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MESSAGE FROM THE PRESIDENT

Dear ANA Family:

We hope you had a great summer and spent some quality time with your friends and family. Congratulations to all who presented at the APA convention in Minneapolis. We are looking forward to seeing you at the 51st INS North America Meeting in San Diego! Please also mark your calendars for the 2023 INS Taiwan Meeting as this will be the first INS conference to be hosted in Asia. Taipei City is a cultural hub known for its fantastic temples, museums, festivals, and cuisine and is an ideal location for the conference.

While the practice of clinical neuropsychology has a strong foothold in the United States and Canada, there is immense variability in how neuropsychology is taught and practiced across the world. Though cognitive neuroscience and psychiatry are more established, relatively few clinicians practicing in Asian countries are hired in hospitals as clinical psychologists and neuropsychologists. As such, the 2023 INS Taiwan Meeting will be an opportunity to learn, share, and initiate future collaborations with professionals from around the world. The ANA will play an essential role in establishing these personal and academic relations with researchers and practitioners.

How can we support our colleagues in Taiwan? The easiest way is to share this upcoming meeting with your colleagues worldwide. Additionally, reach out to your networks and professional organizations and inform them of the meeting. If you have research findings, practice guidelines, and innovations and advances for the field that you would like to present, please consider doing so at the conference. We would all love to see every one of you at this meeting.

In the meantime, ANA will have a physical presence at INS this year. Please stay tuned for further information on potential socials, talks, and educational seminars in the next few months! We are also pleased to announce our collaboration with TCN in having a special edition pertinent to topics for Asian and Asian American populations. Additional projects in the pipeline include formalizing our growing resource database to be hosted on our website, co-presenting at APA with HNS and SBN, and getting credentialed to provide CE credits.

We are excited to announce the development of the ANA Research Committee, chaired by Dr. Preeti Sunderaraman and with Dr. Duke Han serving as the advisor. We also want to congratulate Drs. Porselvi A.P. and Elizabeth Choi for their new positions as co-chairs of the Membership Committee; Erin Kaseda in her position as chair of the Student Committee; and Ivy Cho and Jessie Li for their recent appointments as Co-Editors of our ANA Newsletter.

We greatly appreciate the contributions of Drs. Mimi Wong, Jennifer Lai, and Jennifer Lee for their past leadership service on the Membership, Media, and Student committees.

As always, we welcome all members who want to become more involved. We are actively recruiting members to join our Membership, Media, Research, and Resource committees, as well as those with interests in contributing to our INS 2023 Taiwan task force or the forthcoming CE Subcommittee. Please feel free to contact me at nick.thaler@gmail.com if you would like more information, and I would be delighted to pass your information forward.

Sincerely,

Nicholas Shizuo Thaler, Ph.D., ABPP-CN
President of the Asian Neuropsychological Association

Christopher Minh Nguyen, Ph.D.
President-Elect of the Asian Neuropsychological Association



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Featured Neuropsychologist: Agnes Chan, Ph.D.

by Ivy Cho, M.A.

Agnes Chan, Ph.D., is a professor at the Department of Psychology of the Chinese University of Hong Kong and the Director of the Research Center for Neuropsychological Well-Being. She obtained a doctoral degree in 1995, majoring in clinical neuropsychology from the University of California at San Diego (UCSD). Her research interests include memory problems associated with mild cognitive impairment, frontal dysfunction associated with various brain disorders (e.g., dementia, autism), and innovative interventions for improving cognitive functions. She has obtained over HKD 23 million (21 million as a primary investigator) in external funding to conduct her research. Dr. Chan has published over one hundred journal articles and ten books. She has been published in Top-ranking journals including Nature. Her research has been reported on BBC, ABC, and the New York Times. She was appointed to several honorary positions, including adjunct faculty at the University of Michigan at Ann Arbor and Consultant to the Alzheimer's Disease Research Center at UCSD. Dr. Chan was also an associate editor of the journal Neuropsychology and on the editorial board of the International Journal of Neuropsychological Society. She is the author of a commonly used clinical assessment in Hong Kong, namely the Hong Kong List Learning Test.

Dr. Chan, what motivated you to be a neuropsychologist? How did you get into this career?

I was always fascinated with how people behaved, how people remembered things, and how people could be creative. When I was an undergraduate student, I was an intern in a rehabilitation center and encountered patients with aphasia. Here, I was amazed with how the brain controlled behavior, and how a person's speech would become totally impaired when a little part of the brain was damaged - this is how I became interested in brain-and-behavior relationships. Since encountering



aphasia, I decided I would like to do some clinical work and got into clinical neuropsychology.

Looking back, how has your cross-cultural journey unfolded throughout your life? How has it influenced your identity as a neuropsychologist?

As I am Chinese, I always think about how research done in Western countries can be applied to Asian countries or Chinese [culture] more specifically. As we know, there are a lot of discrepancies between alphabetical language and logographic language, and cultural differences as well. For example, we know that from research conducted in Western countries, there is left hemisphere dominance for language, and we often see that those with left hemisphere damage will become aphasic. We did a study in those with left

hemisphere, right hemisphere, and bilateral hemisphere damage using the Boston Naming Test in a Chinese population. To our surprise, language impairment was the same on the Boston Naming Test for those with left, right, and bilateral hemisphere damage. This could be related to our language or could be related to our culture. Clinically, we also see that those with right hemisphere damage also have language problems, which could be related to the logographic language we are using. Therefore, what we understand about left hemisphere dominance in the Western countries does not [always] directly translate to what we see in a Chinese population.

Who were your most influential mentors as a trainee?

Without a doubt, Dr. Nelson Butters. He inspired me on how to be a clinician and how to conceptualize research. He was an outstanding clinical neuropsychologist specializing in dementia until he passed away. I miss him a lot.

Are there nuggets of wisdom that he taught you as a trainee that you would like to share with our readers as well?

Doing clinical work is very different from doing experimental work. Often, when we do clinical work, we are thinking about how our research will benefit our patients and how it will be clinically significant. Therefore, doing research is not just about publishing a paper. Research is about improving quality of life, expanding the lifespan, or helping those who have a disease to live better. This has been my goal with doing research. How does my research translate to daily life? How can my research be a useful learning tool for the public? I think this is the essence of research.

You are the author of a commonly used clinical assessment in Hong Kong - the Hong Kong List Learning Test. Can you tell us a bit more behind the development of this test and the challenges you faced while creating this test?

The Hong Kong List Learning Test is a test inspired by the Rey Auditory Verbal Learning Test. Although this test is inspired by the Rey Auditory Verbal Learning Test, I believe it also has some improvements. While the Rey Auditory Verbal Learning Test only has a randomized list, The Hong Kong List Learning Test has two lists: a randomized list and an organized list. I developed the organized list because I had rehabilitation on my mind. When we are talking about memory learning or memory training, we often talk about categorization, or grouping things, so that people can learn more easily. However, in the clinic, we know that organization strategies will not help certain patients, especially those with frontal lobe problems. So, I created two

lists, and indeed we see that organization only benefits certain patients, and repetition benefits other patients. Therefore, through this assessment we can develop an intervention that is more tailored/more precise. Some [patients] benefit from repetition and some [patients] benefit from categorization - this is the uniqueness of Hong Kong List Learning Test. Another uniqueness of the Hong Kong List Learning Test is a 10-minute delayed recall, which most of the list learning tests developed in Western countries do not have. This 10-minute delayed recall turns out to be a very sensitive index for detecting older adults with mild cognitive impairment (MCI) or pre-clinical MCI. We are not only translating things from Western countries, but we are also developing our own concepts, which I think can improve our existing assessment tools and indeed it has. The Hong Kong List Learning Test is one of the most used assessment tools for the Chinese population, not just in Hong Kong, but also in Singapore and the United States (including by groups in San Francisco and New York).

Could you tell our readers more about the use of the Hong Kong List Learning Test in a rehabilitation setting?

There are many memory training manuals talking about categorization. You can use categories and hope that this will help patients remember better, but that does not seem to be the case for some populations. For instance, for patients with temporal lobe amnesia, the problem is not about categorization but about consolidation. Such patients cannot consolidate what they have learned; it does not depend on how they register the information. Therefore, repetition or implicit learning may be better strategy for them. However, for other populations, including those with memory problems associated with mood or people with organizational difficulties, these populations can benefit from categorization, using grouping strategies to help them remember. This is how the Hong Kong List Learning Test applies.

Was this inspired by your clinical work and the patients you were working with?

It was also inspired by the literature. In the literature, we understand that some people with frontal dysfunction have organizational difficulties and source memory problems. However, once you help them learn or they undergo frontal lobe training, their memory can improve. This is because their memory problems are not necessarily due to registration and consolidation, but instead how they learn. Patients have intrusions and are distracted by intrusions, so we cannot have the same type of rehabilitation program for those with frontal lobe type memory problems and those with temporal lobe type memory problems.

Were there any challenges you faced while creating the Hong Kong List Learning Test.

We faced a lot of challenges. First, we did not have funding. When I first returned to Hong Kong 30 years ago, people did not know what neuropsychology was and why we needed it. At the time, people were using Western tools and only translating them, which also meant copyright issues.

We collected data from many volunteers, including undergraduate students, graduate students, schools, and hospitals. We developed norms for those ages 7 to 70 years old (norms for the young to the elderly). However, we had difficulty getting people to accept the test and [understand] why they needed to use it. People had questions about the norms and whether the test was ecologically valid. We used the test on our own for many years and published many papers on Alzheimer's disease, temporal lobe epilepsy, and individuals with autism. After a while, people started to look at the Hong Kong List Learning Test and the research publications. [At the same time], there was also a policy movement, where hospitals were no longer allowed the use translated tests without proper copyright permissions. People then began to use my test as they could use it in a proper copyright setting. People started to say, "it is good" and how the norms were local. Now, not only do all public hospitals in Hong Kong use this test, and I think this is my contribution to local health care, but all seven universities in Hong Kong and a university in Singapore have since purchased our test. So, if one wants to study a Chinese population, one says "Hong Kong List Learning Test." However, test development itself took us more than ten years. In addition, this test is not making any money because we are selling it for 200 Hong Kong dollars, which is about 30 USD for registration, and 50 cents for each copy. [Nevertheless], my goal is to ensure that everyone can afford to use this test, so for that reason I am happy. If you make a measure too expensive, people cannot afford it. So, that is how a scientist conceptualizes a business approach, versus a businessperson - if it becomes too expensive, its utility becomes limited.

As with all our neuropsychological measures, performance is linked to function in its neuroanatomical correlates. I wonder if you can shed some light to what the neuroanatomical correlates are for the Hong Kong List Learning Test?

The Hong Kong List Learning Test has two lists; a randomized and an organized list. The two lists differentiate people with temporal lobe amnesia and frontal lobe amnesia. For those with temporal lobe amnesia, they will perform similarly on the randomized and the organized trials, but those with frontal lobe amnesia will do much better on the organized trials than

the randomized trials. This is one of the key differentiators between frontal and temporal lobe amnesia. These findings provide insight into the type of memory training for the client.

Where do you see the direction of the Hong Kong List Learning Test heading in the future?

We have been moving towards online assessments, reducing manpower and increasing productivity. We are trying to work using AI, having voice recognition, and doing it automatically without much manpower, but we still have a long way to go.

One area of your research is the use of photobiomodulation to improve cognitive function. Can you tell us a bit more about this novel non-invasive technique and the underlying mechanism for why this works?

Photobiomodulation is not novel, it has been used by NASA for 20-30 years and has been used to reduce pain, heal wounds, and applied as a treatment for cancer. Photobiomodulation works at the mitochondrial level and increases ATP, and this is exciting if it means we can improve the mitochondria and ATP in brain cells. Researchers at universities like Boston University have begun to apply photobiomodulation in traumatic brain injury (TBI). The results are quite encouraging; patients with severe TBI were able to return to work after several weeks of photobiomodulation. I also realized that photobiomodulation relates to acupuncture, which was first used for laser acupuncture to stimulate an acupuncture point. The professor at Boston University said he was inspired by laser acupuncture and moved onto photobiomodulation. We have also applied photobiomodulation in older adults with memory problems, and we see some very encouraging results. However, I think photobiomodulation is still in the very early stages. I do not think it is ready yet to be massively applied without understanding the right dosages and side effects.

What have been the biggest positive changes you have seen in relation to cultural neuropsychology over the years? Contrastingly, what do you believe are the weaknesses that have yet to be addressed or remedied in neuropsychology, both in our clinical work with patients and in research?

We have seen more Asian people interested in neuropsychology or developing neuropsychology.

I cannot say it is a weakness, but I think there is a lot to be done because the brain is so complicated. Through recent advancements, we can see through the brain using fMRI and now fNIRS, so we must make use of neuroimaging to help us understand brain-and-

behavior.

However, the key is the clinical value of the research that we do. When I think about clinical work, I hope research will be more clinically relevant and significant. We read a lot of research and we say it is interesting, but then what? I think clinical research should be translatable and make a difference in changing the world. I am not saying fundamental or theoretical research has no importance. What I am saying is that when we are talking about clinical neuropsychology or work related to clinical neuropsychology, I hope to see that more work can be translated to clinical practice or have significant clinical value.

For trainees interested in conducting research and clinical work in countries outside of their trained countries/universities, do you have any advice or suggestions to better tailor their training experience for this goal?

First, you need to know the language of the country you want to go to. I think clinical work is limited by language proficiency. If you don't know Cantonese, you cannot get clinical practicum experience in Hong Kong because the clients speak Cantonese. When I was in the United States completing a practicum, clinical experience was also a challenge because they said my English had a Chinese accent. It was not that I did not know the language, but it was because I had an accent and that made it a challenging time for me. You should then get familiar with the University and find out if the University has a program. It is much easier to get clinical research experience than it is clinical experience in countries other than your original country. You should also identify a mentor you want to work with and approach them if they can arrange something with you. I think having cross-cultural training is a very good experience as you are exposed to new ideas, new horizons, and new perceptions.

How can ANA support your work and research? Are there any suggestions you would like to share with our early and mid-career readers?

I appreciate that ANA has interviewed me and will share my work with other neuropsychologists. If people are interested in the Hong Kong List Learning Test, you are welcome to use it.

To those who are early and mid-career researchers: Believe in yourself and if you think that what you are doing is meaningful, just do it. It is not easy being a researcher; it is not easy being an Asian

neuropsychologist, but it is fun. A lot of places do not have many neuropsychologists, and you can develop your own niche, just like how I developed the Hong Kong List Learning Test (although it was not easy and had no funding). At first, no one knew what I was doing. Now everyone says, "Hey, it is pretty good!" So, as I said, if you think what you are doing is good and meaningful, just do it. Do as much as you can. It does not matter how long it takes for you to achieve your goals; it matters that you continue moving forward until you reach your goal.

Featured Neuropsychologist: Preeti Sunderaraman, Ph.D.

by Jas Chok, B.S.

Preeti Sunderaraman, Ph.D., is a licensed clinical neuropsychologist who received her PhD from Drexel University and completed her neuropsychology internship at Mount Sinai Hospital in New York City. Before joining the faculty at the Boston University School of Medicine in July 2021, she completed postdoctoral training at Columbia University Medical Center. She has been actively involved in leadership positions in various committees including Chair of ANA's Research Committee, Science Officer of the Early Career Neuropsychologist Committee, core-member of the Asian Indian committee of neuropsychologists, committee member of the International Neuropsychological Society's Awards committee, program chair of the Teleneuropsychology and Digital Technologies Special Interest Group (part of INS), and the National Academy of Neuropsychology's Clinical Research Grants Committee. Dr. Sunderaraman has obtained several federal- and foundation level grants including NIH/NIA's (K99/R00) Pathway to Independence Award, NIH/NIA's Ruth L. Kirschstein Postdoctoral Individual National Research Service Award (F32), the Foundation for Rehabilitation Psychology's Dissertation Award, and the National Academy of Neuropsychology's Clinical Research Grant. She has published several peer-reviewed articles and book chapters in highly rated journals. Her primary areas of work are focused on financial decision making and financial awareness, investigating precision brain health using digital technology, and characterizing cognition in individuals of South Asian descent.



Dr. Sunderaraman, what motivated you to be a neuropsychologist? How did you get into this career?

My journey begins in India, where I was born in Kolkata and raised in Mumbai. Mumbai a very a busy metropolitan city that has over 20 million people living with enormous diversity. After completing my Bachelors in Psychology and Masters in Clinical Psychology from the University of Mumbai, I worked as a psychologist in India evaluating children and adults with a range of disorders including epilepsy and Parkinson's disease. The rules are now changing in India but back then — more than a decade

ago — once one obtained a Masters degree in psychology, they could practice as psychologists. Predominantly, I was seeing patients with epilepsy, with Dr. Urvashi Shah, who is one of the leading neuropsychologists in India. She motivated me to get trained in neuropsychology, and so I went to The National Institute of Mental Health and Neurosciences (NIMHANS), one of the institutes in India where you can get training in this area.

After completing my training, I got the opportunity to conduct neuropsychological evaluations and realized that this is my calling. As much as I enjoyed the practical application of my work, at the time I also realized that research in India was not as strongly supported by the federal government or by private foundations as it is in the United States. To realize this aspect of my dream, in the United States, I started out as a research volunteer, and then as a research assistant at Columbia University Medical Center. The faculty at Columbia University, Dr. Stephanie Cosentino, Dr. Adam Brickman, Dr. Jennifer Manly, Dr. Yaakov Stern — all giants in our field — helped make my application to graduate school strong, and that very year I got into a graduate program at Drexel University. At Drexel, Dr. Maria Schultheis took me under her wing and mentored me. That is how my neuropsychology journey evolved in the United States. In my case, it has been quite a long and atypical journey.

What cultures do you identify with? There are different regions in India so I was wondering if you could tell me a little bit more about that?

India is a cultural hotspot! We have 22 official languages; each state has their own cultural nuances with the way people speak, behave, dress, and eat. Just by traveling from one state to another you will literally "see" these differences. The place I grew up in, Mumbai, is pretty westernized. As it is the financial hub of the country, it has a mix of people coming from various regions, across various financial strata, and speaking various languages, predominantly Hindi, Marathi, and English. As a psychologist I worked in both government and private hospitals meeting people with extremely limited literacy and resources, while also evaluating those with very high level of education. In the US, I have also worked with people from diverse cultures and immigration status. It is very hard to answer this question in a simple manner given that I identify with both the Indian and US cultures.

Looking back, how has your cross-cultural journey unfolded throughout your life/career?

It has been a long and tough journey at several levels. In India, I was comfortable with my journey and did not question my identity. In the US, as a graduate student, I had amazing mentors and friends. However, I was identified as a "minority" and that felt strange and alien to me. Historically, the context was different for me as I did not have negative experiences in India based on my ethnic status. In the US, it was also surprising as my friends in medicine were not identified as a "minority", while in psychology I was. Clearly, this label was not matching up with my personal experiences in India and was inconsistently used in India. Perhaps, it might have been clearer to identify me as an 'immigrant' as that would have been true at that time. As a graduate student in the US, I also did not find anyone else like me; I felt like an unicorn with my looks and accent.

The formation of ANA was one of the major turning points in our field as it brought together neuropsychologists of Asian descent along with our other sister organizations such as HNS, SBN, and the Queer Neuropsychological Society. I have developed some deep friendships and my gratitude goes to ANA. The increased awareness of diversity-related and socio-cultural issues has highlighted that neuropsychology needs to keep moving forward in this regard.

As an international student studying in the United States, what were some things (e.g., mentors, factors, communities, interactions) that were helpful in adjusting to that transition in graduate school and work/practicum experience?

My transition was and continues to be primarily influenced by a lot of special people I have been fortunate to have met. As a graduate, my family, especially my husband, was instrumental in supporting me both emotionally and financially. My mentor, Dr. Cosentino believed in me and convinced me to follow my dreams. In graduate school, Dr. Schultheis taught me to think of the "big picture" and of the "so what" to whatever research idea I generate. At every step of the journey, I have met friends who get me and are there for me.

What might you consider doing differently based on what you learned throughout your career?

It is hard to say what I would have done differently because then I would not be where I am now. My specific experiences have given me a unique perspective and continue to define me.

How has your path changed from what you expected as you gained more experience?

I do not think my path really changed, rather it has evolved over the years and has been rewarding. I was determined to be a neuropsychologist focused on conducting research. Since graduate school I have been wanting to do work on everyday decision making. Throughout my career transitions, that idea has become more nuanced and multifaceted as I research deeper into this question. Currently, my primary focus is on investigating financial decision making and one's awareness about the ability to make such decisions. With digital technology, I am merging these areas in exciting ways and hope to take our assessment of this functional ability to the next level.

What has been the biggest evolution you have seen in relation to cultural neuropsychology?

There is now an increased recognition that individuals from different cultures are all unique and equally valuable. This recognition has given rise to organizations like ANA, SBN, and HNS. Alongside, more educational centers and workplaces are accepting individuals from various backgrounds, while putting less emphasis on GPAs per se. Funding agencies are now spotlighting the sociocultural determinants of health, which includes contextual and cultural issues. These are some of the biggest changes in the United States.

The globalization of research in neuropsychology is happening via technology. For example, at Boston University, I work with colleagues who are collecting data via smartphone from individuals from various parts of the world. Such efforts are set to

create a more universal understanding of brain health.

In contrast, what and in which direction do you think that we as a field need to continue working on to improve?

The first is adopt the mantra of team science and work cohesively towards some common questions that are relevant to the field. For example, if we want to collect norms on a screening instrument, we can have different communities such as researchers within ANA come together to work towards a common goal.

Within ANA, we now have the opportunity to collect data from different Asian cultures on the same instrument using a very standard approach and then comparing and contrasting it on an item-by-item basis. Although challenging, there is a lot of scope for such an approach. The second is to have more global efforts. Given the degree of globalization, it is now possible to bring together researchers from different countries to investigate various questions. Such efforts will automatically make us examine brain health from multiple perspectives, including environmental, sociocultural, and other background influences.

You have obtained several NIH and NIA grants, what advice could you give for those applying to these types of grants? Or any grants?

I believe that there are two key factors that you must have within you -- motivation and persistence. If you are excited to do research, then you have the first key ingredient to be successful. Second, is to not give up if you don't get funded the first, second, or even for the nth time. Even the most experienced professionals with a fantastic track history do not always get funded. And yet they keep going!

Another piece of advice is to seek mentors you know who can support you in your journey. At every stage, you will build on your team and over time depending on your interests and career stage you will find groups to collaborate with.

You have such an impressive research background and career trajectory. How did you get involved in research?

In graduate school I did my thesis on everyday decision making in young adults, which involved studying aspects of health, nutrition, and finances. However, I realized that the topic is too broad to study as each aspect could be its own research question. As I began to think of what aspect of decision making I wanted to hone in on, I began working as an extern in a community based center for those with moderate to severe brain injuries. There I came across individuals who lost

money in the blink of an eye, for example, due to making purchases online or by spending money on video games. Such examples were deeply troubling to the family members. I realized then that I wanted to study financial decision making in an everyday context. From then on, I have been building a programmatic line of work examining this aspect of decision making in those with brain injuries and then expanding this application to older adults and for those with neurodegenerative diseases.

What pieces of advice do you have for individuals who want to get involved in research?

You can try different approaches. One is to try to write a smaller-level grant and reflect on whether that experience seemed rewarding to you. If you like it, then apply for another grant, a larger grant perhaps, and make career decisions with a research-based agenda. I wrote a grant to get funding for my research and also applied for a dissertation award during graduate school. I felt rewarded after receiving them. Then, for my postdoctoral training, I choose a research focused program and wrote a major NIH grant (the F32 Ruth L. Kirschstein National Research Service Award (NRSA) which jump started my career. I then obtained another major NIH award - the K99/R00 Pathway to Independence Award as a Research Associate Scientist. After that research became my primary focus.

Another way in which you could get involved in research is to try and work with established researchers and work on papers with them. An alternative is to join communities like ANA or various SIGs and attend meetings regularly. This will help you learn of opportunities that are available within that organization or SIG.

What would you like others who are starting graduate school to know about the most rewarding and fulfilling part about the work you do?

Conceptualizing a research question and then trying to answer it involves thinking like a detective. It involves careful deliberation of why this question is important to answer and how and whom will the findings impact. This continuous quest to understand the research question in the most comprehensive manner is what seems most exciting to me.

How have you worked in incorporating self-care into your life? What does it look like these days?

I like to spend time with my family as it helps me de-stress. I try to stay away from work on weekends and holidays. During hectic days, I try to schedule 5 to 15 minutes of "me time" where I do activities such as deep breathing to

reenergize myself.

Do you have any tips or words of wisdom for current graduate students and mentors?

I would strongly encourage graduate students to be proactive and reach out to people who you are interested in knowing more or collaborating with. Whenever I have reached out to people, I have always had a warm reception. I would totally do the same if you were to reach out to me!

Another suggestion is to join organizations like ANA because it helps build your network outside of your graduate school. Volunteer in various professional organizations' committees and meetings. These experiences teach you the operations of an organization and helps you gain the leadership experience. Doing service for our field and the community has a lot of value, and I feel an immense sense of pride to have contributed to the community. As a mentor, I would behoove you to be sensitive to who is reaching out to you and to try and give them your time to make it a lasting and meaningful relationship. Have a frame of reference about what mentorship involves. The recent special issue of Journal of Clinical and Experimental Neuropsychology has excellent articles on this topic, such as the article on mentoring those of Asian descent (Rehman, Irani, Cheung, Tan, Madore & Sunderaraman, 2022).

How can ANA support your work and research? Are there any suggestions you would like to share with our early and mid-career readers?

My primary research, funded by NIH's K99/R00 award, focuses on financial decision making and financial awareness (i.e., awareness of one's own financial abilities). I am developing an online money management tool that is both modern and objective. As a field we do not have strong functional assessments and I hope to make this clinically relevant while at the same time trying to investigate factors contributing to these aspects of our functioning. A huge aspect that goes into developing these kinds of tools is the participants from whom the data is collected. Biased sample can bias the psychometrics. I am hoping that via ANA I build active collaborations and study financial decision making in diverse Asian communities to better inform the psychometrics of this tool.

Another passion of mine has been to examine the various cognitive, social, and physiological phenotypes of Asian Indians. Similar frameworks can be applied to Asian communities within ANA. It would be awesome for ANA to develop an infrastructure to help form bridges and collaborations among different researchers.

Reference: Rehman, S. S., Irani, F., Cheung, A. M., Tan, A., Madore, M. R., & Sunderaraman, P. (2022). "The journey of a thousand miles begins with one step": An Asian American perspective on mentoring in neuropsychology. *Journal of Clinical and Experimental Neuropsychology*, 44(5-6), 409-419.

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Dr. Sunderaraman's list of published works and similarly relevant research projects can be found on her academic profile page at: <https://www.bumc.bu.edu/busm/profile/preeti-sunderaraman/>.

Research Highlights

by Ivy Cho, M.A., Jessie Li, M.A., Sonia Rehman, M.S. and Jas Chok, B.S.

Readers will find direct links to the respective articles by clicking on article titles.

1. Alternative methods for grouping race and ethnicity to monitor COVID-19 outcomes and vaccination coverage

Data about race and ethnicity aid in equitable distribution of COVID-19 protective measures and the monitoring of outcomes. As such, the authors in this study aimed to create alternative methods for categorizing race and ethnicity. Yoon et. al. reviewed the CDC's current method of categorizing race and ethnicity, which prioritizes ethnicity such that individuals with reported Hispanic ethnicity are grouped as Hispanic, regardless of their race, and individuals with missing ethnicity are excluded even if race is reported. They also reviewed two alternative methods that used race when ethnicity was unavailable. Method A grouped individuals by reported race and non-Hispanic, unknown, or missing ethnicity were grouped as a non-Hispanic race category. In method B, race and ethnicity groups were not mutually exclusive.

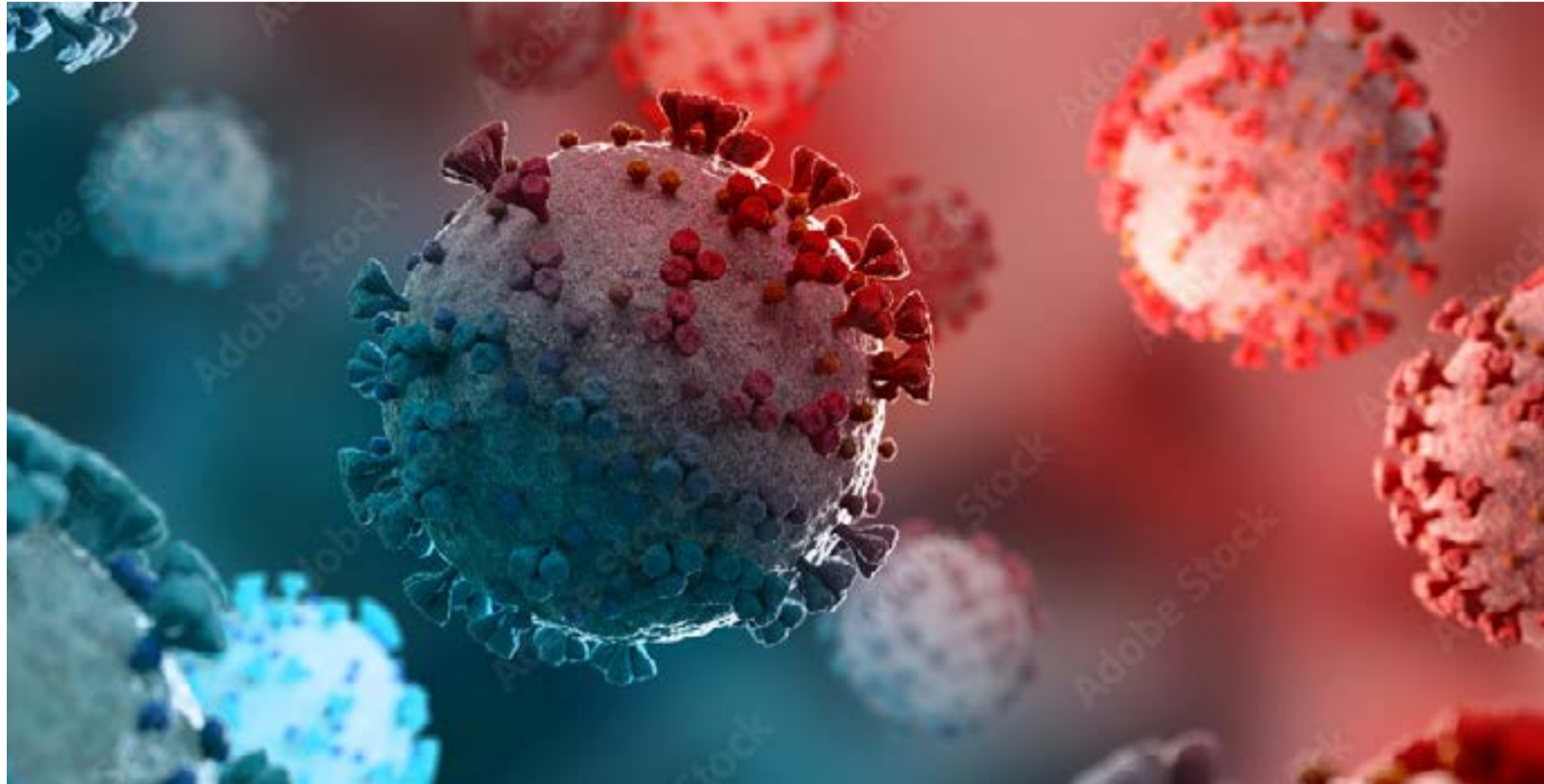
Results indicated that use of these alternative methods resulted in higher infection and vaccination incidence due to the inclusion of individuals with unknown or missing ethnicity. Method A increased case counts approximately 16.6-37.2% higher across race groups. Method B demonstrated a 25.7-58.5% increase in cases from the current method. The authors concluded that alternative methods of grouping race and ethnicity are likely to lead to alternate interpretations of disparities across groups.

Because of this, they emphasized the importance of working with experts to determine appropriate analysis of data when race or ethnicity data are missing.

2. Cognitive deficits in people who have recovered from COVID-19

Currently, there is a dearth of information for cognitive consequences of COVID-19 and its prevalence. One such phenomenon is "Long-COVID," which refers to symptoms that persist after the initial illness of COVID-19.

Due to the lack of information, the authors of this study sought to confirm the impact of post-COVID-19 infections on cognitive performance (obtained from the web-optimized assessment part of the Great British Intelligence Test) from 81,377 participants who resided predominantly in the UK. Of these participants, 21,689



©Adobe Stock. Microscopic close-up of the COVID-19 disease

(26.65%) reported experiencing COVID-19, with differing respiratory severities. Concomitantly, researchers analyzed data gathered from a self-report questionnaire inquiring about demographics and COVID-19 infections (e.g., suspected and confirmed COVID-19 infections, respiratory symptoms).

The assessment included the following measures: Block Rearrange; Tower of London; Digit Span; Spatial Span; Target Detection; 2D Mental Rotations; Analogical Reasoning; Rare word Definitions; and Face Emotional Discrimination. Additionally, to minimize biased recruitment of individuals who believed to have cognitive problems from COVID-19, study advertisements did not mention COVID-19.

Results revealed that the most prominent deficits involved complex cognitive functions (i.e., reasoning, problem-solving, spatial planning, and target detection). The results concurred with past findings of "Long-COVID" symptoms, including subjective complaints of "brain fog," trouble concentrating, and word-finding difficulties. Additionally, deficits varied according to the severity of respiratory symptoms and level of treatment received, and untreated confirmed versus suspected cases of COVID-19. For example, hospitalized and ventilated individuals reported increased deficits than those with respiratory symptoms without hospitalization and ventilators.

Given these findings, the authors urged future research and longitudinal exploration of COVID-19 infections to determine recovery trajectories and the biological basis of cognitive deficits.

3. Cognitive impairment after COVID-19 - A Review on Objective Test Data

There is currently no published literature reviewing cognitive impairment following COVID-19 using solely *objective* neuropsychological test data. Therefore, the authors aimed to conduct a literature review on objective cognitive impairment in COVID-19 recovered patients. Research studies (conducted between January 2019 and February 2021) were selected if they met the following criteria:

- (1) used at least one neuropsychological test to measure cognition;
- (2) reported the exact test score or that patients were below or above a cut-off score;
- (3) patients were tested following the acute phase of infection either directly or remotely through tablets, phone, or video calls;
- (4) COVID-19 diagnosis was confirmed through the WHO COVID-19 criteria or laboratory test.

From the 954 references identified from the initial search, 12 studies were included in

the authors suggest that patients *could* experience cognitive impairment, including deficits in attention and executive function. They recommended cognition continue to be assessed in those diagnosed with COVID-19. Finally, they shared how these findings have important implications in how clinicians move forward to implement neuropsychological rehabilitation/interventions in patients following COVID-19. Future studies should continue to investigate the impact of COVID-19 on cognition with larger sample sizes using standardized assessment tools.

4. Integrating culturally informed qualitative data in neuropsychological evaluations of non-native English speakers

In light of the increasingly diversifying patient population, the authors of this review—Drs. Shifali Singh, Jason Soble, and Ms. Elizabeth Hamilton—sought to highlight and contextually challenge three main concerns in evaluating patients who speak English as a second language (ESL):

- (1) The existing assumption that normative test data is interchangeable for all ESL patients speaking the same language;
- (2) Availability and appropriateness of normative data across different nationalities, and;
- (3) Insufficient awareness of sociocultural factors commonly accompanied by language differences that can impact test performance (i.e., cultural covariates).

First, they stated that a prerequisite to a successful evaluation is to approach all evaluations with introspection and humility; being mindful of the clinician-patient similarities and differences, educating themselves about the patient's culture, and taking steps to ensure that recommendations are culturally appropriate. Next, they

recommended that clinical interviews be conducted in a standardized manner across clinicians and ESL individuals, with a handful of targeted culture-based questions to reduce cultural bias and increase evaluative validity. Third, they also recommended measuring level of assimilation—a strategy for acculturation—by using a standard measure prior to cognitive testing, to guide decision making on test administration and recommendations. Fourth, the authors recommended that clinicians educate themselves and increase awareness of the patient's cultural conceptualization of intelligence (e.g., level of motivation being synonymous with intelligence among Cambodian, Filipino, and Taiwanese first graders in San Jose, CA). They also provided and recommended a decision tree to systematically proceed through the decision-making process in a neuropsychological evaluation (see original article). Finally, they acknowledge that strong pressure for a shift in neuropsychological evaluations of non-native English speakers may have unintentionally discouraged incremental change. They emphasize that change is slow and arduous, and encouraged those in the field to persevere.

5. Diagnosing prosopagnosia in East Asian individuals: Norms for the Cambridge Face Memory Test - Chinese

While the Cambridge Face Memory Test (CFMT) is well-known as a valid and reliable tool in diagnosing prosopagnosia, it includes only Caucasian faces. In this study, researchers aimed to explore the viability of the Chinese version of the CFMT in diagnosing prosopagnosia for East-Asians and to provide large-sample norms for "healthy" individuals in this population. The CFMT-Chinese is structured and administered in the same way as the Caucasian CFMT.

Researchers tested 306 East or South East Asian university students with heritage from countries such as China, Japan, Singapore and Malaysia. Researchers separated them into living-in-East (living in China with no lifetime experience in the West) and living-in-West (living in Australia) groups based on recruitment to consider location impacts. To assess differences between groups, researchers explored distribution of scores.

Results demonstrated high reliability for the full norm sample ($\alpha = 0.86$), and normal distribution of performance, allowing for use of 2 standard deviations value as the cut-off for clinical significance. Based on this cut-off, an individual score of 39 items correct or less would indicate probable prosopagnosia. Impairment due to chance was nearly 4 standard deviations below the mean, suggesting test sensitivity to severity of prosopagnosia. Researchers found significant gender differences, such that females tend to



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Research Highlights

(Continued)

perform better than males. Age effects were insignificant, though researchers emphasized that their sample included only young adults. Researchers also analyzed response times and suggested that participants with average response times under 1000 ms may not be giving adequate effort. Performance in the living-in-East group was significantly worse than the living-in-West group, and researchers hypothesized a relationship with personality traits such as social anxiety and introversion/extraversion, based on literature that states a relationship between these traits and facial recognition.

Researchers concluded that the CFMT-Chinese is a suitable measure for diagnosing prosopagnosia in East Asian individuals, and that a score of ≤ 39 is indicative of prosopagnosia. Researchers conclude that their full-sample norms are appropriate for use for adults or near-adults who have lifetime experience with East Asian faces between the ages of 17 and 50 with a broad range of intelligence and education levels. Researchers emphasize the importance of not depending on the CFMT-Chinese as a single determining factor of prosopagnosia diagnosis, and to rely on additional information.

6. The 32-Item Multilingual Naming Test: Cultural and linguistic biases in monolingual Chinese-speaking older adults

The Multilingual Naming Test (MINT) is a picture-naming test developed to measure bilingualism and naming abilities in English, Spanish, Mandarin, and Hebrew speakers. Despite the inclusion of the 32-item MINT in annual cognitive evaluations at Alzheimer's Disease Research Centres (ADRC), the psychometric properties of the Chinese translations of the MINT have yet to be investigated. In this study, 67 monolingual Chinese-speaking older adults (61.2% Mandarin speakers, 38.8% Cantonese speakers) completed the Chinese translated version of the MINT as part of their standard dementia evaluation at the ADRC at the Icahn School of Medicine and Mount Sinai in New York. Scoring was either "rigorous" (based on the responses provided by the National Alzheimer's Coordinating Center Uniform Data Set) or "lenient" (accurate responses based on the participant's region of origin). Although the MINT was sensitive in distinguishing between older adults with dementia and MCI (lenient scoring, $p = 0.021$; rigorous scoring, $p = 0.006$), the test was not sensitive in distinguishing between older adults with MCI and older adults with normal cognition. Moreover, analysis

of the individual items found that the items *funnel*, *witch*, *seesaw*, and *wig*, were not ordered in increasing difficulty for monolingual Chinese speakers. Lastly, the items *witch* and *gauge* were culturally biased (e.g., semantic within category errors), and the items *porthole*, *anvil*, *mortar*, *pestle*, and *axle* were found to be of low familiarity. The authors thus surmised that performance on the Chinese translated version of the MINT may be impacted by cultural and linguistic biases.

7. Comparison of Montreal Cognitive Assessment in Korean Version for predicting mild cognitive assessment in 65-year and over individuals

Timely detection of neurological diseases is a significant challenge for the aging population worldwide. However, neuropsychological tests can play a critical role in early identification of these conditions, including mild cognitive impairment (MCI). In this cross-sectional study, Song and colleagues assessed the validity and reliability of two Korean versions of Montreal Cognitive Assessment (MoCA; namely MoCA-K and MoCA-K2) by comparing them to the MMSE-K. Both versions of MoCA have minor differences in screening questions due to cultural and linguistic variations within Korea. This study included 185 participants, aged >65 years, and mostly females (N=122). All participants completed MoCA-K2, MoCA-K, and MMSE-K within a three-day interval.

Results show that the reliability was highest for MoCA-K (0.929) and lowest for MMSE-K (0.774). The mean scores for MoCA-K, MMSE-K,

and MoCA-K2 were 22.37, 25.29, and 21.96 respectively. Researchers considered 24 as a cut-off for MMSE-K in identifying cognitive impairment due to its extensive empirical support for the Korean population. The sensitivity and specificity of the MoCA-K was 77.0% and 78.0%, respectively, whereas it was 68.9% and 80.0% for MoCA-K2.

Song and colleagues thus surmised, based on statistically significant findings, that cultural and linguistic adaptations are necessary to utilize an English language tool in non-English speaking countries. The reliability and validity of the MMSE-K has been investigated since 1989, thus it has a wider empirical foundation but MoCA-K and MoCA-K2 are also appropriate and reliable measures to screen for MCI. However, MoCA-K has superior sensitivity and specificity. Researchers also caution that their use of MMSE-K cut-off score to analyze their results is based on the assertion that MMSE-K can distinguish cognitive impairment, which may not be definitive.



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Presentations by ANA Members at INS

by Sonia Rehman, M.S.

Wednesday, February 2, 2022

Symposium 12: The Future of Neuropsychology: Applications of Innovative Technologies
Discussant, Chair & Presenter: **Michelle Chen**
Presenters: Shifali Singh, Samad Amini, Silvana L. Costa

Symposium 13: Show Me the Money: Grantsmanship for the Early Career Neuropsychologist
Discussant: **Preeti Sunderaraman**
Chair & Presenter: Shanna Cooper
Presenters: Benjamin L. Brett, J.Cobb Scott, Andrea Weinstein

Early Career Award Presentation: Technology for Resource Optimization: TAM Battery, a Neuropsychological Patient Management System
Presenter: **Porrselvi Ammaippan Palanisamy**

Symposium 02: Assessment and Management of Apathy: A Transdiagnostic View
Chair & Presenter: Fiona Kumfor
Presenters: Stephanie Wong, Travis Wearne, **Halle Quang**

Paper Session 02: TeleNP
Presenters: Megan E O'Connell, Michelle E Fox, Hannah Wilks, Joshua T Fox-Fuller, Natasha N. Ludwig, **Rowena Ng**

Thursday, February 3, 2022

Symposium 06: Highlighted SIG - Neuropsychological Test Translation, Adaptation, and Development: Lessons learned from Africa, Australia, Europe, South America, and South Asia
Discussant: Lingani Mbakile-Mahlanza
Chair: **Tedd Judd**
Presenters: Jean N Ikanga, Shonimá Gangaram-Panday, **Porrselvi A. Palanisamy**, Mathew Staios, T. Rune Nielsen

Paper Session 09: Neuroimaging
Presenters: **Preeti Sunderaraman**, Janelle T Foret, Lauren Edwards, Patrick Lao, Indira C Turney, Cristina A. F. Román

Friday, February 4, 2022

Paper Session 12: Infectious Disease
Presenters: Pariya Fazeli Wheeler, Rowan Saloner, Eric J Waldron, **Rowena Ng**, Laura Hokkanen, Nicolás Corvalán

Paper Session 13: Cultural 2
Presenters: Marnina B Stimmel, **Eleni A Kapoulea**, Karen A Dorsman, Ana J Ramos-de Jesus, Kayla S Walker, Stephanie Torres

Committee News & Highlights

In the spirit of building a strong community and desire to provide a space for members to learn and be empowered to participate more with ANA, we will be including a section highlighting updates from each ANA committee. We hope to use this section as a way to facilitate information and participation in our ANS community, so that *everyone* has access to a seat at the table.

Education Committee

The ANA Education Committee welcomes all inquiries at anaeducationcomm@gmail.com. This account is routinely checked by all ANA Education Committee members.

Description of your committees' mission, duties, and how to join:

We will be circulating recruitment emails on the ANA listserv in the coming months as we approach the end of our 2-year term. Stay tuned on the ANA listserv. Other information that addresses your questions may be found on the ANA's website <https://the-ana.org/meet-the-education-committee/>.

Anything of relevance, including updates about ongoing projects/initiatives: We are working on ANA's application to become an APA-Approved Sponsor of Continuing Education for Psychologists. Stay tuned.

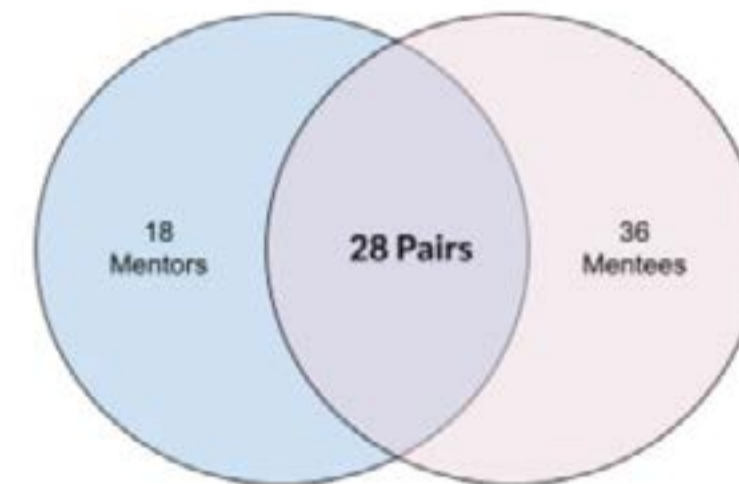
Sharing of resources: Past webinar recordings may be found by logging into your ANA online account.

Recruitment notices for projects: We will be circulating notices on the ANA listserv in the coming months to recruit Education Committee members and mentors. We are also expanding the mentorship program to include early career members as mentees. We are also looking for more mentors to mentor on ABPP board certification and research.

Proud to Announce the ANA's Inaugural Mentorship Program!

The ANA Education Subcommittee established the mentorship program in 2020 in order to reduce the underrepresentation of Asian individuals in neuropsychology by providing education and mentorship to graduate students, externs, interns, and postdoctoral fellows.

We were excited to officially announce the rollout of the mentorship program on July 8, 2021 and received an encouraging number of participants. As of April 2022, the current membership is comprised of:



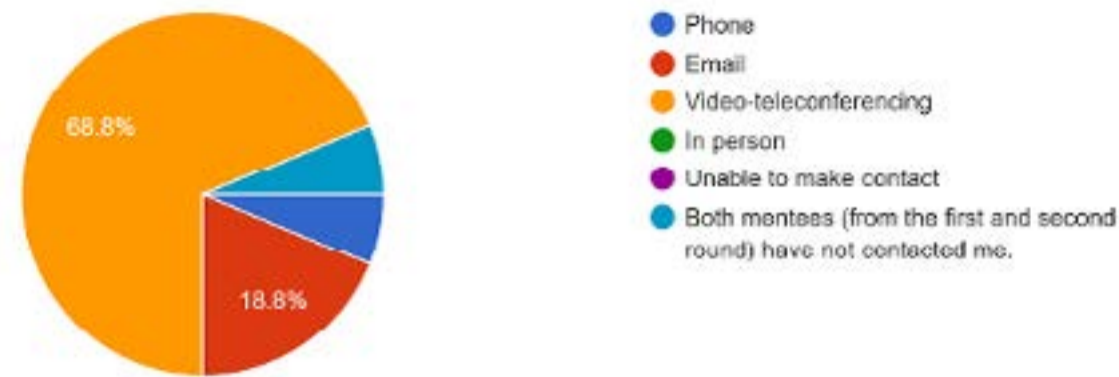
We successfully matched twenty-eight pairs based on two or more variables of expressed interest (e.g., diversity/inclusion/social justice, professional development, clinical skills) and subsequently announced the match results to the mentors and mentees.

2023 INS Taiwan Meeting
 The International Neuropsychological Society Meeting
 Conference Date July 6-8, 2023
 Special Event July 9, 2023
 Venue Taipei International Convention Center
TAIPEI, TAIWAN

The poster features a large brain-shaped maze with various topics labeled inside and around it: Executive Function, Emotion, TBI, Memory, Attention, ADL&IADL, Sleep, Visual Spatial, ICF, Game Addiction, Career, Community Involvement, Epilepsy, Dementia, Social Communication, Everyday Cognition, Higher Brain Dysfunction, Well-being, Neurorehabilitation, and Rehabilitation.

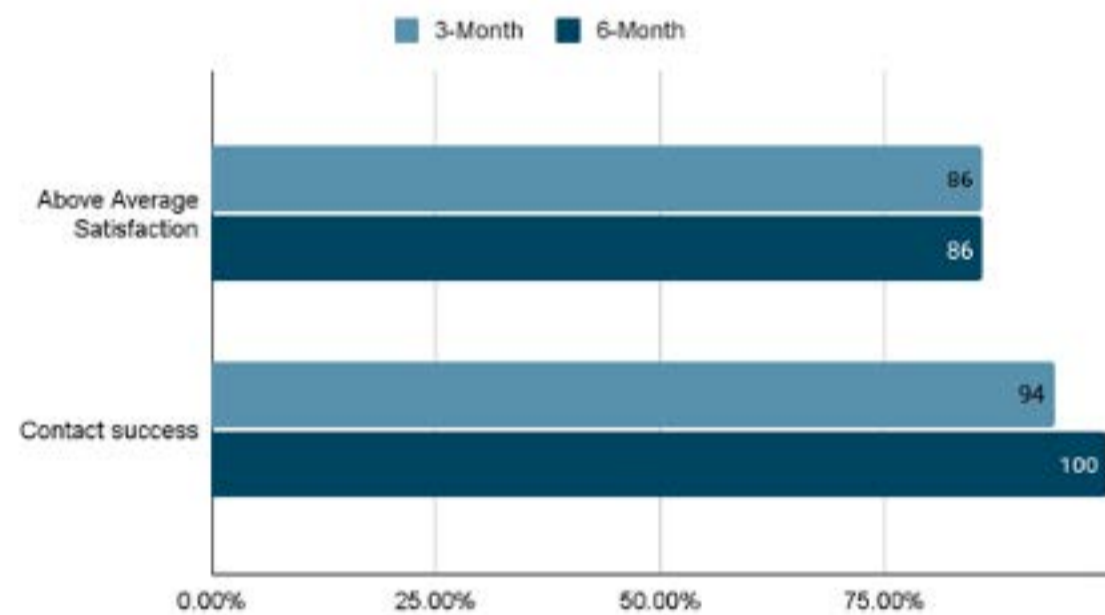
SAVE THE DATE!
 Stay tuned for more details!
 For more information, please visit official website
 www.ins-taiwan2023.org

At 3 and 6-months following the announcement of the matched results, we posted a brief survey with the goal to improve our program and/or participant experience. Some highlights of the results are as follows:



The majority of the matched pairs chose video-teleconferencing and email as the predominant method of communication.

Feedback Post-match



Feedback on the mentorship experience has been very positive. Specifically, within 3 months post-match 86% of mentees and mentors reported above average satisfaction with the relationship. Similarly, 86% of the participants reported above average satisfaction at 6-month follow-up.

Some comments from the participants include:

- “This is a fantastic program and I look forward to continuing being a part of it.”
- “Very grateful for this program for connecting me to my wonderful mentor.”
- “This has been a god-send opportunity.”

Recruitment of both mentees and mentors are ongoing and is open to ANA members. We initially had more mentees than mentors, resulting in mentees being unmatched. To address issues with mentor supply shortages, we sent out an email in March of 2022 to the already-enrolled mentors and asked if they were willing to accept more than one trainee. Again, the response has been encouraging with a large number of mentors willing to accept up to 3 trainees. Nonetheless, we are still in need of more mentors to volunteer.

We would like to thank all the participants for their time, commitment, and support of our program. Please find the application links for:

Mentor application: [Click here](#)

Mentee application: [Click here](#)

Committee News & Highlights

(Continued)

Student Committee

The purpose of the ANA Student Committee is to create a central group led by trainees (students, interns, and postdoctoral fellows) under the auspice of the larger ANA organization in order to increase trainee membership, participation, and collaboration; to keep ANA informed of trainee needs within ANA and the field of neuropsychology; and to create an interactive environment that enriches the relationship between trainees and current professionals. The mission of the ANA Student Committee is to: a) foster a community for neuropsychology trainees of Asian descent or trainees working with individuals of Asian descent; b) promote the professional development, cultural competency, and international collaboration of ANA trainees; and c) enhance ANA's mission to ensure the accessibility and provision of excellent, culturally sensitive neuropsychological services for individuals of Asian descent with trainee-led initiatives. The ANA Student Committee has established many initiatives, including our monthly Community Corner bringing you ANA committee updates, trainee resources, and discussions. Our monthly Research Digest showcases the latest in research relevant to ANA's mission. Our Trainee Membership Database has also been established with the Membership Committee. We hold regular socials/events to provide additional resources and space for trainees to connect and discuss their experiences, often in collaboration with trainees from the Society for Black Neuropsychology and the Hispanic Neuropsychological Society. Finally, the committee has developed a peer mentorship program, including a resource drive for mentors and mentees. You can also see updates and content relevant to our students on social media such as Twitter (@AsianNeuropsych) and the ANA Facebook. Connect with us through our email: anastudentcommittee@gmail.com. Interested in getting involved? The Student Committee's Peer Mentor Program will be recruiting during October 2022!

Advocacy Committee

No updates.

Membership Committee

Please contact our Co-Chairs Elizabeth Choi, PhD, and Porrselvi A.P., PhD at membership.ana@gmail.com

Description of your committees' mission, duties, and how to join:

This Membership committee aims to, 1) expand the ANA membership to include all students and professionals who are interested in neuropsychology and in working with the Asian population both domestically and globally, 2) oversee nomination and election of ANA leadership while upholding diversity and equity principles, and 3) to continually promote the engagement and sense of community within the ANA. Some of our duties include vetting new members' applications, managing the ANA listserv, promoting more diversity and inclusivity in the ANA membership, organizing social events for members at conferences, and hosting the ANA annual elections.

Anything of relevance, including updates about ongoing projects/initiatives: We are excited to organize and host the ANA Elections 2022 this year.

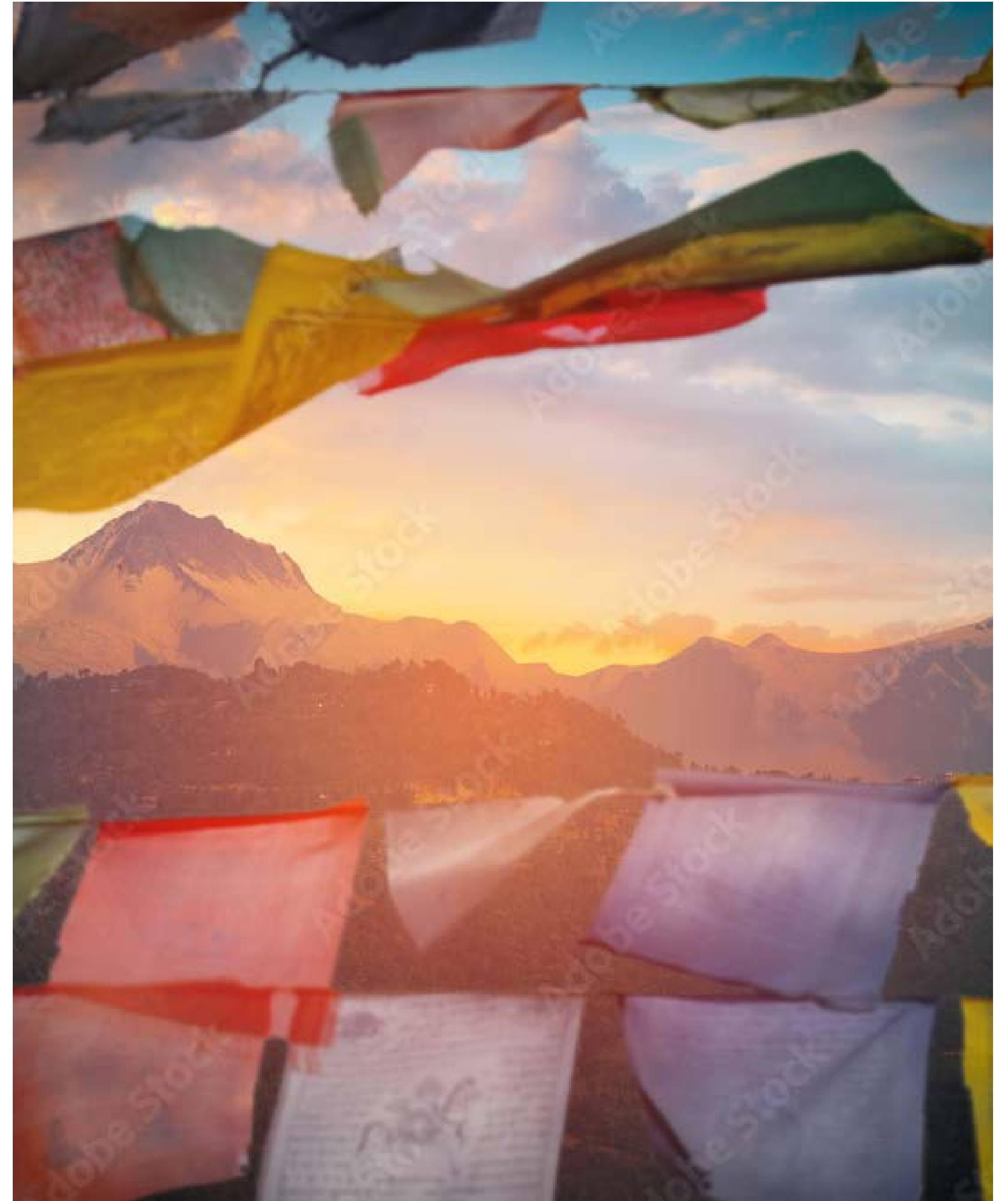
Sharing of resources: The Membership Committee oversees the public and private directory of current ANA members, to facilitate communications and networking within our community: <https://the-ana.org/membership/members-directory/>.

Recruitment notices for projects: We are not recruiting more committee members at this time, but we do appreciate volunteers to help out in our seasonal events, e.g. socials and election events. If you will be attending INS San Diego and INS Taiwan, and are interested in helping out with our social events, please email Dr. Choi or Dr. Porrselvi at membership.ana@gmail.com.

Resource Committee

No updates.

ANA at the Minnesota Neuropsychology Conference



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