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The NLAAS Story: Some Reflections, Some Insights A commentary prepared for the special issue of the Asian American Journal of Psychology

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The General Social Survey (GSS), a national survey that queries U.S. residents about their behaviors and attitudes on social issues, shows that many Americans do not have as much familiarity with Asian Americans as they do with other racial and ethnic groups (Gee, Ro, Shariff-Marco & Chae, 2009). Thirty-four percent of the GSS sample stated that they had less in common with Asian Americans compared to African Americans, Latinos, Whites, and Jews. African Americans received the next highest percentage (17%). When the question was reversed, "Which group do you have the most in common with?", a small percentage of the GSS respondents cited Asian Americans (7.5%) and African Americans (7.7%). What accounts for this lack of connection with Asian Americans? There are several likely reasons, including past and current stereotypes of Asian Americans, the geographic and residential distribution of racial groups across the country, and the high proportion of immigrants among Asian Americans that make them seemingly dissimilar to U.S.-born residents. It is also likely that there is relatively limited scientific data available about Asian Americans which make it difficult to adequately inform the general public about Asian American experiences on a wide range of dimensions.

It is within this context that the National Latino and Asian American Study (NLAAS) was conceived, designed, implemented, and analyzed. NLAAS is the first national epidemiological study of Asian Americans that used state-of-the-art sampling and survey design strategies, an interview guide that was translated into multiple languages and dialects, and includes data that can be compared across Black American, Latino and White samples (see Pennell). Its findings have been disseminated to a broad range of public and scientific audiences and the data are still being analyzed. NLAAS has received special recognition for its contribution to the scientific enterprise and it became one of the most downloaded datasets when it became publically-available. We are gratified and honored that this special issue of the journal has focused on analyses derived from the NLAAS. This paper serves to provide some of the initial thinking behind NLAAS and discuss some of the themes that we find in the papers included in the two special issues.

NLAAS Foundations

It is common to think about each new study, innovation, or research finding as a result of an independent event or process that arises from our own creativity, motivation, and perseverance. While this perception is understandable, it is also true that most, if not all, research studies are built on the past work of other scholars who often did their investigations in more trying times. NLAAS would not have been possible without the prior

work of scholars who insisted that Asian Americans were a worthy population to study, and that the insights gained from studying the lives of Asian Americans could make important contributions to scientific theories in different disciplines. Harry Kitano, Frederick Leong, Keh-Ming Lin, Stanley Sue, and Nolan Zane are some of the notable people who made early and frequent contributions to the study of Asian American communities. All mentioned, except Harry Kitano who has passed, are still actively engaged and contributing to the scientific enterprise. They and leaders from different agencies such as the Asian and Pacific Islander American Health Forum (APIAHF), National Asian and Pacific American Families Against Substance Abuse (NAPAFASA), National Asian American Pacific Islander Mental Health Association (NAAPIMHA) pushed for Asian Americans to become more prominently placed on this nation's social and health care agenda. NLAAS also benefited from prior community and services research studies, large and small, that provided helpful methodological and conceptual grounding for its initial study design and questionnaire. Without the contributions of key individuals, prior research studies, and agencies, projects like NLAAS would not have been possible.

It is also evident that large-scale studies like NLAAS are built on the successes of prior epidemiologic studies. The Epidemiologic Catchment Area (ECA) study provided a foundation for the implementation of large scale psychiatric epidemiologic research in community settings. Prior to the ECA, psychiatric assessments were done by clinicians that made interviews with community residents time consuming and costly (Regier et al., 1984). A major innovation of the ECA used the Diagnostic Interview Schedule (DIS), an instrument to assess psychiatric disorders with lay interviewers. Computer algorithms were developed to construct a case measure for psychiatric disorders from responses. One of the major objectives of the ECA studies was to develop national estimates of the burden of mental illness. While the ECA studies were used as a tool to derive national estimates, it was not a true national study. It was not until the National Comorbidity Study (NCS) that national estimates became available for mental disorders. Instead, the ECA studies were built around surveys of mental disorders at five geographic catchment areas: New Haven, St. Louis, Durham, Los Angeles, and Baltimore. The sites also represented the location of the different research teams at Yale, Washington University, Duke, UCLA, and Johns Hopkins. While the ECA studies did not provide a national estimate of mental illness, they did provide some initial estimates of mental disorders in communities and ground breaking methods for psychiatric epidemiology.

At about the same time of the ECA studies, the National Survey of Black Americans (NSBA) began its work. James Jackson and colleagues at the University of Michigan led the effort of a comprehensive national survey of Black Americans in the late 1970s and early 1980s (Jackson et al, 1983). At least two innovations from the NSBA were helpful for NLAAS. One innovation was to develop a means to sample a relatively rare population, in this case, African Americans. While African Americans had grown to be a large presence in many large cities, they composed about 12% of the national population. This presented problems in sampling efficiencies since finding African American households is time consuming in geographic areas where they are a small proportion of the community's population. The investigators developed one strategy, the wide area sampling plan (WASP), which called for asking residents in a neighborhood to identify potential African American households. This strategy relied on the notion that residents would be aware of the racial dimension of their neighborhood. The WASP, the acronym shows the sense of humor of the investigators, proved effective in enhancing the efficiency of the survey screening process. A second innovation came after the survey was completed. The NSBA provided an excellent dataset for established and emerging African American scholars to work on critical issues in their communities and also established their scholarly credentials. It is evident from the

number of publications from the NSBA that it helped establish the careers of many researchers in the academy.

National Comorbidity Study (NCS) provided the first national estimates of mental disorders for the United States. Ronald Kessler developed the NCS at the University of Michigan before moving to Harvard. The NCS, in addition to providing a blueprint for a national psychiatric epidemiological study using a relatively new diagnostic instrument called the Composite International Diagnostic Interview (CIDI), developed an innovative feature in its interview schedule based on insights gained from the ECA study. The DIS is structured where disorder questions (e.g., depression, anxiety, etc.) are sequenced and all questions for each disorder are asked in the same section. When the ECA data were being analyzed, it was discovered that the rates of lifetime disorders were lower in the second interview compared to the first. Moreover, rates of mental disorders within each time period seemed to depend on the placement order in the interview itself. Given the structure of the DIS, it seemed that interviewees learn how to respond to the protocol; the quicker they respond negative to disorder stem question, the faster they complete the interview. Kessler and colleagues took this insight and moved all of the stem questions for each disorder to a screening section (Kessler, 1994). Accordingly, respondents are asked screening questions about each disorder. If they are positive on a set number of stem questions for the disorder, they eventually go to the specific disorder questions. This screening protocol made the interview process more efficient and eliminated some of the artificial ways that interviewees can opt out of certain disorder questions. This screening methodology has been adopted in subsequent studies, including NLAAS.

NLAAS Beginnings

Bloomington is a small city in Indiana, a sixty minute car ride from Indianapolis, with a population of about 80,000 people that is predominantly white (87%). The city is home to Indiana University, a public academic institution known, among many things, for its music, business, and science (including the social and behavioral science) programs. Despite its excellent academic reputation, it seems unlikely as one of the settings where NLAAS originated. It is in the Midwest, not centrally located to large populations of Asian Americans that are evident on the coasts. IU is also not known for its research on Asian American issues, at least in the early 2000s. The Department of Sociology at Indiana University is where the three authors of this chapter worked together on different facets of the NLAAS. The first author (Takeuchi) arrived in Bloomington in 1998 to take a faculty position in the department. While NLAAS was still in survey data collection mode, he moved to the University of Washington in summer 2002. The second author (Gong) was the first Research Assistant to serve on the project. As a new graduate student originally from China and with an interest in health disparities, she was thrilled at the opportunity to work on NLAAS during the stage while the instruments were being developed and translated. The third author (Gee) arrived in 2001 on a postdoctoral fellowship in the Department, working with the first author and other faculty on NLAAS.

NLAAS also had its origins in San Juan, Puerto Rico, where Margarita Alegria, the co-principal investigator of the study resided. She had an appointment at the University of Puerto Rico and was making a transition to the Cambridge Health Alliance at Harvard in Boston. Alegria was responsible for the Latino part of the NLAAS with Takeuchi overseeing the Asian American side. They jointly coordinated work that impacted both parts of the study. It is difficult to imagine how NLAAS could have succeeded without an exceptional collaborative working relationship that we had with Alegria and her colleagues. Every researcher should experience at least once in their careers the excitement and synergy that comes with a successful collaboration as we did.

Early on, the collaborators agreed to use an identical questionnaire and sampling design for the Latino and Asian American samples. In the past, studies on Latinos and Asian Americans, especially when immigration is part of the research question, tend to use different methods and measurements of key constructs. When differences are found between Asian Americans and Latinos, it was often difficult to discern whether the differences were, in fact, valid or whether they were an artifact of differences in methods or measurements. The decision to use the same questionnaire and sampling design was intended to avoid this problem. The common questionnaire also afforded an exciting opportunity to directly test hypotheses about “culture bound” syndromes such as neurasthenia and ataques de nervios.

Since two other national epidemiologic surveys were being conducted at the approximately the same time, the National Institutes of Mental Health decided to place all three studies under a U01 mechanism for cooperative agreements and collaborative studies. The other two projects are the National Co-morbidity Study –Replication (NCS-R) and the National Survey of American Lives (NSAL). The NCS-R is the second version of the original NCS that occurred a decade earlier. The NCS-R included a national sample of Americans without considerations for oversamples of racial and ethnic groups with the interviews conducted in English. The NSAL is a survey of Black Americans, including Black immigrants, with a sample exceeding 5,000 respondents. All of the surveys, including NLAAS, were conducted by the Institute of Social Research at the University of Michigan. The cooperative agreement among the national studies, labeled the Collaborative Psychiatric Epidemiologic Studies (CPES), provided the opportunity for the investigators to share ideas, establish common protocols and measures when appropriate and possible, and develop plans to conduct common analyses across projects. The CPES collaborators held biweekly conference calls to coordinate efforts across the studies.

NLAAS received most of its funding from NIMH. However, it did encounter data collection problems that drove up the survey costs and the contributions of two agencies helped salvage the latter part of the survey. During the second half of the data collection, it became apparent that we were running out of funds to complete the survey with a reasonable sample size. It is likely that without any intervention from these agencies the total NLAAS sample size would have been over 1,000 respondents less than the realized total of over 4,600. The Substance Abuse Mental Health Services Administration (SAMHSA) and the Office of Behavioral and Social Science Research (OBSSR) provided supplemental funding to NLAAS that enabled the project to resolve some of its data collection issues. It is clear to us that NLAAS would not have been as successful if not for these two agencies providing timely and significant contributions.

In the end, NLAAS included Latino and Asian American adults, 18 years and older, who resided in households in the coterminous United States, Alaska, and Hawaii. The survey excludes institutionalized persons and those living on military bases. A total of 27,026 sample housing units were screened for eligible adults with 4,649 completed interviews with eligible respondents. The Asian American portion of NLAAS includes 2,095 completed interviews. The data for the CPES are available through the Inter-consortium of Political Science and Social Research at the University of Michigan (see <http://www.icpsr.umich.edu/icpsrweb/CPES/>)

NLAAS Papers

The nine papers that form the basis for the two issues of this journal cover a range of diverse and compelling topics. The authors have taken advantage of the large number of items that include the mental health and physical health conditions, socio-demographic variables, and social and psychological factors that can serve as potential explanatory mechanisms. We are

pleased to note that the authors include a mix of senior, established scholars and the next generation of researchers.

Three themes seem evident from the papers. In describing these themes, we refer to the first author of each paper for ease of discussion. First, the papers highlight some of the heterogeneity and diversity of the Asian Americans. While this is an obvious point, the papers provide an examination of the heterogeneity in more nuanced and extensive ways. In the past, ethnicity within Asian American category is the focal point for an examination of this heterogeneity. Some of the papers delve into these types of analyses especially for ethnic groups that are not often found in the empirical literature like South Asians (Tummala-Narra; Lui; and Mereish). Other papers move beyond ethnicity and focus on distinguishing factors within the Asian category such as age (Lam; Nguyen), age of immigration (Lam), and education (Saad).

Second, the NLAAS data provides opportunities for testing novel ideas and methods. Kuroki, for example, brings in random forest analyses to identify the factors most associated with suicide ideation and attempts. The output from the analyses has the potential to inform the clinical decision making processes. Kim takes a different approach by investigating the association between self-rated mental health and mental disorders. While self-rated health is widely accepted as a health outcome because it is associated with morbidity and mortality, very little research has focused on self-rated mental health. Since the field is still without definitive data about the validity of DSM psychiatric diagnoses for Asian Americans, analyses of self-rated mental health provide insights for this debate.

A final theme is the consideration of the social and economic factors that are either associated with a health outcome or are used as the outcomes. One of the features of NLAAS is that, given the extensive array of demographic and social variables included in the dataset, analyses can better portray facets of Asian American life that have not been evident before. Discrimination (Tummala-Narra; Mereish; Syed), acculturation and stress (Tummala-Narra; Lui), social cohesion and ethnic density (Syed), and education (Saad) are a few of the topics that are considered in detail among the journal papers. Saad, for example, shows not only that education is related to income, but also that this relationship varies by level English proficiency. These same constructs are often used as correlates of health. Although Saad did not extend the analysis to look at health outcomes, the findings suggest that future work should consider not only the main effects of these measures, but also their potential synergies. It is also exciting that many of the papers focused on self-reported discrimination, a fundamental process that distinguishes ethnic groups from one another. Insights from these papers suggest that discrimination is mediated by distress, a point often argued, but seldom tested (Mereish), and moderated by family support (Tummala-Narra). The paper by Syed and Juan is particularly innovative by showing that discrimination is moderated by ethnic density. This is significant because it highlights that discrimination is not an individual attribute, but related to the stratification of racial groups in society. Although the latter point may seem self-evident, there is a trend in the literature that over emphasizes discrimination at the micro level (as seen in the word “perceived” and in calls for individual-level interventions, such as stress management). The focus on ethnic density provides a useful balance to the literature.

Future Directions

Many of the papers using the NLAAS data have expanded our knowledge in three thematic areas: (1) prevalence of DSM-IV disorders; (2) social factors including racial discrimination and socioeconomic position; (3) immigration. These are not the universe of studies emerging from NLAAS, but do represent several of the larger constellations. While NLAAS is widely-

used, it can also serve as a spring board to future research in Asian American communities. This final section raises several methodological and substantive questions that may be fruitful to consider.

Methodological

A glaring limitation is that the CPES was designed as a cluster of cross-sectional studies. A subset of the CPES studies did have a small longitudinal component, but NLAAS did not. These design choices, necessitated by funding, have hampered our ability to make causal inferences. Accordingly, while we would like to know that immigrant health changes with time in the U.S., our data do not permit a direct test of this hypothesis. Making a longitudinal NLAAS would be a logical extension of the current efforts. Moreover, a longitudinal study would ideally have a long timeframe (e.g. 10-50 years) and multiple waves in order to assess non-linear trajectories. Since the story of Asian Americans often considers generations, one possible innovative design would use an accelerated cohort approach and include multiple generations which would enable researchers to incorporate a life course perspective to better disentangle the influences of age, periods and cohorts.

NLAAS relied exclusively on self-report data. Self-reported data are valuable in themselves, but do vary in quality. For example, questions about education tend to be very reliable, whereas questions on income tend to be less so. NLAAS used the best available measures, but supplementing these questions with external data would be useful. These external measures could include biomarkers, administrative data (e.g. tax records, medical charts), and integrate new technology to track social networks and geographic locations.

Finally, researchers may want to consider the inclusion of companion respondents in Asian countries. Such a design could include the tracking of immigrants *before* they come to the U.S. This would allow us to directly test the effects of social change versus the effects of secular trends.

Substantive

One major issue is that we lack a theory of heterogeneity. It is clear that heterogeneity exists. An endemic issue with many studies of Asian Americans is that often there is no *a priori* for saying how groups should differ, beyond saying that they will differ. For example, how exactly would we expect Sri Lankans, Thai, Koreans, Japanese, and Cambodians to differ from one another with respect to the relationship between social support and distress? Post-hoc speculations are less desirable than *a priori* specifications. Accordingly, the field should move beyond documenting heterogeneity to developing more specific theories about which differences may influence different health outcomes.

As a corollary, we need new instruments and studies related to cultural and social phenomena. By this, we emphasize the need for specific constructs, such as *collectivism*, *loss of face* and *filial piety*, and not general proxies, such as acculturation.

It is important to acknowledge that Asian groups are not simply social and cultural groups, but also political ones. Studies of *racial discrimination* partially recognize this political dimension, but much more can be done. We need to develop new instruments that measure cross-group processes such as power, conflict, and solidarity. With these instruments, we may be able to understand that differences between Koreans and Japanese are not simply related to cultural differences, but also their history of war and colonization.

Much more needs to be done with understanding the role of context. Here, we are not simply talking about studies of families or ethnic enclaves, but much more broadly about historical period and social policy. For example, the experiences of Vietnamese Americans who came

to the U.S. immediately after the Vietnam war differ dramatically from Vietnamese entering today. Not only did the circumstances of exit differ (e.g. refugees versus immigrants), but also those of entry. Those who first entered developed new communities in the U.S., whereas recent arrivals may enter into an established community. Some of these contextual influences are seen in the work of Min Zhou and others, but have not gained wide currency in public health.

Finally, studies should consider the issues of *time* more carefully. Many studies of Asian Americans make reference to time, particularly studies of generations and duration in the U.S. Usually, these studies theorize that time represents acculturation. Yet, there are alternative explanations for time. For example, perhaps time in the U.S. proxies not for cultural change, but for exposure to racial bias. These issues of time are related to context and culture.

At this point, it is worth recalling an important study by Kitano and colleagues (1992) that investigated norms related to alcohol consumption between Japanese in Japan, Hawaii, and California. They found that Japanese has more tolerant views of alcohol than Japanese Americans. Their interpretation of this simple finding was very nuanced. These group differences were not simply due to Japanese Americans becoming more “acculturated” to U.S. norms. Rather, Kitano also considered that the Japanese Americans in their sample had exited Japan at a particular historical moment, and that their current drinking patterns reflected the conservative norms towards alcohol in Japan at the time of exit. Drinking norms in Japan became more tolerant over time, but these norms were not mirrored by the Japanese Americans. Further, Kitano considered that Japanese Americans developed their own style of drinking that differed from their white peers, and also that Japanese Americans may have moderated their drinking so as not to become more visible and encourage others to discriminate them.

Thus, the findings from NLAAS participants reflect Asian Americans in a particular moment in history, in the context of the word in 2002-2003, and in the context of where and when these people may have left their home countries (or not, for the U.S. born). It is quite possible that some of the participants, particularly those of South Asian descent and of Muslim religion, may have felt many of the same moderating tendencies as suggested by Kitano. These issues are not simply reporting artifacts, but reflect potentially causal relations between individuals, their moments in history, and their trust in research. We hope that the next generation of research plays equal attention to these complex relations between time, society, and person.

Concluding Note

We are honored to have been part of these special issues that examine critical research questions among Asian Americans using the NLAAS data. As noted earlier, one of the major goals of NLAAS was that it would be used extensively by established and emerging scholars. Accordingly, the NLAAS is not merely a scientific tool, but also a way to give back to the Asian American community. We are pleased that this journal provides more opportunity for us to continue to reach for our goal.

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