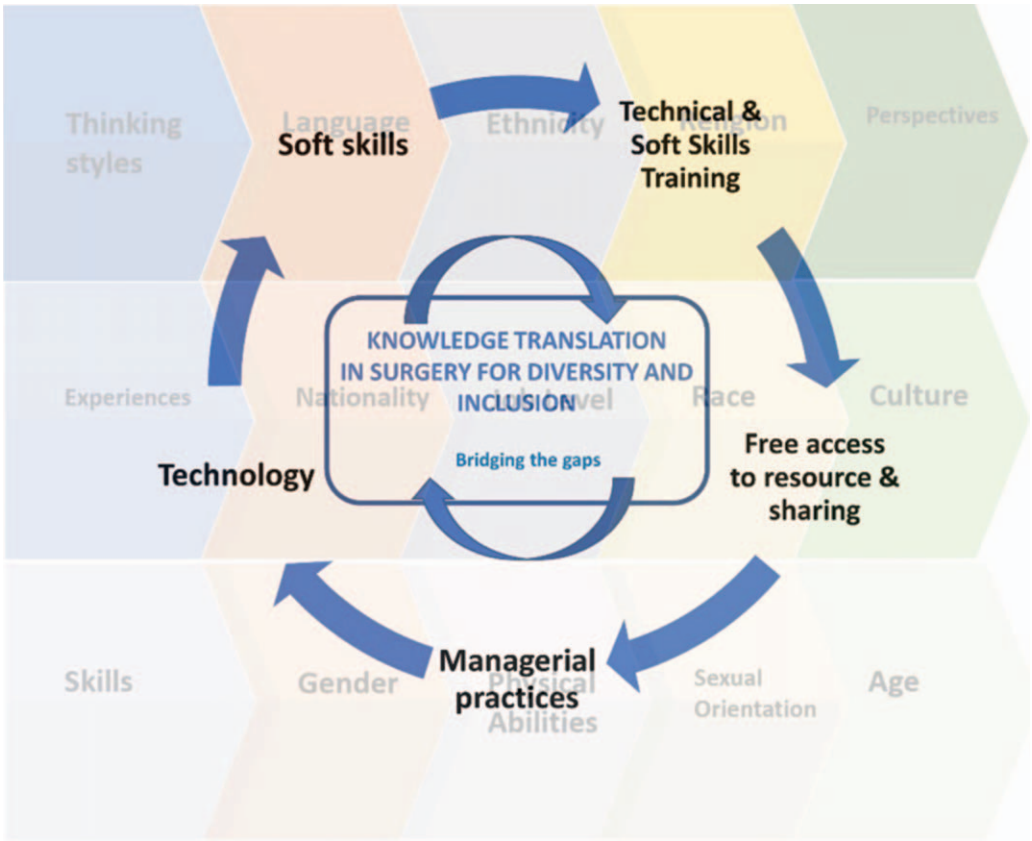

FIGURE 1. Knowledge Translation tools to prevent barriers in surgical teams. The background image is adapted from ASA. *Ensuring Equity, Diversity, and Inclusion in Academic Surgery,* page 8, named ''Characteristics of personal identity that may lead to discrimination.'' Knowledge Translation tools to prevent barriers in surgical teams.

can result in long-term winning strategies to enhance diversity in culture, age, abilities, job level, and expertise. For example, permanent teams might have the time and opportunity to implement some of these tools and establish working protocols that facilitate knowledge sharing.[10]

In all, although increased diversity can lead to an overall improvement of surgical outcomes and encouraging a better-integrated society, managing diversity in surgical departments requires adopting multiple and tailored managerial approaches, being aware that one size does not fit all.

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