American College of Neuropsychopharmacology
bulletin

Karen Szumlinski, Ph.D.

Career Development Committee 2022 Chair

Effective Communication: Getting Out of Your Comfort Zone to Communicate Scientific Findings and Controversies to the Wider Community

The 2022 Career Development Session focused on effective communication for the wider audience, particularly the communication of controversial topics in research and medicine. These topics included how to communicate your science professionally and in an impactful and accurate way, how to handle controversy in general, and safeguards for communication. This topic of effective communication was selected by the Career Development Committee as our focus of the 2022 session, in part, to help to address the growing concern over scientific mistrust and misinformation that spread almost as quickly as Covid-19 viral variants over the past several years and to assist trainees and junior members of ACNP find their voices as advocates of science and medicine.

The Career Development Committee invited a panel of three senior ACNP members, all of whom are highly experienced in communicating with diverse (and sometimes adverse) audiences about controversial topics in the field of neuropsychopharmacology. These panelists were Edythe London, Ph.D., Distinguished Professor, University of California Los Angeles, David Geffen School of Medicine, Sarah Holly Lisanby, M.D., Director of the Division of Translational Research for the National Institute on Mental Health and Nora Volkow, M.D., Director of the National Institute on Drug Abuse (NIDA) and the session was chaired by this year's Chair of the

Career Development Committee Karen Szumlinski, Ph.D., Professor, University of California Santa Barbara. Throughout the session, the panelists were very candid, sharing deeply personal experiences that have shaped their approaches to scientific communication over their careers. All three panelists offered tangible advice about effective communication across a wide variety of audiences, including family members, groups adverse to research/medicine, the media, research mentors, research subjects and governmental bodies. In this article, I highlight some of what I consider to be the most memorable moments from this year's Career Development session. I end this article with a list of "quick tips" that I gleaned from the panelists' very thoughtful responses to the questions asked on the part of the Career Development Committee and the audience.

The session began with introductions by the panelists during which they briefly shared their personal research histories, highlighting specific times in which they felt compelled to engage in communication efforts with the community. Dr. London shared how her research on the neurobiology of addiction has raised several issues over the course of her career, including whether it is ethical to administer psychoactive substances to human volunteers with substance use disorder, whether pharmacotherapeutic strategies to treat substance use disorders are merely a replacement for their drug(s) of choice and most notably her efforts addressing the attack by animal rights groups on her collaborative research translating results from rodent and non-human primate animal models to the human condition, which included her composition of an editorial for the LA Times entitled "Why I Use Animals in my Research" that provided a factual narrative on the importance of animal models to both human and animal health. Dr. Volkow described her motivation for becoming the Director of NIDA that stemmed from her frustration with the relatively low impact of decades of scientific research on the policies and practices in treating substance use disorders that required that she send a clear message to the health care system and policy makers to reduce the stigma of substance use disorders and change perspectives in the health care system. Through sharing a very personal narrative about her family, Dr. Volkow described how inadequacies in communication in her familial life has taught her that a key component to effective communication is the development of trust or confidence between you and your audience. This requires that you to have a goal-driven, specific, message that is not only understandable to others, but is relevant and emotional – these factors are critical to making your message salient to others and personalized. Dr. Lisanby began by recalling an early experience from her post-doctoral training when she was faced with unexpected criticism from more senior scientists over a research proposal involving ECT and post-mortem examination of brains from non-human primates that she felt had very strong scientific merit. While daunting, this early experience helped prepare her for the many subsequent encounters with individuals from the Scientology community and animal research activists over the course of her career. Her communication strategy that she employs when interacting with communities that do not agree with medical and/or research approaches, or with the media, is to present the simple fact that depression is a deadly disease and ECT is an effective treatment that is being held back due to stigma. However, when discussing research and treatment, one should acknowledge both the opinion of others and the limitations of current treatment strategies, but explain, with science, how the field is striving to make improvements.

The introductory portion of the session was followed by a series of prepared questions from the Career Development Committee. The first question related to the panelists' first or most memorable experience during which they had to communicate about a controversial topic related to their research. Dr. Lisanby shared her experience of testifying before the FDA in a public

hearing over the FDA's decision to reclassify ECT from a Class 3, significant risk device to a Class 2 device. Aware that her testimony would be broadcasted live over the internet, she was well-prepared to deliver her statement, but was completely unprepared for the heckling by the public attending the hearing. To cope with the heckling, Dr. Lisanby reminded herself that ECT saves lives and she shared with the ACNP audience a deeply personal story about her two grandfathers, both of whom suffered with depression. One grandfather underwent ECT and survived, while the other who did not receive ECT committed suicide. Dr. Lisanby translates this personal experience into a very effective message: everyone in a community is affected by depression in some way or the other. As members of the community, we are all on the same side, but we need to find a way to relate to this commonality. Dr. London shared three early experiences related to studying volunteer research subjects with cocaine use disorder. Her first experience happened during a scientific conference when an audience member questioned the ethics of administering cocaine to individuals with cocaine use disorder. In this instance, Dr. London was prepared with a response that included scientific evidence that a single dose of cocaine administered in a laboratory setting does not increase the severity of disease and she took the opportunity to highlight how it is important to understand how acute cocaine alters subjective state in both those who are drug-experienced. In contrast, Dr. London was not prepared for her second experience, which involved an interview with an award-winning journalist for a Baltimore news program, who essentially mislead her to believe that the show would focus on the science and highlight the importance of conducting cocaine research in volunteers with cocaine use disorder. Instead, the program TV show portrayed a very upsetting portrait of her studies, claiming her laboratory was paying subjects to continue to use cocaine. Having learned the lesson that one should not necessarily trust the media to present your science in an accurate or positive manner, Dr. London took it upon herself to receive formal training in communicating with the media and successfully managed to control the narrative during another TV show interview in which the show's host was trying to convince their audience that NIDA's agenda is to create new therapeutic drugs that will merely substitute for drugs of abuse. Dr. Volkow emphasized the importance of being selective in decisions regarding communication with the media as any statements made can be taken completely out of context and be detrimental to your goal. Dr. Volkow also shared an experience from the mid 2000's when she testified before congress on the topic of funding substance use treatment programs in the criminal justice system during which she was faced with very strong opposing opinions on where taxpayers' dollars should be spent for substance use treatment. Dr. Volkow recognized during this conflictual dialogue that pushing forward with her viewpoint would likely not succeed. She emphasized to the ACNP audience that one has to realize that sometimes, during such conflictual dialogues, it's best to not push forward when your message is not going to succeed as doing so might open a Pandora's box of controversies that might be difficult to overcome.

The second question asked of the Career Development Committee was related to making mistakes in communication and asked the panelists what they have learned from those mistakes. In my opinion, the panelists' responses to this question made the ACNP audience acutely aware of how communication-related decisions can have serious, life-changing, consequences, but that there are steps one can take to mitigate or avoid such problems. Dr. Lisanby shared her experience being involved in the production of TV shows focused on ECT for treating depression. Her first experience involved an episode for *60 min*. Unbeknownst to Dr. Lisanby at the time of filming, three mistakes were made during the production of the *60 min* program: 1) she falsely believed that the TV show would focus on the benefits of ECT for saving lives and that turned out not to be

the case; 2) she was not aware that her patient was going to be filmed following ECT treatment and the patient ended up revealing family secrets that caused a major rift with their family; and 3) the patient's face was filmed during the procedure from a ceiling-mounted camera and those treatment videos were then used juxtaposed with images of Jack Nicholson's face from *One Flew over the Cukcoo's Nest*, to further the show's negative portrayal of ECT treatment. Dr. London shared a similar experience with filming an episode for *20/20* focused on cocaine use disorder that featured a research participant who was willing to discuss their experience with addiction and treatment. However, at some point during the interview process, the patient admitted to using stimulants on the job to keep herself awake and when the program aired, she lost her job over this admission of drug use at work. Both Drs. Lisanby and London admit that while they went to great lengths to ensure proper consent and that all legal matters were addressed, they did not give adequate guidance to their patients, and it cost their patients dearly.

The third and final question asked by the Career Development Committee related to providing advice to the audience, junior investigators and trainees in particular, with respect to communicating their research. All three panelists encouraged the ACNP audience to be wary of the media and recommended that one consider working only with production teams that can be trusted. Dr. Volkow emphasized how important it is to understand the dynamics of the interviewer and their commitment to the subject matter so you can predict which direction the interview is likely to head. The panelists all agreed that, as scientists, we cannot be silent on the matter of mental health and treatment, but we should seek advice from others more senior, particularly from your institution's communication team prior to agreeing to be interviewed. Dr. Volkow also suggested to conduct your own research on the particular media outlet to assess their track record. As an example, Dr. Lisanby worked for months with Anderson Cooper, whom she knew publicly discusses his personal struggles with depression in his family, to develop a program that presented a medically accurate and positive story on depression and ECT. Dr. London strongly encouraged the ACNP audience to avoid all social media outlets as a platform for debate and Dr. Lisanby offered, should you find yourself the subject of on-line or email attack, that you contact your institution's security department to block sites or emails to give yourself a piece of mind.

The session then opened up to questions from the audience and the remaining time was spent addressing issues related to media training and conveying scientific information to the general public as a public servant.

Quick Tips for Effective Scientific Communication from the Q and A period:

1. When interviewed, you don't have to answer difficult or compromising questions. Redirect the conversation in a manner that supports your point of view. The Society for Neuroscience offers media training for members and the NIH can provide training or advice on interacting with the media.

2. Reporters want "sexy science", but you should avoid using catchy phrases (e.g., "dopamine is the pleasure neurotransmitter") as the media will likely misuse these phrases to misconstrue the science and create a false picture of what is actually known. Related to this, highly novel findings are going to be pounced upon by the media. If your study does not yet have direct evidence for clinical utility, it's ok to admit that the clinical implications of your findings require more research. Reporters will always push you to make broad, sweeping, statements about the therapeutic implications of your findings. A safe strategy

is to clearly state that you are speculating about the clinical implications for your work and make it explicit that what you are saying is only speculation.

3. Highlight the benefits of the current state of your science but acknowledge that short-comings may exist. As often as possible, explain how the scientific process works to refine current knowledge, generates novel treatments and/or dictates policies and procedures so the audience becomes more familiarized with the process. Uncertainty is part of the scientific process that drives our research questions and motivates us to study the psychobiological bases of brain diseases. However, uncertainly brings fear, confusion and sometimes outrage to the general public who is not privy to, appreciates or understands the scientific process. In such a forum, scientific uncertainly can be problematic and lead to pseudoscience and misinformation. Always stick to the facts and if an error is made, the errors should be admitted and explained plainly in terms of the current versus new state of information.

4. Always make statements that are based on science and avoid giving opinions. The relatively recent politicization of science has completely upset the balance between genuine controversy in the scientific field versus politically motivated controversy (i.e., the balance between information vs. misinformation). Try to remain politically neutral during scientific conversations/debates and do your best to communicate in a way that does not alienate the audience. Reserve personal opinions for time with close colleagues and friends that you know well and trust.

5. Bidirectional communication with mentors is critical for healthy career development. Pick your mentor based on not only their record of research accomplishments, but their record of mentorship success as gauged by their prior trainees' success rates. Whenever possible, seek out opinions from prior trainees and seek out mentors with an excitement about the future and your future. Form a network of both formal and informal mentors to provide you with the support as your needs change during your training.

6. Always seek advice, guidance, assistance, or intervention from your institution if you think your scientific opinion and educational stature is being undermined on the bases of sociopolitical discrimination. If undermined by a media outlet, inform your institution, express your concern, and request action be taken. Well-established institutions can set terms, limit, or completely block interviews with a particular outlet that demeans or degrades your science or your person. If your institution does not have resources for such actions, reach out to scientific societies and colleagues at well-resourced institutions for advice and intervention.

7. Always be careful when responding to emails from the general public or selecting interviews with the media. If you do not trust or know the source of an interview, be wary of hidden agendas and sociopolitical angles. Seek guidance from senior colleagues, your institution, or media communication offices (e.g., NIH or Society for Neuroscience) and report any misgivings or violations of trust by the media to avoid repeated violations by the venue.

8. When considering connecting a patient, research subject or trainee with the media, work hard to inform about all of the potential risks of communicating with journalists. One strategy is to enhance information on informed consent forms, and review consent forms

carefully for potential red flags. On a related note, be sure that you have a fundamental understanding of the angle of any interview before you agree to participate. A simple way to assess the sociopolitical slant of a particular venue is to examine the quality and depth of published work from that outlet. Patients, research subjects, and trainees have to be safe so only agree to conduct interviews with venues that are deemed meritorious. Silence feeds stigma so it is important to speak up and speak out. However, any communication must be conducted in a manner than minimizes harm to the patient, the research subject, and/or laboratory personnel.

9. When discussing controversial or contradictory results within the scientific community, it is not necessary to have a consensus. All genuine scientists conduct research in search of the truth. Differences in results will arise and we need to continue to follow the scientific method to discern the sources of discrepancies to move knowledge forward by controlling such factors. Standardizing research methods is one current approach that begins to address this issue.

10. Do not shy away from the fact that a high degree of disease co-morbidity exists with respect to different mental disorders, particularly in those with a substance use disorder. We have a large gap in our knowledge of the psychobiological bases of mental disease comorbidity due, in large part, to the dual stigma associated with a dual diagnosis. Thus, any criticism regarding a focus on dual (or more) diagnoses of different mental disorders (e.g., psychosis or affective disorders and substance use) can be flipped to highlight the fact individuals with dual or multiple diagnoses tend to receive inadequate or insufficient care and this ultimately impacts the socioeconomic status of the community. One can also highlight the importance of equity in healthcare, regardless of diagnosis.