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Effect of Mental Distress and Functional Impairment on Mental Health Service Use by Filipino Americans in California

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2025

Abstract

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by

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MBA, Southern New Hampshire University, 2006

BS, University of Santo. Tomas, Philippines

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Public Health

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Abstract

Mental health conditions are a significant global public health issue. Research shows that while Filipino Americans frequently experience mental distress and functional impairment, they are hesitant to use mental health services. In this quantitative study, the association between mental distress and functional impairment on mental health service utilization of prescription medication use, visits to primary care providers, and visits to mental health professionals was explored in adult Filipino Americans residing in California. Control variables included age, gender, marital status, education, employment, and income. This study was based on Andersen's behavioral model of healthcare use. Secondary data from the 2021-2022 California Health Information Survey data was analyzed using descriptive statistics and binary logistic regression with a cross-sectional study design. Results showed that Filipino Americans without functional impairment were 3.50 times more likely to visit primary care providers, 3.13 times more likely to use prescription medication, and 2.83 times more likely to see mental health professionals than those with functional impairment. Mental distress did not show a significant association. Confounding variables like gender and education significantly predicted mental health service use. However, age was associated with a .69 decrease in the likelihood of visiting primary care providers. Implications for positive social change include raising awareness that Filipino Americans without functional impairment are more likely to seek mental health services than those with functional impairment.

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Dedication

To my husband, Louie, thank you for your unwavering love, support, and incredible patience throughout my journey. None of this would have been achievable without you.

To my children, Louie boy, Loren, Lorieann, and Linzi, I am immensely thankful for your love and understanding, enabling me to pursue and accomplish my goals. I hope that I have inspired you to persist and pursue your dreams.

To my late parents, Honofre and Norma Regidor, thank you for always believing in me and supporting my aspirations. Your encouragement was the driving force behind my pursuit of a doctoral degree. I dearly wish both of you were here today to share my success. I hold you close to my heart and miss you deeply, Daddy and Mommy.

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Chapter 1: Introduction to the Study

Mental health conditions affect many people across the globe. According to the World Health Organization (WHO, 2022), mental health conditions are often referred to as mental health disorders; however, the former has a broader scope than the latter. Mental health disorder encompasses significant disturbances in a person's thoughts, emotions, or behaviors, often leading to distress or impacting crucial aspects of life (WHO, 2022). Mental health conditions include mental health disorders, psychosocial disabilities, and other mental conditions linked to severe mental distress, impaired functioning, or a risk of self-harm (WHO, 2022). In 2019, approximately 970 million individuals globally, accounting for one in eight people, encountered a mental disorder primarily revolving around depression and anxiety (WHO, 2022). The onset of COVID-19 exacerbated the situation for those with mental health conditions. The prevalence of anxiety and major depressive disorders surged by an estimated 26% and 28% respectively, in 2021 due to the pandemic's impact (WHO, 2022). Similar trends were observed in the United States, where mental health conditions are also common.

As of 2021, the National Institute of Mental Health (NIMH, 2023) indicated that around 57.8 million American adults grapple with mental health conditions. The Substance Abuse and Mental Health Services Administration (SAMHSA, 2022) highlighted that out of the 22.8% of the U.S. population dealing with mental health conditions, 27.2% were females, while 18.1% were males. SAMHSA also categorized data based on race, noting that approximately 16.4% of Asian Americans experienced mental health conditions, representing the lowest rate within the racial category.

However, several researchers cautioned that this rate might be misleading due to the amalgamation of multiple ethnic groups under a single racial classification.

This study needed to be conducted because mental health issues appear to be disproportionately high among Asian Americans, despite them being the smallest racial group in the United States (see Budiman & Ruiz, 2021). The Asian community is diverse and expanding quickly, highlighting the significance of assessing mental health status and needs of its various subgroups. Asian Americans have multiple ethnic groups and may trace their ancestors to approximately 20 Asian nations, including the Indian subcontinent (Budiman & Ruiz, 2021). According to Budiman and Ruiz (2021), the Asian population in 2019 was 22.4 million, accounting for only 7% of the U.S. population which is the smallest racial group. Within this group, Chinese Americans made up the largest portion at 24%, followed by Indian Americans at 21% and Filipinos at 19% (Budiman & Ruiz, 2021). Although they reside across the United States, Budiman and Ruiz claimed that the West Coast is home to around 45% of Asian Americans, accounting for 57% of the Hawaiian population and 17% of the California population. Asian Americans comprised about 11% of Washington, New Jersey, and Nevada (Budiman & Ruiz, 2021). Budiman and Ruiz revealed that after reviewing demographic statistics between 2000 and 2019, the Asian population increased exponentially by 81%, making them the nation's fastest-growing racial group. Due to their diverse origins, Asian Americans hold unique beliefs and cultures that shape their mental health status and needs. Furthermore, as their population continues to grow, more Asian Americans are likely to move beyond traditional hubs like Hawaii and California.

California has become increasingly diversified over time. According to the U.S. Census Bureau (2020), Hispanic or Latino people make up 39.4% of California's total population, followed by Whites (34.7%) and Asians (15.1%). The California Census 2020 (California Department of Public Health, 2022) data showed that the three most populous ethnic groups are Chinese (26.6%), Filipinos (22.1%), and Asian Indians (13.9%). Given that they started immigrating to the United States in the late 19th century, the sizeable Filipino population in California is not surprising (Gallardo & Batalova, 2020). The surge in Filipino immigration to the West Coast, according to Gallardo and Batalova, is primarily attributable to their employment in Hawaii's sugarcane farms and agricultural fields. Budiman (2021) reported that there are currently 506,000 Filipinos living in the Los Angeles region, followed by 310,000 in San Francisco, then 201,000 in San Diego.

Moreover, about 4% of Filipinos in California are unemployed, whereas 51% have a bachelor's degree or higher (California Department of Public Health, 2022). The Filipino population has continued to grow and now boasts a substantial Filipino community. The 4% unemployment rate demonstrates that Filipinos face employment obstacles such as restricted work prospects and discrimination (California Department of Public Health, 2022). Furthermore, unemployment may have implications connected with poor physical and mental health outcomes.

This study offers potential positive implications for social change by raising awareness of the adverse effects of functional impairment on mental health utilization among Filipino Americans and identifying strategies to address both mental distress and

the impact of functional impairment in this population. It also adds to the body of knowledge on the factors influencing mental health utilization among Filipino Americans. This study raises awareness within the Filipino American community about the gravity of mental health conditions and ais to foster a more inclusive society for individuals dealing with such issues. The primary sections of this chapter encompass the background, problem statement, study purpose, research questions and hypotheses, conceptual framework, nature of the study, definitions of terms, assumptions, scope and delimitations, limitations, significance, and summary.

Background

The underutilization of mental health care is a common issue observed across various Asian American subethnic groups (Karasz et al., 2019; Lee et al., 2021; Martinez et al., 2020). However, the extent of underutilization and its specific reasons may vary within different subethnic groups. Studies have been done to examine underutilization in Asian Americans and different subethnic groups. For example, Lee et al. (2021) conducted a study involving 243 adults who are 50 years or older to investigate mental health screening needs and treatment interests for African Americans and Asian Americans. The demographic makeup of this study was identical to the study that Lee et al. (2020) conducted, except the participants were older than the other study.

Regarding help-seeking behaviors, 30.6% of Asian Americans sought help from their primary care providers, while 38.2% from mental health professionals (Lee et al., 2021). Lee (2021) showed how demographic variables such as age, gender, marital status, and education may influence the utilization of mental health. Although the study did not

include Filipino Americans, it provided a more comprehensive understanding of how demographic variables may impact mental health utilization.

Several researchers have conducted studies that concentrate on specific ethnic groups. For example, Karasz et al. (2019) conducted a systematic review exploring the experiences of South Asians, particularly Indians with distinct mental health needs, including women, older individuals, youths, and specific professional groups living in the United States. Karasz et al. revealed that South Asians have specific mental health needs; however, they tend to underuse mental health care. Due to the data's lack of stratification, information about the utilization of mental health services by Filipino Americans remains unknown. Lee et al. (2020) conducted a study from November 2016 to June 2017 on 126 Asian American participants of Chinese, Korean, and Vietnamese backgrounds to examine their mental health service usage. The findings indicated that married women aged 40 years old or older, with a high school education or below, and perceived mental health needs were less likely to seek mental assistance. While this study did not include Filipino Americans, the results provided crucial insights into the impact of sociodemographic factors on mental health utilization and the tendency to seek treatment only in severe conditions among Asian Americans.

Numerous researchers have investigated the underutilization of mental health services among Filipino Americans. However, studies have revealed that efforts focused on increasing knowledge, attitudes, and awareness about mental health may have limited effects on changing behavior and improving mental health service utilization within this community (Martinez et al., 2020). Despite these efforts, significant barriers persist,

hindering Filipino Americans from effectively accessing and using mental health services. According to Martinez et al. (2020), there is limited evidence about the actual help-seeking activities of Filipinos with mental problems because a significant amount of data comes from the general population and focuses on their beliefs and intentions. Given that Filipino-Americans represent the second-highest subethnic group in California, examining their mental health utilization patterns and identifying factors contributing to underutilization becomes of paramount importance. To the best of my knowledge, this study is the first to delve into recent California Health Interview Survey (CHIS) data, specifically investigating the impact of mental distress and functional impairment on mental health service utilization among Filipino Americans residing in California. By focusing on this population, the research aimed to provide valuable insights that deepen our understanding of the unique challenges and needs concerning mental health care among Filipino Americans. The findings of this study hold the potential to contribute significantly to the existing knowledge base. They may pave the way for targeted interventions to improve mental health service utilization within this community.

Problem Statement

Many researchers suggested that Filipino Americans may experience mental distress and functional impairment but hesitate to utilize mental health services. Balaraman et al. (2022) observed that this issue is prevalent among Filipino Americans. The National Survey on Drug Use and Health reported that 16.4% of Asian Americans suffer from mental health conditions (Substance Abuse and Mental Health Services, 2023). However, the data did not differentiate between ethnic groups in the Asian

American population. The Centers for Disease Control and Prevention (CDC, 2008) as cited by the Office of Minority Health, 2019) also conducted a study from 2004 to 2006. They reported a mental distress rate of 1.9% among Asian Americans. However, after stratifying the data by subethnic groups, the CDC found that about 2.5% of Filipino Americans experienced severe mental distress, as cited by the Office of Minority Health. This study provided stratified data but is dated (CDC, 2008, as cited by the Office of Minority Health, 2019). Filipino Americans account for 19% of the U.S. population and are the third largest ethnic group among Asian Americans (Budiman & Ruiz, 2021). In California, Filipino Americans comprised the second highest subethnic group, next to Chinese. In 2008, the CDC (as cited by the Office of Minority Health, 2019) reported that Filipino Americans had the highest mental distress rate among Asian Americans.

Considering that Filipino Americans make up a significant portion of the U.S. population and are the third largest ethnic group among Asian Americans, addressing their mental health needs is crucial. Martinez et al. (2020) systematically reviewed 15 studies published between 2002 and 2018. They found similar observations regarding the high rates of mental distress in Filipino Americans worldwide and their low utilization of mental health services. I used data from the CHIS collected between March 2021 and November 2022. In addition to analyzing mental distress, I also investigated functional impairment using CHIS data. Research indicated that when symptoms reach a point of incapacitation demonstrating severe manifestations, Filipinos seek medical help (Nicdao, 2015, as cited by Martinez, 2020). Understanding functional impairment is crucial, as it may also impact the utilization of mental health services.

Although previous researchers have examined the association between mental distress, access to and use of mental health services, and the stigma associated with receiving such services (Lairmore, 2019), the association of mental distress among Filipino Americans and Filipinos, the sources of stress, and the use of health promotion strategies (Serafica et al., 2023), as well as how mental health needs and enabling factors predict the willingness to seek professional mental health services (Yoon & Jang, 2019), these researchers did not consider the association between mental distress and functional impairment (independent variables) and the use of mental health services among Filipino Americans in California (dependent variable). I focused on this association. I aimed to examine how mental distress and functional impairment influence the use of mental health services among Filipino Americans residing in California.

Purpose of the Study

In this quantitative study, I explored the association between mental distress and functional impairment and their influence on mental health utilization among Filipino Americans. Mental distress encompasses a range of nonspecific symptoms related to stress, anxiety, and depression that individuals experience when facing challenging situations (Vierto et al., 2021). Functional impairments refer to difficulties performing everyday activities due to the complete or partial loss of function of a body part or system (CDC, 2020). These impairments can be physical, cognitive, sensory, or a combination. I used two ordinal independent variables. The first variable was the total score of the Kessler K6 Mental Health Questionnaire (K6), which measures mental distress. Participants answered questions about their emotions and experiences over 30 days using

a 5-point Likert scale (Tomitaka & Furukawa, 2021). The total score was calculated by summing the scores for the six questions. Scores of 5 or higher suggest a moderate prevalence of mental distress, while scores of 13 or higher indicate a high incidence of severe mental distress (Tomitaka & Furukawa, 2021; Umucu et al., 2020). The second independent variable was the overall Sheehan Disability Score (SDS), which assesses functional impairment (see Lu et al., 2021). Participants answered four questions on a 3-point Likert scale, except for the work question, a 4-item scale. The total scores of the four questions were added. High scores on the SDS indicate functional impairment. Han et al. (2021) and Zeljic et al. (2020) noted that a subscale score greater than five may indicate functional impairment. The categorical dependent variable in this study was the mental health utilization of Filipino Americans. It was measured by factors such as prescription drug intake, visits to primary care physicians or general practitioners, and visits to other professionals such as counselors, psychiatrists, or social workers. I also examined demographic characteristics such as gender, age, marital status, education, employment status, and income as confounding variables.

Research Questions and Hypotheses

RQ1: Is there an association between mental distress and functional impairment and the use of prescription medications among Filipino Americans while controlling for age, gender, marital status, education, employment status, and income?

$H_0$1: There is no association between mental distress and functional impairment and the use of prescription medications among Filipino Americans while

controlling for age, gender, marital status, education, employment status, and income.

H_a1: There is an association between mental distress and functional impairment and the use of prescription medications among Filipino Americans while controlling for age, gender, marital status, education, employment status, and income.

RQ2: Is there an association between mental distress and functional impairment and visiting primary care physicians or general practitioners among Filipino Americans while controlling for age, gender, marital status, education, employment status, and income?

$H_0 2$: There is no association between mental distress and functional impairment and visiting primary care physicians or general practitioners among Filipino Americans while controlling for age, gender, marital status, education, employment status, and income.

$H_a 2$: There is an association between mental distress and functional impairment and visiting primary care physicians or general practitioners among Filipino Americans while controlling for age, gender, marital status, education, employment status, and income.

RQ3: Is there an association between mental distress and functional impairment and visiting other professionals such as counselors, psychiatrists, or social workers among Filipino Americans while controlling for age, gender, marital status, education, employment status, and income?

$H_0$3: There is no association between mental distress and functional impairment and visiting other professionals such as counselors, psychiatrists, or social workers among Filipino Americans while controlling for age, gender, marital status, education, employment status, and income.

H_a3: There is an association between mental distress and functional impairment and visiting other professionals such as counselors, psychiatrists, or social workers among Filipino Americans while controlling for age, gender, marital status, education, employment status, and income.

Conceptual Framework

For the theoretical underpinnings of this study, I drew upon Andersen's behavioral model of health care utilization. This framework outlined the factors contributing to an individual's use of health services, encompassing predisposing factors, enabling factors, and health needs (Andersen, 1995). Predisposing characteristics encompass attributes inherent to an individual that may anticipate their inclination to engage with mental health services (Andersen, 1995). These attributes include demographic variables (age, marital status, and gender), ethnicity, education, and prior health-related beliefs or attitudes. Predisposing factors indicate an individual's potential inclination and readiness to seek mental health support. Enabling factors constitute circumstances that can facilitate or hinder an individual's perception of the need for and access to mental health care (Andersen, 1995). These factors involve employment status, income, the availability and convenience of services, health insurance coverage, financial means, support networks, cultural norms and perceptions of mental health, and awareness

of available services. Enabling factors are pivotal in determining whether an individual can surmount barriers to obtaining essential mental health assistance. Health needs refer to an individual's health-related concerns and challenges (Andersen, 1995). These are manifestations of mental health symptoms or disorders, the intensity of these symptoms, concurrent physical health conditions, and the individual's subjective assessment of their mental well-being. These health requirements collectively contribute to assessing an individual's mental health needs.

This study's predisposing factors included ethnicity, age, marital status, gender, and education (see Alkhawaldeh et al., 2023; Andersen, 1995). Enabling factors were employment status, income, and use of mental health services (see Andersen, 1995; Yoon & Jang, 2021). The health needs factors included mental distress, assessed using the K6 scale (see Andersen, 1995) and the functional impairment measured by SDS (see Han et al., 2021; Zeljic et al., 2020). The Andersen behavioral model framework was the foundational structure for understanding the dynamics of mental health service utilization in Filipino Americans. This framework guided the study by allowing me to examine the impact of predisposing, enabling, and health needs factors on mental health utilization.

Nature of the Study

I used a quantitative cross-sectional approach, utilizing data from the March 2021 to November 2022 CHIS survey, which gathered information from residents of California who are not institutionalized. This survey is the largest state health survey in the United States and is conducted in multiple languages, including English, Spanish, Cantonese, Mandarin, Korean, Tagalog, and Vietnamese (CHIS, 2021a). Conducted initially

biannually in 2001, it became an annual survey in 2011. Participants responded to the survey via online platforms or telephone. The data was analyzed using SPSS. I investigated the connection between various factors such as demographic characteristics, mental distress, functional impairment, and the utilization of mental health services among Filipino Americans. Independent variables were mental distress, measured as K6 score, and functional impairment, measured as SDS. The dependent variable was mental health utilization. The covariates were age, marital status, gender, education, employment status, and income level.

Definitions of Terms

Asian Americans: Residents in the United States whose heritage is from the East and Southeast Asia and the Indian subcontinent (Budiman & Ruiz, 2021).

Filipino Americans: Those of Filipino descent living in the United States (Nadal, 2021).

Functional impairment: Difficulties performing daily tasks due to partial or complete disabilities affecting specific body parts or systems (CDC, 2020).

Mental distress: Various nonspecific conditions related to stress, depression, and feelings of sadness experienced during challenging situations (Vierto et al., 2021).

Assumptions

My initial assumption in this study was that both mental distress and functional impairments are significant conditions deserving investigation due to their potentially severe impact. The second assumption was that there was use of mental health services by Filipino Americans when experiencing mental distress, functional impairment, or

both. The third assumption revolved around the increased participation of Filipino Americans in the study, aiming for robust data to contribute to existing information. These assumptions were examined through an analysis of the CHIS data.

Scope and Delimitations

The research involved adults aged 18 and older within noninstitutional households in California who identified as Filipino Americans. Previous studies suggested that among Asian American groups, Filipino Americans exhibited the highest rates of psychological distress (CDC, 2008) as cited by the Office of Minority Health, 2019). However, there was evidence showing a low rate of mental health utilization. To understand this, factors like age, marital status, gender, education, employment status, and income were considered to determine their potential influence on the association between independent variables (mental distress and functional impairment) and the dependent variable (mental health utilization). It was important to note that while the findings were applicable within California, the study's generalizability across the entire United States was limited due to the inherent constraint of the dataset, which focused explicitly on California residents—the CHIS dataset's scope was state-specific.

Limitations

One of the limitations of this study was the inability to establish a causal relationship and was vulnerable to recall and nonresponse bias (see Wang & Cheng, 2020). Using secondary data presented additional challenges and limitations, including a lack of control over the dataset, assumptions regarding honest responses, modification of

original research questions, and constraints regarding geographical scope. The research limitations were clarified upon the completion and finalization of data analysis.

Significance

The study is significant because the focus is on Filipino Americans only. Adia et al. (2020) observed that Filipinos had the most disparities in data stratification. They also found that Filipinos had worse health than the other Asian ethnic groups. Martinez et al. (2022) found limited evidence about the actual help-seeking activities of Filipinos with mental problems because a significant amount of data comes from the general population and focuses on their beliefs and intentions. Focusing on Filipino Americans brings awareness to the Filipino American community and helps build a more inclusive society for those with mental health conditions. The study also contributes to existing information that helps address Filipino-specific needs in future policies and interventions.

Summary

Mental distress and functional impairment have been linked to mental health conditions. While the data indicated that Asian Americans generally have lower rates of mental health disorders, a closer look revealed that among ethnic groups studied, Filipino Americans experience particularly severe mental distress (CDC, 2008) as cited by the Office of Minority Health, 2019). Moreover, the rates of seeking mental health assistance among Filipino Americans are alarmingly low, often only when their condition becomes severely debilitating (Martinez et al., 2020). In this quantitative cross-sectional study, I investigated the levels of mental distress, functional impairment, and mental health utilization among Filipino Americans in California. The independent variables were

mental distress and functional impairment, while mental health utilization served as the dependent variable. Iaccounted for confounding factors such as age, marital status, gender, educational status, employment, and income. In Chapter 2, I comprise an literature review discussing the association between mental distress, functional impairment, and mental health utilization, including my literature search approach, conceptual framework, and summary of conclusions.

Chapter 2: Literature Review

Research findings indicate that mental distress is prevalent among Filipino Americans, yet they tend to underuse mental health services. Balaraman et al. (2022) reported the high prevalence of mental distress within this group, although their study did not specifically investigate the utilization of mental health professionals among Filipino Americans. Kim and Lee (2021) noted that older Filipino Americans facing mental health challenges were more inclined to seek help from healthcare professionals. Martinez et al. (2020) explored the attitudes and behaviors of Filipinos in the United States and globally, revealing that Filipinos were more likely to seek professional assistance when their mental health condition was severe. However, Serafica et al. (2023) argued that Filipinos residing in the Philippines experienced a higher mental distress rate than Filipino Americans. Yoon and Jang (2019) also investigated the readiness of different ethnic groups, which included Filipino Americans, to access professional mental health services by analyzing data from the 2002 National Latino and Asian American Study. Although they used somewhat older data, Yoon and Jang identified a notable prevalence of mental distress among Filipino Americans. While most respondents expressed their willingness to seek professional assistance, the study also revealed that Filipino women were more inclined to seek help than Filipino men.

Previous research on Asian Americans, which did not stratify data, indicated that South Asians, akin to Filipino Americans, also tend to underuse mental health services (Karasz et al., 2019). Nevertheless, Lee et al. (2020) noted that married Asian Americans facing mental health challenges were less inclined to seek assistance. Lee et al. (2021)

also investigated the impact of sociodemographic factors on mental health service use. Despite the existing body of research on this subject, none have specifically delved into the connection between mental distress, functional impairment, and their influence on mental health service use among Filipino Americans residing in California. I aimed to address this gap and analyze this association.

In this chapter, I discuss the literature search strategy, theoretical foundation, and literature review on critical variables and concepts. I also provide a summary and conclusions based on the existing information. I present the determinants impacting the usage of mental health services within the Filipino American population, emphasizing the interplay between mental distress and functional impairment in this community.

Literature Search Strategy

I used a range of library databases and search engines, including EBSCO, PubMed, Google Scholar, and ProQuest. The search involved seeking peer-reviewed articles published between 2019 and the present. I employed a set of specific keywords, including *Filipinos*, *barriers*, *obstacles*, *challenges*, *mental health treatment*, *Filipino Americans*, *depression*, *depressive disorder*, *depressive symptoms*, *major depressive disorder*, and *mental health counseling*. I also combined keywords such as *Filipino Americans and mental health*, *Filipino and access to mental health care or services*, *Filipino Americans and mental health treatment or mental health*, *Filipino Americans and mental distress*, *Filipino Americans and challenges in therapy visits and mental health*, and *Filipino Americans and mental health care*. To gather data from published reports, I included government websites and databases like the SAMSHA, Office of

Minority Health, CDC, and the U.S. Census Bureau. I focused my literature search on the past 5 years' most recent and relevant studies. However, older research studies were included if they were pertinent to the research objectives of this study.

Andersen's Behavioral Model of Health Service Utilization

I employed Andersen's behavioral model of healthcare service utilization as a conceptual framework to investigate the factors influencing an individual's engagement with health care services. This model consisted of three key components: predisposing factors, enabling factors, and health need factors, all collectively contributing to an individual's use of healthcare services (Andersen, 1995).

Predisposing Factors

Predisposing factors encompassed individual characteristics before the need for health care services (Andersen, 1995). These factors included demographic characteristics such as age and gender and elements of social structure like education, occupation, ethnicity, and health beliefs. Social structure refers to an individual's status within their community, ability to cope with current issues, and the conditions of their physical environment (Andersen, 1995). Health beliefs pertain to an individual's attitudes, values, and knowledge concerning their health and healthcare. The model suggests that these factors influence individuals' inclination to use healthcare services by shaping their attitudes, beliefs, and knowledge about health and health care.

Enabling Factors

Enabling factors are the resources and knowledge required to access health care services (Andersen, 1995). They include community and personal resources that either

facilitate or hinder an individual's ability to avail themselves of health care services. Healthcare professionals and facilities must be readily accessible. Individuals must possess the means and knowledge necessary to access and regularly use these services. Examples of enabling factors encompass employment status, income, having a regular source of health care, and having access to services, including health care facilities and personnel.

Health Needs Factors

Health needs factors reflect an individual's perceived or assessed health status, determined by objective and subjective measures (Andersen, 1995). Objective measures comprise diagnosed illnesses, symptoms' severity, and functional limitations. Subjective measures entail an individual's perception of their health status and their perceived need for healthcare services. According to the model, health needs factors are crucial in shaping an individual's perception of requiring healthcare services.

Yoon and Jang (2019) noted that this model in research related to physical and chronic illnesses consistently showed an immediate impact on healthcare utilization. However, this consistency appeared to waver when the same model was applied to mental health services. In their study, Yoon and Jang explored how enabling factors and mental health needs influenced the utilization of mental health services among Chinese, Vietnamese, and Filipino ethnic groups. Within the predisposing factors, they found that age significantly influenced Chinese individuals, marital status was crucial for Vietnamese individuals, and gender played a key role for Filipinos. Chinese Americans with psychiatric disorders seemed less willing to seek professional help.

Similar research studies indicated that need factors consistently correlate with mental health service utilization (e.g., Pilar et al., 2019; Roberts et al., 2018), while enabling factors, such as employment status, yielded inconsistent results (e.g., Roberts et al., 2018). Furthermore, Pilar et al. (2019) observed that race/ethnicity and gender were associated with increased utilization of mental health care services. In addition to race/ethnicity and gender, Coley and Baum (2021) revealed that education also played a role in using mental health services in their study.

Literature Review Related to Key Variables and Concept

In this quantitative study, I explored the association between mental distress and functional impairment in mental health service utilization among Filipino Americans residing in California. The critical variables investigated include mental distress, functional impairment, and mental health service utilization. Mental distress was measured by the total score of the K6; functional impairment was measured by the total score of the SDS, and mental health utilization is measured by prescription drug intake; visits to primary care physicians or general practitioners; visits to other professionals such as counselors, psychiatrists, or social workers. Demographics, like age, marital status, gender, education, employment status, and income, were examined to determine their impact on mental distress, functional impairment, and mental health utilization.

Mental Health Disparities among Filipino Americans

Numerous articles extensively detail mental health disparities within the United States. Minority groups, including Asian Americans, experienced these disparities (American Psychiatric Association [APA], 2023). The APA (2023) identified several

factors contributing to this inequality, such as difficulties in accessing mental health services due to logistical challenges like transportation, time limitations, or constrained availability (Ramos & Chavira, 2019), cultural stigma, discrimination, and inadequate awareness. According to the National Survey on Drug Use and Health, 16.4% of Asian Americans have reported experiencing mental health conditions, in contrast to 23.9% among Whites, 21.4% among Blacks, and 20.7% among Hispanics (SAMHSA, 2022). However, in 2021, only 25.4% of Asian Americans who acknowledged facing Any Mental Illness sought mental health care, in comparison to 52.4% of Whites, 39.4% of Blacks, and 36.1% of Hispanics (SAMHSA, 2022). Even though the mental illness rate among Asian Americans was lower compared to other racial groups, they also had the lowest mental health service utilization rates, nearly 50% lower than Whites (SAMHSA, 2022). This data emphasized the reluctance of Asian Americans to seek mental health care.

While the National Survey on Drug Use and Health did not categorize distinct subgroups within the Asian race, other researchers like Balaraman et al. (2022) investigated mental health distress and mental health service usage rates within the Asian American ethnic group, including Filipinos, comparing them to non-Hispanic Whites (NHW). Balaraman et al. analyzed data from the National Health Interview Survey from 2006 to 2018, involving 282,382 NHW, 4,242 Asian Indians, 4,595 Chinese, and 4,805 Filipinos. The data indicated that 2.1% of Asian Indians, 2.2% of Chinese, 2.9% of Filipinos, and 4.4% of NHW experienced severe mental distress. However, Balaraman et al. reported that the mental health services utilization rate for NHW was 8.3%, 4.4% for

Filipinos, 3.4% for Chinese, and 2.8% for Asian Indians. Intriguingly, a substantial majority of these groups (>90%) did not use mental health services (Balaraman et al., 2022). These findings aligned with the earlier research by Ventinilla (2019), who reported Filipinos having the highest rate of severe mental distress among the different Asian American subgroups (Japanese, Chinese, Vietnamese, and Koreans) included in the study. The data showed that Filipino Americans experienced mental health disparities and mental health service disparity rates. Understanding the factors contributing to these disparities is critical to help them.

Filipino Americans

The Philippines harbors a multifaceted and intricate historical background and delving into it is imperative for a deeper understanding of Filipino cultural values. Before the Spanish influence, indigenous Filipinos held unique cultural values centered on collectivism (Francia, 2013, as cited in Nadal, 2021). Indigenous Filipinos lived in self-sustaining small communities, guided by tribal leaders who managed political, social, and economic aspects, upholding gender equality. However, this changed with the 377-year Spanish colonization that introduced Roman Catholicism and altered gender roles (Nadal, 2021). Roman Catholicism subsequently became the predominant religion in the country, with approximately 81% of the Philippine population adhering to it (Castro, 2019). Nadal (2021) also discussed the power shift during the Spanish colonization that emphasized male-dominated roles and eroded the traditional egalitarian values of the precolonial Philippines.

The Philippines experienced continued colonization, this time by the Americans, which exposed Filipinos to a different cultural milieu. The subsequent American colonization, spanning from 1899 to 1946 (Nadal, 2021), ushered in a significant shift in Filipino culture, introducing them to a distinct set of cultural norms that emphasized the provision of free primary education and the widespread use of the English language across the nation (Tupas, 2021). Tupas (2021) highlighted the contrast with Spanish colonization, where Spanish language usage was not promoted as the primary means of communication. Nadal explained that American governance led to the establishment of an expanded educational system that incorporated American teaching methods with a strong emphasis on literacy, numeracy, and academic subjects. Notably, this transformation also accentuated values of competition and individualism, departing from the communal values inherent in precolonial Filipino society. The American colonization introduced the "American dream" concept to Filipinos, encouraging them to pursue higher education to succeed. Furthermore, Nadal (2021) pointed out that Filipinos embraced American values of self-reliance, independence, and competitiveness to flourish. The American culture undermined the precolonial and Spanish culture that the Filipinos had learned.

Scholars have researched the impact of colonial mentality on Filipinos exposed to Spanish and American cultures. According to Nadal (2021), the profound influence of colonization, spanning nearly five centuries, significantly shaped the cultural beliefs of the Filipino population. This influence played a pivotal role in shaping their values, customs, and traditions, which were subsequently widely adopted and practiced across

the nation. David and Okazaki (2006) defined *colonial mentality* as a mindset where the values and beliefs of the colonizers are considered superior to those of the colonized. For instance, individuals with dark skin may feel inferior to those with lighter skin, such as the Spanish or Americans (Nadal, 2021). Similarly, Filipinos who recently migrated to the United States might face ridicule due to their thick accent. Nadal further explained that colonial mentality can create a perceived social class distinction between Filipinos and Filipino Americans, leading to feelings of inferiority among the former in comparison to the latter. There may have been benefits to colonization. However, the Filipinos lost their identity in the process.

Relocating to different countries presents a significant challenge for Filipinos because these countries have different cultural values. For instance, when Filipinos immigrate to the United States, they bring diverse cultural values (Nadal, 2021). However, they are no longer considered Filipinos. Instead, they are now identified as Asian Americans and belong to the subethnic group of Filipino Americans (Budiman & Ruiz, 2021). This stands in contrast to their home country, where most of the population identifies with a single race, while in the United States, they are a part of the smallest racial group. The multitude of experiences through colonization of Filipino Americans cannot be ignored because it is what makes them unique from other Asian Americans.

Prevalence and Manifestation of Mental Distress

Mental distress is a fundamental concept that offers insights into an individual's psychological well-being. As indicated by Vierto et al. (2021), it encompasses a broad spectrum of nonspecific mental ailments associated with stress, anxiety, and depression

that individuals undergo when confronting challenging circumstances. The repercussions of mental distress can have adverse effects on an individual's relationships with their peers, family, social network, and their job performance, as emphasized by Cree et al. (2020). Moreover, heightened levels of psychological distress may indicate the presence of a severe mental disorder, as noted by Kessler et al. (2010).

Tran et al. (2022) reported a substantial increase in the psychological distress score among Asian Californians from 3.31 to 4.47 between 2013 and 2020. This increase, marking a 35% rise, was the most prominent among all racial groups (Tran et al., 2022). While there was a 29% rise in White Californians, Black Californians witnessed a 7% reduction in psychological distress scores, and non-Latino or other race individuals saw a 1% decline (Tran et al., 2022). Examining the period from 2011 to 2018, Chwa (2021) explored levels of moderate and severe mental distress among Filipinos in California. The results revealed that 28.9% of Filipinos experienced moderate distress, and 8.5% grappled with severe distress (Chwa, 2021). Moreover, Chwa noted that approximately 39.4% of Filipino immigrants faced moderate distress, a higher proportion than the 23.2% seen in non-immigrant Filipinos. Additionally, 13.3% of Filipino immigrants experienced severe distress, compared to 5.6% of non-immigrant Filipinos (Chwa, 2021). These statistics underscore the concerning prevalence of mental distress within the Filipino community, emphasizing the urgent need to investigate the contributing factors.

Expressing mental distress can be complex, as the symptoms can appear either physically or mentally. According to the American Psychiatric Association (2013), some mental disorders initially manifest with somatic symptoms. As a result, individuals who

have mental illness with positive somatic symptoms most sought care from their primary health care provider than psychiatric and other mental health professionals. One of the challenges was how these individuals presented and interpreted their symptoms, which could be problematic. Balaraman et al. (2022) pointed out that in Asian Americans, mental distress can manifest physically with symptoms like headaches, fatigue, gastrointestinal issues, insomnia, or pain. South Asians also tend to interpret their mental health challenges as physical symptoms, displaying a similar pattern (Nazroo et al., 2002, as cited in Karasz et al., 2020). Among Filipino Americans, Nadal (2021) highlighted that they often communicated physical complaints like headaches, backaches, or muscle pain to their primary health care providers rather than discussing mental health matters. However, if a physician diagnoses a mental health condition, Filipino Americans tend to seek a second opinion due to denial. They feel more comfortable presenting physical symptoms rather than acknowledging mental health distress (Rubio, 2023). Denial and seeking care from inappropriate providers can lead to delays in care. Recognizing how mental distress manifests is crucial, considering the potentially debilitating and harmful effects it can have on Filipino Americans.

Factors Contributing to Mental Distress

There are a multitude of factors that can influence mental distress. Individuals may experience the effects of mental distress in distinct ways, which also influences mental health utilization. Here are several typical elements that might contribute to mental distress.

Acculturation and Enculturation. When Filipino Americans (the first generation) transitioned to the United States, they employed various strategies to navigate their cultural beliefs and values. According to Nadal (2021), these strategies were acculturation and enculturation. Acculturation, as defined by Nadal and Sue (2009), is the process where an individual from one culture adjusts to the norms of their host country (as referenced in Nadal, 2021). Moving to the United States exposed Filipino Americans to new and distinct cultural beliefs, values, and language. To assimilate into their new environment, first-generation Filipino Americans strived to understand and embrace American culture, often to the point of losing touch with their heritage. Nadal observed the varied acculturation experiences of Filipino Americans born and raised in the United States (the second generation of Filipino Americans). Although they understand American culture well, second-generation Filipino Americans learned about Filipino culture and values from their family and friends and practiced these aspects within their homes.

Consequently, second-generation Filipino Americans followed American culture in educational institutions or workplaces while preserving Filipino culture within their household (Nadal, 2021). This dichotomy led to conflicts of values, as the American culture emphasized active engagement with adults, which may be misinterpreted as impoliteness and disrespect within the Filipino culture. Filipinos have traditionally been taught to exhibit passivity and quietness from a young age.

Another approach to navigating cultural adjustment, as outlined by Nadal (2021), is enculturation. This involves Filipino Americans delving into a deeper understanding of

their cultural heritage through interactions with family, peers, and external sources. Numerous specialized organizations aimed at Filipino Americans provided firsthand exposure and insights into Filipino culture. In a research study by del Prado and Church in 2010 (as referenced in Nadal, 2021), maintaining ties with the Philippines was linked to favorable mental well-being. Enculturation demonstrated favorable outcomes for Filipino Americans as they maintained connections with the cultural values and practices they acquired in the Philippines or from their social circles. Jason and Kawabata (2020) conducted a study among 110 Filipino American college students in Guam to demonstrate the role of enculturation on mental health-seeking attitudes. They argued that higher levels of enculturation led to a less-seeking attitude toward mental health services, as demonstrated in their study. Greater immersion in a culture tends to be associated with increased stigma, thus deterring individuals from seeking and utilizing help for their mental health needs.

Several articles emphasized that acculturation could present challenges. A study by Warmoth et al. (2020) demonstrated that individuals who resist acculturating to the United States often face adverse consequences. This is due to their persistence in adhering to their cultural norms, potentially leading to clashes with the cultural norms prevalent in the United States and subsequently causing mental distress. Choy et al. (2021) investigated various acculturation types and their influence on mental health issues. They found that choosing marginalization, where an individual rejects both their host and ethnic cultures for various reasons, can result in adverse mental health effects. This aligned with the conclusions drawn by Warmoth et al. Conversely, Warmoth et al.

noted that individuals who effectively acculturate to United States culture experienced positive outcomes. Striking a balance between acculturating to the host country and preserving connections with one's country of origin, where they were born and raised, is paramount.

Racial Discrimination. Numerous scholarly works have explored the effects of racial discrimination on the mental well-being of minority populations, notably Asian Americans. As Cho et al. (2021) indicated, the diverse subgroups within the Asian American community experience discriminatory incidents in distinct ways. For instance, during the pandemic, Chinese Americans were disproportionately targeted with racism, leading to increased rates of depression and diminished life satisfaction (Cheah et al., 2020; Litam & Oh, 2020). Conversely, Filipino Americans faced disproportionate pandemic-related racism (Choi et al., 2020; Salas-Wright et al., 2021). A study conducted by Chan and Litam (2021) revealed that Filipino Americans witnessed or experienced anti-Asian discrimination during the pandemic. They observed that racial discrimination indirectly affected life satisfaction through increased depression and anxiety among Filipino Americans. Tuazon et al. (2019) elucidated that the varying impacts on Filipino Americans' encounters with and responses to racial discrimination can be attributed to their distinct historical experiences shaped by colonization, the influential presence of Catholicism, and unique cultural values. These factors contributed to misconceptions regarding their identity (Lee & Ramakrishnan, 2020) and the lack of recognition of the Filipino American identity (Nadal, 2021). Litam and Oh (2020) clarified that, despite facing similar microaggressions as other Asian American subgroups, Filipino Americans

experienced distinct forms, such as being misidentified as members of different racial groups, being viewed as intellectually or socially inferior compared to Chinese individuals, being unfairly assumed to possess criminal inclinations or deviant behavior, and being excluded from the broader Asian American collective (Nadal, 2021). While multiple factors influenced racial discrimination, Filipino Americans often experienced it and a sense of exclusion from their racial group.

Research has investigated the correlation between perceived racial bias and mental distress. In a study by Cho and colleagues (2021), multiple subsets of Asian Americans, including Chinese, Asian Indians, Koreans, Vietnamese, Filipinos, and other Asians, were examined. The findings revealed that more than 30% of the participants felt discriminated against, while 44% experienced mental distress. Koreans had the highest perceived discrimination rate at 36.4%, and Vietnamese had the highest mental distress prevalence at 54.6% (Cho et al., 2021). Regarding specific subgroups, roughly 28.5% of Filipinos perceived discrimination, and 41.6% reported experiencing mental distress (Cho et al., 2021). Among the participants, Filipinos had the second-lowest incidence of perceived discrimination and the third-lowest rate of mental distress in this study. McMurtry et al. (2019) added that racial discrimination led to poor health outcomes.

Stigma. Stigma, as defined by the APA (2022), refers to individuals' negative societal perspective of perceived mental, physical, or social deficiencies. It embodies a prejudiced societal outlook, leading to unfair discrimination and the rejection of affected individuals. In a study by Misra et al. (2021), the manifestation of stigma across various U.S. cultures, including Asian Americans, was explored. It was found that self-stigma

was most prevalent among Asian Americans and Latinx Americans compared to Black and White Americans. Park et al. (2023) additionally highlighted the significant obstacles faced by Asian Americans, including Filipino Americans (Martinez et al., 2020), particularly the stigma associated with seeking mental health care. Misra et al. identified these obstacles as service barriers, especially among low-income individuals and older adult immigrants, citing the high health care costs as a hindrance to accessing mental health services. Interestingly, cultural beliefs and lack of knowledge also contributed to stigma (Misra et al., 2021). Insufficient knowledge led to misunderstandings (Martinez et al., 2020), while cultural beliefs contributed to the hesitancy in seeking mental health care, a trend observed in both Asian Americans (Misra et al., 2021) and Filipino Americans (Martinez et al., 2020). In their analysis, Martinez et al. (2020) outlined that self-stigma and social stigma posed substantial barriers for Filipino Americans seeking mental health care. Self-stigma in the Filipino American community is characterized by a fear of negative judgments and worries about bringing shame to their family through potential mental illness labels. Social stigma, conversely, revolves around the fear of tarnishing the family's reputation. Numerous articles discussed the hesitation of Filipino Americans to avail of mental health services (Martinez et al., 2020). This is primarily because Filipino Americans fear being labeled as mentally unstable and are concerned about potential societal labeling affecting their family's standing in their community. The profound impact of stigma led to a limited use of mental health services.

Park and colleagues (2023) investigated how stigma affected the utilization of mental health services among Filipino Americans and Korean Americans. Both ethnic

groups indicated that preserving one's reputation for oneself and one's family influences stigma, consistent with the findings of Misra et al. (2021) and Martinez et al. (2020). Filipino Americans recognized racial discrimination and a colonial mindset as noteworthy factors contributing to stigma. These individuals experienced distress due to the pressure to maintain their reputation, racial discrimination, and the impact of a colonial mindset (Park et al., 2023), which could be explained by the Philippines being colonized by Spain for almost 400 years and the United States for almost 50 years (Nadal, 2021). However, because of the stigma associated with seeking help, they refrained from accessing the essential mental health care they require. Moreover, this reluctance to use mental health services exacerbated their mental distress, making the situation even more severe.

Functional Impairment and its Correlation with Mental Distress

Comprehending an individual's mental well-being and capacity to function effectively in social, professional, or family contexts is pivotal. Two central concepts in this domain are mental distress and functional impairment. Exploring the association between these concepts is crucial since mental distress can detrimentally affect an individual's relationships with friends, family, social circle, and professional life (Cree et al., 2020). Cree and the team noted that the CDC evaluated the 2018 Behavioral Risk Factor Surveillance data to investigate this correlation. The data analysis revealed that approximately 26.2% of the adult population in the United States who responded to questions about disability and mental distress acknowledged having a disability (Cree et al., 2020). The most prevalent types of disabilities were related to cognition and mobility.

Their study showed that individuals facing functional impairment were 4.6 times more likely to experience mental distress than those without (Cree et al., 2020). About 55.6% of individuals with cognitive and mobility disabilities reported experiencing mental distress, 8.8 times more than those without disabilities (Cree et al., 2020).

Furthermore, Cree et al. (2020) noted that mental distress and impairment were more prevalent among females, unmarried individuals, unemployed, and low income. Moreover, Asians, Hispanics, and individuals in the middle-aged or older age groups who experienced impairment had lower mental distress levels than Whites and younger individuals. Breslau et al. (2020) supplemented this by indicating that mental distress and functional impairment vary across ethnic groups. While affirming Cree et al.'s findings on the highest correlation between mental distress and impairment in Whites, Breslau et al.'s research revealed that Blacks exhibited the lowest correlation, contrary to Cree et al.'s findings. Additionally, McMurtry et al. (2019) contradicted Cree et al. and Breslau et al. by observing higher racial discrimination associated with mental distress among Asian Americans compared to Whites, which posed a threat to functional impairment.

In a study conducted in rural Ethiopia, Habtamu et al. (2019) found that a majority of diagnosed participants with depression were predominantly married females, averaging 38.1 years old. Their findings aligned with Cree et al. (2020), except for marital status, where depression was higher among married females (Habtamu et al.), while mental distress was higher among unmarried females (Cree et al.). Habtamu et al. explained that higher depression scores correlated with more significant functional impairment. Conversely, better social support and higher education levels showed a

significant association with lower functional impairment. Additionally, Cree et al. highlighted that mental distress could adversely impact physical disability, symptoms of chronic conditions, and overall functional impairment, suggesting nationwide implications that warrant concern. These findings indicate widespread implications that merit attention.

Mental Health Service Utilization

Numerous studies have explored the utilization of mental health services among Asian Americans. In a study conducted by Yang and colleagues in 2019, they investigated the utilization of mental health services within White and Asian American populations, using data from the National Survey on Drug Use and Health covering the years 2012 to 2016. Yang et al. found that around 19% of White individuals received mental health treatment, whereas only 5.8% of Asian Americans accessed such services during the same period. Their study also revealed that 8.1% of married Asian Americans reported a perceived need for mental health treatment, with 11.2% indicating severe mental distress. In contrast, Yang et al. (2019) reported that 22.7% of White individuals acknowledged a perceived need for mental health treatment, and 16.2% experienced severe mental distress. Lee et al. (2020) explained in their study that married Asian Americans with perceived mental health needs were less inclined to seek mental health assistance.

Additionally, Lee et al. (2021) conducted research involving 243 adults aged 50 or older to investigate mental health screening needs and treatment interests for African Americans and Asian Americans. They observed that 30.6% of Asian Americans sought

help from their primary care providers, while 38.2% turned to mental health professionals (Lee et al., 2021). These findings were in line with previous research, emphasizing a consistent trend where Asian Americans were less likely than their White counterparts to access mental health care.

While some studies did not stratify Asian American subgroups, other available studies have examined various subethnic groups. For instance, Karasz et al. (2019) conducted a systematic review that focused on the experiences of South Asian subgroups with distinct mental health needs, such as women, older individuals, youth, and specific professional groups, with a particular emphasis on the United States. Their research demonstrated the specific mental health needs of South Asians and the underutilization of mental health care among foreign-born South Asians.

Balaraman et al. (2022) analyzed data from the National Health Interview Survey spanning from 2006 to 2018, including a sample of 282,382 Non-Hispanic Whites (NHW), 4,242 Asian Indians, 4,595 Chinese, and 4,805 Filipinos. Their findings indicated that 2.1% of Asian Indians, 2.2% of Chinese, 2.9% of Filipinos, and 4.4% of NHW experienced severe mental distress. However, the utilization rate of mental health services for NHW was 8.3%, while it was 4.4% for Filipinos, 3.4% for Chinese, and 2.8% for Asian Indians. Kim and Lee (2021) also conducted a systematic review exploring mental health help-seeking behaviors among various ethnic groups, including Filipinos. This review analyzed 34 peer-reviewed articles published between 1992 and 2020, with four studies explicitly focusing on Filipino Americans. Their findings highlighted that older Filipino Americans with mental health conditions were more likely

to seek help from health care professionals, providing insights into the influence of age on mental health utilization.

In a similar study, Martinez et al. (2020) conducted a systematic review using 15 studies to analyze Filipinos' attitudes and behaviors globally seeking help. The study included 5096 Filipinos, with observations that Filipinos tend to seek professional help when facing severe mental health conditions. This study included a larger female population, which may have implications for understanding mental health utilization in California.

In a study by Ventinilla (2019), an analysis of data from the California Health Interview Survey was conducted to gain insights into the mental health status and usage of mental health care services among Asian Americans in California. The data was divided into subgroups to discern variations among the 2,460 ethnic groups. Ventinilla's findings indicated that Filipino Americans exhibited the highest incidence of mental health conditions among the ethnic groups examined in the research, aligning with the observations made by Balaraman et al. (2022), who also noted a similar trend in their study concerning Filipino Americans. Furthermore, Ventinilla's study revealed that Filipinos had the highest percentage of individuals with insurance coverage among the various subgroups. Interestingly, Filipino Americans displayed a greater willingness to access mental health services, which contradicted the findings of Martinez et al. (2020), who reported that Filipinos typically sought professional help only in severe cases. It is worth noting that Ventanilla's research focused explicitly on Filipino Americans in California, while Martinez's study investigated the attitudes of Filipino Americans on a

global scale. The difference in geographical location may contribute to the disparities in mental health service utilization rates.

In the study by Serafica et al. (2023), data was examined involving 89 Filipino Americans (residing in the US) and 95 individuals (residing in the Philippines), all living in urban areas using the I-HELP-FILIPINOS database to measure predictors of psychological distress such as country of residence, work, money, or living with someone. The findings from their analysis indicated that 57.3% of Filipino Americans and 83.2% of Filipinos encountered psychological distress, though the level of distress was higher among the Filipino participants (Serafica et al., 2023). Additionally, the research unveiled connections between psychological distress and variables like age and employment status.

Yoon and Jang (2019) investigated data obtained from 508 Filipino Americans who participated in the 2002 National Latino and Asian American Study to explore their inclination to seek professional assistance. Their data revealed that 48.4% of Filipino Americans fell within the 18-39 age category, 53.7% were females, and 89.6% had at least a high school education. Furthermore, 9.6% of the participants reported having psychiatric disorders (Yoon & Jang, 2019). Notably, 86.5% of the participants were willing to seek professional help (Yoon & Jang, 2019). The research noted that Filipino women were 1.75 times more likely to seek professional help than Filipino men (Yoon & Jang, 2019), consistent with the observations made by Martinez et al. (2020). This study underscored the importance of gender distinctions in mental health service utilization.

Although my study examined mental distress, functional impairment, and mental health utilization, it is distinct in that it focused solely on Filipino Americans residing in California. By narrowing the population, my research aims to provide specific findings regarding the association between mental distress, functional impairment, and mental health utilization among Filipino Americans in California.

Summary and Conclusions

There is a growing concern regarding the mental health of Filipino Americans. Previous studies have shed light on this issue. For instance, Balaraman et al. (2022) conducted a study that revealed 2.9% of Filipinos experiencing severe mental distress, coupled with a low mental health utilization rate of 4.4% for this group. In contrast, Kim and Lee (2021) found that older Filipino Americans dealing with mental health problems were more inclined to seek assistance from healthcare professionals. These findings appear to contradict the observations made by Martinez et al. (2020), who noted that Filipinos worldwide typically sought professional help only in severe cases of mental health conditions. It is important to note that Kim and Lee's study participants were based in the United States, whereas Martinez et al. had a global participant pool.

Ventinilla's study, conducted in 2019, was centered on Filipino Americans residing in California. The findings indicated that this group exhibited the highest prevalence of mental health conditions, a trend that was also observed by Balaraman et al. in their 2022 study. Additionally, Ventinilla's investigation revealed that Filipino Americans had the most significant accessibility to mental health services, which corresponded with their higher rate of insurance coverage.

However, in a distinct study conducted by Serafica et al. in 2023, a comparison was made between the levels of mental distress experienced by Filipino Americans and Filipinos. This analysis revealed that Filipinos experienced a higher degree of mental distress in comparison to Filipino Americans. Notably, this is the sole study I have come across that directly compares mental distress between these two groups.

Both Yoon and Jang (2019) and Ventinilla (2019) arrived at similar conclusions regarding the willingness of Filipino Americans to seek mental health services. Despite this evidence, there remains a lack of comprehensive research on mental health utilization among Filipino Americans. It is of utmost importance to delve into how mental distress and functional impairment affect the utilization of mental health services in this population. Access to crucial information for decision-making and planning to reduce mental distress and functional impairment within this community is imperative for improving mental health outcomes in the future. The results of my research study may offer valuable insights into the impact of mental distress and functional impairment on the utilization of mental health services by Filipino Americans.

A quantitative research methodology was employed to investigate the association between mental distress and functional impairment concerning the utilization of mental health services among Filipino Americans living in California to bridge this knowledge gap. In Chapter 3, the research methodology used to address these research inquiries was thoroughly explained, encompassing details about the study population, sampling techniques, data collection procedures, and the data analysis plan.

Chapter 3: Research Method

In this quantitative study, I investigated the association between mental distress and functional impairment and how these factors influence the use of mental health services among Filipino Americans. Mental distress refers to vague symptoms related to stress, anxiety, and depression that individuals experience when facing challenging situations (Vierto et al., 2021). Conversely, functional impairments relate to difficulties performing daily activities due to complete or partial loss of function in a specific body part or system (CDC, 2020). These impairments can be physical, cognitive, sensory, or a combination of these challenges. In this chapter, I discuss the research design and rationale, methodology, data analysis plan, threats to validity, and summary.

Research Design and Rationale

I used two ordinal independent variables in my study. The first variable is the total score of the K6, which measures mental distress. Participants answered questions about their emotions and experiences over 30 days using a 5-point Likert scale (Tomitaka & Furukawa, 2021). The total score was calculated by summing the scores for the six questions. Scores of 5 or higher suggest a moderate prevalence of mental distress, while scores of 13 or higher indicate a high incidence of severe mental distress (Tomitaka & Furukawa, 2021; Umucu et al., 2020). The second independent variable is the overall SDS, which assesses functional impairment (Lu et al., 2021). Participants answered four questions on a 3-point Likert scale, except for the work question, which is a 4-item scale. The total scores of the four questions were added. High scores on the SDS indicated

functional impairment (Han et al., 2021), and Zeljic et al. (2020) noted that a subscale score greater than five may also indicate functional impairment.

The categorical dependent variable in this study was the mental health utilization of Filipino Americans. Mental health utilization was measured by factors such as prescription drug intake, visits to primary care physicians or general practitioners, and visits to other professionals such as counselors, psychiatrists, or social workers. I also examined demographic characteristics such as gender, age, marital status, education, employment status, and income as confounding variables.

In this quantitative research, the approach to investigate the research questions involved employing a cross-sectional study design and using secondary data derived from the CHIS (2023a). The CHIS originated in 2001 as a biennial population-based survey conducted in California. However, from 2011 onward, data collection transitioned to a continuous two-year cycle until 2020. By 2021, data was presented on an annual basis. As of 2019, the CHIS introduced a modified data collection method using web- and telephone-based techniques. Prior to this change, interviews were conducted solely through telephone communication. These topics included healthcare accessibility and utilization, health conditions, and various health-related behaviors. Notably, these interviews were available in multiple languages: English, Spanish, Chinese (specifically Mandarin and Cantonese), Korean, Japanese, Vietnamese, and Tagalog. Before 2019, study participants were randomly selected based on their telephone numbers. However, starting in 2019, the selection method was altered to focus on addresses. Data analyzed for this study included two years of secondary data from the CHIS conducted between

March 2021 – November 2022. Publicly available data on adult Filipino Americans were included in the study.

Wang and Cheng (2020) explained that a cross-sectional study design is an observational study where the exposures and outcomes are simultaneously measured for each participant. This research approach has been employed in various studies to measure the prevalence of specific outcomes and identify the associated factors. Wang and Cheng delineated the distinct subject selection methods used in case-control, cohort, and cross-sectional studies. In case-control studies, participants are chosen based on their outcome status, whereas in cohort studies, they are selected based on their exposure to specific factors. In cross-sectional studies, subjects are drawn from the relevant population, aligning with the questions being studied. Given the information above, the cross-sectional study design was the most suitable choice for examining mental distress, functional impairment, and their impact on the mental health utilization of Filipino Americans. This study design offered the advantage of gathering data at a single time point without entailing ethical complexities (see Wang & Cheng, 2020).

Furthermore, the secondary data from the CHIS (2021a) were collected through a population-based cross-sectional approach involving California households. However, as Wang and Cheng (2020) pointed out, it is essential to note that a weakness of cross-sectional studies is the challenge of establishing causal relationships. For instance, while one may establish an association between mental distress, functional impairment, and the use of mental health services, there is typically no evidence to conclude that mental distress and functional impairment directly cause the utilization of mental health services.

Methodology

Target Population

The target population was adult Filipino Americans aged 18 and above residing in noninstitutionalized households in California. According to the California Department of Public Health (2022), approximately 22.1% of California's population comprises Filipino Americans, which makes them the second-largest ethnic group in the state. I used data concerning Filipino Americans collected between March 2021 and November 2022.

Sampling and Sampling Procedures

Data from Filipino Americans and mental health were requested from CHIS from March 2021 to November 2022. The inclusion criteria specified that participants must be adult Filipino Americans residing in noninstitutional households (CHIS, 2023). Exclusion criteria included addresses outside California, institutional residences like prisons, jails, psychiatric hospitals, extended-stay programs, long-term care facilities, and group quarters with nine or more unrelated individuals. If there is only one adult in the household, they are selected for the survey. However, if multiple adults are in the household, an adult with the next birthday is selected (CHIS, 2023).

The optimal study sample size for a binary logistic regression statistical analysis was determined using the Qualtrics sample size calculator (2023), applying the equation below.

$$\text{Sample size} = (\text{Z-score})^2 * \text{StdDev} * (1-\text{StdDev}) / (\text{margin of error})^2$$

Assuming that the population size was unknown, I used the following equation to calculate for my sample size: confidence interval = 95%, z score = 1.96, standard deviation .5 and margin of error = +/- 7% (Ghimire et al., 2018; Vargas& Huradi, 2015).

Sample size = $((1.96)^2 * .5(.5)) / .07)^2$

= 3.8416 * .25 / .0049

= .9604/.0049 = 196

Gao (2016) highlighted that one of the challenges in presenting data on Asian Americans as a separate group is their relatively small population size. Due to the smaller sample sizes, the margins of error tend to be larger. Ghimire et al. (2018) and Vargas and Huradi (2015) used a 7% margin of error in their research on Filipino Americans. Based on the calculations above, a study sample size of 196 participants was required.

Procedures for Recruitment, Participation, and Data Collection

The CHIS (2023) employed a mixed-mode approach, which combined web and telephone surveys and utilized an address-based sampling (ABS) method to secure a representative cross-section of California's population. The ABS sample was derived from the U.S. Postal Service's (USPS) computerized delivery sequence file (CDS), which included all delivery point addresses serviced by USPS.

Once selected, households received an invitation letter to complete the survey online. A prewritten script was offered to potential survey participants during the survey procedure (UCLA Center for Health Policy Research, n.d-a). It entailed the following:

- interviewer's introduction, UCLA, and the survey's sponsors
- defining the significance of the survey

- emphasizing the confidentiality and voluntary nature of the survey
- Inform participants about their right not to answer questions or end the interview at any time

The potential participant was then encouraged to participate in the survey. Their decision to continue was seen as their agreement to participate. If the survey needed to be completed after multiple reminders, an interviewer conducted it over the telephone. The survey was taken online or over the phone and was offered in multiple languages, including English, Spanish, Chinese (specifically Mandarin and Cantonese), Korean, Japanese, Vietnamese, and Tagalog (CHIS, 2023a). The survey covered various topics, including mental health, service utilization, and accessibility. The inclusion criteria specified that participants must be adult Filipino Americans residing in non-institutional households. Exclusion criteria encompassed addresses outside California, institutional residences like prisons, jails, psychiatric hospitals, extended-stay programs, long-term care facilities, and group quarters with nine or more unrelated individuals. Questionnaires that were 80% complete were counted as complete (CHIS, 2021a).

Permission was requested by contacting the Data Access Center (DAC) based at the UCLA Center for Health Policy and Research (UCLA Center for Health Policy Research, n.d.-b). I also submitted a DAC project application nondisclosure agreement (NDA). Once the NDA was approved, I provided the variables and specifications I needed for my research. I also created an account to access the DAC dashboard.

Instrumentation and Operationalization of Constructs

One of the independent variables in this study was mental distress. Numerous studies have been conducted to evaluate the accuracy and effectiveness of the K6 (see Appendix A) in various populations and settings. The K6 is a patient-reported tool designed to assess the presence and severity of mental distress (Lace et al., 2018). Kessler et al. (2003) assessed the conciseness and precision of the K6. They found that scores of 5 or higher indicated a moderate level of mental distress, while scores of 13 or higher signified a high degree of severe mental distress.

Umucu et al. (2022) also investigated the validity and reliability of the K6 across diverse populations and settings. Their findings align with a study by Ferro (2019), where nonspecific psychological distress was measured as a unified construct in individuals with mental disorders. The K6 scale displayed a strong consistency across different sample populations (Ferro, 2019; Umucu et al., 2022), consistent with the 2003 study by Kessler et al. that accurately identified individuals with mental disorders compared to those without.

In a study conducted by Lace et al. (2018), the total K6 cutoff score was 10, which was lower than the previously reported cutoff score of 13 by Ferro (2019), Kessler et al. (2003), and Umucu et al. (2022). Lace et al. also determined cutoff scores for K6-Depression (4) and K6-Anxiety (4). Their study demonstrated a classification accuracy of 71%, which was lower than the 86-87% accuracy reported by Ferro (2019) and Umucu et al. (2022). The cutoff scores identified by Lace et al. appeared to fall between the 5 - 13 range of previously reported cutoff scores. Therefore, using the K6 as a comprehensive

screening tool may be more beneficial due to its reliability, as demonstrated in prior research.

Mental distress was assessed using the K6 scale, which consists of six questions that inquire about an individual's feelings of nervousness, hopelessness, restlessness or fidgetiness, depression, the perception that everything is an effort, and feelings of worthlessness over the past 30 days (Kessler et al., 2002). Participants' responses were rated on a 5-point Likert scale, ranging from 1 (none or never) to 5 (all the time). The total score on this scale ranges from 6 to 30, with scores of 5 or higher indicating a moderate level of mental distress, while scores of 13 or higher signify severe mental distress (Kessler et al., 2003).

The second variable under examination in this study is functional impairment. Zlejic et al. (2020) noted that the SDS (see Appendix B) has been translated into over 30 languages and adapted for various dialects. The SDS assesses disability or functional impairment across three domains: work/school, social life/leisure activities, and family life/home responsibilities, as outlined by Sheehan et al. (1996), as referenced in Zlejic et al. (2020). Each of these subdomains is rated on a scale that ranges from 0 (indicating no impairment) to 10 (indicating severe impairment), with the total functional impairment score computed on a scale ranging from 0 (indicating no impairment) to 30 (indicating high impairment), as described by Han et al. (2021). The SDS total score is obtained by summing the subscale scores where scores equal to or greater than five indicate impairment, in line with Leon et al. (1997), as cited in Feinstein et al. (2018). A higher SDS score signifies a higher degree of functional impairment.

Numerous studies have been conducted to validate the psychometric properties of the SDS. In 1992,Leon et al. (as cited in Bovin et al., 2018) established acceptable internal consistency and demonstrated satisfactory construct and criterion-related validity. Arbuckle et al. (2009) also reported excellent internal consistency reliability for the total SDS score (Cronbach's alpha = 0.89). The test-retest reliability for the SDS total score was acceptable (intraclass correlation coefficient = 0.73). Correlations with other assessment tools indicate both convergent and divergent validity. These findings collectively demonstrate the reliability of the SDS as a measure of functional impairment, and its brevity adds to its appeal, as it employs concise three-item questionnaires suitable for clinical settings (Kim et al., 2021b).

Functional impairment is assessed through the SDS, which comprises four questions inquiring if an individual's emotions interfered with their performance at work/school, household chores, social life/leisure activities, and relationships with family and friends (Sheehan et al., 1996), as referenced in Zlejic et al. (2020). Participants' responses were rated on a 3-point Likert scale, with options ranging from 1 (a lot) to 3 (not at all). The SDS total score is calculated by adding the scores from these subdomains, with scores equal to or greater than five signifying impairments, as indicated by Leon et al. (1997), as cited in Feinstein et al. (2018).

The dependent variable under consideration is the utilization of mental health services. The response to this variable is determined using three distinct mental health services listed below, serving as measures for mental health utilization:

- 1. The use of prescription drugs.

- 2. Visits to a primary care physician or general practitioner.
- 3. Consultations with other professionals, such as counselors, psychiatrists, or social workers.

Demographic factors, including age, gender, marital status, education, employment status, and income were also part of the analysis.

Data Analysis Plan

The software I used for quantitative analysis was SPSS version 28, a statistical platform designed to examine numerical data from various datasets (see Wagner, 2019). Before data analysis, a data management process was undertaken to prepare the data for analysis, involving the transformation and definition of variables. For instance, in this study, the dependent variables were dichotomous, exhibiting only two distinct values, 'yes' or 'no,' as Wagner (2019) described. Kotronoulas et al. (2023) additionally emphasized that assigning codes to them for result interpretation is essential for dichotomous variables.

Conversely, the independent variables were considered ordinal, continuously measured with numerical values (see Laerd Statistics, 2018b). Data was initially entered into a program such as Microsoft Excel and subsequently subjected to a cleaning process, which involved identifying and rectifying data entry errors, inconsistencies, or missing values, as Kotronoulas et al. (2023) recommended. Any missing values were assigned specific codes to facilitate interpretation. Wagner (2019) also pointed out that variable recoding may be necessary depending on the type of analysis being conducted.

Furthermore, conducting descriptive statistics, including generating frequency tables for each variable, effectively identifies errors such as inconsistent data entry, misspellings, or values that fall outside the expected range (Kotronoulas et al., 2023). Kotronoulas et al. (2023) underscored the importance of data cleaning and screening, contributing to quality assurance and validity checks. Neglecting data cleaning and screening can adversely affect the results' accuracy.

Interferential statistics was used to test different hypotheses in this study to return a probability of whether there is an association, no effect, or difference (Kotronoulas et al., 2023). The null hypothesis was either valid or invalid. Essentially, the aim was to disprove the null hypothesis when it is invalid, as this confirms the truth of the alternative hypothesis. Similarly, the objective was to avoid incorrectly rejecting a true null hypothesis. Researchers established specific criteria to determine the level of certainty they need in their decisions, often expressed as probabilities (Kotronoulas et al., 2023).

For this study, bivariate analysis was employed as the inferential statistics method. Bivariate analysis was used for the independent variables (mental distress and functional impairment) and the dependent variables of mental health utilization, with covariates included in the research questions. Binary logistic regression was employed since the dependent variable was binary (yes or no). Mental health utilization was predicted by variables such as prescription medication intake, visits to primary care physicians or general practitioners, and visits to other professionals such as counselors, psychiatrists, or social workers, with mental health utilization measured on a dichotomous scale (yes or no). Althouse et al. (2021) emphasized the significance of

using covariates because they can influence the association between the independent and dependent variables, enhancing statistical power and reducing bias.

The objective of this research is to examine whether mental distress and functional impairment have an impact on mental health utilization among adult Filipino Americans living in California. Mental distress and functional impairment are examined to determine their association with mental health utilization while controlling for variables such as age, gender, marital status, education, employment status, and income. Here are the research questions for this study.

RQ1: Is there an association between mental distress and functional impairment and the use of prescription medications among Filipino Americans while controlling for age, gender, marital status, education, employment status, and income?

$H_0$1: There is no association between mental distress and functional impairment and the use of prescription medications among Filipino Americans while controlling for age, gender, marital status, education, employment status, and income.

H_a1: There is an association between mental distress and functional impairment and the use of prescription medications among Filipino Americans while controlling for age, gender, marital status, education, employment status, and income.

RQ2: Is there an association between mental distress and functional impairment and visiting primary care physicians or general practitioners among Filipino Americans

while controlling for age, gender, marital status, education, employment status, and income?

$H_0$2: There is no association between mental distress and functional impairment and visiting primary care physicians or general practitioners among Filipino Americans while controlling for age, gender, marital status, education, employment status, and income.

H_a2: There is an association between mental distress and functional impairment and visiting primary care physicians or general practitioners among Filipino Americans while controlling for age, gender, marital status, education, employment status, and income.

RQ3: Is there an association between mental distress and functional impairment and visiting other professionals such as counselors, psychiatrists, or social workers among Filipino Americans while controlling for age, gender, marital status, education, employment status, and income?

$H_0$3: There is no association between mental distress and functional impairment and visiting other professionals such as counselors, psychiatrists, or social workers among Filipino Americans while controlling for age, gender, marital status, education, employment status, and income.

H_a3: There is an association between mental distress and functional impairment and visiting other professionals such as counselors, psychiatrists, or social workers among Filipino Americans while controlling for age, gender, marital status, education, employment status, and income.

Statistical Analysis

The initial step in the statistical analysis plan involved performing descriptive statistics on the dataset. The study's variables (see Table 1) were analyzed through tables, graphs, and data summaries using SPSS version 28. Binary logistic regression was employed to examine the hypotheses and provide answers to the research inquiries (see Table 2).

Table 1

Summary Table of Variables

Variable	Index	Operational measure
Dependent variables (DV)	Mental health utilization measured as:	
	• Visit to a primary care provider	"Yes" is coded as "1", "No" is coded as "2"
	• Visit to psychiatrist or mental health professional	"Yes" is coded as "1", "No" is coded as "2"
	• Prescription drug use	"Yes" is coded as "1", "No" is coded as "2"
Independent variables (IV)	Mental distress	Measured using the K6 scale where ranges start from 0 (not at all), 1 (a little of the time), 2 (some of the time), 3 (most of the time), and 4 (all the time). The scores from all six questions are summed to calculate the total score. Scores of 0 to 4 indicate no or low distress, 5 or higher indicate a moderate level of mental distress, while scores of 13 or higher signify a severe mental distress.
	Functional impairment	Measured using SDS where ranges start from 0 (none or never), 1 (moderate) to 2 (severe). The scores from all three questions are combined to determine the total score. Scores of 0 to 4 indicate no functional impairment, while 5 or more indicate a functional impairment.
Control variables (CV)	Gender	"Male" is coded as "1", "Female" is coded as "2"
	Age	Coded according to age groups: 18 – 29, 30 – 39, 40 – 49, 50 – 59, 60 – 69, 70 and older.
	Education	Coded according to education categories: some high school or high school graduate, some college or college graduate, and some graduate or professional degree.

Variable	Index	Operational measure
	Marital status	"Married" is coded as "1", "Unmarried" is coded as "2"
	Employment	"Employed" is coded as "1", "Unemployed" is coded as "2"
	Income	Coded according to income levels: <60000; 60,000-119,999; 120,000-159,999; 160,000-179,999; and > 180,000.

Table 2

Summary Table of Research Questions, Statistical Test, and Operational Measures

Research questions	Statistical test	Operational measure
RQ1	Binary logistic regression tests the association between mental distress and functional impairment and the use of prescription medication while controlling for socio-demographics.	DV: Participant's response to use of prescription medication, "Yes" coded as "1", "No" coded as "2". IV: Participant's response to K6 coded on a scale from "0" (lowest) to "4" (highest), with scores from all six questions added to obtain a total score; scores of 0 – 4 are coded as no or low mental distress, 5 – 12 are coded as moderate distress, and scores of 13 or higher are coded as severe mental distress. Functional impairment was coded as "0" (lowest) to "2" (highest), with scores from all three questions combined to determine the total score; scores between 0 to 4 are coded as no functional impairment, and scores of 5 or higher are coded as functional impairment. CV: participant's response to socio-demographic questions: gender, "Male" is coded as "1", "Female" is coded as "2"; age, measured in years; education measured according to education level completed, marital status; Married" is coded as "1", "Unmarried" is coded as "2"; employment, "Employed" is coded as "1", "Unemployed" is coded as "2"; and income, measured in US dollars.
RQ2	Binary logistic regression tests the association between mental distress and functional impairment and visits to primary care physicians or general	DV: Participant's response to visits to primary care physicians or general practitioners, "Yes" coded as "1", "No" coded as "2". IV: Participant's response to K6

Research questions	Statistical test	Operational measure
	practitioners while controlling for socio-demographics.	coded on a scale from "0" (lowest) to "4" (highest), with scores from all six questions added to obtain a total score; scores of 0 – 4 are coded as no or low mental distress, 5 – 12 are coded as moderate distress, and scores of 13 or higher are coded as severe mental distress. Functional impairment was coded as "0" (lowest) to "2" (highest), with scores from all three questions combined to determine the total score; scores between 0 to 4 are coded as no functional impairment, and scores of 5 or higher are coded as functional impairment. CV: participant's response to socio-demographic questions: gender, "Male" is coded as "1", "Female" is coded as "2"; age, measured in years; education measured according to education level completed, marital status; Married" is coded as "1", "Unmarried" is coded as "2"; employment, "Employed" is coded as "1", "Unemployed" is coded as "2"; and income, measured in U.S. dollars.
RQ3	Binary logistic regression tests the association between mental distress and functional impairment and visits to other professionals such as counselors, psychiatrists, or social workers while controlling for socio-demographics.	DV: Participant's response to visits to other professionals such as counselors, psychiatrists, or social workers, "Yes" coded as "1", "No" coded as "2". IV: Participant's response to K6 coded on a scale from "0" (lowest) to "4" (highest), with scores from all six questions added to obtain a total score; scores of 0 – 4 are coded as no or low mental distress, 5 – 12 are

Research questions	Statistical test	Operational measure
		coded as moderate distress, and scores of 13 or higher are coded as severe mental distress. Functional impairment was coded as “0” (lowest) to “2” (highest), with scores from all three questions combined to determine the total score; scores between 0 to 4 are coded as no functional impairment, and scores of 5 or higher are coded as functional impairment. CV: participant’s response to socio-demographic questions: gender, “Male” is coded as “1”, “Female” is coded as “2”; age, measured in years; education measured according to education level completed, marital status; Married” is coded as “1”, “Unmarried” is coded as “2”; employment, “Employed” is coded as “1”, “Unemployed” is coded as “2”; and income, measured in U.S. dollars.

Upon evaluating various statistical methods, binary logistic regression was deemed the most suitable for the study. The following are assumptions of binary logistic regression that need to be fulfilled:

1. The dependent variable is measured on a dichotomous scale. The study’s dependent variable is mental health utilization, which is determined using three distinct mental health services: the use of prescription drugs, visits to a primary care physician or general practitioner, and consultations with other professionals, such as counselors,

psychiatrists, or social workers. These services are measured on a dichotomous scale (Y/N) (Laerd Statistics, 2018a).

2. The study's independent variables are measured either on a continuous (interval or ratio scale variable) or nominal scale variable (Laerd statistics, 2018a). The two independent variables (mental distress and functional impairment) are continuous.

3. No extreme outliers in the dataset. The dataset was verified by calculating Cook's distance (or Di) (Bradley, 2023).

4. Avoid multicollinearity among independent variables (Harris, 2021). Collinearity tolerance values below 0.1 indicate a high correlation between variables (Bradley, 2023).

5. Check the independent variables' linearity and log odds using the Box-Tidwell test transformation (Bradley, 2023).

After all assumptions were met, the binary logistic regression analysis was run in SPSS. Outputs included the Model Summary Table (featuring Nagelkerke R Square or pseudo R2), the Classification Table (comprising metrics like accuracy in classification, sensitivity, specificity, positive predictive value, and negative predictive value), and the Variables in the Equation (containing the Wald test, test significance, and odds ratios) (Laerd Statistics, 2018a).

Threats to Validity

The quality of research depends on the ability to verify its data independently. Internal and external validity are crucial concepts that assess the reliability and applicability of the data (Simkus, 2023). According to Lin et al. (2021), internal validity

refers to a study's capacity to establish causal relationships, while external validity pertains to applying the findings to a broader context. Lund Research Ltd. (2012a) explained that threats to external validity include selection biases, constructs, methods, confounding variables, experimental effects, experimenter bias, and the element of time.

As Creswell and Creswell (2018) described, selection bias occurs when study participants do not accurately represent the larger population under examination. This can lead to results that cannot be generalized to a broader population. To mitigate selection bias, researchers can limit claims about groups that cannot be generalized or conduct additional research with groups having different characteristics. Lund Research Ltd. (2012a) identified constructs, methods, and confounding variables as additional threats to external validity. It is essential to clearly define the constructs and variables measured in the study, as it is impossible to account for all possible interpretations and measurements of a concept. To address these threats, researchers should conduct additional experiments in different settings and compare the results with the initial setting (Creswell & Creswell, 2018).

Lund Research Ltd. (2012a) also noted that experimental effects, including subject and novelty effects and compensation, threaten external validity. Subject or novelty effects occur when participants behave differently in a study setting in real life, possibly affecting internal and external validity. Such behavioral changes may be attributed to participants' reactions, which can explain variations in the dependent rather than the independent variable. This, in turn, hampers the study's external validity as findings from experimental settings cannot be readily applied to real-life scenarios due to

these effects. Compensation practices that differ from the real world may also hinder data generalization. Experimenter effects, leading to experimenter bias, represent another threat to external validity, as they may skew the study's findings to reflect the researcher's personal biases (Lund Research Ltd., 2012a). Finally, the element of time can impact external validity, as social and cultural changes over time can affect the applicability of the research findings.

Simkus (2023) clarified that enhancing external validity can be achieved by employing probability sampling, recalibration, and establishing explicit inclusion and exclusion criteria. Probability sampling ensures that everyone has an equal opportunity to be chosen for participation in the study. Simkus added that recalibration involves using statistical techniques to guarantee accuracy, uniformity, and replicability within the study. Additionally, setting inclusion and exclusion criteria helps clearly define the population under investigation.

Internal validity threats applicable to the study include confounders, historical events, instrumentation, and maturation (Simkus, 2023). According to Burkholder et al. (2020), a confounder is an unmeasured variable that impacts the association of the independent and dependent variables. Salazar et al. (2015) explained that historical events may pose a threat when the situations between observations influence the results. Maturation exists when the subjects are older or have more experience. Instrumentation becomes a threat when the measuring instrument changes between observations. Simkus explained that random sampling reduces the threats to internal validity.

Ethical Procedures

The UCLA South General Institutional Review Board (IRB) approved IRB#11-002227, permitting the Data Analysis Center (DAC) to carry out analyses on CHIS data (UCLA Center for Health Policy Research, n.d.a). Stringent measures were in place to safeguard the data and maintain the highest level of confidentiality. Participants' details remained anonymous and unidentifiable. All individuals engaged in this research are legally obligated to uphold the confidentiality of the participants. No personal identities are retained, and any provided home addresses or phone numbers, if available, are excluded from the survey responses. To access the information, individuals must request the DAC and submit a Non-Disclosure Agreement (NDA) (UCLA Center for Health Policy Research, n.d.b). The data was downloaded after receiving NDA and will be accessible for two years. The Walden University Ethics Department was subsequently provided access to the website to ensure that all confidentiality procedures were followed and adhered to.

Summary

In this chapter, I outlined the methodology of my research study, potential threats to validity, and ethical protocols. The methodology covered aspects such as the sample population, sampling methods, data collection and confidentiality measures, equipment, and operational framework, as well as the strategy for data analysis. I also delved into the validity-related challenges and explored strategies for addressing or minimizing them.

Lastly, I addressed the ethical procedures involved in the study. The results of the data analysis are presented in Chapter 4, which includes descriptive information about the

participants, the outcomes of the chi-square tests and ordinal regression model, and appropriate data tables and figures.

Chapter 4: Results

In this study, I examined how mental distress and functional impairment impact the use of mental health services among adult Filipino Americans who lived in noninstitutionalized housing in California. This research involved analyzing secondary data from the CHIS collected between March 2021 to November 2022 and applying Andersen's behavioral model of health care utilization (CHIS, 2023b). Using IBM SPSS Version 28, I analyzed data to explore specific research questions and hypotheses:

RQ1: Is there an association between mental distress and functional impairment and the use of prescription medications among Filipino Americans while controlling for age, gender, marital status, education, employment status, and income?

$H_0$1: There is no association between mental distress and functional impairment and the use of prescription medications among Filipino Americans while controlling for age, gender, marital status, education, employment status, and income.

H_a1: There is an association between mental distress and functional impairment and the use of prescription medications among Filipino Americans while controlling for age, gender, marital status, education, employment status, and income.

RQ2: Is there an association between mental distress and functional impairment and visiting primary care physicians or general practitioners among Filipino Americans while controlling for age, gender, marital status, education, employment status, and income?

$H_0$2: There is no association between mental distress and functional impairment and visiting primary care physicians or general practitioners among Filipino Americans while controlling for age, gender, marital status, education, employment status, and income.

H_a2: There is an association between mental distress and functional impairment and visiting primary care physicians or general practitioners among Filipino Americans while controlling for age, gender, marital status, education, employment status, and income.

RQ3: Is there an association between mental distress and functional impairment and visiting other professionals such as counselors, psychiatrists, or social workers among Filipino Americans while controlling for age, gender, marital status, education, employment status, and income?

$H_0$3: There is no association between mental distress and functional impairment and visiting other professionals such as counselors, psychiatrists, or social workers among Filipino Americans while controlling for age, gender, marital status, education, employment status, and income.

H_a3: There is an association between mental distress and functional impairment and visiting other professionals such as counselors, psychiatrists, or social workers among Filipino Americans while controlling for age, gender, marital status, education, employment status, and income.

In this chapter, I reintroduce the study's purpose, research questions, and hypotheses. I then explore the specifics of data collection, including timeframes,

discrepancies, participant demographics, and the sample's representativeness. Moreover, I include the study's findings illustrated via tables and figures, concluding with a summary.

Data Collection

I explored the association between mental distress and functional impairment and mental health utilization. I used secondary data from adult Filipino Americans living in California collected between March 2021 to November 2022 (CHIS, 2023b). Interviews were conducted in six languages: English, Spanish, Chinese (both Mandarin and Cantonese dialects), Vietnamese, Korean, and Tagalog. These languages were selected based on an analysis of 2010 Census data to encompass the most significant number of Californians within the CHIS sample who either lacked English proficiency or preferred another language. The CHIS 2021-2022 data were collected by an independent research firm under contract with the UCLA Center for Health Policy Research (CHIS, 2023b).

In every chosen household, one randomly selected adult participated through an online survey or telephone interview facilitated by an interviewer (CHIS, 2023b). Both online and telephone interviews were conducted in six languages. Telephone interviews lasted approximately 72 minutes on average, whereas online interviews averaged about 47 minutes (CHIS, 2023b). Approximately 8% of adult interviews were conducted in a non-English language (CHIS, 2023b). Interviews in non-English languages required more time to conduct in both modes. The duration of non-English adult telephone interviews was an average of 83 minutes, while non-English online adult interviews took approximately 56 minutes.

Results

According to CHIS (2023b), the overall response rates for the CHIS 2021-2022 survey were a combination of the initial screening (introducing the survey and selecting an adult for the interview) and the extended interview (ensuring selected individuals finished the extended interview). The overall household response rate was 9.2%, calculated from a 13.3% screener response rate multiplied by a 69.5% extended interview response rate at the household level (CHIS, 2023b). Within the ABS sample, the extended interview response rate varied among adults, reaching 64.6% (CHIS, 2023b). Individuals who completed at least 80% of the questionnaire or up to Section K, which covers employment, income, poverty status, and food security, were categorized as "complete" after all efforts to finalize the full questionnaire were exhausted (CHIS, 2023b).

According to CHIS (2023b), the UCLA-CHPR staff managed the imputation of missing values. The nonresponse rate in CHIS 2021-2022 was less than 1% (CHIS, 2023b). However, questions with fewer respondents or addressing more sensitive topics were anticipated to exhibit higher nonresponse rates. Once all imputation procedures were completed, each step in the data quality control process was repeated to ensure consistency between imputed and nonimputed values.

I used SPSS version 28 to analyze the demographic characteristics of the sample. Out of the total sample ($N = 45,916$), 1,104 respondents identified as adult Filipinos. Focusing solely on the adult Filipino data, I conducted descriptive statistics for mental distress, finding 1,103 valid responses and one missing entry. There were 277 valid

responses and 877 missing entries in the functional impairment analysis. The CHIS (2023c) clarified that these 877 entries were deliberately marked as missing due to respondents being correctly skipped during data collection. To ensure only complete cases were used in my study, I filtered out the missing data in SPSS based on the functional impairment dataset, resulting in 227 valid cases being included in the final analysis.

The sociodemographic characteristics of the sample are outlined in Table 3.

Table 3

Descriptive Statistics for Gender, Age, Marital Status, Education, and Income

Variables	Frequency (*N*)	Percentage (%)
Gender		
Male	81	35.7
Female	146	64.3
Age		
18-29	65	28.6
30-39	73	32.2
40-49	49	21.6
50-59	27	11.9
60-69	12	5.3
70 and older	1	0.4
Marital status		
Married	87	38.3
Unmarried	140	61.7
Education		
Some HS or HS grad	13	5.7
Some college or college grad	154	67.8
Some graduate or professional degree	60	67.8 26.4
Income		

< 60,000	57	25.1
60,000-119,999	80	35.2
120,000-159,999	30	13.2
160,000-180,000	12	5.3
>180,000	48	21.1
Employment status		
Employed	193	85.0
Unemployed	34	15.0

The CHIS (2023b) sample was designed to yield insights into various county populations, ranging from large to medium-sized, as well as the minor county groups, taking population size into account. It also aimed to furnish statewide estimations encompassing the entire population, primary racial and ethnic demographics, and their respective subsets. The study categorized the 58 counties of the state into 44 distinct geographic sampling strata by employing a geographic stratification technique established in 2005(CHIS, 2023b). Moreover, within Los Angeles and San Diego counties— the two most populous in the state— 14 substrata were delineated.

Descriptive Statistics

Descriptive statistics for the main variables of the study, mental distress and functional impairment, are presented in Table 4. Each variable included responses from 227 participants. The mean score for the mental distress was 10.35 (*SD*=3.8). For ease of interpretation, I also ran mental distress as an ordinal scale based on the K6 interpretation where a score of zero to 4 indicates no or low mental distress, five or higher signifies moderate mental distress. In contrast, a score of 13 or higher indicates severe mental distress. This data suggested that 70% of respondents experience moderate mental

distress, 23.8% suffer from severe mental distress, and 6.2% reported experiencing little to no mental distress, as shown in Figure 1 below.

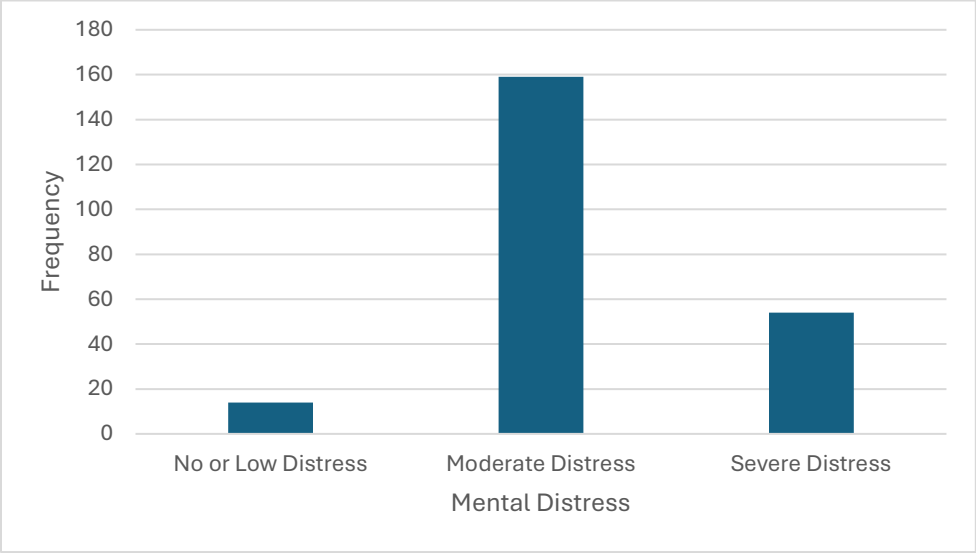
Table 4

Descriptive Statistics for Mental Distress and Functional Impairment

	N	Range	Minimum	Maximum	Mean	*SD*	Variance
Functional impairment	227	8.00	.00	8.00	5.0000	2.00000	4.000
Mental distress	227	22.00	.00	22.00	10.3480	3.80004	14.440
Valid *n* (listwise)	227						

Figure 1

Mental Distress in Adult Filipino Americans

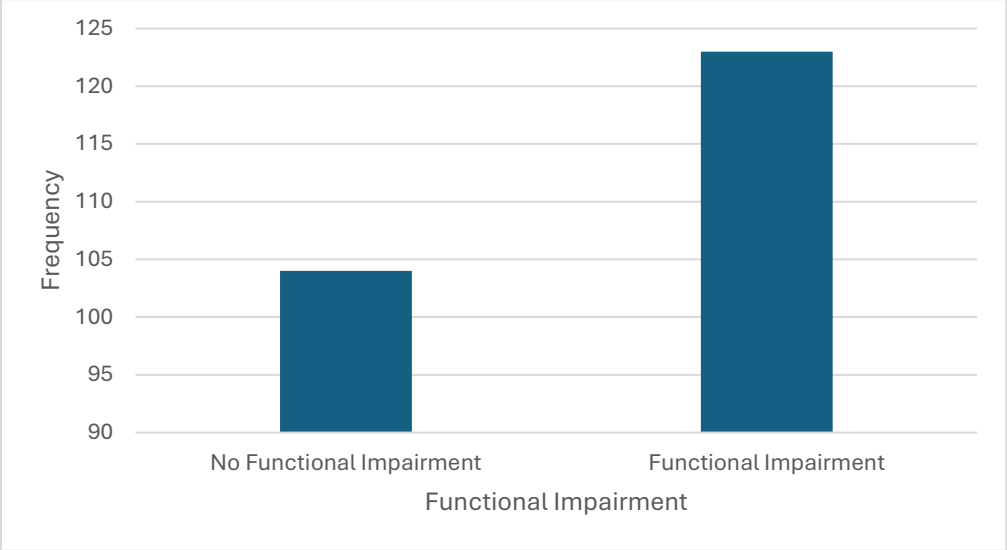


According to Leon et al. (1997), as referenced by Feinstein et al. (2018), SDS scores of five or above indicate functional impairment, with higher scores reflecting more significant levels of functional impairment. The mean score for functional impairment was 5 (*SD*=2.0). To simplify interpretation, I also analyzed functional impairment using a categorical scale based on the functional impairment interpretation, where scores of five

or higher indicate functional impairment. This analysis revealed that 54.2% of respondents experience functional impairment while 45.8% do not, as illustrated in Figure 2 below.

Figure 2

Functional Impairment in Adult Filipino Americans



Mental health utilization data measured by visits to a primary care physician or general practitioner; consultations with other professionals, such as counselors, psychiatrists, or social workers; and the use of prescription drugs is summarized in Table 5. Regarding mental health utilization, 20.7% reported seeing a primary care provider, while 79.3% did not. Additionally, 29.1% reported seeing a psychiatrist or mental health professional, whereas 70.9% did not. In terms of daily prescription use, 15.4% reported taking daily medication, while 84.6% did not.

Table 5

Descriptive Statistics for Mental Health Service Utilization

Overall $N = 227$

Variables	Frequency (*N*)	Percentage (%)
Visits to primary care provider		
Seen by a primary care provider	47	20.7
Not seen by a primary care provider	180	79.3
Visits to a psychiatrist or a mental health professional		
Seen by a psychiatrist or a mental health professional	66	20.7
Not seen by a psychiatrist or a mental health professional	161	79.3
Prescription intake		
Take prescription	35	15.4
Not taking prescription	192	84.6

Statistical Assumptions

Five assumptions were considered when running a binary logistic regression analysis (see Bradley, 2023). The first assumption is that the dependent variable is measured as a dichotomous scale. This assumption was met in this study. Mental health utilization, determined by three distinct mental health services (the use of prescription drugs, visits to a primary care physician or general practitioner, and consultations with other professionals, such as counselors, psychiatrists, or social workers) was measured on a dichotomous scale (Y/N; see Laerd Statistics, 2018a). The second assumption states that the two independent variables should be continuous or categorical variables. This assumption was also met. The third assumption is that there should be no

multicollinearity among independent variables (Bradley, 2023.). I used the collinearity tolerance values of less than 0.1 to test multicollinearity among the independent variables. As shown in Table 6 below, the collinearity tolerance values are greater than 0.1, indicating no multicollinearity among the independent variables. Bradley (2023) explained that a collinearity of less than 0.1 indicates a high correlation between variables. Hence, the assumption for multicollinearity was met.

Table 6

Collinearity Diagnostics

		Collinearity statistics	
Model		Tolerance	VIF
1	Functional impairment	.944	1.059
	Mental distress	.944	1.059

a. Dependent Variable: SRAGE

The fourth assumption is that the dataset should have no extreme outliers, verified by calculating D_i (Bradley, 2023). Glen (2016) suggested investigating a D_i greater than 0.5. Cook's distances were evaluated, with no variables in the analyses having a Cook's distance greater than 1. The largest Cook's distance was .063, suggesting that none of the cases in the dataset had an excessive influence on the model's results. Therefore, extreme cases were considered legitimate parts of the sample and were retained for the binary logistic regression analyses. Thus, the fourth assumption was met.

The last assumption was to check the independent variables' linearity and log

odds using the Box-Tidwell test transformation (Bradley, 2023). Tables 7, 8, and 9 demonstrated the interaction terms for the independent variables, and their log is not statistically significant. The results of the Box-Tidwell test indicated that the linearity assumption was not violated.

Table 7

Box-Tidwell Test for Use of Prescription Medication

								95% CI for *OR*	
		B	*SE*	Wald	*df*	Sig.	*OR*	Lower	Upper
Step 1[a]	LN_Age	-1.531	1.716	0.796	1	0.372	0.22	0.007	6.25
	LN_Functional Impairment	4.921	6.32	0.606	1	0.436	137.07	0.001	32832539
	LN_Mental Distress	-0.487	4.474	0.012	1	0.913	0.61	0	3952.662
	Constant	-0.828	10.838	0.006	1	0.939	0.447		

[a.] Variable(s) entered on step 1: Gender, Age, Education, Marital Status, Employment Status, Income, Functional Impairment, Mental Distress, LN_Age, LN_ Functional Impairment, LN_ Mental Distress.

Table 8

Box-Tidwell Test for Visits to Primary Care Provider

								95% CI for *OR*	
		B	*SE*	Wald	*df*	Sig.	*OR*	Lower	Upper
Step 1[a]	LN_Age	-0.094	1.446	0.004	1	0.948	0.91	0.054	15.483
	LN_ Functional Impairment	5.486	5.134	1.142	1	0.285	241.28	0.01	5656914
	LN_ Mental Distress	1.945	3.565	0.298	1	0.585	7.00	0.006	7574.472
	Constant	-5.735	8.484	0.457	1	0.499	0.00		

[a.] Variable(s) entered on step 1: Gender, Age, Education, Marital Status, Employment Status, Income, Functional Impairment, Mental Distress, LN_Age, LN_ Functional Impairment, LN_ Mental Distress.

Table 9

Box-Tidwell Test for Visits to Mental Health Professionals

								95% CI for *OR*	
		B	*SE*	Wald	*df*	Sig.	*OR*	Lower	Upper
Step 1[a]	LN_Age	0.172	1.39	0.015	1	1.188	1.19	0.078	18.102
	LN_ Functional Impairment	2.628	5.275	0.248	1	13.85	13.85	0	428311.5
	LN_ Mental Distress	1.02	3.357	0.092	1	2.773	2.77	0.004	1997.817
	Constant	-2.847	8.17	0.121	1	0.058	0.06		

[a.] Variable(s) entered on step 1: Gender, Age, Education, Marital Status, Employment Status, Income, Functional Impairment, Mental Distress, LN_Age, LN_ Functional Impairment, LN_ Mental Distress.

A chi-square test of independence was performed to explore the relationship between socio-demographic factors (gender, education, marital status, employment status, and income) and prescription intake (Table 10). Initially, the analysis yielded N/A results because one of the categories had low counts. Categories in the education and income variables were recoded to increase the expected frequencies. I recoded education as "college graduate and below" and "graduate and above". I also recoded income as "<120,000" and "≥120,000". The results revealed a significant association between gender and prescription intake, χ^2 (1) = 8.255, p = .004, Cramer's V = .191 and education and prescription intake, χ^2 (1) = 7.912, p = .005, Cramer's V = .186. The results showed that gender is associated with prescription intake, with males showing a higher preference than females. Education also demonstrated an association with college graduates preferring prescription intake to those with graduate or professional degrees. However,

no significant associations were found between marital status, employment status, or income ($p > .05$) and prescription intake.

Table 10

Chi-Square Test of Independence Between Sociodemographic Factors and Prescription Intake

	Take prescription		Not taking prescription		Total		Chi-square	*df*	P
	N	%	N	%	N	%			
Gender							8.255	1	.004
Male	5	14.3	76	39.6	81	35.7			
Female	30	85.7	116	60.4	146	64.3			
Education							7.912	1	.005
College graduate and below	19	54.3	148	77.1	167	73.6			
Graduate and above	16	45.7	44	22.9	60	24.6			
Marital Status							0.049	1	.825
Married	14	40	73	38	87	38.3			
Unmarried	21	60	119	62	140	61.7			
Employment Status							0.82	1	.365
Employed	28	80	165	85.9	193	85			
Unemployed	7	20	27	14.1	34	15			
Income							0.108	1	.742
<120, 000	22	62.9	115	59.9	137	60.4			
≥120,000	13	37.1	77	40.1	90	39.6			

A chi-square test of independence was performed to explore the relationship between socio-demographic factors (gender, education, marital status, employment

status, and income) and visits to a primary care provider (Table 11). Initially, the analysis produced N/A results, which, upon review, revealed that the expected frequencies were low. Categories in the education and income variables were recoded to increase the expected frequencies to address this issue. I recoded education as "college graduate and below" and "graduate and above". I also recoded income as "<120,000" and "≥120,000". After rerunning the chi-square test, a significant association was found between gender and visits to primary care providers, χ^2 (2) = 8.994, p = .003, Cramer's V = .199, and education and visits to primary care providers, χ^2 (1) = 5.969, p = .015, Cramer's V = .162. The results showed that gender is associated with visits to primary care providers, with males showing a higher preference than females. Additionally, education was associated with college graduates preferring visits to primary care providers than those with graduate or professional degrees. However, no significant associations were found between marital status, employment status, or income and visits to a primary care provider (p > .05).

Table 11

Chi-Square Test of Independence between Sociodemographic Factors and Visits to Primary Care Providers

	Seen by a primary care provider		Not seen by a primary care provider		Total		Chi-square	*df*	P
	N	%	N	%	N	%			
Gender							8.994	2	.003
Male	8	17	73	40.6	81	35.7			
Female	39	83	107	59.4	146	64.3			
Education							5.969	1	.015
College graduate and below	28	59.6	139	77.2		73.6			

					167				
Graduate and above	19	40.4	41	22.8	60	26.4			
Marital Status							0	1	.996
Married	18	38.3	69	38.3	87	38.3			
Unmarried	29	61.7	111	61.7	140	61.7			
Employment Status							0.194	1	.659
Employed	39	83	154	85.6	193	85			
Unemployed	8	17	26	14.4	36	15			
Income							2.408	1	.121
<120, 000	33	70.2	104	57.8	137	60.4			
≥120,000	14	29.8	76	42.2	90	39.6			

A chi-square test of independence was conducted to examine the relationship between socio-demographic factors (gender, education, marital status, employment status, and income) and visits to mental health professionals (Table 12). The initial analysis yielded N/A results due to low expected frequencies. Categories in the education and income variables were recoded to increase the expected frequencies to resolve this issue. I recoded education as "college graduate and below" and "graduate and above". I also recoded income as "<120,000" and "≥120,000". After rerunning the chi-square test to explore the relationship between socio-demographic factors (gender, education, marital status, employment status, and income) and visits to mental health professionals, the results revealed a significant association between gender and visits to mental health professionals, χ^2 (1) = 10.362, p = .001, Cramer's V = .214 and education and visits to mental health professionals, χ^2 (1) = 4.721, p = .03, Cramer's V = .144. The findings showed that males were more likely than females to visit mental health professionals, and

individuals with a college degree were more likely to visit mental health professionals than those with graduate or professional degrees. However, no significant associations were found between marital status, employment status, or income ($p > .05$) and visits to mental health professionals.

Table 12

Chi-Square Test of Independence between Sociodemographic Factors and Visits to Mental Health Professionals

	Seen by a psychiatrist or a mental health professional		Not seen by a psychiatrist or a mental health professional		Total		Chi-square	*df*	P
	N	%	N	%	N	%			
Gender							10.362	1	.001
Male	13	19.7	68	42.2	81	35.7			
Female	53	80.3	93	57.8	146	64.3			
Education							4.721	1	.03
College graduate and below	42	63.6	125	77.6	167	73.6			
Graduate and above	24	36.4	36	22.4	60	26.4			
Marital Status							0.152	1	.697
Married	24	36.4	63	39.1	87	38.3			
Unmarried	42	63.6	98	60.9	140	61.7			
Employment Status							0.208	1	.648
Employed	55	83.3	138	85.7	193	85			
Unemployed	11	16.7	23	14.3	34	15			
Income							0.419	1	.517
<120, 000	42	63.6	95	59	137	60.4			
≥120,000	24	36.4	66	41	90	93.6			

After all assumptions were met, the binary logistic regression analysis was run in SPSS. Outputs included the Model Summary Table (featuring Nagelkerke R Square or pseudo R2), the Classification Table (comprising metrics like accuracy in classification, sensitivity, and specificity), and the Variables in the Equation (containing the Wald test, test significance, and odds ratios) (Laerd Statistics, 2018a).

Research Questions and Hypotheses

This study addressed three research questions. The results of the binary logistic regression analysis are presented in this section. Statistical analysis was conducted to test the following research question and hypothesis.

Research Question 1

RQ1: Is there an association between mental distress and functional impairment and the use of prescription medications among Filipino Americans while controlling for age, gender, marital status, education, employment status, and income?

$H_0$1: There is no association between mental distress and functional impairment and the use of prescription medications among Filipino Americans while controlling for age, gender, marital status, education, employment status, and income.

H_a1: There is an association between mental distress and functional impairment and the use of prescription medications among Filipino Americans while controlling for age, gender, marital status, education, employment status, and income.

The binary logistic regression was used to examine the association between mental distress and functional impairment and the use of prescription medications while controlling for age, gender, marital status, education, employment status, and income. The logistic regression results were statistically significant, $X^2(13) = 33.579$, $p = .001$, indicating that the model effectively differentiated respondents who reported and did not report using prescription medication (see Table 13). The model explained between 13.8% (Cox & Snell R^2) and 23.8% (NagelKerke R^2) of the variance in prescription medication use (see Table 14) and accurately classified 86.3% of the cases (see Table 15). Sensitivity ("yes" for use of prescription medication) was 14.3%, and specificity ("no" for use of prescription medication) was 99.5%.

Table 16 demonstrated that the Wald test assessed the statistical significance of all variables included in the model. Three of the six predictor variables were statistically significant: no functional impairment $p = .018$, male gender $p = .006$, and college education $p = .004$. Including the covariables of gender and education significantly increased the variation in prescription medication intake. With all variables in the model, the odds ratio for functional impairment was 3.13, 95% CI [1.219, 8.050], $p \leq .05$, indicating a one-unit increase in functional impairment is associated with a 3.13% increase in prescription medication use while controlling for age, gender, marital status, education, employment, and income. However, no significant association was found between mental distress and visits to primary care physicians or general practitioners. Therefore, the null hypothesis was rejected, and the alternative hypothesis was accepted.

Table 13

Omnibus Tests of Model Coefficients of the Binary Logistic Regression Analysis of Mental Distress and Functional Impairment and Use of Prescription Medication

		Chi-square	*df*	Sig.
Step 1	Step	33.579	13	.001
	Block	33.579	13	.001
	Model	33.579	13	.001

Table 14

Model Summary of the Binary Logistic Regression Analysis of Mental Distress and Functional Impairment and Use of Prescription Medication

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	161.596[a]	0.138	0.238

a. Estimation terminated at iteration number 6 because parameter estimates changed by less than .001.

Table 15

Classification Table[a] of Binary Logistic Regression Analysis of Mental Distress and Functional Impairment and Use of Prescription Medication

		Predicted		
		Use of prescription medication		
Observed		Yes	No	Percentage correct
Step 1	Yes	5	30	14.3

	Use of prescription medication	No	191	99.5
	Overall percentage			86.3

a. The cut value is .500

Table 16

Variables in the Equation of the Binary Logistic Regression Analysis of Mental Distress and Functional Impairment and Use of Prescription Medication

		B	*SE*	Wald	*df*	Sig.	Odds Ratio	95% CI for Odds Ratio Lower	Upper
Step 1[a]	*Gender*								
	Female (ref)								
	Male	1.508	.549	7.544	1	.006	4.52	1.540	13.243
	Age	-.314	0.182	2.983	1	.084	.73	.512	1.04.
	Education			8.105	2	.017			
	Some HS or HS grad	.930	.964	.931	1	.335	2.53	.383	16.755
	Some college or college grad	1.285	.451	8.099	1	.004	3.61	1.492	8.752
	Marital Status								
	Unmarried (ref)								
	Married	.189	.487	0.151	1	.697	1.21	.465	3.139
	Employment Status								
	Unemployed (ref)								
	Employed	.725	.594	1.489	1	.222	2.06	.644	6.613
	Income (ref)			5.126	4	.275			
	< 60,000	-.507	.621	.666	1	.414	.60	.178	2.035
	60,000-119,999	.523	.629	.690	1	.406	1.69	.491	5.791
	120,000-159,999	.809	.799	1.026	1	.311	2.25	.469	10.744
	160,000-180,000	-.174	.938	.034	1	.853	.84	.134	5.283
	Functional Impairment								

	B	*SE*	Wald	*df*	Sig.	Odds Ratio	95% CI for Odds Ratio Lower	Upper
No Functional Impairment	1.142	.482	5.623	1	.018	3.13	1.219	8.050
Mental Distress			.149	2	.928			
No or Low Mental Distress	.250	.958	.068	1	.794	1.28	.196	8.389
Moderate Mental Distress	.178	.486	.134	1	.714	1.20	.461	3.097
Constant	-.075	.914	.007	1	.934	.93		

a. Variable(s) entered on step 1: Gender, Age, Education, Marital Status, Employment Status, Income, Functional Impairment, Mental Distress.

Research Question 2

RQ2: Is there an association between mental distress and functional impairment and visiting primary care physicians or general practitioners among Filipino Americans while controlling for age, gender, marital status, education, employment status, and income?

$H_0$2: There is no association between mental distress and functional impairment and visiting primary care physicians or general practitioners among Filipino Americans while controlling for age, gender, marital status, education, employment status, and income.

H_a2: There is an association between mental distress and functional impairment and visiting primary care physicians or general practitioners among Filipino Americans while controlling for age, gender, marital status, education, employment status, and income.

The binary logistic regression was used to examine the association between mental distress and functional impairment and visiting primary care physicians or general

practitioners while controlling for age, gender, marital status, education, employment status, and income. The logistic regression results were significant, X^2 (12) = 33.383, p = .001, indicating the model differentiated respondents who reported and did not report visiting primary care physicians or general practitioners (see Table 17). The model summary (see Table 18) explained between 13.7% (Cox & Snell R^2) and 21.4% (NagelKerke R^2) of the variance in visiting primary care physicians or general practitioners and correctly classified 83.39% of the cases (see Table 19). Sensitivity ("yes" for visiting primary care physicians or general practitioners) was 21.3%, and specificity ("no" for visiting primary care physicians or general practitioners was 99.4%.

Four of the eight predictor variables were statistically significant: male gender p = .010, age p = .027, college education p = .015, and no functional impairment p = .003. The addition of gender, age, and education as covariates significantly increased the variation in visits to primary care physicians or general practitioners. The negative coefficient for age predicted lower odds of visiting these healthcare providers. As reflected in Table 20, when all variables were included in the model, the odds ratio for functional impairment was 3.46, 95% CI [1.510, 7.943], p <.05. Therefore, a unit increase in functional impairment is associated with a 3.46% increase in visiting primary care physicians or general practitioners while controlling for age, gender, marital status, education, employment, and income. However, no significant association was found between mental distress and visits to primary care physicians or general practitioners. Therefore, the null hypothesis was rejected, and the alternative hypothesis was accepted.

Table 17

Omnibus Tests of Model Coefficients of Binary Logistic Regression Analysis of Mental distress and Functional impairment and Visits to Primary Care Providers

		Chi-square	df	Sig
Step 1	Step	33.383	13	.001
	Block	33.383	13	.001
	Model	33.383	13	.001

Table 18

Model Summary of Binary Logistic Regression Analysis of Mental distress and Functional Impairment and Visits to Primary Care Providers

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	198.166[a]	.137	.214

[a.] Estimation terminated at iteration number 5 because parameter estimates changed by less than .001.

Table 19

Classification[a] Table of Binary Logistic Regression Analysis of Mental distress and Functional Impairment and Visits to Primary Care Providers

Observed			Predicted		
			Visits to primary care providers		Percentage correct
			Yes	No	
Step 1	Visits to primary care providers	Yes	10	37	21.3
		No	1	179	99.4
	Overall percentage				83.3

[A.] The cut value is .500

Table 20

Variables in the Equation of Binary Logistic Regression Analysis of Mental Distress and Functional Impairment and Visits to Primary Care Providers

							Odds Ratio	95% CI for Odds Ratio	
		B	*SE*	Wald	*df*	Sig.		Lower	Upper
Step 1[a]	*Gender*								
	Female (ref)								
	Male	1.162	.451	6.645	1	.010	3.20	1.321	7.727
	Age	-.373	.168	4.923	1	.027	.69	.495	.957
	Education			6.035	2	.049			
	Some HS or HS grad	1.117	.924	1.461	1	.227	3.1	.500	18.682
	Some college or college grad	.982	.404	5.910	1	.015	2.67	1.209	5.888
	Marital Status								
	Unmarried (ref)								
	Married	.073	.431	.029	1	.866	1.08	.462	2.502
	Employment Status								
	Unemployed (ref)								
	Employed	.489	.555	.778	1	.378	1.63	.550	4.837
	Income (ref)			4.096	4	.393			
	< 60,000	-.457	.604	.574	1	.449	.63	.194	2.066
	60,000-119,999	-.837	.562	2.217	1	.136	.43	.144	1.303
	120,000-159,999	.234	.737	.101	1	.750	1.26	.299	5.341
	160,000-180,000	-.201	.918	.048	1	.826	.82	.135	4.939
	Functional Impairment								
	No Functional Impairment	1.242	.423	8.608	1	.003	3.46	1.510	7.943
	Mental Distress			.919	2	.632			
	No or Low Mental Distress	-.077	.827	.009	1	.926	.93	.183	4.683
	Moderate Distress	.356	.425	.701	1	.402	1.43	.621	3.283
	Constant	.517	.846	.373	1	.542	1.68		

[a.] Variable(s) entered on step 1: Gender, Age, Education, Marital Status, Employment Status, Income, Functional Impairment, Mental Distress.

Research Question 3

RQ3: Is there an association between mental distress and functional impairment and visiting other professionals such as counselors, psychiatrists, or social workers among Filipino Americans while controlling for age, gender, marital status, education, employment status, and income?

$H_0$3: There is no association between mental distress and functional impairment and visiting other professionals such as counselors, psychiatrists, or social workers among Filipino Americans while controlling for age, gender, marital status, education, employment status, and income.

H_a3: There is an association between mental distress and functional impairment and visiting other professionals such as counselors, psychiatrists, or social workers among Filipino Americans while controlling for age, gender, marital status, education, employment status, and income.

The binary logistic regression was conducted to investigate the association between mental distress and functional impairment and visiting other professionals such as counselors, psychiatrists, or social workers while controlling for age, gender, marital status, education, employment status, and income. The logistic regression results were significant, X^2 (13) = 34.641, p = <.001, indicating the model effectively distinguished respondents who reported and did not report visiting other professionals such as counselors, psychiatrists, or social workers (see Table 21). The model summary (see Table 22) accounted for 14.2% (Cox & Snell R^2) to 20.2% (NagelKerke R^2) of the variance in visiting other professionals such as counselors, psychiatrists, or social

workers and correctly classified 74.9% of the cases (see Table 23). Sensitivity ("yes" visiting other professionals such as counselors, psychiatrists, or social workers) was 30.3%, and specificity ("no" for visiting other professionals such as counselors, psychiatrists, or social workers) was 93.2%.

Table 24 demonstrated that the Wald test assessed the statistical significance of all variables included in the model. Three of the six predictor variables were statistically significant: male gender $p = .012$, education (college education) $p = .040$ and no functional impairment $p = .003$. When the covariables of gender and education were added, the variation in visiting other professionals such as counselors, psychiatrists, or social workers significantly increased. With all variables in the model, the odds ratio for functional impairment was 2.83, 95% CI [1.418, 5.626], $p \leq .05$, indicating a one-unit increase in functional impairment is associated with a 2.83% increase in visiting other professionals, such as counselors, psychiatrists, or social workers while controlling for age, gender, marital status, education, and income. However, there was no significant association found with mental distress. Therefore, the null hypothesis was rejected, and the alternative hypothesis was accepted.

Table 21

Omnibus Tests of Model Coefficients of Binary Logistic Regression Analysis of Mental distress and Functional Impairment and Visits to other Professionals such as Counselors, Psychiatrists, or Social Workers

		Chi-square	*df*	Sig.
Step 1	Step	34.641	13	<.001
	Block	34.641	13	<.001
	Model	34.641	13	<.001

Table 22

Model Summary of Binary Logistic Regression Analysis of Mental distress and Functional Impairment and Visits to other Professionals such as Counselors, Psychiatrists, or Social Workers

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	239.039[a]	.142	.202

[a.] Estimation terminated at iteration number 5 because parameter estimates changed by less than .001.

Table 23

Classification Table[a] of Binary Logistic Regression Analysis of Mental distress and Functional Impairment and Visits to other Professionals such as Counselors, Psychiatrists, or Social Workers

			Predicted		
			Visits to other Professionals such as Counselors, Psychiatrists, or Social Workers		Percentage Correct
Observed			Yes	No	
Step 1	Visits to other Professionals such as Counselors, Psychiatrists, or Social Workers	Yes	20	46	30.3
		No	11	150	93.2
	Overall Percentage				74.9

[a.] The cut value is .500

Table 24

Sample Variables in the Equation of Binary Logistic Regression Analysis of Mental Distress and Functional Impairment and Visits to other Professionals such as Counselors, Psychiatrists, or Social Workers

		B	*SE*	Wald	*df*	Sig.	Odds Ratio	95% CI for Odds Ratio	
								Lower	Upper
Step 1[a]	*Gender*								
	Female (ref)								
	Male	.935	.372	6.332	1	.012	2.55	1.230	5.277
	Age	.153	0.159	.91	1	.335	1.17	.854	1.590
	Education			5.363	2	.068			
	Some HS or HS grad	1.542	.893	2.982	1	.084	4.68	.812	26.925
	Some college or college grad	.755	.367	4.226	1	.040	2.13	1.036	4.368
	Marital Status								
	Unmarried (ref)								
	Married	-.039	.393	.010	1	.920	.96	.445	2.079
	Employment Status								
	Unemployed (ref)								
	Employed	.545	.485	1.261	1	.261	1.72	.666	4.459
	Income (ref)			6.415	4	.068			
	< 60,000	.477	.541	.777	1	.378	1.61	.558	4.648
	60,000-119,999	-.364	.479	.578	1	.447	.7	.271	1.778
	120,000-159,999	.777	.626	1.539	1	.215	2.18	.637	7.427
	160,000-180,000	-.186	.747	.062	1	.803	.83	.192	3.588
	Functional Impairment								
	No Functional Impairment	1.038	.352	8.727	1	.003	2.83	1.418	5.626
	Mental Distress			.069	2	.966			
	No or Low Mental Distress	.173	.803	.046	1	.830	1.19	.246	5.735

	B	*SE*	Wald	*df*	Sig.	Odds Ratio	95% CI for Odds Ratio	
							Lower	Upper
Moderate Mental Distress	.084	.381	.048	1	.826	1.09	.515	2.296
Constant	-1.295	.766	2.860	1	.091	.27		

[a.] Variable(s) entered on step 1: Gender, Age, Education, Marital Status, Employment Status, Income, Functional Impairment, Mental Distress.

Summary

In this study, I examined the association between mental distress, functional impairment, and mental health utilization among Filipinos residing in California while controlling for age, gender, marital status, education, employment status, and income. Descriptive statistics were used to analyze the main variables of the study: mental distress and functional impairment, and mental health utilization. Binary logistic regression was conducted to assess how the independent and dependent variables predicted the odds of mental health utilization while controlling for age, gender, marital status, education, employment status, and income.

For research question 1, the results suggested that mental distress is not associated with prescription medication intake among Filipino Americans. However, functional impairment is significantly associated with prescription medication intake. Filipino Americans without functional impairment are 3.13 times more likely to use prescription medication than those with functional impairment. The addition of covariates like gender and education showed significant associations with prescription medication use. Specifically, Filipino American males were 4.52 times more likely to use prescription medication than females while those with college education were 3.61 more likely to do

so than those with graduate degree. Therefore, the null hypothesis, which stated that there is no association between mental distress and functional impairment and the use of prescription medication while controlling for age, gender, marital status, education, employment status, and income, was rejected, and the alternative hypothesis was accepted.

For research question 2, the results showed that there was no significant association between mental distress and visits to primary care physicians or general practitioners among Filipino Americans. However, a significant association was found between functional impairment and visits to these providers. Filipino Americans without functional impairment are 3.46 times more likely to visit their primary care physicians or general practitioners than those with functional impairment. Covariates like gender, education, and age showed a significant association with visiting primary care physicians or general practitioners. Filipino American males were 3.2 times more likely to visit primary care physicians or general practitioners than females while those with college education were 2.67 more likely to visit these providers than those with graduate degree. However, age was associated with a lower likelihood of visiting these healthcare providers. Specifically, there was a .69 decrease in the likelihood of visiting primary care providers. Consequently, the null hypothesis, which stated that there is no association between mental distress and functional impairment and visiting primary care physicians or general practitioners while controlling for gender, age, marital status, education, employment status, and income, was rejected, and the alternative hypothesis was accepted.

For research question 3, the results showed no significant association between mental distress and visits to other professionals such as counselors, psychiatrists, or social workers among Filipino Americans. However, a significant association existed between functional impairment and visits to these providers. The odds of Filipino Americans without functional impairment visiting mental health professionals are 2.83 times than those with functional impairment. The addition of covariates like gender and education showed a significant association with visiting other professionals such as counselors, psychiatrists, or social workers. Specifically, Filipino American males are 2.55 more likely to visit mental health professionals than females and those with college education were 2.13 more likely more likely than those with graduate degree. Therefore, the null hypothesis, which stated that there is no association between mental distress and functional impairment and visiting other professionals such as counselors, psychiatrists, or social workers while controlling for age, gender, marital status, education, employment status, and income, was rejected and the alternative hypothesis accepted.

Chapter 5 introduces the result interpretation, study limitations, recommendations, implications for positive social change, and a conclusion.

Chapter 5: Discussion, Conclusions, and Recommendations

In this quantitative cross-sectional study, I explored the association between mental distress, functional impairment, and mental health service utilization while controlling for age, gender, marital status, education, employment status, and income. Using secondary data from noninstitutionalized California residents collected between March 2021 and November 2022 (see CHIS, 2023b), I drew from the most extensive state health survey in the United States (see CHIS, 2021a). The CHIS, available in multiple languages including English, Spanish, Cantonese, Mandarin, Korean, Tagalog, and Vietnamese, was initially conducted biannually in 2001 and has been administered annually since 2011. Participants completed the survey online or via phone, and the data was analyzed using SPSS software.

Many researchers have investigated mental distress and functional impairment in Filipino Americans. The CDC (2008, as cited by the Office of Minority Health, 2019) reported high levels of mental distress among Filipino Americans and their low use of mental health services (Martinez et al., 2020). Previous studies have explored the relationships between mental distress, access to and use of mental health services, and the stigma associated with these services (e.g., Lairmore, 2019), as well as the relationship between mental distress among Filipino Americans, their sources of stress, and health promotion strategies (e.g., Serafica et al., 2023), and how mental health needs and enabling factors influence the willingness to seek professional mental health services (e.g., Yoon & Jang, 2019). However, researchers had not explored the connection

between mental distress and functional impairment (independent variables) and the use of mental health services (dependent variable) among Filipino Americans in California.

My study's findings showed that mental distress was not significantly associated with mental health service utilization in Filipino Americans. However, functional impairment was a negative predictor of mental health service utilization across various metrics, including prescription medication use, visits to primary healthcare providers, and consultations with professionals such as counselors, psychiatrists, or social workers. The addition of covariates like gender, age, and education showed significant associations with each measure of mental health service utilization.

Interpretation of the Findings

Research Question 1

For RQ1, I conducted a binary logistic regression analysis to determine if there is a relationship between mental distress, functional impairment, and the use of prescription medication in Filipino Americans. The study's results indicated a statistically significant relationship between functional impairment and the use of prescription medication but not with mental distress. Specifically, a unit increase in functional impairment is associated with a 3.13% increase in prescription medication use. Covariates like age, gender, marital status, education, employment status, and income were controlled to determine their effect on the probability of prescription medication use. Results showed a significant association between gender, education, and prescription medication use. Specifically, Filipino Americans males were 4.52 times more likely to use prescription medication than females while those with college education were 3.61 times more likely

to use prescription medication than those with graduate degree. No significant association was observed with the other covariates (age, marital status, employment, and income covariates).

According to Andersen's (1995) behavioral model of health service utilization, predisposing factors like age, gender, marital status, education, occupation, ethnicity, and health beliefs exist before needing healthcare services and influence an individual's likelihood of using these services. Enabling factors, the second component of this model, pertain to resources and information necessary for accessing health care, including employment, income, and accessibility to health care services. The health needs factor, another component of Andersen's behavioral model evaluates an individual's health status using objective and subjective measures. In this study, respondents answered questions related to mental distress and functional impairment. Notably, 159 participants reported experiencing moderate mental distress, 54 reported severe mental distress, and 14 reported no to low mental distress. These findings align with those from the CDC (2008, as cited by the Office of Minority Health, 2019), Balaraman et al. (2022), Chwa (2021), and Ventinilla (2019). Most respondents (123) also reported experiencing functional impairment compared to 104 without functional impairment. These results align with Cree et al. (2020), who found that individuals with functional impairments were 4.6 times more likely to experience mental distress compared to those without impairments.

My study's findings were consistent with Andersen's behavioral model of predisposing, and health needs factors but not the enabling factors. Covariates like gender and education were identified as predictors of higher odds of prescription medication use,

specifically among males and those with some college or college education. Although not statistically significant, my study showed that married individuals prefer prescription medication while older individuals are less likely to take prescription medication. Coley and Baum (2021) and Yang et al. (2020) found similar results, with education being a predictor of prescription medication use. However, Lee et al. (2021) and Yang et al. found that married participants were more likely to take prescription medication, which contradicted my findings. Moreover, Yoon and Jang (2021) found that females tend to use prescription medication more, contradicting my results. Coley and Baum, Lee et al., and Yang et al. reported that older female participants prefer prescription medication over visiting primary care providers or mental health professionals, which is contradictory to the results of my study. It is important to note that the studies by Coley and Baum, Lee et al., and Yang et al. focused on Asian Americans and did not stratify their data in their analysis.

My enabling variables of employment and income did not show a statistically significant association with prescription medication use, contrasting with Lee et al., (2023) and Yang et al.'s (2020) observation that employment and income predict mental health service utilization among Asian Americans. Despite participants reported experiencing mental distress and functional impairment, my study revealed that most Filipino Americans without functional impairment are more likely to use prescription medication than visiting mental health professionals. These findings mirror those of Yoon and Jang (2019), who noted that mental health needs like mental distress and functional impairment do not directly lead to immediate mental health utilization. Jiang et al. (2021)

examined the prevalence of mental distress among Asian Americans and the delay in using prescription medication. They found that, after stratifying the data, Filipinos were more likely to delay taking medication. Lee et al. (2023) contradicted the findings of Jiang et al., noting that older Asian Americans were more likely to accept prescription medications. Although the studies by Lee et al. and Jiang et al. showed varying results, the SAMHSA (2023) reported that in 2021, 12.3% of Asian Americans received prescription medication, the lowest rate compared to 42.2% for Whites and 25.8% for African Americans. While some data were not stratified, these statistics provide insight into prescription medication use among Asian Americans, including the Filipino subgroup.

Research Question 2

For RQ2, I conducted a binary logistic regression analysis to determine if there is a relationship between mental distress, functional impairment, and visiting primary care physicians or general practitioners in Filipino Americans. The study's findings for RQ2 revealed a statistically significant relationship between functional impairment and visiting primary care physicians or general practitioners but no significant relationship with mental distress. Specifically, a unit increase in functional impairment is associated with 3.46 increase in visiting primary care physicians or general practitioners. Covariates like age, gender, marital status, education, employment status, and income were controlled to assess their influence on the likelihood of prescription medication use.

The results showed a significant association between gender, age, education, and visiting primary care physicians or general practitioners. Specifically, Filipino American

males were 3.20 times more likely to visit primary care physicians or general practitioners than females. Those with college education are 2.67 times more likely to visit these healthcare providers than those with graduate degree. However, age was found to be a negative predictor of visits to these healthcare providers. There was a .69 decrease in the likelihood of visiting primary care physicians with older age. No significant association was observed with the other covariates of marital status, employment, and income.

Predisposing factors (age, gender, marital status, education, ethnicity, and health beliefs) enabling variables (employment, income, and accessibility to health care services) along with health needs factors such as the perception of health status from Andersen's behavioral model of health service utilization influence an individual's perception of mental health utilization (Andersen, 1995). Notably, 159 participants reported experiencing moderate mental distress, 54 reported severe mental distress and 14 reported no to low mental distress. My results are consistent with previous studies that show Filipino Americans experience mental distress (see Adia et al., 2020; Balaraman et al., 2022; Martinez et al., 2020; Serafica et al., 2023). The majority of the participants (123) also reported experiencing functional impairment and 104 did not. Tanner et al. (2019) found a significant effect of mental distress symptoms on functional impairment.

My findings align with Andersen's behavioral model regarding predisposing and health needs factors but not enabling factors. Gender and education were predictors of an increased likelihood of visiting primary care physicians or general practitioners, particularly among males and those with some college education or a college degree. An

increase in age was associated with a reduced likelihood of these visits. Although not statistically significant, my findings show that married Filipino Americans were more likely to visit primary care physicians or general practitioners. Yang et al. (2020) found similar results, identifying education as a predictor of visits to primary care physicians or general practitioners. Yoon and Jang (2019) did not find education to be a predictor for such visits. Lee et al. (2021) and Yang et al. found that married participants were more likely to visit primary care physicians or general practitioners, contradicting my findings. My study's results are consistent with Yoon and Jang, who found that older Filipino Americans do not tend to visit primary care physicians or general practitioners for mental health issues, contradicting the findings of Lee et al. It is important to note that the studies by Coley and Baum (2021), Lee et al., and Yang et al. focused on Asian Americans and did not stratify their data in their analysis.

In my study, employment, and income, as enabling variables, did not show a statistically significant association with visiting primary care physicians or general practitioners, contradicting the findings of Yang et al. (2020) and Lee et al. (2021), who found that employment and income predict mental health service utilization among Asian Americans. Yoon and Jang (2019) compared the prevalence of visits to primary care physicians or general practitioners with visits to mental health professionals and found similar rates between the two, which is in contradiction to my findings. Their findings were also contradicted by the observations of Nadal (2021) and Rubio (2023), who found that Filipino Americans often consider mental health conditions as physical symptoms, hence their preference for visiting a primary care provider. My study found that Filipino

Americans without functional impairment were more likely to visit primary care physicians, compared to taking prescription medication or visiting mental health professionals. Lee et al. (2021) noted that 30.6% of Asian Americans sought help from their primary care providers. Durbin et al. (2012, as cited in Lee et al., 2021) explained that the role of primary care physicians or general practitioners is crucial as they link patients with mental health issues and mental health professionals.

Research Question 3

For RQ3, I conducted a binary logistic regression analysis to determine if there is a relationship between mental distress, functional impairment, and visiting professionals such as counselors, psychiatrists, or social workers among Filipino Americans. My findings in RQ3 revealed a statistically significant relationship between functional impairment and visiting professionals such as counselors, psychiatrists, or social workers but no significant relationship with mental distress. Specifically, a unit increase in functional impairment is associated with a 2.83% increase in visiting professionals such as counselors, psychiatrists, or social workers. Covariates like age, gender, marital status, education, employment status, and income were controlled to determine their effect on the probability of prescription medication use. Results showed that gender and education were significantly associated with visiting professionals such as counselors, psychiatrists, or social workers. Specifically, Filipino American males were 2.55 more likely to visit mental health professionals than females and Filipino Americans with college education were 2.13 more likely to visit these providers than those with graduate degree. No

significant association was observed with the other covariates of age, marital status, employment, and income.

In Andersen's behavioral model of healthcare service utilization (Andersen, 1995), individual variables are classified as predisposing factors, enabling factors, and health needs factors. Predisposing factors include age, gender, marital status, education, ethnicity, and health beliefs. Enabling variables include employment, income, and accessibility to health care services, while perceived health status is a health needs factor. Notably, 159 participants reported experiencing moderate mental distress, 54 reported severe mental distress and 14 reported low to no mental distress. The findings of my study are consistent with previous research highlighting the prevalence of mental distress among Filipino Americans (Adia et al., 2020; Balaraman et al., 2022; Martinez et al., 2020; Serafica et al., 2023). Additionally, most of the participants (123) reported experiencing functional impairment while 104 participants did not.

The study's findings align with Andersen's behavioral model concerning predisposing and health needs factors but not enabling factors. Gender and education were identified as predictors of an increased likelihood of visiting mental health professionals such as counselors, psychiatrists, or social workers. Coley and Baum (2021) and Yoon and Jang (2019) reported that females, rather than males, were more likely to seek mental health services, which contradicts my study. Balaraman et al. (2022) and Yoon and Jang found that individuals with a college education are more likely to visit mental health professionals than those with less education, aligning with my findings. Although not statistically significant, my study showed that older Filipino Americans

tend to visit mental health professionals, while married individuals are less likely to do so. Balaraman et al. also observed that married individuals are less likely to seek mental health services, while Lee et al. found the opposite trend among Asian Americans. Martinez et al. (2022) and Kim and Lee (2021) found that older participants were more likely to visit mental health providers, contradicting Balaraman et al.'s findings. Interestingly, my results were similar to Yoon and Jang's, showing no statistical significance regarding age and marital status.

The enabling variables, such as income, did not show a statistically significant association with visiting mental health professionals like counselors, psychiatrists, or social workers, which contradicts the findings of Lee et al. (2021), Kim and Lee (2021), and Yang et al. (2020). Balaraman et al. (2022) also found that income does not predict utilizing mental health services, while Yang et al. noted that employment and income are significant predictors. About the health needs variable, most of my study's participants reported experiencing mental distress and functional impairment. The results indicated that most Filipino Americans without functional impairment prefer to visit primary care providers or use prescription medication than visiting mental health professionals. Identifying the most effective mental health utilization metric is crucial for promoting mental health service use.

Limitations of the Study

Several limitations in this study should be considered when interpreting the results. One significant limitation inherent to a cross-sectional design is the inability to establish a causal relationship (Wang & Cheng, 2020). These studies collect data

simultaneously, making it impossible to determine if one variable causes change in another. The study found that an increase in functional impairment is associated with lower odds of mental health utilization, but no association was observed between mental distress and mental health utilization. Moreover, confounding variables such as gender, age, and education influenced the results. This limitation underscores the difficulty in establishing causality because confounding variables can obscure the genuine relationship between the variables. According to Lund Research Ltd. (2012a), constructs, methodologies, and confounding variables are additional risks to external validity.

Sample bias occurs when the study's sample is not representative of the population, such as in the case of nonresponse bias (Creswell & Creswell, 2018; Wang & Cheng, 2020). There are systematic differences between individuals who complete a survey and those who do not, especially concerning sensitive topics. In this study, nonresponse bias was particularly noted regarding sensitive topics. Recall bias is another limitation, where participants may inaccurately remember information about their exposure or outcome based on their exposure status. Respondents may have experienced recall bias when recalling events from the last 30 days. Additionally, the generalizability of the study was limited to California residents, affecting its applicability nationwide.

Another limitation is the limited access to detailed information on mental health utilization services. Due to the confidentiality of mental health data, I prepared syntax for my statistical analysis and used dummy data to test it. After several attempts without any errors, I finalized the syntax and submitted it to the institution. The mental health utilization data provided was limited to high-level information, with no further details

available. For example, in the case of prescription medication use, there was no stratification of the most common types or brands. Similarly, for visits to primary physicians or general practitioners, there was no data on the average number of visits or whether the visits were primarily with primary physicians or general practitioners. Additionally, there was no stratification of data regarding the types of mental health professionals visited. This high-level information was provided to protect participant confidentiality. I also requested scatter plot tables that included BASEIDs, which was denied because BASEIDs are unique identifiers for each CHIS respondent. Despite this, I could still able to complete my analysis, although without the scatter plot table.

Recommendations

Previous studies have identified a significant association between mental distress and functional impairment (Cree et al., 2020; Taylor et al., 2019). However, these factors do not affect mental health utilization (Jiang et al., 2021; Yoon & Jang, 2019). In contrast, my study found a statistically significant association between functional impairment and mental health service utilization but no association with mental distress. Filipino Americans without functional impairment are more likely to visit primary care providers first, then take prescription medication, and finally visit mental health professionals. Further research is needed to encourage those without functional impairment to engage with mental health professionals and to explore the barriers faced by individuals with functional impairment and mental distress in utilizing mental health services.

The literature shows various findings on how confounders impact mental health service utilization (Balaraman et al., 2022; Coley & Baum, 2021; Lee et al., 2021; Yang et al., 2020). My study demonstrated a significant relationship between gender, education, age, and mental health utilization, with Filipino males with a college education being more likely to utilize mental health services. Conversely, older Filipinos were less likely to visit primary care physicians or other providers. Further research is needed to explore the association between gender, education, age, and mental health utilization in greater detail.

Implications

My study's results could promote positive social change because this is the first study to investigate both mental distress and functional impairment among Filipino American. The study's results showed a significant association between functional impairment and the three mental health utilization measures: prescription medication intake, visits to primary care providers, and visits to mental health professionals. However, no association was found with mental distress. Specifically, the results indicated that most Filipino Americans without functional impairment prefer to visit primary care providers, followed by prescription medication intake, and lastly, visit mental health professionals. Nadal (2021) and Rubio (2023) observed that Filipino Americans often present physical symptoms to their primary providers and may seek second opinions about mental health diagnoses. Yoon and Jang (2019) suggested that low mental health utilization could be related to Filipino Americans' difficulty recognizing mental distress and functional impairment as mental health concerns.

Confounding variables like gender and education were significant predictors of mental health service use. However, age was associated with a lower likelihood of visiting primary care providers. The significant influence of gender in Filipino Americans may be deeply rooted in their cultural values. Nadal (2021) explained that Spanish cultural values shifted gender roles, emphasizing male dominance and female submissiveness. There was a further shift in gender roles during American colonization, emphasizing individualism and competition. American colonization also influenced Filipinos to be goal-oriented in their educational and career choices.

The current study findings may enhance knowledge of mental health service utilization by raising awareness that Filipino Americans without functional impairment are more likely to seek mental health services. Additionally, the results draw attention to the challenges faced by those experiencing functional impairment and mental distress, who are less likely to use mental health services. Support at the individual and family levels can contribute to positive social change by implementing strategies that deepen personal connections and understanding of the impact of mental distress, functional impairment, and demographics, thereby improving mental health service utilization. Acculturation and enculturation among Filipino Americans may lead to improved use of mental health services. This study holds significance for various organizations as it expands knowledge about the association between gender, education, and mental health utilization among Filipino Americans residing in California. Researchers should continue exploring additional factors that could enhance mental health utilization and raise awareness among Filipino Americans.

Conclusion

To my knowledge, my study was the first to investigate the relationship between mental distress, functional impairment, and mental health utilization among Filipino Americans residing in California. The findings highlighted a significant association between functional impairment and mental health utilization but no association with mental distress. The study's results revealed a significant association between functional impairment and mental health utilization but no association with mental distress. Confounding variables like gender and education were significant predictors of mental health service use, while age was associated with a decreased likelihood of visiting primary care providers. These results provide new insights into existing knowledge. Further research is needed to explore why Filipino Americans without functional impairment are hesitant to visit mental health professionals.

Previous research, including this study, indicates that Filipino Americans experience mental health challenges. Based on these findings, there is a clear need to address mental health service utilization among Filipino Americans, focusing on mental distress, functional impairment, and demographic factors, guided by the Andersen's behavioral model of health service utilization. The results underscore the importance of developing programs and services aimed at increasing mental health utilization in this population ultimately enhancing their quality of life.

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Appendix A: Kessler Psychological Distress Scale (K6)

The following questions ask about how you have been feeling during the past 30 days. For each question, please mark the category that best describes how often you had this feeling.	All of the time	Most of the time	Some of the time	A little of the time	None of the time
1. About how often during the past 30 days did you feel nervous?					
2. About how often during the past 30 days did you feel hopeless?					
3. About how often during the past 30 days did you feel restless or fidgety?					
4. About how often during the past 30 days did you feel so depressed that nothing could cheer you up?					
5. About how often during the past 30 days did you feel that everything was an effort?					
6. About how often during the past 30 days did you feel worthless?					

Source: Kessler et al. (2003).

Appendix B: Sheehan Disability Scale

	A lot	Some	Not at all	I do not work
1. Did your emotions interfere a lot, some, or not at all with your performance at work/school?				
2. Did your emotions interfere a lot, some, or not at all with your household chores?				
3. Did your emotions interfere a lot, some, or not at all with your social life?				
4. Did your emotions interfere a lot, some, or not at all with your relationship with friends and family?				

Source: Zeljic, K., Zhang, Y., Qiu, X., Chen, X., Gong, H., Jin, H., Zhang, C., & Storch, E. A. (2020).