Dear Editor:

In the early 2000s, universities staged a lecture series entitled, “The Last Lecture.” Professors were invited to reflect on facets of their lives, which often included childhood dreams, photographs, stories, and how they provided a persistent sense of meaning to their vitae. The notion of such “Last Lecture” was popularized in 2007 when Carnegie Mellon Professor Randy Pausch delivered his address but stated that his presentation was directed neither to his students nor his colleagues, but rather to his young children, to whom he wanted to impart life lessons that would be able to review in the years after his death.

Psycho-Oncology and Palliative Medicine

Storytelling, as was used by Professor Pausch, is a natural way of communicating; it plays a role in everything from legal testimony to psychotherapy. Elements of storytelling share roots with psychotherapeutic frameworks employed in the field of psycho-oncology. Meaning-centered psychotherapy (MCPT) and dignity therapy (DT) have been shown to help reduce complex psychological symptoms. Although there are abundant data on the role of these interventions for individuals with cancer, there are minimal data on their role for individuals with neurological conditions and their loved ones.

Psychoneurology and Neuropalliative Care

The nascent field, which we term “psychoneurology” or “psychosocial neurology,” seeks to identify and address psychosocial responses and existential distress of individuals with neurological conditions and their loved ones, which reflects the priorities highlighted at a pivotal neuropalliative meeting.

In the decades to come, the exploration of what psycho-oncological interventions (e.g., MCPT, DT) may be adapted for psychoneurology merits further evaluation. Nevertheless, the structure, timing, and needs of psycho-oncological interventions are likely distinct from psycho-oncological interventions. As neurological conditions often affect the cognitive, language, and emotional resources essential to coping, modifications to methods may be required. Similarly, the impact of brain disease on an individual’s volition, self-perception, memory, and identity merits consideration regarding the content and target of interventions. For example, for those affected by progressive dementing conditions, the intended beneficiaries of artifacts may extend beyond their family to also include their future self.

Vision for the Future

After the adaptation of therapies, secondary issues will be who will derive benefit and how to disseminate these approaches. As for the who, a personalized approach—rather than a best practice—will be necessary to know for whom such intervention will likely be efficacious. For the how, we anticipate modifications to the psycho-oncological tools. Looking to the future and dissemination, the construction of Internet-based technologies that apply these interventions to the neurological population may be crucial and requires evidence that they are as useful as in-person (Fig. 1).

Psychoneurological interventions could aid an individual in exploring two essential ideas. The first is a forward-looking approach (e.g., MCPT) and asks, “What can help me discover...”

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what remains meaningful and may become meaningful as my condition progresses?” The second reflects a backward-looking approach (e.g., DT) and may arise as one approaches diminished cognitive or physical capacities. This asks, “How can I develop a shared legacy and record of what I have found meaningful in life, and how can I create a unique presentation that can be distributed to my loved ones?” Personalized templates may aid with this backward-looking approach, and artificial neural networks could help mine electronic data (e.g., pictures) to assist with the curation of a legacy.

Advancing the state of the science of psychoneurology will require a commitment to stakeholder engagement, usability testing, and continuous refinement, alongside pilot and randomized controlled studies that leverage qualitative and quantitative research methods—all with an inherently interdisciplinary team-based science approach.

Authors’ Contributions

L.L.S. conceived, organized, and executed the project and wrote the first draft, reviewed, and critiqued the article. All other authors organized and executed the project and reviewed and critiqued the article.

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FIG. 1. An example timeline of when to institute psychoneurological interventions for an individual’s life given a generic neurological condition’s trajectory.