

EXECUTIVE SUMMARY: THE NEUROSCIENCE OF COMPASSION: TOOLS TO TAP INTO ITS POWER FOR GOOD

INTRODUCTION

Advances in brain imaging and the neurosciences allow previously unimaginable insights into the workings of the human mind, but not necessarily how to translate that knowledge into a benefit for patients or providers. This is the root of the T. Denny Sanford Institute for Empathy and Compassion's research. This webinar featured several Sanford Institute leaders discussing how they leverage the neurobiology of empathy and compassion to create initiatives that are game-changing for medical education and patient care.

The featured experts were:

- **William Mobley, MD, PhD**, Director, Sanford Institute for Empathy and Compassion
- **Evonne Kaplan-Liss, MD, MPH**, Director, Center for Compassionate Communication
- **Val Lantz-Gefroh, MFA**, Director of Communication Education, Center for Compassionate Communication
- **Lisa Eyler, PhD**, Professor of Psychiatry and Director, Center for Empathy and Compassion Training in Medical Education

THE SCIENCE BEHIND EMPATHY AND COMPASSION

Dr. Mobley presented evidence showing distinct brain networks for empathy and compassion that function by:

- Facilitating emotional resonance and self-awareness
- Enabling the understanding of others' thoughts, beliefs, and desires
- Allowing individuals to "feel with" others and understand their emotional states

Research suggests compassion activates reward pathways, making it its own reward. This enables healthcare workers to feel motivated to help, rather than share their patients' distress.

COMPASSION TRAINING EFFECTIVENESS

Landmark research by Tania Singer demonstrated that empathy and compassion can be enhanced through targeted training. The study showed that empathy training alone can increase negative feelings and emotional overwhelm, while compassion training reduces discomfort and promotes positive feelings toward suffering individuals.

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CENTER FOR COMPASSIONATE COMMUNICATION

Dr. Kaplan-Liss and Val Lantz-Gefroh developed a unique 60-hour fellowship program that pairs healthcare professionals with artists and journalists. The curriculum utilizes theater, storytelling, and metaphor. Their train-the-trainer model creates sustainable ripple effects, highlighted in recently published research in Academic Medicine that showed enhanced empathic listening and reduced burnout among participants. The programs utilize transformative learning theory, guiding participants through a 10-step process from initial disorientation through critical self-examination to integration of new perspectives and behaviors. Fellows also reported increased job satisfaction and personal wellness.

MEDICAL EDUCATION INTEGRATION

Dr. Eyler outlined a comprehensive curriculum addressing the unique challenges facing medical students, including high-stakes testing pressure, the lingering effects of pandemic-related isolation, and information overload.

Programs include:

- **Compassionatomy:** Contemplative practices integrated into gross anatomy dissection, showing increased connection with donors and reduced detachment
- **CARE Course:** Core curriculum for first- and second-year students combining classroom skills training, clinical observerships, and community engagement
- **Mentor Clinician Program:** Dedicated, non-evaluative mentorship during clinical rotations
- **Sanford Scholars/Compassion Ambassador Program (CAmP):** Research opportunities in empathy and compassion for medical students after their first year

Students in programs with integrated compassion training showed greater emotional connection, improved patient care approaches, and enhanced peer relationships.



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FUTURE DIRECTIONS AND RESEARCH QUESTIONS

The Institute identified several critical areas for continued investigation:

- Neurobiological changes resulting from curriculum interventions
- Designing/enhancing trainings based on knowledge of brain systems to be targeted for change
- Long-term wellness outcomes for program participants
- Patient experience improvements from provider training
- Measurement of ripple effects as trainees advance in their careers
- Integration of patient feedback into training programs

CONCLUSION

The Sanford Institute's work reinforces the Schwartz Center's belief that compassion is a learnable skill rather than a fixed trait. Their work demonstrates clear neurobiological foundations for empathy, enabling the translation of neuroscience into practical training programs that enhance both healthcare worker well-being and patient care.

Watch the full webinar here:

theschwartzcenter.org/programs/compassion-in-action-webinars