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Epidemiology

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Family Conflict and Suicidal Ideation Amongst Asian Americans

Background

Suicide is one of the leading causes of death in the United States. In 2018, there were

over 45,000 suicides, making it the tenth leading cause of death (American Association of

Suicidology 2018). For 15-34 year olds, it was the second leading cause of death. Moreover,

suicide rates also differed across various racial and ethnic lines, indicating a need to broaden our

understanding of the influencs at hand that contribute to suicidal ideation besides the basic

demographic characteristics and psychopathologies.

Cheng et al. (2010) advocate for a broader scope that considers sociocultural aspects such

as norms and values, including family cohesion/conflict. While family conflicts are found

regardless of ethnic identity, there is perhaps a greater effect of family conflict in Asian cultures

due to a greater emphasis on the family unity (Leong et al., as cited by Cheng et al. 2010). By

looking at the influence of family cohesion in Asian American communities, we paint a clearer,

more inclusive picture as to how we can implement better policies and intervention mechanisms

tailored to the specific cultural needs of ethnic minority groups.

Lots of research has been devoted to the topic of sociocultural factors and suicidal

ideation within the Asian American community; however, due to the expansiveness and

complexity of suicidal ideation research, different researchers have approached this issue from

different angles. With that said, I will examine three papers, *Lifetime Suicidal Ideation and Suicide Attempts in Asian Americans* by Cheng et al. (2010), *Asian Americans' Family Cohesion and Suicide Ideation: Moderating and Mediating Effects* by Wong et al. (2012), and *Asian American mental health: Longitudinal trend and explanatory factors among young Filipino- and Korean Americans*, by Choi et al. (2020), to see how they approached researching the various sociocultural factors of suicidal ideation with the main focus being the influence of family cohesion on suicidal ideation amongst Asian Americans. Through an epidemiologist lens, I will further examine the possible confounders and biases present in the research.

Data

The primary dataset used by Cheng et al. (2010) and Wong et al. (2012) to explore correlates of suicidal ideation is the National Latino and Asian American Survey (NLAAS). This survey is the first nationally representative household survey of Asian Americans and Latinos. It was conducted between May 2002 and December 2003 and contained information on 2,095 Asian Americans with further stratification on ethnic subgroups to allow for more analysis. Various sociocultural factors were included as well such as family conflict and perceived discrimination.

Another dataset used by Choi et al. (2020) comes from the Midwest Longitudinal Study of Asian American Families (MLSAAF) project, a longitudinal survey done in three waves on surveys that contains information of Filipino American and Korean American families from the Midwest. This was a 3 year (2014 - 2016) study on Asian American youths that captured information regarding their mental health. Participants were recruited from multiple sources which included phonebooks, ethnic grocery stores, and community organizations.

Measures

Suicide Ideation

Respondents in the NLAAS survey that answered yes to the question, "Have you ever seriously thought about committing suicide?" were asked further questions pertaining to the extent and timing of suicidal thoughts (WMH-CIDI; Kessler & Ustun, 2004, as cited by Wong et al. 2012). The MLSAAF similarly asked if participants "seriously have thought about commiting suicide during the 12 months period prior to the survey" with the answers being either yes or no. (Choi et al. 2020). While all the researchers had suicide ideation as an outcome, they did not look at the same set of sociocultural factors. All the sociocultural factors are mentioned below.

Family Conflict

Family conflict and family cohesion serves as a main risk factor for suicide ideation amongst Asian Americans because of the emphasis placed on the family unit in Asian communities. Cheng et al. (2010) and Wong et al. (2012) in their analyses of sociocultural factors on suicide ideation used the National Latino and Asian American Survey (NLAAS) which measured family conflict using five items that measured respondents' "frequency of cultural and familial conflict around values and goals"(Cheng et al. 2010). For instance, questions like "Because you have different customs, you have had arguments with other members of your family" with responses ranging on a 3-point scale from 1 (hardly ever / never) to 3 (often). Higher scores indicated greater family conflict.

Meanwhile, Choi et al. (2020), using the MLSAAF study in their study, measured family conflict by accounting for intergenerational cultural conflict (ICC), gendered norms, and parental implicit affection. They point to intergenerational cultural conflict as a "major stressor" amongst

Asian American youth which stems from discrepancy in language, identity, and cultural values between parents and their children. The ICC was measured using ten items with question items such as "Your parents expect you to behave like a proper Filipino/Korean male or female, but you feel your parents are being too traditional."

Gendered norms were also considered a socioculturally relevant factor due to it being a source of mental distress in Asian American families (Choi et. al 2020). Gendered norms were measured using a seven item scale that asked the participants about their parent's perception of gendered norms, such as "My parents think that girls should not date while in high school."

Finally, Choi et al. (2020) considered the effect of parental implicit affection (various indirect expressions of love) as it might be a source of better mental health (Wu & Chao, as cited by Choi et al. 2020). This factor was measured by 2 items, such as "My mom does not often say it but does things that show me she loves me."

Perceived Discrimination

Perceived racial discrimination was also considered cultural relevant as it is often associated with poorer mental health. Choi et al. (2020) reports perceived discrimination reduces "self-esteem, breeds hopelessness, builds up chronic stress" The NLAAS measures perceived discrimination using nine items that assessed everydya discrimination with questions like, "You receive poorer service than other people at restaurants or stores (Cheng et al. 2010). Similarly, the MLSAAF also asked questions pertaining to perceived forms of racial discrimination.

Ethnic Identity

Studies also looked at how ethnic identity (an individual's sense of belonging with other members of the ethnic group) played a part in suicide ideation. Choi et al. (2020) suggests strong

healthy ethnic identities are conducive to better mental health. The NLAAS used four items that measured the extent to which the respondent identified with their ethnic group. The responses were on a scale from 1 (very closely) to 4 (not at all). Similarly, the MLFAAS used five items to measure how much the Asian American youth identified with their own ethnic group.

Acculturation

Another potentially culturally relevant factor, Wong et al. (2012) asserts, is the process of acculturation. This factor was measured through the analysis of English Proficiency, arguing that command of the English language was a core part of acculturation as it enabled Asian immigrants to be self-sufficient in America (Lam, Pacala, and Smith, as cited by Wong et al., 2012). In the NLAAS, participants' English proficiency were measured using 3-item English Proficiency Scale of the Cultural Identity Scales for Latino Adolescents (Felix-Ortiz, Newcomb, & Myers, 1994, as cited by Wong et al. 2012). They were asked, "How well do you speak/read/write English?" with the responses ranging from 1 (poor) to 4 (excellent)."

Wong et al. (2012) also considers the interaction effects between family cohesion and acculturation in their analysis. They suggest that Asian American adults who lack English proficiency might rely more on their family to navigate an unfamiliar space in America and conflicts within the family unit might induce stress and anxiety.

Causal Diagram and Confounding

As a visualization, I have also established a causal mapping using DAGitty of these various sociocultural factors at play with the main risk factor being family cohesion and outcome being suicidal ideation.

Causal Diagram of Family Conflict (Exposure) and Suicidal Ideation (Outcome) (Created from DAGitty)
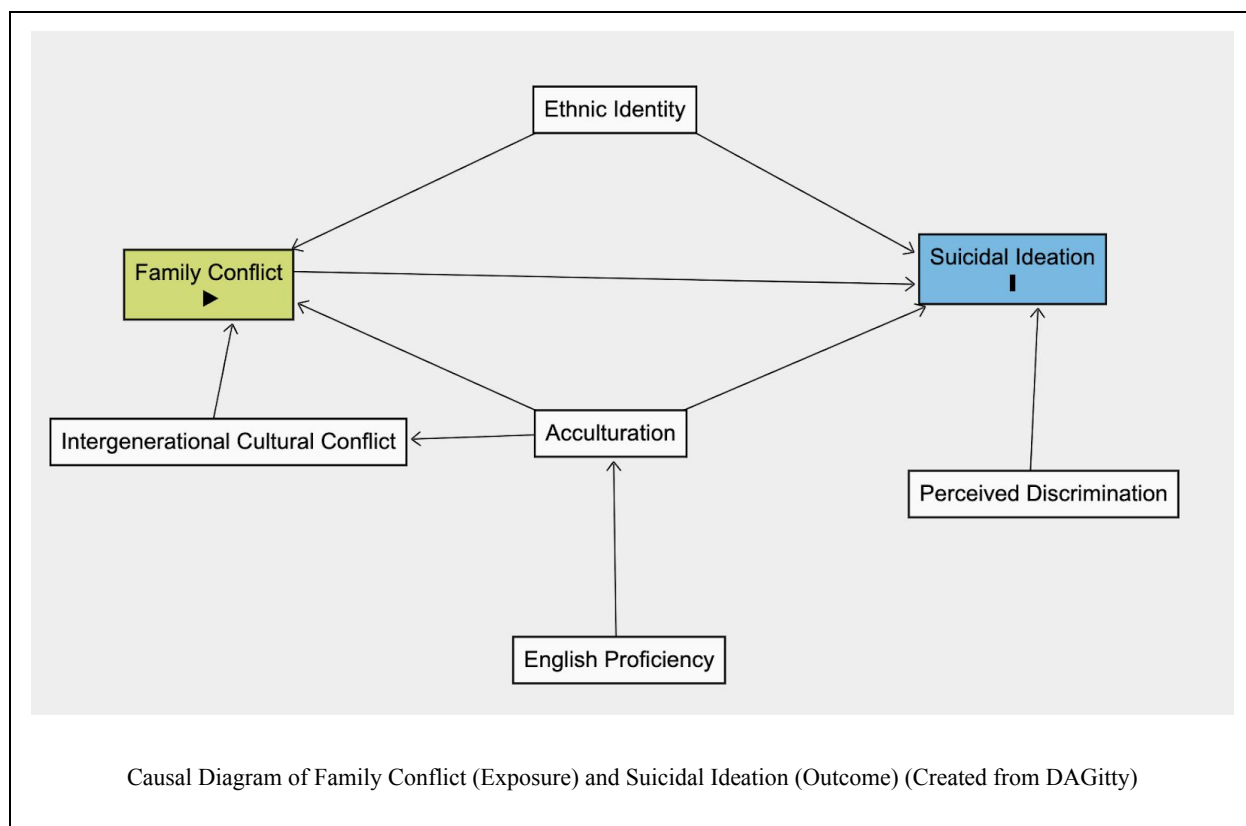
Here is a directed acyclic graph showing a potential causal pathway from a careful synthesis of all the literature used. Family Conflict serves as the main exposure and suicidal ideation is the outcome of interest. We see possible confounding from Acculturation and Ethnic Identity. Choi et al. (2020) suggests that a strong ethnic identity is associated with "more positive family relationships and better mental health," proposing it has an effect on both, whereas perceived discrimination was suggested to have a negative effect on one's mental health and could lead to suicidal ideation.

The researchers also thought acculturation could be a confounder. Wong et al. (2012) and Choi et al. (2020) argue that as one experiences acculturation, this could cause intergenerational cultural gaps resulting in family conflict and the challenges that come with trying to acculturate might be psychologically distressing and influence suicidal ideation. Wong et al. (2012)

highlights the effect of English proficiency on acculturation as language may be "the main means through which cultural information and meanings are conveyed among ethnic minorities" (Kang, 2006 as cited by Wong et al. 2012).

Statistical Analysis

All three papers aimed to reduce confounding through adjusting for various covariates in their logistical regression modeling. Cheng et al. (2010) in their analysis of the NLAAS survey conducted a series of logistic regression models to find significant predictors of suicidal ideation. All variables were entered simultaneously in every regression model. They conducted two sets of logistics regression analyses to find significant cultural factors and other covariates, where one of the regression models was stratified by gender.

Wong et al. (2012) similarly used hierarchical logistic regression to find significant predictors of suicidal ideation. Their process of building the logistic model was a three step process. They first included age and place of birth as control variables, then adding family cohesion and English proficiency, finally, adding the interaction between family cohesion and English proficiency.

Choi et al. (2020) created a mixed effect linear regression model (for depressive symptoms) and and a mixed effect logistic regression models (for suicide ideation). These regression models included fixed effects of predictors and random effects of individual variance. Predictors may have been time-variant (ethnic identity) or invariant (ethnicity). In the mixed effects regression models, the sociocultural predictors (family process and ethnic identity) were clustered and adjusted for other demographic characteristics. Then, they regressed all the clusters together in their final saturated model.

Results

In the Cheng et al. (2010) study, they found that greater levels of family conflict and perceived discrimination were significant sociocultural predictors of lifetime suicidal ideation, after adjusting for other covariates. A one-unit increase in family conflict was associated with a two times increase in odds of having lifetime suicidal ideation (OR = 2.17, p = 0.001, 95% CI [1.35, 3.50]). Meanwhile, a one-unit increase in the score of perceived discrimination predicted a 1.5 times increase in odds of lifetime suicidal ideation (OR = 1.52, p <.001, 95% CI [1.25, 1.85]. Cheng et al. (2010) also stratified by gender but found no significant gender differences in sociocultural factors.

In the Wong et al. (2012) study, their analyses found that the main effect of English proficiency was not significantly associated with suicidal ideation, but family cohesion, and the interaction effect between family cohesion and English proficiency were significant predictors of suicidal ideation, after adjusting for the other covariates. A one-unit increase in family cohesion was associated with a 55% reduction in the odds of suicidal ideation (OR = .45, p < .001, CI [.34, .59]). In the interaction between family cohesion and suicidal ideation, participants with high English proficiency were 1.49 times more likely to have suicidal ideation when family cohesion was low while participants with low English proficiency were 3.33 times more likely to have suicidal ideation when family cohesion was low.

Choi et al. (2020) showed that the intergenerational cultural conflict had significant associations with suicidal ideations while gendered norms and the parental implicit affection were not significant, after adjusting for the other covariates. A one unit increase in intergenerational cultural conflict was associated with a 1.76 times increase in the odds of

suicidal ideation (OR = 1.76, p < .001, CI [unreported]). Moreover, a one-unit increase in Ethnic

identity was associated with a 41% reduction in the odds of suicidal ideaiton. On the other hand,

a one-unit increase in perceived discrimination was associated with a 1.85 times increase in the

odds of suicidal ideation.

Table summarizing key points of each paper.

Study	Study Design	Population	Sample Size	Key Exposure	Method	Outcome	Confounders
Cheng et al. (2010)	Cross-Sectional Observational Survey	Asian Americans Adults	2,095	Family conflict	Logistic Regression	One-unit increase in family conflict was associated with a two times increase in odds of suicidal ideation (OR = 2.17, p = 0.001)	Ethnic Identity Perceived Discrimination Demographics Psychological Disorders Chronic Conditions
Wong et al. (2012)	Cross-Sectional Observational Survey	Asian Americans Adults	2,095	Family Cohesion	Hierarchical Logistic Regression	One-unit increase in family cohesion was associated with a .55% reduction in odds of suicidal ideation (OR = 0.45, p <0.001)	English Proficiency Place of Birth Age
Choi et al. (2020)	Longitudinal Survey in 3 waves	Filipino and Korean American Youth	W1 = 786 W2 = 604 W3 = 641	Intergenerational Cultural Conflict	Mixed Effects Logistic Regression	One-unit increase in ICC was associated with a 1.76 times increase in odds of suicidal ideation (OR = 1.76, p <0.001)	Gendered Norms Implicit Affection Ethnic Identity Perceived Discrimination Demographics

Discussion

The results shown from across the three studies point to the possible influence culturally related factors has on suicidal ideation. The findings on family cohesion/conflict call attention to the importance of the family unit in Asian culture and is consistent with the notion that family is seen as the primary source of support. Besides family, these results also point to a strong sense of ethnic identity as a possible protective factor against suicidal ideation whereas discrimination has a harmful effect. The exploration of the interactive effects of family cohesion and English proficiency also point to the role acculturation plays in impacting suicidal ideation (Wong et al. 2012).

As we are in an epidemiology class, we must also consider the epidemiological aspects of bias and limiting aspects present within the findings that reduce our capability to make causal inferences. As such, one of the limitations as pointed out by Cheng et al. (2010) in the NLAAS is the response bias. Respondents might have been less inclined to truthfully state whether or not they have had suicidal tendencies. Asian Americans are already less inclined to report their suicidal behaviors which becomes a potential bias (Morrison & Downey, 2000, as cited by Chen et al.) This can cause an underestimation of the prevalence of suicidal behavior and change our conclusions. To mitigate this bias, the NLAAS interviewed participants in their native language during the interviewing process.

The NLAAS being a cross sectional observational study from a singular timeframe makes it difficult to make causal inferences. Both Cheng et al. (2010) and Wong et al. (2012) suggest using longitudinal data in future studies but propensity score matching could have been done in a way to strengthen any causal claims and reduce confounding. But given what they had,

they tried to reduce confounding in the analytical stage, by adjusting for variables, such as ethnic identity and racial discriminaiton, in their logistical regression models. Cheng et al. (2010) furthered stratified by gender to control for the confounding effect of gender.

While the MLFAAS addressed the issue of longitudinality, it suffered from various forms of bias, such as participation bias. Many parents of FA and KA children were concerned this survey would be publicly harmful so only those who were willing were surveyed. This potentially induces confounding as the surveys are not truly randomized. Furthermore, because this study only looked at two ethnic groups, generalizations must be cautioned when applying to other Asian American groups.

Conclusion

The findings from these various studies highlight many of the factors that might influence the relationship between family cohesion and suicidal ideation among Asian Americans. The research finds family cohesion to be important to the wellbeing of Asian Americans but other factors like perceived discrimination or English proficiency or ethnic identity has an affect as well. To create a more holistic and humanistic approach to mental health, it requires a critical examination of the sociocultural factors on top of psychological distress. These findings will hopefully encourage mental health professionals to consider the influence of the family in Asian cultures when implementing strategies for combating suicidal behavior.

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