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Anusha Kothari March 24, 2025

From Awareness to Action: Health Choices and Challenges Among First-Generation Indian Immigrants in the Bay Area

by

Anusha Kothari

Dr. Harshita Kamath
Co-Advisor

Dr. Rachel Hall-Clifford
Co-Advisor

Anthropology and Human Biology

Dr. Harshita Kamath
Co-Advisor

Dr. Rachel Hall-Clifford
Co-Advisor

Dr. Shivani A. Patel
Committee Member

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An abstract of
a thesis submitted to the Faculty of Emory College of Arts and Sciences
of Emory University in partial fulfillment
of the requirements of the degree of
Bachelor of Science with Honors

Anthropology and Human Biology

2025

Abstract

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Cardiovascular disease (CVD) disproportionately affects South Asians compared to other ethnic or racial groups in the U.S., due to a combination of physiological and social factors. While research on the sociocultural and psychosocial risk factors contributing to CVD among South Asians is growing, much of the existing literature assesses this population broadly and does not capture more detailed lived realities and personal reflections of individual South Asian communities regarding their health practices, an understanding that is essential for better tailoring public health interventions. To address this gap, this ethnographic study seeks to understand the patterns of perception, awareness, adoption, and rejection of health-related lifestyle habits and attitudes within a specific, localized South Asian diasporic community: first-generation Indian immigrants in the Bay Area. Specifically, 12 semi-structured interviews were conducted with 6 men and 6 women, all first-generation Indian immigrants in the San Francisco Bay Area, aged 45-65. Interviews focused on participants' demographic and social background as well their attitudes and habits regarding exercise, diet, sleep, and stress management. Using a grounded theory approach, interviews were analyzed inductively to identify recurring themes. The results indicated that participants' health behaviors and attitudes were most influenced by expert sources, personal experiences and feelings, family dynamics, social networks, cultural background, residency in the U.S., and profession. To apply these themes to the identification, adoption, and sustenance of lifestyle habits, this research drew on Arthur Kleinman's cultural construction of clinical reality as well as William Dressler's stress process, cultural consonance, and personal agency. This study found that the decision to pursue lifestyle adjustments is influenced by attention from both popular and professional domains. Additionally, the adoption of lifestyle modifications often depends on the extent to which the change aligns with values deemed important in any culture or society to which the individual belongs. Furthermore, resistance resources like mindset shifts can facilitate sustained commitment to a habit and can help individuals manage stressors that may hinder adherence. The outcomes of this study suggest areas of future research that can inform further enhancement of public health interventions to better resonate with individual immigrant communities.

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Acknowledgements

I would like to sincerely thank all of the individuals who made this project possible for me. First, I would like to express my gratitude to my study participants, who graciously volunteered their time and openly and honestly shared their personal experiences and insights. I am deeply appreciative of their trust and generosity. Next, I would like to thank my faculty advisors, Dr. Harshita Kamath and Dr. Rachel Hall-Clifford.

Dr. Kamath—the class I took with you in my sophomore year sparked my commitment to pursuing humanities and social science scholarship as a pre-health student, which inspired this project. Your unwavering dedication, patience, and detail-oriented feedback made it possible for me to see this project through, for which I am forever thankful. You have always inspired me to do my best, and I am grateful to have been your student.

Dr. Hall-Clifford—from the moment I first read about your work, I was determined to get an opportunity to learn more from you, and I am so fortunate to have had the chance through this thesis. Your thoughtful guidance, encouragement, and commitment to my intellectual growth have enabled me to gain invaluable experience in medical anthropology and qualitative research. I am deeply grateful for the opportunity to work with you and for your unwavering support in helping me refine my ideas and approach throughout the process.

I would also like to thank my committee member Dr. Shivani Patel—your research on cardiovascular disease, type 2 diabetes, and South Asians, as well as our conversation after your lecture inspired my idea for this project, and I'm so grateful to have your support.

I would like to thank Dr. Robert Paul, Langston Jenkins, and Heather Carpenter from the anthropology department for their guidance and always willingly answering my questions. I would also like to thank Dr. Gwendolynne Reid, who mentored my first project at the intersection of health, humanities, and social science, without whom I would not be the student I am today.

Lastly, thank you to my friends and family for your love, support, and belief in me. This would not be possible without you.

Table of Contents

CHAPTER ONE: Introduction

Motivations and Study Overview

"[The] major part of my adult life has always been about worrying about [my parents'] health. So looking back, I feel that it is very, very important, if I love my family…to make sure that my health does not ruin my children's happiness…that is my main motivation. Whether I love myself or not doesn't matter…for the sake of the happiness of our loved ones, we have to keep ourselves healthy."

The sentiment above, cited from one of my interviews in this study, expresses a nuanced and unique motivation to preserve one's health and potentially interrupt intergenerational cycles of caregiving burden. This explanation is one of many from this research that resonates deeply with a shift I began to observe long before I started this project. Since my childhood, I have observed a seemingly subtle change in the attitude around lifestyle and health choices in my parents' social community in the San Francisco (SF) Bay area, primarily composed of first-generation Indian immigrants, which sparked my personal interest in this topic. I would hear about hiking WhatsApp groups, Bollywood Zumba, and the latest mindfulness stress-relief training. I noticed bold reinventions of commonly potato- or white-rice-based dishes on dinner party menus alongside the ubiquitous lavish spreads of deep-fried *pooris*, rich and creamy *paneer*, and indulgent sweets. While some recipes seemed to reclaim long-forgotten grains and culinary traditions of South Asia, such as amaranth *kheer*, others seemed uniquely Californian—born from creative adaptations using local produce, such as butternut squash *dabeli* sandwiches.

Although such observations heightened my attention to health sentiments and lifestyle choices of aunties and uncles back home in the Bay Area, my recent exposure to this community

has been limited to a few family gatherings during my visits home in the summer, and I have been keenly aware that a few select examples of a pickleball session or substituting white rice with quinoa are not clear indications of patterns in lifestyle ideas or habits. I became curious to formally explore the diversity in perspectives and experiences likely existing within this community regarding health and lifestyle.

Moreover, this interest was particularly informed by the widely-acknowledged implications of lifestyle on cardiovascular health and the high prevalence of cardiovascular disease (CVD) and type 2 diabetes (T2D) in South Asian (SA) immigrants. A growing body of research has revealed that South Asians have a higher risk of atherosclerotic CVD compared with other racial or ethnic groups in the U.S., due to a variety of genetic, physiological, behavioral, and social factors (Volgman et al. 2018, e1). Numerous studies, particularly the Mediators of Atherosclerosis in South Asians Living in America (MASALA) study, have also began investigating sociocultural and psychosocial determinants on CVD in SA immigrants in the U.S., including the role of having an exercise partner, the positive influence of adult children on parents' diet and exercise practices, the significance of acculturation, and the impact of social network on diet (Gujral and Kanaya 2021, 31-32).

While such studies provide crucial insights into broad lifestyle patterns and behavioral risk factors, they do not capture more detailed lived realities and personal reflections of individual South Asian communities regarding their health practices, an understanding that is essential for better tailoring public health interventions. My research strives to fill this gap by taking an ethnographic approach to more understand a specific SA immigrant community, first-generation Indian immigrants in the Bay Area, as they navigate everyday lifestyle decisions. Although my inspiration stems from CVD epidemiology, I intentionally framed this research on

lifestyle habits and modifications without mentioning any CVD context to my interlocutors to gather candid, everyday responses. Recognizing that motivations to seek out, adopt, or resist lifestyle modifications are nuanced, individual, and context-specific, I took an ethnographic approach to capture the diverse personal histories, intergenerational influences, and community norms that shape health awareness and habits. In this study, I purposefully avoid defining "healthy" or "unhealthy" so that both participants' perspectives and my interpretations of their responses emerge naturally and are unrestricted by predetermined classifications. My research questions are as follows:

1. What are patterns in perception, awareness, adoption, and rejection of "healthy" lifestyle habits among older first-generation Indian immigrants in the San Francisco Bay Area?
2. What sources of information shape attitudes about lifestyle habits in this population?
3. Are there gaps between awareness and adoption of "healthy" lifestyle habits? What factors influence whether awareness translates into adoption?

Inspired by my personal observations and my experience as a lifestyle medicine coach at El Camino Health's South Asian Heart Center (SAHC) from May to August 2024, my findings aim to help refine existing culturally-specific heart health interventions. By examining patterns in how lifestyle habits are perceived, adopted, or resisted, and identifying the sources of information shaping these attitudes, this research can shed light on the factors that bridge or widen the gap between awareness and action. Moreover, by capturing personal stories, I hope to foster deeper empathy and understanding for SA immigrants, helping to identify meaningful values within a specific community of this population and highlighting the benefit of in-depth ethnographic research in suggesting how health interventions can be designed to better resonate with these values.

There is a growing body of research on health behaviors among South Asian immigrant populations, highlighting the relationship between sociocultural norms and behavioral risk factors for CVD. While much of this research acknowledges the roles of different aspects of culture, such as family or food, there remains a gap in studies that explore whether and how cultural factors exert their influence on health-related lifestyle aspects in localized South Asian communities. Thus, I propose applying anthropological frameworks beyond clinical settings to better understand everyday health negotiations in older first generation Indian immigrants in the SF Bay Area. Through this research, I demonstrate that this approach not only allows us to identify sources that influence health awareness and practices, but also compels us to investigate how these sources function to enable awareness, adoption, or resistance of lifestyle modifications. Overall, I argue that the health attitudes and behaviors of older, first-generation Indian immigrants in the SF Bay Area are most significantly shaped by the following themes: expert sources, personal feelings and observations, family, social networks, upbringing and cultural background, residency in the U.S., and profession. Moreover, I suggest that these themes are sometimes mediated through underlying cultural influences such as collectivist values, gender roles, or educational emphasis. Finally, I argue that understanding the impact of these themes requires utilizing ideas from several anthropological frameworks, including Arthur Kleinman's cultural construction of clinical reality and William Dressler's stress process, cultural consonance, and personal agency.

Literature Review: Anthropological Locations and Theoretical Framework

So far, medical anthropology has produced substantial biocultural research on CVD under the realm of descriptive epidemiological research, including ethnographies on lifestyle practices and CVD biomarkers in various ethnic groups. For example, biocultural anthropologist Craig Janes studied the effects of kinship networks and social support on stress and blood pressure among Samoan migrants living in a single area of San Francisco (Dressler 1995, 38). More recently, in his book *Metabolic Living: Food Fat and The Absorption of Illness in India*, medical anthropologist Harris Solomon investigates T2D and obesity in India via the interaction between sociopolitics, diet, medical clinics, and the urban Mumbai environment (Solomon 2016, 26). While there is anthropological research on cardiometabolic disease within immigrant and minority groups in the SF Bay Area and among South Asians in India, there is a clear gap in anthropological literature on cardiometabolic disease among South Asian immigrants in the SF Bay Area. Moreover, ethnographic studies on culture, society, and lifestyle practices related to cardiovascular health primarily focus on biomarkers such as BMI, blood pressure, stress hormone secretion, and medical diagnoses. There is a substantial gap in anthropological discourse on the ways in which individuals make sense of health, adapt practices, and negotiate lifestyle modifications outside an overt medical or illness context. My research aims to fill both these gaps by studying the baseline lifestyle habits of Indian immigrants in the SF Bay Area outside of an explicit medical context.

Although prior ethnographies have tended to focus on CVD biomarkers, concepts used in these approaches for understanding culture and CVD have proven useful to my research, particularly those highlighted in the work of biocultural medical anthropologist William Dressler. In Dressler's review of biocultural studies on stress and CVD, he hypothesizes "the stress process," which describes "individual adaptation to a changing sociocultural environment" and

recognizes that lifestyle changes (particularly in diet) due to migration do not occur in isolation (Dressler 1995, 33). Instead, Dressler argues that migration and cultural change can impact individual lifestyles through affecting occupation, language, systems of prestige ranking, ideologies, and "socialization into a more individualistic model of interpersonal relationships" (Dressler 1995, 33). Such changes can be stressful and lead to "sustained disease" (Dressler 1995, 33). The most relevant characteristics of this model for my study are the following two variables: stressors and resistance resources. Stressors can be acute or chronic, amplifying the changes that occur due to the stress process and presenting "adaptive demands" that individuals must navigate to maintain or achieve a preferred state (Dressler 1995, 38). For example, losing a job can be an acute stressor while living away from family can be a chronic stressor (Dressler 1995, 38). In the context of this study, stressors can be viewed as imposing challenges that impede an individual's ability to maintain or attempt a specific lifestyle behavior or goal, as defined by their own self. On the other hand, resistance resources help individuals adjust to or develop the tolerance for adaptive demands (Dressler 1995, 38). These can include social support, personality characteristics, or beliefs and attitudes (Dressler 1995, 38).

My contribution lies in applying Dressler's framework to the unique context of older South Asian immigrants in the U.S., where migration and cultural shifts play a significant role in shaping health behaviors. In another work, Dressler reminds us that "the unique strength of an anthropological perspective" is that "meaning resides in collective representations that cannot be entirely reduced to individual perception" (Dressler 2001, 458). Thus, my research strives to recognize salient stressors and resistance resources as they are presented not only through individual perceptions but also through collective representations, which become evident when recurring themes emerge across multiple individuals' experiences. I investigate the relationship

between these recurring themes and cultural norms to expand on Dressler's work, exploring how stressors and resistance resources in health decision-making are both individually and culturally constructed. Additionally, I deepen the discussion of how culturally grounded resistance resources and stressors shape lifestyle decisions in a specific immigrant context by drawing on anthropological concepts of culture, the cultural construction of health, and cultural consonance vs. personal agency.

In *Culture, Health, and Illness*, medical anthropologist Cecil Helman defines culture as a "set of guidelines (both explicit and implicit) that individuals inherit as members of a particular society, and that tell them how to view the world, how to experience it emotionally, and how to behave in it in relation to other people, to supernatural forces or gods, and to the natural environment" (Helman, 2007, 2). Acquiring the cultural lens of a society while growing up within it is "enculturation," while incorporating a larger society's cultural attributes while belonging to a minority group is "acculturation" (Helman, 2007, 2-3). The coexistence of results of enculturation and acculturation is especially relevant to understanding immigrant experiences, such as my study of the population of Bay Area Indian immigrants. Cultural backgrounds have a significant influence on people's lives, including "their beliefs, behaviour, perceptions…and attitudes to illness, pain, and other forms of misfortune" (Helman, 2007, 3). By analyzing how lifestyle adaptations are influenced by both my participants' native Indian culture and surrounding American culture, my study contributes to the field by exploring how cultural backgrounds, enculturation, and acculturation shape health-related decision-making among Bay Area Indian immigrants.

Physician and medical anthropologist Arthur Kleinman's widely influential work on the way culture shapes the interpretation of lived illness experiences in clinical settings is

particularly useful to my research. In "the cultural construction of clinical reality," Kleinman suggests three structural domains that shape health care systems, behaviors, and beliefs—professional, popular, and folk—of which professional and popular are relevant to this research (Kleinman 1978, 86; Kleinman, Eisenberg, and Good 1978, 254). The popular arena encompasses family, community, and social network contexts while the professional arena consists of both biomedicine and formal indigenous healing practices such as Ayurveda or Chinese traditional medicine (Kleinman 1978, 87; Kleinman, Eisenberg, and Good 1978, 144). Most health-care decision-making, including "when to seek aid…whom to consult, and whether to comply, along with most lay evaluations of the efficacy of treatment, are made in the popular domain" (Kleinman 1978, 86). In the professional domain, "through diagnostic activities and labeling, health care providers negotiate with patients medical 'realities' that become the object of medical attention and therapeutics" (Kleinman, Eisenberg, and Good 1978, 254). Although Kleinman situates his theory within the context of sickness and clinical decision-making, I argue that it can be applied more broadly to health-related decision-making in everyday life. In other words, the cultural construction of clinical realities suggests that most decisions regarding whether to seek health-related change are influenced by familial or social factors, and the change itself may also be influenced by Kleinman's professional domain. In contrast to clinical or "medical realities" determined by healthcare providers, individuals themselves may identify lifestyle realities that draw increased attention and modifications (Kleinman, Eisenberg, and Good 1978, 254). Identifying whether and how popular and professional domains influence the development of specific health attitudes and behaviors is essential for recognizing recurring factors behind lifestyle choices.

In order to determine these factors, it is also helpful to examine relevant dynamics between individual agency and culture in the context of health, for which I once again draw on concepts from Dressler's work. Dressler defines personal agency as an "individual's self-evaluation of their capacity for action in the world," or "the potential for individuals to act intentionally and pursue their own goals in various cultural settings," or "intentionality…the purposeful pursuit of a goal" (Dressler 2024, 3-4). On the other hand, Dressler proposes cultural consonance, which refers to "the degree to which individuals have been 'culturally successful' in the sense of achieving goals that are collectively valued within society" or "the degree to which reported behavior matches the behavior deemed important in the cultural model" (Dressler 2024, 3; Dressler 2012, 390). A cultural model is used to encode and share cultural knowledge, and is defined as a "skeletal, schematic mental representation of a cultural domain" that comprises elements—such as family—and illustrates how these elements are collectively "understood to be related semantically, functionally, and causally" (Dressler 2024, 2). Although I am not statistically operationalizing cultural consonance or defining a cultural model, the concept is nevertheless useful in evaluating adherence to culturally/societally informed or individually constructed lifestyle ideals. Furthermore, the transcultural nursing theory, which was originally developed by nursing theorist Madeleine Leininger, emphasizes the intergenerational nature of culture, as "the values and beliefs passed down to that patient from generation to generation can have as much of an effect on that patient's health and reaction to treatment as the patient's environment and social life" (Nursing Theory n.d.). Within my work, it is necessary to heed attention to whether participants' lifestyles reflect cultural norms that have been passed down over generations or absorbed more recently, as this distinction may reveal patterns that warrant deeper investigation.

By exploring how cultural factors shape health behaviors among South Asian immigrants in the SF Bay Area, my research aims to contribute to the existing anthropological works by Dressler, Helman, and Kleinman. Specifically, I seek to expand our understanding of how cultural norms influence clinical realities, stressors and resistance resources, and, more broadly, health decisions outside of the medical setting. Moreover, I hope to expand the study of cultural consonance, personal agency, belief, and health to the South Asian diaspora, offering deeper insight on the negotiation of lifestyle modifications. By focusing on everyday lifestyle choices, I hope to bridge the gap between biocultural ethnographic research on CVD biomarkers and the medical anthropological literature on the dynamics of health behavior change.

Literature Review: CVD Epidemiology in South Asians and Lifestyle

To showcase the range of interpretations and the many meanings the term takes on within the study population, I intentionally chose not to explicitly define "healthy" for this study to showcase the range of interpretations and the many meanings the term takes on within the study population. However, choosing to focus my conversations on specific aspects of lifestyle naturally and gradually revealed the dimensions of my research associated with health to my interviewees. Specifically, my conversations included discussions on exercise, diet, sleep, and meditation, with the majority of questions asking about exercise and diet. Diet, physical activity, and sleep health are among American Heart Association's (AHA) Life's Essential 8, which identifies behavioral and biological components essential to cardiovascular health (Lloyd-Jones et al. 2022, e18). AHA's other cardiovascular health markers include nicotine exposure, body mass index, blood lipids, blood glucose, and blood pressure (Lloyd-Jones et al. 2022, e18). Similarly, the American College of Lifestyle Medicine's six pillars include nutrition, physical

activity, stress management, restorative sleep, social connection, and avoidance of risky substances (American College of Lifestyle Medicine n.d.). Meditation—along with exercise, diet, and sleep—is also emphasized by El Camino Health's South Asian Heart Center, which supports lifestyle-based CVD prevention among primarily Bay Area residents and recommends all four as key areas of lifestyle relevant to reducing cardiometabolic risk in South Asians (SAHC Lifestyle n.d.).

A vast volume of epidemiological literature establishes the link between physical activity, diet, adequate sleep, and meditation-based stress management to overall and cardiovascular health. In addition, recommendations for each category, while not explicitly incorporated in my study design or interview questions, implicitly influenced my follow-up questions and in-the-moment interpretation of participant responses and continue to provide relevant context for some of the interlocutors' answers. Also, research on South Asian populations has further emphasized the relevance of these factors, highlighting unique patterns of health behaviors and their influence on health outcomes in this group.

Regarding exercise, a longitudinal study of 10,224 men and 3,120 women found that higher physical fitness was associated with increased longevity and significantly lower all-cause mortality, particularly from CVD and cancer (Blair et al., 1989, 2395). The AHA and U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion suggest 50 minutes per week of moderate-intensity aerobic activity or 75 minutes per week of vigorous aerobic activity (AHA Recs n.d.). Moderate-intensity aerobic activity includes brisk walking, water aerobics, gardening, some types of dancing, and slow biking while vigorous-intensity activities include running, swimming laps, energetic dancing, and faster biking (AHA Recs n.d.). Additionally, SAHC encourages varied exercise, including aerobic

activity and strength training (SAHC Lifestyle n.d.). Among SA immigrants, however, the MASALA study revealed that physical activity awareness is relatively low, with one study finding that only 49% of 270 surveyed SAs in the U.S., aged 20-75, identified exercise as an important factor in coronary heart disease prevention (Kandula et al. 2010, 441). Another study revealed that SA Indian immigrants have particularly low leisure-time physical activity rates compared with other racial/ethnic minorities, and in 1 cohort, only 52% of participants met the recommended guidelines for exercise (Daniel et al. 2013, 185). When it came to mediators of exercise, the MASALA study observed that SA women who exercised with a spousal partner had more minutes of exercise than those without exercise partners, whereas SA men had more minutes of exercise with a non-spousal exercise partner (Thanawala et al. 2020, 155).

Similar to physical activity, numerous studies have highlighted the importance of a balanced diet in promoting overall health and reducing CVD risk factors. For instance, a meta-analysis of cohort studies featuring data on 278,459 individuals and median follow-up of 11 years identified that those who ate 5 or more servings of vegetables per day had 17% lower coronary heart disease risk compared to those who ate 3 or more servings of vegetables per day (He et al. 2007, 717). AHA and SAHC's dietary recommendations include a variety of fruits and vegetables, whole grains, healthy protein sources (mainly plants, fish, and lean, unprocessed meat), minimally processed foods, limited added sugars and salt, and minimal alcohol intake (AHA Diet n.d.; SAHC Lifestyle n.d.). On the other hand, SA diets often have a high percentage of carbohydrates and saturated fats, often consisting of lentils, vegetables, rice, meats, and chapatis or breads (Misra et al. 2009, 465). Also, some SAs observe predominantly vegetarian diets for religious or cultural reasons, which can further increase the presence of carbohydrates and fats in their diets (Pilis et al. 2014, 9). However, the MASALA study found that vegetarian

diets included more weekly consumption occasions of beans, legumes, and whole grains compared with nonvegetarians and were associated lower prevalence of certain CVD risk factors such as BMI, cholesterol, and insulin resistance, total and (Jin et al. 2018, 1954). Another analysis from the MASALA study identified significant correlations between dietary patterns of SA individuals in the U.S. and their perception of dietary intakes of members of their social networks, indicating that interpersonal ties may influence dietary intakes and information on eating habits or foods (Talegawkar et al. 2020, 1).

Compared to physical activity and diet, research on the association between sleep health and CVD is less extensive but has been growing. Studies on sleep patterns specifically within SA populations, however, remain limited (Nandagiri, Vannemreddy, and Spector 2023, 393). A meta-analysis of several population level-studies revealed that inappropriate sleep duration (either shorter or longer than ideal) is associated with coronary heart disease (Yang et al. 2015, 1180). Results from a cohort study on aging men revealed that those with less than five hours or greater than eight hours of sleep were more likely to develop T2D (Yaggi, Araujo, and McKinlay 2006, 657). Similar research on 70,026 women identified sleep restriction as a potential risk factor for developing symptomatic T2D (Ayas et al. 2003, 380). Accordingly, the AHA and SAHC recommend seven to nine hours of sleep per night for adults (AHA Sleep n.d., SAHC Lifestyle n.d.). Another study using the MASALA cohort found that 41% of participants had sleep-disorder breathing and 12% of the sample had excessive daytime sleep (Deol et al. 2018, 1). The analysis also suggested that sleep disturbances, including obstructive sleep apnea and sleep-disordered breathing, are linked to higher risk of T2D in SA immigrants, with factors like high blood sugar and obesity increasing the likelihood of these sleep issues (Deol et al. 2018, 1).

Although research on meditation and CVD is limited, meditation is a widely researched stress management technique with roots in South Asian traditions and broad global practice, and chronic stress is a known risk factor for CVD (Osborne et al. 2020, 1). Key findings from the landmark INTERHEART study on modifiable risk factors and coronary disease in 24,767 patients from 52 countries showed that heightened psychosocial stress over the previous year was associated with a greater than double increase in heart attack risk after adjusting for CVD risk factors (Rosengren et al. 2004, 953). Current clinical evidence on meditation and coronary heart disease suggests its benefits toward decreasing CVD mortality and risk factors such as hypertension, T2D, and high cortisol (stress) levels (Ray et al. 2014, 696). According to an analysis of South Asians in India with prediabetes who participated in a community-based diabetes prevention trial, perceived stress was associated with weight gain and increased waist circumference, both risk factors for T2D and CVD (Fields et al. 2024, 186). According to the AHA, research on meditation's role in reducing stress and CVD risk is promising, and given its low cost and minimal risk, meditation-based interventions should be considered as potential lifestyle strategies for CVD prevention (Levine et al. 2017, 1). In the same vein, the SAHC encourages meditation in their lifestyle program to prevent T2D and CVD in SAs.

The existing research on CVD risk factors within South Asian populations is valuable, particularly for its quantitative analysis of trends in large cohorts, such as those seen in studies like MASALA, whose sample included 906 adults aged 40 and over from the San Francisco Bay Area and greater Chicago areas. These studies provide groundbreaking insights into the relationships between behaviors such as exercise, diet, sleep, and meditation, and their role in CVD risk. However, while the diversity of MASALA's sample is a significant strength, it also presents a limitation in understanding nuanced influences that may be unique to individual

subpopulations of South Asian immigrants such as my study population. For example, analyses on acculturation, number of years in the U.S., and CVD within the MASALA study demonstrated largely inconsistent results, with greater acculturation or integration reducing some CVD risk factors while increasing the prevalence of other risk factors (Al-Sofiani et al. 2020, 9; Kanaya et al. 2014, 1). The studies acknowledge that "the inconsistency in these results is partly due to differences in country of origin and ethnicity, reasons for and context of migration" (Al-Sofiani et al. 2020, 9). The heterogeneity of the sample makes it difficult to isolate patterns specific to particular subgroups, highlighting the need for more targeted studies that account for intracommunity differences. Without such specificity, it is challenging to discern not only structural influences but also the complex meaning-making processes that drive changes or stagnation in lifestyle modifications over time. As medical anthropologist Cecil Helman describes, while a "causal link between the risk factor and the disease can be postulated…in many of these epidemiological studies…the nature of the link can not be explained and must remain presumptive until further evidence is accumulated" (Helman 2007, 372). By adopting an anthropological lens, I aim to address these gaps. Specifically, rather than focusing solely on the link between behavioral risk factors and CVD, anthropology allows me to explore how cultural influences shape lifestyle habits that may prevent risk factors commonly linked to CVD in epidemiological studies. To ensure I compile candid, everyday experiences and reflections on factors related to health and lifestyle, I am purposely omitting any discussion of CVD in my research approach, beyond providing context for the study. Alluding to a health condition can influence participant honesty, and my aim is for participants to reflect openly about their habits and opinions without the influence of any unsaid expectations regarding their lifestyle behavior or attitudes.

Literature Review: Cultural and Historical Background

Analyzing the influences that may shape health-related lifestyle behaviors relies on not only familiarity with South Asian specific health trends and risk factors, but also a general understanding of the study population: older first generation Indian immigrants in the San Francisco Bay Area. South Asia, also known as the Indian subcontinent, is widely acknowledged to encompass the following seven countries: Bhutan, Bangladesh, India, Maldives, Nepal, Pakistan, and Sri Lanka (Berglee 2016, 73). Although recruitment was originally open to participants from any South Asian nation in the SF Bay Area, all those who enrolled were from India. As a result, the study was reframed to focus specifically on Indian immigrants in the SF Bay Area.

The Indian diaspora consists of about 31 million people spread around the globe (Williams 2019, 1). The total population of Indians in the U.S. is about 4.4 million, according to the 2020 U.S. census (U.S. Census 2020). Additionally, Alameda County and Santa Clara County, two SF Bay Area counties, are documented as home to 147, 036 and 204,734 people, respectively, of Asian Indian origin (U.S. Census 2020). In other words, over 8% of the Indian population in the U.S. lives in the Bay Area, specifically San Francisco-Oakland-Fremont, CA and San Jose-Sunnyvale-Santa Clara, CA (Chakravorty, Kapur, and Singh 2017, 79).

The wave of U.S. immigration most relevant to my study population began after the passage of the Hart-Celler Immigration Act of 1965, prioritizing the admission of immigrants with technical skills and expertise that would directly benefit the economy, a trend that many Indians successfully leveraged (Mishra 2016). In particular, many Indians that immigrated to the Bay Area in the last 30 years belong to “a group that benefits greatly from the high demand of

the information technology sector or other science and technology (STEM) fields" (Williams 2019, 6). In the book *The Other One Percent: Indians in America*, this group is referred to as the "the IT Generation," in which, beginning in 1995, high skilled Indians migrated to the U.S. at unprecedented rates (Chakravorty, Kapur, and Singh 2017, 70). These immigrants were either immigrated via F-1 student visas, as students in science and technology fields; via H-1B high-skilled worker visas, as workers in computer-related professions; or via H-4 visas as immediate family members of H-1B visa holders (Chakravorty, Kapur, and Singh 2017, 105). Since then, Indian Americans have achieved high levels of educational attainment, work most intensively in skill-based industries, and have the highest family incomes in comparison to all subgroups of the U.S. population. They represent over 10% of the U.S. workforce in technical fields and hold leadership roles in major companies like Microsoft, Google, and Adobe (Williams 2019, 2). The authors of *The Other One Percent* suggest that while traditional values may have shielded "techno-immigrants of the 2000s" from the structural inequalities of American society, their settlement choices were limited. They had to reside where their industry was located, which explains the high concentration of tech-sector Indian Americans in the San Francisco Bay Area (Chakravorty, Kapur, and Singh 2017). Notably, they reside in "ethno-techno-burbs" shaping a distinct environmental and neighborhood experience compared to many other minority groups in the U.S., who often live in urban "ethnoenclaves" (Chakravorty, Kapur, and Singh 2017, 73).

A key concept essential to understanding relevant cultural and social norms that may inform health-related lifestyle decisions among many South Asian populations, including my study's Indian immigrant population, is collectivism, which "promotes interdependence and cooperation, with the family forming the focal point of this social structure" (Chadda and Deb

2013, 299). In contrast, individualism emphasizes “what makes the individual distinct and promotes engagement in competitive tasks” (Chadda and Deb, 2013, 300). Although individual achievement is valued within collectivist cultures, it is only valued so long as it does not disrupt collectivist social hierarchies (Ibrahim, Ohnishi, and Sandhu 1997, 45-46). Certain beliefs promoted in South Asian culture due to collectivism include familial respect and filial piety, which emphasize honoring and serving parents and elders while maintaining appropriate regard for each family member (Ibrahim, Ohnishi, and Sandhu 1997, 45). Often, it is considered that as someone ages, they develop more maturity and knowledge and thus, older individuals often wield the most “power and control” in the family (Ibrahim, Ohnishi, and Sandhu 1997, 40, 45). Additionally, social networks and communities are often seen as extended families, and “one has responsibilities to the community” (Ibrahim, Ohnishi, and Sandhu 1997, 45). As a result, South Asian diasporic families or communities are also “far more involved in caring for its members, and also suffer greater illness burden than their Western counterparts” (Chadda and Deb 2013, 299). Overall, for South Asian immigrants, education, age, social class, and personal achievements are critical to mediating social relationships (Ibrahim, Ohnishi, and Sandhu 1997, 46). Finally, humility is highly valued in South Asian culture, where it is considered important not to seek attention or discuss personal accomplishments. As a result, individuals may not receive credit for their achievements, as it is seen as inappropriate to seek recognition (Ibrahim, Ohnishi, and Sandhu 1997, 45-46). In South Asian immigrant populations, personal achievement is highly valued, as it promotes the reputation of the whole family or group. Therefore, individuals often prioritize long-term goals over immediate concerns, with less focus on the present moment (Ibrahim, Ohnishi, and Sandhu 1997, 46). As South Asian populations include the Indian diaspora, collectivism is also relevant to understanding my study sample.

Similarly, norms regarding gender roles also influence health-related attitudes and behaviors across South Asian communities. With individuals in India specifically, a 2022 Pew Research Center survey found that while 54% of Indians say that both the men and the women in a family should be responsible for earning money, many still support "traditional, patriarchal values," with 43% of the view that men should be the primary earners (Pew Research Center 2022). Similarly, although 62% of survey respondents viewed caring for children was a shared responsibility, 34% of survey respondents believed that women should be the primary caregivers for children (Pew Research Center 2022). Amy Bhatt's ethnography *High-Tech Housewives: Indian IT Workers, Gendered Labor, and Transmigration* explores how these seemingly contradicting values play out in practice. Bhatt demonstrates how gender and family are transformed and reinforced through immigration for Indian H-1B and H-4 visa holders working in technological fields in the Pacific Northwest (Bhatt 2018). Specifically, even as highly educated immigrants in the U.S., Indian women endure increased caregiving responsibilities, and their household labor is crucial to the functioning of "high-tech" Indian immigrant families. Although they may be highly qualified, they often immigrate to the U.S. as dependents on their husbands' H-1B visas, sacrificing their own career goals for their husbands. For example, Sarika, an experienced engineer, immigrated to the U.S. on an H-4 visa as a dependent on her husband's H-1B visa, hoping to quickly find a job, however, she is now in "career purgatory" as a "suburban housewife who's day revolves around chores and shopping" (Bhatt 2018, 4).

In immigrant populations, the interplay between acculturation and the preservation of traditional values shapes various cultural dynamics, such as gender roles and caregiving or the balance between collectivism and individualism, ultimately influencing the distinct ways health is understood and approached within this group. For example, a study conducted in 2000 on

South Asian immigrants in Leicester, U.K. on attitudes to lifestyle risk factors for coronary heart disease found that women and men differed in their knowledge of lifestyle risk factors and in cultural barriers to improving lifestyle, such as a lack of women-only exercise facilities (Farooqi et al. 2000, 293). Another study on explanatory models of health and disease among Indian and Pakistani immigrants in Chicago found that "household duties" were much more commonly mentioned by women while "work duties" were mentioned by men in relation to compliance to medication (Tirodkar et al. 2011, 388). The same study found that while some respondents criticized Western food as unhealthy, some tried to stay away from oily and spicy traditional food because they knew it was bad for their health (Tirodkar et al. 2011, 390). On the other hand, some persisted in eating these foods because of social obligations, reflecting the emphasis on community and collectivist values in health behaviors (Tirodkar et al. 2011, 390).

Positionality

Before continuing, it is essential that I situate myself within the context of this study. In qualitative research, the "researcher is a data collection instrument," and "the researcher's identity/position influences the understanding and interpretation of a phenomenon" (Bayeck 2022, 1). As the daughter of first-generation Indian immigrants and a San Francisco Bay Area resident for the first eighteen years of my life, I am insider with my study participants. To an extent, we share cultural, racial, and geographic similarities, which is "inherently advantageous in understanding the culture, while an outsider is likely to misconstrue the culture or practices" (Bayeck 2022, 1). I have grown up witnessing experiences similar to the ones my participants shared, allowing me to recognize many of the hiking trails, food ingredients, and daily life challenges that they mentioned. Yet, if I were an outsider, I would be more "sensitive to

phenomena that the insider tends to take for granted" (Bayeck 2022, 1). With this limitation in mind, throughout interviews, I attempted to proactively prompt my interlocutors to elaborate on concepts about which we had a shared cultural understanding. On the other hand, although I am largely an insider in cultural background and experiences, my position is of an outsider when it comes to generation. I have not experienced the same immigration, caregiving, and aging challenges as my study participants. For some interlocutors, our generational gap naturally encouraged them to elaborate in greater detail for experiences they assumed that I was unfamiliar with. However, I recognize that others may have opted to neglect explaining details or emotions that they assumed I would not understand. Additionally, due to the emphasis on education in my study population, my positionality as an undergraduate academic researcher encouraged candidates to participate in interviews and share their experiences thoroughly, with the understanding that they were contributing to relevant research and my education. At the same time, some interlocutors approached the interviews with greater formality, which may have limited the openness or naturalness of their responses. Ultimately, I recognize that many variables regarding my positionality may influence participants' responses in both anticipated and unanticipated ways. It is within this complex interaction that meaning is made, as responses are shaped by the dynamics of our shared and unshared context. With this in mind, while conducting this research, I worked to foster an open, genuine listening environment, allowing participants to express their experiences fully.

Chapter Outline

Overall, while epidemiological research on the association between cultural factors and South Asian immigrant populations in the U.S. is growing, there is little to no research on

individual communities within the South Asian immigrant population. Furthermore, much of the existing research focuses on barriers to health and there is a gap in in-depth research on factors and sources that enable health awareness and healthy lifestyles. Therefore, inspired by my observation of the seemingly heightened commitment to achieving healthy lifestyle practices among the Bay Area Indian immigrant community, my original questions still remain. Thus, through this thesis, I will explore the patterns in perception, awareness, adoption, and rejection of "healthy" lifestyle habits among older first-generation Indian immigrants in the San Francisco Bay Area, examine the sources of information that shape their attitudes, and investigate factors that influence whether awareness translates into action. In Chapter 2, I will outline my methods for participant recruitment, data collection, and data analysis, focusing on snowball sampling, participant demographics, semi-structured interviews, and an inductive approach for coding data. In Chapter 3, I will describe the results of my research, highlighting salient overarching themes and presenting my findings within those themes. I will further discuss these results in Chapter 4, situating my findings within Dressler's frameworks of the stress process and cultural consonance vs personal agency as well as Kleinman's theory on the cultural construction of clinical reality, to provide a deeper understanding of how cultural and personal factors interact to shape health behaviors and perceptions in this population. I will also analyze the results in the context of my observations and epidemiological literature on South Asians and CVD. Finally, in Chapter 5, I will conclude this thesis by summarizing my findings, recognizing significant limitations, and highlighting next steps for future research.

CHAPTER 2: Methods

To examine how older first-generation Indian immigrants in the San Francisco Bay Area perceive, navigate, and adopt or reject health-related lifestyle habits, semi-structured interviews were conducted with 12 individuals who fit the eligibility criteria, including both men and women, as the only source of original data collection. All interviews were conducted over Zoom audio call and ranged from 40 to 95 minutes. The oral consent form and interview guide can be found in Appendix B and C, respectively.

Participant Population

Participants consisted of 6 men and 6 women. Although the sample size was small, "small samples make possible the kind of careful, face-to-face interviewing that is likely to result in more accurate, and especially, more culturally sensitive, data" (Dressler 1995, 50). All participants were required to be between the ages of 45 and 65. Participants were required to reside in the San Francisco Bay Area at the time of enrollment and to have lived in the United States for a minimum of 10 years. Furthermore, participants had to be first-generation South Asian immigrants, meaning they had to have been born outside the U.S. and have family originating from a South Asian country. However, despite recruitment being open to participants from any South Asian nation, all those who enrolled were from India. Thus, the study was reframed to focus specifically on Indian immigrants in the San Francisco Bay Area.

Throughout the thesis, pseudonyms have been used to refer to participants and are not intended to identify participants' physical appearance, actual name, or personal characteristics in any way. Twenty-five percent of participants were ages 45-50, 58% were ages 51-55, 16% were ages 56-60, and no participants were ages 60-65. Within India, participants represented multiple

regions and cultures, from Panchkula, Haryana to Vijayawada, Andhra Pradesh. However, due to the small sample size and the use of a snowball sampling technique, the participants interviewed represented only six out of twenty-eight Indian states. This limited coverage of the full geographic and cultural diversity of the study population poses a constraint on the study. Fifty percent of participants had lived in regions of the U.S. other than the San Francisco Bay Area for six months or more, and states included: Tennessee, South Carolina, New Jersey, New York, Florida, Wisconsin, Pennsylvania, Illinois, Ohio, Massachusetts. Two participants had lived outside the U.S. and India for six months or more, in countries including Germany and the United Kingdom. Additionally, two participants had returned to India for a year or more since settling in the U.S., before finding their way back to the Bay Area. Table 1 and 2 display the demographic characteristics of the study population in more detail. N/A indicates questions that were left unanswered.

Table 1: Demographic characteristics of study population

Pseudonym	**Self Identified Gender**	**Age**	**Home State in India**	**Years in the U.S.**	**Highest Education**
Sanjay	Male	52	Delhi	29	MS
Alka	Female	53	Maharashtra	23	MS
Ashok	Male	48	Haryana	25	MBA
Deepak	Male	51	Andhra Pradesh	30	MS
Rajiv	Male	53	Rajasthan	25	MS
Mona	Female	48	N/A	25	MA
Jyoti	Female	56	Tamil Nadu	20	MS
Preeti	Female	51	Delhi	24	MD
Vandana	Female	50	Rajasthan	24	MS
Mahesh	Male	51	Maharashtra	30	MS, MBA

Suraj	Male	55	Rajasthan	26	MBA
Amita	Female	57	Kerala	30	MA

Table 2: Demographic characteristics of study population (continued)

Pseudonym	**Employment Field**	**Immediate Family & (Age of Kids)**	**Religious Background**
Sanjay	Information Technology	Wife, 1 kid (12)	None
Alka	Tech Industry	Husband, 2 kids (26, 19)	Hindu, Jain
Ashok	Product Management in Tech	Wife, 2 kids (19, 15)	Hindu, Jain
Deepak	Software Engineering	Wife, 2 kids (18, 15)	Hindu
Rajiv	Artificial Intelligence	Wife, 2 kids (24, 19)	Hindu
Mona	Education	Husband, 2 kids (21, 18)	Jain
Jyoti	Accounting	Husband, 2 kids (26, 21)	Hindu
Preeti	Medicine	Husband, 1 kid (12)	None
Vandana	Software Engineering	Husband, 2 kids (21, 16)	Hindu
Mahesh	Electrical Engineering	Wife, 2 kids (19, 17)	Jain
Suraj	Telecomm, Cloud Technology	Wife, 2 kids (26, 22)	Hindu
Amita	N/A	Husband, 2 kids (27, 25)	Catholic

Recruitment Protocol

To recruit eligible individuals for this study, a snowball sampling method was used. The American Psychological Association defines snowball sampling as: “a technique to identify and recruit candidates for a study in which existing participants recommend additional potential participants, who themselves are observed and asked to nominate others, and so on until a sufficient number of participants is obtained” (The American Psychological Association, n.d.). In particular, I used my network of family and friends to connect with potentially eligible individuals and asked all participants to further connect me with 1 or 2 of their friends with whom I could also have a conversation. Since participants were not compensated, voluntary

sign-ups were unlikely without some form of personal investment. Individuals were more willing to participate when referred by someone they knew, seeing participation as a way to support a student. Thus, snowball sampling was deemed the most effective recruitment method, rather than relying on circulating a sign-up form in larger community forums.

To mark their interest in participation and screen for eligibility, individuals were required to fill out a Google form asking questions related to demographic study criteria and their contact information. The text of this google form is available in Appendix A. If the individuals provided answers outside of the study criteria for questions asking about age, residency, number of years in the U.S., and country of birth/origin, then they were not enrolled in the study and were not interviewed. The first set of candidates were emailed a Calendly link to select an interview time slot that aligned with their availability. Although four interviews were successfully scheduled via Calendly, most interested candidates did not use the link—likely due to tight schedules from festival and holiday seasons, travel commitments, or intending to schedule but forgetting after seeing the email. Thus, I was advised to follow up with individuals via personal text message, which served as an efficient and effective method to schedule additional interviews. Although scheduling via text message was more informal and led to a higher amount of rescheduling or cancellations by participants, this was managed by occasionally splitting interviews into two days.

Interviews

Semi-structured interviews were selected as the primary method of data collection for this study due to their balance of consistency and flexibility. While they follow a general script to ensure a standardized set of open-ended questions and topics, they also allow for unstructured

follow-up questions based on the natural flow of the conversation (Adams 2015, 210). As I was interested in the unique reflections, experiences, and opinions of each participant, structured interviewing—which follows a strict questionnaire with limited flexibility for unique follow-up questions—was not suitable for this study (Adams 2015, pg. 212). Moreover, although purely unstructured interviews are often used in ethnographic fieldwork to allow participants to express themselves freely over multiple sessions, this approach was also deemed unfeasible for this study (Adams, 2015, pg 212). Given that I wanted to avoid requesting participants for more than one hour of their time, unstructured interviews would not have allowed for comprehensive data collection in a timely manner.

At the beginning of each interview, I addressed any questions the participant had about the study before obtaining verbal consent for study enrollment and audio recording by reading an oral consent script. Participants frequently requested for a reminder of the study's objectives and context, during which I was particularly careful not to introduce any bias. Specifically, I avoided mentioning health, CVD, or T2D to prevent influencing participants' responses regarding their lifestyle habits and attitudes. However, due to the nature of snowball sampling, I could not control whether previous participants shared details about their interview experience with new candidates, potentially introducing bias. A more controlled recruitment method, such as sampling through community organizations or anonymous outreach via online platforms, might have reduced the risk of bias by limiting participant contact, but could have also restricted access to this specific community.

All interviews followed a similar structure, beginning with demographic questions regarding age, residency and immigration, family, education and career, and social network. This was followed by more in-depth conversation on lifestyle experiences and attitudes, including

stress, exercise, diet, sleep, and meditation. While I aimed to comprehensively cover all topics in each interview, the order of lifestyle topics naturally varied in each conversation, as I sometimes adapted or omitted questions to align with each participant's experiences and relevance. For instance, if a participant's anecdotes became repetitive across multiple questions, I combined them to avoid redundancy and minimize fatigue. Additionally, participants' reflections often guided the sequence of questions, as I followed their train of thought to maintain a natural, conversational, and comfortable interview flow. Some conversations flowed more smoothly, allowing for richer discussions, while others were more concise or required more effort to navigate. This variation can be attributed to not only differences in participants' personalities or comfort levels, but also my own growth as an interviewer. While I was initially more hesitant to ask for details beyond what participants naturally shared, I later became comfortable pursuing a single line of questioning more deeply. After the interview concluded, I transcribed all audio recordings into transcripts, assigned pseudonyms to all interview participants, and discarded the recordings.

Data Analysis

I manually performed an inductive thematic analysis of the interviews to derive the findings for this project. I utilized the grounded theory approach, in which I simultaneously conducted data collection and data analysis. After manually revising the first three interview transcripts, I reread the transcripts and took notes to identify initial interview codes and "capture all potentially relevant aspects of the topic as soon as they are perceived" (Corbin & Strauss, 1990, pg. 6). In particular, I took note of concepts that were repeatedly present or significantly absent within and across interlocutors' experiences and reflections (Corbin & Strauss, 1990, pg.

7). Recognizing initial themes helped guide the direction of my probing and follow-up questions in further interviews to ensure that I "not to miss anything that may be salient," though I did not make any changes to my base interview guide (Corbin & Strauss, 1990, p. 6).

After all interviews were completed, I carefully read each interview transcript to search for patterns and relationships between interlocutors' responses. I reviewed each transcript multiple times to familiarize myself with the data and build on the initial codes I had identified to more formally define the following overarching themes:

1. Expert sources
2. Personal feelings and observations
3. Family
4. Social network
5. Upbringing and cultural background
6. Residency in the U.S.
7. Profession

Finally, I conducted another round of coding to manually organize prominent ideas and quotes from my conversations under those themes. The themes enumerated above form the basis of my results and discussion sections in Chapters 3 and 4, respectively.

CHAPTER THREE: Results

In my conversations with 12 older first-generation Indian immigrants in the SF Bay Area, several spheres of influence emerged that both facilitated and impeded awareness and adoption of health-related habits, including exercise, diet, sleep, and meditation/stress management practices. These include expert sources, personal feelings and observations, family, social network, upbringing and cultural background, residency in the U.S., and profession. Overall, while perceptions of a "healthy" lifestyle varied, all participants seemed to demonstrate heightened emphasis on and detailed awareness of their individual lifestyle habits. Nonetheless, the translation of awareness into action differed across interlocutors, with their experiences shaped by the enumerated themes in both similar and distinct ways.

Expert Sources

One theme that uniformly shaped the experiences of participants who brought it up in their interviews was the consumption and application of information from expert sources to increase their health knowledge and inform their decision-making. I define expert sources as individuals or materials considered widely authoritative in the field of health, such as healthcare professionals, books, research articles within public or academic scholarship, and scientifically-backed programs. A vast majority of my study population cited such materials as some of the main sources of health advice they engaged with. Some respondents noted that among an overload of health-related information circulating on the internet and in their social circles, they valued streamlined and reliable advice from reputed sources such as their physician. For example, Mona described her doctors as a source of motivation:

> I would definitely say my number one [motivation for exercise] is doctors because whenever we go to the doctor, like once in six months, they question 'what does your

> excess routine look like? How many times a week?' And if we don't do it, that just gives us a reminder…we should continue it... I don't follow any social media. [Our primary diet advice] comes from doctors… they give such great tips… even the American doctors give good tips because they know what the Indian, South Asian diet looks like.

In addition to offering motivation, some physicians also connected their participants with lifestyle medicine programs offered by their healthcare systems, which provided more detailed and comprehensive support for improving lifestyle habits. When describing their concept of a healthy diet, two participants, Mona and Vandana, referred to a balance of 50% vegetables, 25% protein, and 25% carbohydrates, along with healthy fats. Mona cited her husband's physician, and Vandana cited the lifestyle medicine program that her physician referred her to as the source of this information. Similarly, most of the participants who acknowledged the importance of a varied exercise routine—including aerobic activity, strength training, and flexibility—attributed this awareness to lifestyle medicine programs or their physician. Additionally, Vandana particularly appreciated that the lifestyle medicine programs offered by their healthcare system were culturally tailored, providing suggestions for versions of South Asian recipes that maintained the integrity of traditional ingredients and culinary techniques. Vandana has incorporated some recommendations into her everyday diet: "Even the *roti* [Indian flat bread] flour that I make, for example, has some mix of millet flours, some *atta* [whole wheat flour], and ground flaxseed powder, because the lifestyle medicine program says that flaxseed helps reduce cholesterol."

Beyond healthcare providers and programs, many participants, such as Vikram, Ashok, and Amita, sought health information through books and articles. While some specifically preferred books and articles over social media, others simply gravitated toward books and articles for health information due to their personal interest in reading or a long-standing reading habit. For example, Vandana "used to go to the local library to read up on Ayurveda and order

books online and read up as well." More often than not, seeking or engaging with health information from expert sources, particularly books and articles, was an independent effort. Overall, participants' proactive engagement with various expert sources was driven by a desire for reliable, actionable advice and support.

Personal Feelings and Observations

In addition to expert sources, interlocutors' personal feelings and observations with certain lifestyle practices seemed to consistently have a positive impact on their health awareness translating to action. Among the interviews in which participants described such feelings and observations, the most decisive factor in whether participants sustained a lifestyle practice—whether newly adopted or ingrained since childhood—was their direct, personal experience of its effects. When participants felt physically revitalized, mentally unburdened, or emotionally grounded due to changing their diet, exerting themselves through exercise, or practicing meditation, their commitment to the practice was reinforced. Comparably, the anticipation or fear of losing that feeling or experiencing discomfort in its absence, also kept them committed to preserving the habit, such as maintaining a healthy sleep schedule. This finding applied to both long-standing habits and new modifications. For example, several interlocutors, including Vandana, Suraj, Mona, Deepak, Rajiv, and Mahesh noted feeling "lighter" after reducing or substituting the carbohydrate portions in their lunch meals.

Throughout my conversations, I was struck by the vividness and detail of participants' reflections. For instance, Suraj—who maintains an especially active lifestyle that includes regular incline walking, hiking, swimming, and mountain biking, alongside occasional tennis, cricket, and gardening/manual work—remarked that his commitment to exercise stems primarily

from personal passion rather than from health concerns. When asked what motivates him to maintain this routine, Suraj said, "it's not just that I want to be healthy. Physical activity makes me feel alive. I feel good after doing it. It's an addiction, like drinking coffee, I don't feel good without it." Similarly, Vandana, an avid meditator, notes a substantial difference in her day or week when she does not meditate:

> "I always feel very energized and calm after my yoga and meditation practice…I can see a remarkable difference between the days I do my meditation and the days I don't. Especially if I take a longer period of time, like seven days, I definitely think that the week that I meditated would be a better week than the week I didn't meditate."

In my conversations, I also noticed that for some individuals, experiencing the tangible benefits of adopting a particular lifestyle modification strongly fueled their drive to seek additional modifications. While Sanjay has always maintained an active lifestyle due to his love for competitive sports, the COVID-19 pandemic compelled him to find new ways to stay fit at home, and he bought a Peloton bike. Experiencing the benefits of one aspect of exercise led to exploring another aspect, and gradually resulted in a robust exercise routine with cardiovascular activity, strengthening, and eventually, post-pandemic, racquet sports:

> "I needed to do something at home and so I bought my Peloton bike. Once I started, I loved it…I realized that…I can keep doing this more regularly. Then, I realized that cardio is not enough, I need strengthening also…The Peloton comes with full body exercises, so they start to educate you—this is important, that's important—so you start to get the holistic picture…I used to do some strengthening…but not so regularly. [Through my Peloton bike], I realized I should do [strengthening] more regularly, so I got a strengthening machine. And then, I was just hooked."

Thus, personal observations and feelings regarding a lifestyle practice not only helped in maintaining the practice, but also served as a motivating factor for adopting new practices. Overall, the tangible, personal experiences of improved well-being or suboptimal daily functioning served as reinforcement and catalyst for ongoing health-related behavior changes.

Family

Compared to expert sources and personal observations, family dynamics exert a far more complex and multifaceted influence on shaping health perceptions, guiding the adoption of lifestyle modifications, and presenting unique barriers to their effective implementation. The interplay of familial support and obligations creates a dynamic that both facilitates and hinders the integration of health-related practices into everyday life. In my conversations, although participants' descriptions of the negative influence of family on lifestyle were relatively limited, it nonetheless warrants closer examination. In particular, caregiver responsibilities, such as tending to kids' academics, extracurriculars, or other needs, often consumed interlocutors' time or limited accessibility to adhering to their desired lifestyle. For example, Amita described that before her kids went to college, her day after work was consumed by driving her kids to and from school and extracurriculars, leaving minimal time for exercise. Additionally, participants who experienced heightened stress noted that worrying about or conflicting with their kids often contributed to the stress. Further, Mahesh expressed frustration that while chaperoning for his teenage son's extracurricular tournament, pizza was the only food option available. "Even if you are aware [about healthy diet choices], you don't get a chance to implement [the choice]," Mahesh noted.

Regarding diet, in some cases, participants catered to their kids' preferences and had to diverge from this diet to prioritize their own health-related decisions. For example, Mahesh describes that 90% of the time, his kids' dinner is different from his meal. While he typically has a traditional North Indian *dal-sabji-roti* (lentils, vegetables, and whole wheat flat bread) for dinner, his kids have more carbohydrate-rich meals such as Maggi instant noodles. However, according to his own self-assessment, Mahesh observed that 10-15% of the time, he shares his

kids' meals. Similarly, although Mona herself does not consume any deep-fried foods, she makes fried snacks at home for her kids or when hosting guests. Preeti speculated that many South Asian immigrants choose to prioritize their family members over their own lifestyle practices, such as exercise, due to the stigma around individual acts of self-care. "They have to keep [their] family first before [they] can do exercise," Preeti said. "They think doing exercise is a selfish, self-care thing and they focus more on the rest of the family members. They neglect their own health a lot."

None of my study participants, however, seemed to hold Preeti's generalization of other South Asian immigrants. In fact, several participants, particularly women, framed investing in their health as a conscious decision to support their family. Across the board, participants conveyed a deep motivation to overcoming or better preparing for health ailments associated with aging, including disrupting cycles of hereditary disease, in order to mitigate potential caregiver burdens on their family members and sustain physical and mental fitness for longer. Jyoti's reflection on this motivation was especially profound:

> "My parents didn't have great health…my father unfortunately met with an accident very early in his life and he was paralyzed…he could never come back to 100% normal. So, my mother was a caregiver for my father for a long time and their health was always the biggest concern for me…"[The] major part of my adult life has always been about worrying about [my parents'] health. So looking back, I feel that it is very, very important, if I love my family…to make sure that my health does not ruin my children's happiness…that is my main motivation. Whether I love myself or not doesn't matter…for the sake of the happiness of our loved ones, we have to keep ourselves healthy."

Jyoti's determination to care for her health as a means of supporting her family, rather than seeing it as counterproductive to being there for loved ones, represented a direct contrast to Preeti's observation of self-care being viewed as selfish among South Asian immigrants.

Additionally, Jyoti's remark reflected a tone of utmost selflessness, and I was particularly struck by the sheer emphasis on decentering herself when describing the happiness of her loved ones.

Within my conversations, the positive influence of companionship and accountability from family members, particularly for exercise and diet, was evident. Deepak, Mona, and Suraj all described regularly going on brisk evening walks or hikes with their significant others as a designated time to catch up on their days. Sometimes, the drive to support loved ones in cultivating healthier habits became the catalyst for individuals to adopt similar practices themselves, as exemplified by Ashok, who began going to the gym, doing yoga, and meditating to encourage healthy routines in his daughters and expose them to healthy self-care tools at an early age. In return, the companionship and consistency supported him in maintaining an exercise routine before the COVID-19 pandemic.

> [I started going to the gym so] I could bring some routine and regimen to my daughters' schedule. Actually, that was the biggest motivation, to be honest…my daughters and wife were giving me company… all of us were going to the gym together so it was a ritual that you felt you didn't want to break…There was a strong motivation to have [my daughters] also not break the ritual and keep them accountable.

Across all lifestyle dimensions, companionship and mutual inspiration from family members emerged as recurrent themes. For instance, Jyoti and Vandana described establishing dedicated recipe WhatsApp groups with their families, where they exchanged healthy recipe ideas with their older daughters. These interactions not only broadened their culinary inspirations by exposing them to new ingredients, but also energized them to cook, reinforcing their commitment to healthier eating. Rajiv echoed a similar sentiment, remarking: "my oldest son has influenced my diet the most. He is very health conscious and keeps giving us tips from social media and YouTube videos." Regarding awareness on sugar in her diet, Mona was especially inspired by her husband:

> "My biggest motivator is my husband. He will always share new [health] knowledge at home, like…if we should cut down on eating something… I've always been a desserts fan, so he used to say that if you want to eat sweets, eat them in small portions, like maybe once a day…And we realized over the years that sweets are always made with the white sugar…so even at home now I use brown sugar only…I know very well that sugar and these white things are not gonna make my bones healthier and stronger, so I just definitely do not want to intake something which is gonna harm me down the line after 10-15 years when I'm in my 70s… So I decided to cut sugar and got a lot of awareness from my husband"

Mona's example demonstrates that mutual encouragement and shared lifestyle goals not only increase awareness but also enable the awareness to translate into action. Similarly, some participants that experienced a lack of companionship with their lifestyle goals felt that the lack made it more challenging to achieve those goals.

Social Networks

For many of my study participants, social networks played a similar role to family, sometimes increasing their health consciousness and facilitating healthy habits, while other times impeding their ability to achieve their lifestyle goals and widen the gap between awareness and action. Unlike the homogeneity observed in participants' family structures—where all but one participant's immediate family consisted solely of their significant other and two children—the extent and influence of social networks varied considerably across the study sample. Across my sample, participants formed their social circles through attending the same alma mater in India or the U.S., working at the same company, being neighbors, or participating in the same religious or subcultural organizations. Some participants, like Deepak, typically met with friends once or twice a month, with the frequency of his family's social gatherings increasing from September through December, a period featuring a series of Indian festivals followed by Western holidays. Others, like Mahesh and Alka, walked with friends several times a week. Alka especially valued

the accountability that came from walking with friends or joining classes with multiple people as opposed to pursuing individual physical activities:

> “I've had this habit for a long time that I walk with my friends, so it motivates me that I'm going to meet them and have given my word to them that we’ll be walking. We do it early in the morning on weekends, so that kind of works well. I've also signed up for this Pilates class and I pay for it, so that works well. Anything else that I want to do on my own, there is a challenge…Spending time, quality time…[or] one-on-one time with friends, that's my biggest [exercise] motivator I would say”

Jyoti’s experience is comparable to Alka’s—although on weekdays, Jyoti’s social interactions with friends during her daily walks, on the weekends, she and her husband spontaneously make hiking plans with friends from a 55-family WhatsApp group chat.

> “All these 55 families are part of this hiking group. Whoever wants to go on a hike, they just send a message to the group saying, ‘Hey, me and my husband are going on a hike to this place. Whoever wants to show up, come to this parking lot by 8:30 in the morning on Saturday.’ Whoever is free on that particular Saturday will just show up…. Almost every Saturday, whenever the weather is good, we have made it a point to meet and it has made life so happy and meaningful because there is no obligation. You do your walk for like 3-4 hours. You laugh, you talk, and you stay fit without even knowing that you're actually doing something too good for yourself.”

Jyoti highlighted this example during our discussion about her social life, not during our conversation on exercise, underscoring the prominence and efficacy of social motivation over explicit health-related motives in this context. Her description of these weekly meetings as "happy and meaningful," also reveals the role of social connections in stress management and providing social support. As first-generation immigrants, many participants in my sample have limited family in the U.S., making friendships vital for maintaining positive mental health. Alka shared:

> "My social network is time well spent and as well as mutual support. We have this core group that's basically an extended family and everything that goes with it: we celebrate together, we party together, we have our ups and downs together and relate

> with each other. We have relationships that have grown over years; we've been together for 20 years."

This sentiment reflects the deep bonds formed within these social networks, serving as essential support systems in the absence of extended family. Many participants also appreciated being able to learn more about health and lifestyle from their friends, whether it was creative recipes, new epidemiological data, or viral exercise videos. Ashok notes that, outside of his doctor, most of his health-related knowledge comes from "studies or videos…shared by friends who are a little more health conscious than [he is]."

Social obligations can present challenges for individuals striving to maintain lifestyle modifications. For instance, Mona, Jyoti, and Deepak struggle to resist sweets during festival seasons. Similarly, Alka, who generally follows a balanced, nutrient-dense diet but self-identifies as a "foodie" with a fondness for carbohydrates, finds it difficult to control carbohydrate portions during such events. Over the last few years, the gatherings she attends have increased food options with complex, unrefined carbohydrate options, helping support her dietary goals. Beyond diet, social gatherings can alter daily routines for some individuals, including sleep, exercise, and meditation schedules. In my conversation with Vandana, she mentioned that sometimes chose to forego social events and withstood the "fear of missing out" to ensure quality sleep before busy mornings of yoga, meditation, and caregiving responsibilities. With my study sample, social networks also functioned as a vessel for sharing and preserving cultural knowledge related to health, which will be elaborated on in the following section.

Upbringing and Cultural Background

Across all interviews, the impact of upbringing and cultural background on each individual's health perceptions and decision-making was evident, particularly with exercise, diet

and sleep. Childhood experiences, intergenerational influences, cultural traditions, and recently learned cultural knowledge all played a role in informing current participants' current approaches to health and lifestyle. Although India—at least during the time and place of my study sample's upbringing—did not seem to have formalized physical education or sports programs to the same extent as in the U.S., many participants recalled engaging in movement as a natural part of daily life. Activities such as walking for commuting, performing household chores, and participating in recreational or school sports such as track and field, cricket, or soccer were common. All my male interlocutors recalled playing these sports informally during childhood and described their adult exercise habits as either a continuation of their active lifestyle or an effort to reintroduce regular physical activity. On the other hand, more informal childhood physical activity, such as playing hopscotch or tag with friends, was widespread among my female interlocutors, and some, such as Vandana, had little exposure to routine exercise until immigrating to the U.S. As a result, she did not make exercise a priority until later in life.

Interestingly, four out of six female participants maintained regular yoga routines at the time of interview, either through classes or individual practice. While no participants specifically discussed yoga's cultural association, this suggests that the cultural resonance of a lifestyle habit may contribute to its sustainability, at least among the women in my study sample, given yoga's origins in South Asia. Additionally, all four of the yoga practitioners—Vandana, Mona, Preeti, and Jyoti—described their practices as classical or traditional yoga, and Preeti is a classical yoga instructor. Vandana and Preeti also made it a point to recognize that yoga is not meant to substitute other forms of exercise. Specifically, Vandana reflected:

> "I started yoga 20 years ago because I just wanted to be a healthier, better version of myself…I initially considered yoga as exercise…over the course of time, I've realized it's…more for organizing many other aspects of yourself, like your energies and

> everything. It's not building strength and it's not like it's not exactly aerobic, so I still need those components and yoga is not going to provide for all of that."

Among male participants, only Ashok had routine experience with yoga. In addition to yoga, many participants seemed to have a working knowledge of meditation due to its prominence in South Asian culture. Vandana, Jyoti, and Mahesh meditate daily, Ashok and Suraj aspire to meditate regularly, while the other participants had slight experience with meditation and acknowledged its benefits in stress management but did not feel the need to integrate it into their lives. The practice of yoga appeared to be gendered, with a distinct pattern where the female participants were more likely to engage in yoga regularly compared to their male counterparts, suggesting a gendered adoption of culturally associated physical activity. Meditation, on the other hand, did not follow this same trend, as both male and female participants had comparable levels of experience with meditation as a stress management tool.

Expectedly, within my study sample, cultural background and upbringing seemed to have the most decisive impact on dietary practices, with some knowledge passed down across generations and other traditional habits adopted more recently. Both Jyoti and Vandana extensively discussed the profound impact their mothers' cooking had on them, attributing their love for cooking and interest in nutrition to the examples their mothers set. Their descriptions also demonstrated that, due to their cultural background, their understanding of a healthy diet extended beyond portion sizes and nutrients. I was particularly drawn to Jyoti's discussion of traditional medicinal knowledge in her cooking, especially her practice of combining iron-rich foods with Vitamin C to enhance nutrient absorption:

> When we're making a dish with spinach, we always used to have a side dish made for that particular dish containing *amla* (gooseberry) or lemon and we would never make anything with tomato when we're making a dish with spinach…in the last few years that people have done research and we have come to know that…the vitamin C in *amla* or

> lemon would make you absorb the iron in spinach better… That was never explained to us when we were growing up, because I don't think my mother or my grandmother knew why it was done in that way. We just followed that combination…Now we know the scientific reasoning behind it, so I feel that if you just stick to those kinds of traditional items, then you will definitely do good for your health, because somebody has figured it out, they just did not explain it to us.

Similarly, Vandana, Deepak, and Ashok mentioned consuming turmeric and black pepper together, as a substance in black pepper increases the "bioavailability" of turmeric's active ingredient.

When describing their daily meals, every participant described having at least one traditional Indian meal per day, albeit with modifications. Often, the modifications made to these meals were also inspired by Indian cultural ingredients, such as using *moong* lentils in place of white rice puffs to recreate the street food *bhel puri*. The use of a wide variety of millets and millet flours to replace or supplement rice or whole wheat flour was especially prevalent among my study sample, with Mona, Alka, Vandana, Jyoti, and Suraj mentioning millets such as *bajra, jawar,* and *ragi*.

On the other hand, some lifestyle goals also compelled participants to forgo certain cultural foods altogether, such as Mona and Alka's avoidance of deep-fried snacks, even during festival season. Similarly, Amita describes her rejection of North Indian food from restaurants:

> "When you eat those kinds of foods, your body doesn't like it anymore. The North Indian food that you eat in restaurants is something that we have stopped. I don't think I can ever go to a buffet anymore, because even if somebody has a party and I eat by mistake, I'm complaining for the next few days that I shouldn't have eaten it. The decision started off with health, now it's more like my body is complaining if I eat those things."

Finally, Mahesh, Ashok, Vandana, and Jyoti all spoke about the influence of Ayurveda—a formal medical system in India—in their lifestyles. Mahesh first gravitated toward Ayurveda due to excruciating back pain, which has limited his movement on and off for over 15

years: “I was doing a lot of reading on how Ayurveda can help in addition to allopathy, because I felt that allopathy treatment was more toward subsiding pain and not addressing the real medical issue.” However, since then, Mahesh’s interaction with Ayurveda has been more focused on learning its principles rather than actively applying them—although he deeply resonates with its food-related suggestions, he does not necessarily put them into practice. Additionally, Vandana also did not grow up with Ayurveda and started reading about it due to personal health complications: “I voted against that idea of taking my medicine for the rest of my life, so I started to read about Ayurveda because it was an alternative medicine that comes from my country. Then, I found out about an Ayurvedic doctor and that's where my journey started. While Vandana has implemented certain Ayurvedic food suggestions, such as its recommendations on food combinations with milk, she has rejected others, such as its avoidance of raw vegetables.

Residency in the U.S.

Furthermore, participants' health practices have been shaped by an ongoing negotiation between their cultural background and their residency in the U.S. Exposure to new ways of life, physical environments, and culinary cuisines have substantially informed health-related decisions throughout my sample, particularly in the areas of diet and exercise. It is difficult to determine whether these dietary and exercise-related influences are present throughout the U.S., unique to California, or specific to the SF Bay Area.

For several participants, living in the U.S. opened their eyes to the normalcy and prevalence of exercise as a hobby and routine in adulthood, increasing their awareness of physical activity and naturally inspiring them to develop exercise habits of their own. For example, Alka recalls the impact that exposure to American exercise lifestyles has had on her:

> It's just the lifestyle over here, you just catch up on it. Everybody pretty much does [exercise] over here [U.S.] on the weekends. It just started with "let's do it" and it just happened. I think it's easier over here because of the accessibility. Even getting out and walking right, it's difficult in India. It's much, much easier here.

Notably, residency in the U.S. has afforded my study participants increased access to green, outdoor spaces, which was a recurrent theme in my conversations. Seventy-five percent of my study sample, specifically Alka, Ashok, Deepak, Rajiv, Mona, Jyoti, Vandana, Mahesh, and Suraj, all mentioned hiking as a regular exercise activity. Regarding hiking, Vandana reflects: "I love hiking because of the endorphins that I experience. I just love climbing up a mountain and experiencing the fresh air on top of a mountain. The view from up there is significantly different than just walking on plain ground." Several participants expressed their appreciation for easy access to hiking trails, and Mahesh, Vandana, Rajiv, Ashok, and Suraj even cited the same trail in their interviews: Mission Peak in Fremont, CA. Moreover, Suraj's family chose their current place of residence due to its proximity to the Mission Peak trail.

Beyond exercise, living in the U.S. has also had a significant impact on my study sample's diets. Most participants described regularly cooking cuisines other than Indian food and found that it enabled a greater variety of healthy meal options at home. For example, in his household, Deepak describes, "meals are a mix of what [my wife and I] have grown up eating, and cuisines that our family has a liking for and are low effort to cook, such as Mexican and Mediterranean." Similarly, living in the U.S. has exposed Rajiv to meal options that are lower effort than typical Indian meals, such as grilled chicken and veggies. In Jyoti's household, while lunches are a traditional South Indian meal prepared by her mother-in-law, her family prefers something "fun" and "light" for dinner, such as salads and sandwiches, and tries to avoid *roti* or rice-based meals. On the day of our interview, Jyoti had tofu rolls with hummus for dinner.

Overall, through increased exposure to diverse lifestyle options and increased accessibility of structural resources, living in the U.S. has primarily increased awareness and feasibility of positive health-related lifestyle habits. Nevertheless, for this study population, it is also accompanied by significant career demands, which are discussed in the following section.

Profession

Compared to the previously discussed themes, participants' professional lives have had a more straightforward and direct impact on their health-related lifestyle behaviors. Sixty-six percent of my study sample interlocutors work in the technology industry, which is known to provide discounts for exercise and stress management tools. For instance, Mahesh shared that his company offers free access to the meditation apps Calm and Headspace. Other than Mahesh's mention of the meditation apps, any reflections regarding career-related influences on lifestyle in my interviews were wholly negative. Of the seven participants that described experiencing heightened stress at times, every participant attributed professional responsibilities as a primary cause. Vandana struggled with heightened "performance pressure," Suraj resented "work politics," and Jyoti ultimately sought a new job after enduring "stressful management" for an extended period.

For many participants, long work hours and late-night tasks disrupted their sleep schedules, making it difficult to wake up early and maintain consistent health routines. Rajiv and Deepak described instances of staying up past midnight to accommodate global teams, which left them feeling fatigued the next day and less inclined to engage in morning exercise or meditation. Over time, this cycle of irregular sleep and demanding work hours contributed to a sense of

exhaustion, making it harder to prioritize health-related habits. When asked about barriers to maintaining his desired exercise routine, Deepak shared:

> "My exercise routine is messed up by mainly work and commitments at home. Typically it is working late into the night and not being able to get up in the morning. The other [issue] is basically exhaustion from a day of long meetings and things like that and having motivation or willpower to get up…The unpredictability of work and work pressure is really what prevents me from sticking to my regular time [for exercise]."

Despite this, to accommodate his schedule, Deepak preferred to use a stationary bike or incline walk on a treadmill for exercise because it allowed him to simultaneously take work calls, ensuring he could stay active without sacrificing productivity. This type of multitasking, while beneficial for maintaining movement, also underscored the challenge of finding dedicated, uninterrupted time for exercise.

Additionally, with most participants working in desk-based roles, long hours of sitting were an unavoidable aspect of their daily routines. While some made efforts to incorporate standing desks or short walks, such as Vandana and Rajiv, others described feeling physically stagnant during the workday, with limited opportunities to stretch or move around beyond short breaks. Although Ashok is conscious of the need to take breaks between meetings, he conveys the challenge of putting these breaks into practice:

> "I have my watch set to remind me every half an hour [to get up]. The poor thing keeps on reminding me, but I would typically go 3 hours or…sometimes 4 hour stretches without really getting up and stretching the body and moving it. I feel I need to do better. I need to make time between the meetings, like you can always finish a meeting at 3:25 and start the next at 3:30. But what really ends up happening is you just start saying, 'hey, I know we need to finish this discussion, but I need to jump to the next call' and you're just jumping from one meeting to another."

Participants such as Preeti, Rajiv, Deepak, and Ashok also noted that workplace dining options and demanding schedules often made it difficult to maintain a healthy diet. Ashok and Rajiv both

described having to rely on cafeteria meals, quick takeout options, or convenient processed foods that did not always align with their dietary preferences or health goals and made it harder to sustain balanced eating habits.

Overall, participants' health-related lifestyle habits and understandings were shaped by a dynamic interplay of expert sources, personal observations, family, social networks, cultural background, residency in the U.S., and professional responsibilities. While many factors facilitated awareness and access to healthy practices, the ability to consistently implement them varied based on individual circumstances, competing demands, and the broader environments in which participants navigated their daily lives. The implications of these findings will be discussed in the following chapter.

CHAPTER FOUR: Discussion

Participants' understandings and practices were shaped by an interplay of various spheres, including cultural, familial, and social factors, as well as personal experiences, biomedical and alternative medical sources, and professional life. To further contextualize these results, I will analyze them in relation to my observations, epidemiological literature on South Asians and CVD, and broader research on SA culture. Additionally, I will draw on perspectives from anthropological theory to better understand how cultural, professional, and personal motivations intersect in shaping health behaviors.

Analyzing Findings Through Cultural and Epidemiological Perspectives

Prior research has documented health literacy, which describes the "ability of an individual to obtain and translate knowledge and information to maintain and improve health" as a mediator for health outcomes (Liu et al., 2020, 1). A review on health literacy and self-care among adult immigrants with T2D in the U.S. found that immigrants exhibited "low/moderate health literacy levels" with limited "access to health information" (Torris and Nortvedt 2024, 1). However, within my study sample, participants did not seem to demonstrate a lack of literacy, illustrated by their strong reliance on expert sources for health information, such as books, lifestyle medicine programs, and physicians. This difference may be partially attributed to their socioeconomic and educational privilege. Within my sample, all participants held graduate degrees and worked in fields requiring advanced education and English literacy, equipping them with skills to actively seek out and accurately interpret information from expert sources describing subjects like epidemiology and basic cardiovascular physiology. In contrast, many studies have documented linguistic and cultural barriers between South Asian patients and

healthcare providers, which, according to a review on patient care experiences among first-generation South Asian immigrants in high income countries, has "reduced self efficacy and motivation for implementing dietary modifications," (Vakil et al. 2023, 289). The same review found that participants preferred to "receive instructions on healthy, appetizing methods of preparing their own regional cuisines and were motivated to adhere to these recipes when provided with this information," which matched my findings, as participants appreciated receiving suggestions such as mixing ground flaxseeds into *roti* flour as a means to reduce cholesterol (Vakil et al. 2023, 289). Access to culturally competent healthcare is widely-documented as a crucial factor in improving health outcomes and this advantage was further reinforced by the availability of local resources like the South Asian Heart Center, which provides personalized lifestyle coaching for diabetes and cardiovascular disease prevention.

While expert sources played a crucial role in shaping participants' health awareness and understanding of lifestyle modifications, their personal experiences and feelings had a more direct impact on long-term adherence. Logically, it is natural to continue a practice after experiencing its health benefits firsthand, but what stood out most to me were the participants who were motivated by a sense of "fun," personal interest, or long-term habit rather than a tangible experience of health benefits. This idea is supported by studies which highlight the role of enjoyment in sustaining healthy behaviors. For instance, a psychological study investigating how positive affective processes underlie positive health behavior change identified "nonconscious motives as a central mechanism of behavioral maintenance" (Capelan et al. 2018, 77).

Family dynamics were a particularly complex and multifaceted influence that shaped health-related perceptions and behaviors among my study population, that both reflected and

diverged from findings of prior research. Several participants described struggling with time constraints due to caregiving responsibilities, making it difficult to prioritize their own health-related lifestyle practices such as exercise and meditation, a pattern well-documented in literature on barriers to lifestyle behavioral change in migrant SA populations (Patel, Phillips-Caesar, Boutin-Foster 2012, 774). This finding is reinforced by research on collectivist values in SA culture, where obligations toward kids and other family members often subconsciously take precedence over individual self-care activities (Ibrahim, Ohnishi, and Sandhu 1997, 45). Additionally, my study found that both men and women reported challenges in balancing family care and personal well-being, contrasting literature on women primarily shouldering caregiving labor among Indian immigrants in the U.S. (Pew Research Center 2022, Bhatt 2018). Outside of caregiving, however, I noted a gendered divide regarding household responsibilities. For example, many participants shared that men typically took care of tasks related to finances or home repairs and maintenance, while many women were responsible for cooking and cleaning. Despite this division, all participants sacrificed time from personal health for certain household responsibilities, which reduced the significance of the gendered divide in terms of health implications. However, it is important to note that these observations are not necessarily representative of the broader population and may not align with my own experiences in the community.

Despite the challenges that familial responsibilities presented, none of my interlocutors held the perspective that "devoting time to exercise… taking time away from caring for the family…and therefore is felt to be culturally inappropriate," individualistic, or selfish (Patel, Phillips-Caesar, Boutin-Foster 2012, 774). Instead, participants found success by learning to balance family choices with their personal health goals. They worked to integrate their lifestyle

practices into their family routines, even if that required extra effort, such as preparing different meals for themselves and their kids. My interlocutors also frequently expressed appreciation for their family members serving as a source of accountability, companionship, and motivation. Participants often exercised or implemented new dietary modifications with their spouses, supported by the MASALA study's finding that exercising with a spouse enabled consistency (Thanawala et al. 2020, 155), and benefitted from meal and exercise inspiration from their adult children, reinforced by another MASALA investigating suggesting that those encouraged by their adult children were more likely to adopt long-term health changes in diet (Gujral and Kanaya 2021, 31-32).

Perhaps the most striking finding in my research was participants' deep motivation to stay healthy for their families as many sought to break cycles of hereditary disease and avoid placing a caregiving burden on their children. Rather than rejecting collectivist values of valuing the family, or group, over the individual, participants found success by reframing investment in personal health as a pursuit for the wellbeing of their families.

Participants' experiences with their friends largely mirrored existing research about the influence of social networks on behavioral risk factors for CVD in South Asian immigrants. For instance, prior studies highlight that South Asians are likely to share the same dietary habits as the friends and family that they most frequently interact with, whether these habits are harmful or beneficial for health (Talegawkar et al. 2020, 1). In my study, participants found it most challenging to adhere to diet goals when influenced by temptations at social gatherings and felt most supported in sustaining their dietary modifications when social gatherings normalized food that accommodated these modifications. For many participants, social interaction was a vital source of support and stress relief. Social networks provided community for celebrating

milestones and festivals as well as comfort during hardships, functioning as an extended family for first-generation immigrants in a new country. This aligns with recommendations from the American College of Lifestyle Medicine (American College of Lifestyle Medicine n.d.). When it came to physical activity, the MASALA study found that exercise partners from social networks positively impacted women while having a negligible impact on men, while in my sample, both men and women benefited from exercising with friends (Thanawala et al. 2020, 149). Also, I observed that participants were especially successful in integrating exercise into their lifestyle when group physical activity primarily functioned as a way to meet and interact with friends, with the exercise itself and its health benefits as an afterthought, rather than the main focus. This contrasted with approaches where social interaction predominantly served as a method of accountability.

The negotiation between cultural values and personal well-being extended beyond social interactions and was also evident in how participants engaged with their Indian background and upbringing in shaping their health beliefs and behaviors. Many participants' health perceptions seemed informed by a holistic approach to wellbeing inherent to South Asian culture, incorporating psychosocial, behavioral, and physical concepts as well as traditional health-related recommendations (Tirodkar et al. 2011, 391). Accordingly, to varying degrees, participants embraced cultural dietary principles, remaining conscious of recommendations regarding food combinations passed down over generations and/or Ayurvedic suggestions. The prevalence of Ayurveda in my conversations was not surprising; in fact, a study on Ayurveda use among Indians in the U.S. found that 95% of the participants were aware of Ayurveda, 78% had knowledge of Ayurvedic products or treatments, and about 59% had used or were currently using Ayurveda (Satow et al. 2008, 1249). Additionally, due to yoga and meditation's South Asian

origins, all of my participants seemed to have experience and/or knowledge with it. With exercise, many of women interlocutors found consistency by gravitating toward South Asian activities, such as yoga or Bollywood dancing. These observations aligned with research from the American College of Cardiology, which recommends adopting culturally tailored health behaviors for not only diet, but also for exercise and stress relief (American College of Cardiology 2021). The gendered divide I observed in adopting culturally-tailored exercise practices could be explained by the fact that many women appeared to have less childhood experience or familiarity with formal exercise compared to men. Consequently, they gravitated toward culturally familiar practices, providing a more accessible and comfortable entry point to regular physical activity. Additionally, my interlocutors could have been subconsciously influenced by societal stereotypes, where sports were typically viewed as male activities and dance was seen as more suitable for women. As a result, women may have gravitated toward practices like yoga or Bollywood dancing, which felt more culturally familiar and aligned with these gendered expectations, while men leaned more toward formal sports or exercise routines.

Furthermore, cultural influence on diet was also supported by epidemiological literature. While plant-based eating was not a major topic of discussion in my interviews, most participants appeared to consume predominantly vegetarian foods, including plant-based items and dairy, due to their cultural background, whether or not they identified as vegetarian. This aligns with the prevalence of vegetarianism and plant-based options in South Asian cuisine (Bhupathiraju et al. 2022, 1078). Additionally, the prevalence of plant-based foods in my participants' diets could be influenced by religion or caste, as certain religions and dominant castes are sometimes associated with strict vegetarian diets or limited meat consumption (Hasnain & Srivastava 2023, 273). Within my study sample, eight out of twelve participants identified as vegetarian, and five of

those eight participants identified as Jain, who are known for strict vegetarian diets due to religious principles (Vallely 2004, 1). Notably, none of my participants mentioned consuming processed meat substitutes, suggesting a preference for traditional, whole-food preparations, such as the use of dairy and legumes for protein, over Westernized vegetarian alternatives.

Interestingly, unlike exercise, stress management, or sleep, diet appeared to be less affected by time constraints from work or family responsibilities, suggesting that the strong cultural emphasis on food and cuisine may act as a buffering factor, allowing participants to maintain desired dietary behaviors even amid busy schedules. Gender also shaped how cultural knowledge influenced health decisions regarding diet. Both men and women consumed cultural foods daily, but women spoke in greater detail about how culture informed their dietary choices. While 25% of couples in my study split cooking duties to some extent, in the majority of households, women were primarily responsible, reflecting traditional gender roles in domestic work (Pew Research Center 2022). Since cultural knowledge played a central role in shaping dietary habits, and since women were often in charge of cooking, the preservation of cultural food traditions had a more direct and conscious influence on women's health-related decision-making. This finding could be further explained by the idea that the burden of maintaining and passing down cultural practices in diasporic communities often falls on women, particularly in regard to food. Although there is limited documentation of this trend among South Asian communities, a study on the Gullah community illustrated that women's food preparation practices have a significant and overlooked role in cultural knowledge production and maintenance (Beoku-Betts 1995, 1). Additionally, regardless of the division of labor in individual participants' households, women have historically been primary caregivers in South Asia, suggesting that the women in my study felt a stronger obligation to conserve and pass

down traditional food practices, not only for health reasons but also as a way to preserve family identity and strengthen intergenerational ties.

Despite Indian culture's undoubted impact on lifestyle habits and perceptions, participants engaged in judicious criticism of certain cultural traditions or suggestions that conflicted with their personal health beliefs, especially with diet. For instance, many participants avoided indulgent Indian restaurant buffets. In addition, one participant, who frequently implemented Ayurvedic principles, disregarded Ayurveda's avoidance of raw foods, illustrating that any perceived negative impacts of cultural background could be limited.

Although participants' engagement with their cultural background in health-related lifestyle practices was largely supported by prior literature, the influence of residency in the U.S. appeared more distinct to my sample. While studies from the MASALA investigation attempted to document the nuanced and complex effects of acculturation on CVD risk factors among South Asians living in the U.S., findings were somewhat inconclusive and did not clearly support or negate patterns within my sample. Specifically, the study identified participants into classes of "separation (preference for SA culture), assimilation (preference for US culture), and integration (similar preference for both cultures)" based on a variety of factors (Al-Sofiani et al. 2020, 9). Analyses were inconclusive, finding that a higher number of years in the U.S. was associated with more CVD, yet SA women who employed an assimilation or integration strategy had a more favorable cardiometabolic profile compared to women using a separation strategy" (Kanaya et al. 2014, 1; Al-Sofiani et al. 2020, 1). Although I did not categorize my study participants into acculturation classes, by providing a more standardized, smaller sample size, my findings reinforced the MASALA study's acknowledgement that "inconsistency in these results is partly due to differences in country of origin and ethnicity, reasons for and context of

migration, and, importantly, reliance on surrogate markers of acculturation that do not account for the multidimensional nature of acculturation" (Al-Sofiani et al. 2020, 9).

Since all my participants migrated from the same country for career opportunities, either for themselves or their spouses, I was able to identify clearer patterns between U.S. residency and lifestyle adaptations, such as wider culinary influences or increased exposure to physical activity. The availability of local hiking trails and green spaces as well as the frequency of good weather emerged as a major motivation for physical activity in my study population, reinforcing findings from existing literature regarding green space as a mediator for physical activity and CVD prevention and good weather as a facilitator of exercise in South Asians (Roland et al. 2016, 1-15; Maricar et al. 2024, 1). Having personally hiked many of the trails my interlocutors mentioned, I was not surprised by this finding, but I was curious about whether the prevalence of hiking as physical activity was influenced specifically by the SF Bay Area, California more broadly, or the overall experience of living in the U.S. Although my conversations only seemed to convey positive health benefits of living in the U.S., I never directly asked participants about the effect of immigrant identity and experience on their lifestyle habits, meaning certain challenges may exist but simply did not come up in our discussions.

Compared to other previously discussed themes, participants' professional lives had a relatively straightforward impact on health behaviors that was largely supported by existing literature. For many of my participants, career demands created stress, took time away from exercise or meditation goals, and interfered with healthy sleep schedules. The "hustle culture" in Bay Area's corporate environment, particularly the technology industry, is often reflected upon in public scholarship, and many describe the toll it takes on health (Gyimesi 2022). Many of my participants likely experienced not only the general workplace stress associated with demanding

corporate jobs but also an added layer of pressure shaped by their migration context. As first-generation immigrants, finding ways to prioritize or balance time for sleep, exercise, and stress management can be an impossible task due to the expectation to succeed in skill-based industries and fulfill financial responsibilities that extend beyond themselves. Additionally, they may be further affected by a heightened pressure to achieve academically and professionally. This pressure to excel, deeply rooted in the "IT Generation" migration wave of highly skilled South Asians, intersects with collectivist values that emphasize academic and professional achievement as a means of providing for one's family (Chakravorty, Kapur, and Singh 2017; (Ibrahim, Ohnishi, and Sandhu 1997, 46). Nevertheless, my participants found ways to navigate the challenges posed by their professional lives, incorporating strategies like fitness watch reminders to stand, using standing desks, taking meetings while walking, and prioritizing physical activities that minimized commute time.

In order to unpack the implications of my findings and analysis so far, I will situate my findings within theoretical frameworks from medical anthropology.

Cultural Construction of Clinical Reality

To begin, Arthur Kleinman's "the cultural construction of clinical reality" allows us to investigate why participants choose to adopt lifestyle changes in the first place and how awareness inspires action. In this framework, Kleinman describes domains that influence clinical decision making including the popular domain—which includes culture, family, and social networks—and the professional domain, which consists of biomedical and alternative medical systems (Kleinman 1978, 86; Kleinman, Eisenberg, and Good 1978, 254). Most healthcare decision-making, including whether and from who to seek change or attention, is made in the

popular domain, while the professional domain uses “labeling” to “negotiate with patients medical ‘realities’ that become the object of medical attention and therapeutics” (Kleinman, Eisenberg, and Good 1978, 254). By adapting this model to everyday health behaviors, we can explore how individuals, rather than healthcare providers, identify lifestyle realities that become the focus of attention and modification. Significant influences from the popular domain that contribute to constructing these lifestyle realities are family, social network, cultural background, and residency in the U.S. From the professional domain, expert sources and Ayurveda served as relevant factors. Notably, profession is missing from this list—while profession may create circumstances, such as a sedentary lifestyle, that draw attention or change, the circumstances must first be interpreted as warranting attention, and this interpretation is informed by influences from professional or popular domains. Similarly, although individuals may experience personal feelings and observations that may warrant a lifestyle modification, their interpretation of this feeling or observation as needing change, is inherently influenced by professional or popular domains.

With my participants’ experiences, I find lifestyle realities demanded the most attention when professional and popular domains functioned together. They did not seem to exert substantial influence independently of each other and needed to both be present for a clinical reality to warrant meaningful attention. For example, although participants have been exposed to clinical recommendations on physical activity—a professional domain source—for decades, they did not perceive the need for exercise as a lifestyle reality until they began to observe a growing culture of recreational physical activity, such as biking and hiking on weekends, reflecting the impact of the popular domain. This was especially true for Rajiv, who lived on the East Coast for two decades before moving to the Bay Area for the last decade, and was aware of the importance

of exercise but only committed to a regular routine after moving to California and seeing the prevalence of exercise in his surrounding social and physical network. On the other hand, although participants noticed some of their friends forgoing sugar in *chai* (tea)—a popular domain influence—they did not interpret high sugar intake as a lifestyle reality until their lifestyle medicine program advised against sugar dissolved in liquids, demonstrating the necessity of the professional domain.

The Stress Process

Building on our understanding of how health consciousness may develop and inspire a desire for behavioral action, William Dressler's "stress process" theory on migration, stress, and CVD, allows us to organize factors that enable or disable translation of awareness into action. Dressler observes that "individual adaptation to a changing sociocultural environment," such as lifestyle changes…are impacted by stressors and resistance resources (Dressler 1995, 33) An "adaptation can be used to describe both the response of populations… and…individuals…to the physical and social stimuli to which they are exposed" (Dressler 1995, 33). "Stressors… can be acute or chronic…assess adaptive demands to which individuals must respond in order to maintain or achieve some preferred state" while "resistance resources…promote an individual's successful adjustment or tolerance to adaptive demands" (Dressler 1995, 38). With this research, we can characterize participants' individual lifestyle behaviors as adaptations; factors that prevent awareness, adoption, maintenance of those lifestyle behaviors as stressors; and factors that motivate and enable health awareness and lifestyle as well as help address challenges presented by stressors as resistance resources. Below, I outline a few examples of stressors and resistance resources that emerged in my interviews.

Example 1:

Stressor: conflicting responsibilities with family and personal health

Resistance Resource: viewing personal health as a responsibility toward family

Example 2:

Stressor: overload of health-related advice circulating on the internet

Resistance Resource: streamlined advice from a physician or lifestyle medicine program

Example 3:

Stressor: fondness for indulgent traditional foods at social gatherings

Resistance Resource: increased availability and normalization of nutrient-rich modifications within social circles

Example 4:

Stressor: last-minute call for work interferes with exercise plan

Resistance Resource: replacing gym session with neighborhood incline walk during call

Example 5:

Stressor: sedentary lifestyle

Resistance Resource: fitness watch with reminders to stand up and stretch every hour

Viewing my findings through the lens of Dressler's "stress process" helps to streamline our understanding of the individual influences on participants' health perceptions and lifestyle and clarifies how participants respond to various obstacles and opportunities that they encounter. Notably, stressors are both acute and long-term, and can include mindsets, underlying circumstances, and logistical challenges. Resistance resources can include mindset changes,

physical tools, and interpersonal connections. These stressors and resistance resources are also unmistakably influenced by migration, culture, and society.

Cultural Consonance and Personal Agency

To further draw on Dressler for his discussion on cultural consonance and personal agency. Cultural consonance describes "the degree to which individuals have been 'culturally successful' in the sense of achieving goals that are collectively valued within society" (Dressler 2024, 3; Dressler 2012, 390) and personal agency is defined as "the potential for individuals to act intentionally and pursue their own goals in various cultural settings" (Dressler 2024, 3-4). Throughout this research, I have been intrigued by moments illustrating whether and how participants consciously or subconsciously adhered to or diverged from cultural norms to achieve their idea of a healthy lifestyle. Although I explained types and examples of influences cultural background had on participants' health attitudes and behaviors in my results, by analyzing the extent to which cultural consonance has an impact on participants' health decisions, we can better understand the gravity and degree of impact cultural background has on my study population's lifestyle habits as opposed to personal agency.

Across my sample, most participants seemed to adopt behaviors that explicitly reflected cultural consonance with some culture, whether that was Indian culture as whole or the culture of their immediate social network in the U.S. For example, although replacing white rice with quinoa, an ingredient not native to Indian cuisine, may not match a traditional Indian cultural model, it matches behavior deemed important in the Bay Area Indian immigrant population. While diverging from a culture represents an act of personal agency, participants often only

did so when comforted by the security of consonance with another culture. One participant described that even though beginning weightlifting was initially daunting as it was not common in his social circles or in Indian culture at the time, he felt motivated to do so because it was valued within the racquet sports community he competes against. Relying solely on personal agency without any cultural consonance when making lifestyle decisions was rarer, but it still served an integral role. For example, participants exercised personal agency when leaving social gatherings early to prioritize sleep, even when doing so deeply conflicted with cultural expectations of community connection. Overall, the substantial impact of cultural consonance suggests that the more a healthier lifestyle becomes a goal that is "collectively valued within society" or "deemed important" in cultural models, the more empowered individuals will be to pursue their lifestyle goals.

Integrating Perspectives

Through this analysis, it becomes evident that lifestyle changes among my participants are rarely driven by isolated influences but rather emerge at the intersection of professional, personal, cultural, and social factors. While some influences align with existing literature, others diverge from prior research, warranting deeper discussion. The most salient themes that emerge from my data analysis include expert sources of information, personal experiences, family, social networks, Indian cultural background, life in the U.S., and professional life, each of which is impacted by a variety of underlying factors. These factors include high health literacy and educational background, professional and familial priorities influenced by collectivist values, and cultural familiarity with holistic wellness principles. Social networks play a dual role, both

supporting and challenging adherence to healthy behaviors, while career demands often present barriers, reinforcing the complex negotiations required for lifestyle changes.

My participants' ability to successfully select, implement, and sustain lifestyle modifications is shaped by various forces. Kleinman's framework illustrates how health behaviors only become meaningful lifestyle realities when both professional and popular domains reinforce their importance. Dressler's stress process reveals how participants navigate stressors, whether time constraints, cultural expectations, or conflicting information, by leveraging resistance resources such as mindset shifts, social support, and technological aids. Furthermore, cultural consonance plays a crucial role in shaping participants' choices, as most adopt behaviors that align with at least one cultural framework, whether that of their upbringing or their immediate social circles. While moments of pure personal agency exist, they are the exception rather than the rule. Ultimately, these findings suggest that successful and sustained health behavior occurs not simply when individuals become aware of recommendations, but when those recommendations are validated and reinforced by cultural and social structures that give them meaning and legitimacy as well as enable feasibility.

CHAPTER FIVE: Conclusion

Overall, this study presents an exploratory investigation on health-related lifestyle behaviors and attitudes within one of the many first-generation South Asian immigrant communities across the world, the SF Bay Area Indian immigrant population. The patterns gathered from this research either challenges or provides in-depth, anecdotal support for previously identified trends regarding lifestyle among South Asians. Either way, it establishes the need for additional study on individual, localized South Asian sub communities that share similar migration contexts and ethnic backgrounds. While some findings highlight ideas that have been documented by existing literature, such as the impact of family or social networks, other findings present new themes that are potentially unique to Indian immigrants in the Bay Area and warrant further exploration with anthropology and epidemiology, such as the proclivity toward green spaces and hiking or navigation of professional life with personal health goals. This research also presents an example of applying medical anthropology theoretical frameworks outside a clinical, biocultural, or non-Western setting, in which individuals are navigating health-related lifestyle decisions without the presence of a healthcare provider.

Limitations

The conclusions of this study are limited by several factors and the findings of this study are not generalizable to any population. One limitation of my study was the potential for social desirability bias. Although I aimed for open, honest conversations about attitudes and practices, my focus on health-related behaviors was evident through recruitment and interview questions, which may have led participants to present themselves as “healthier” than they actually were. Additionally, conducting interviews over Zoom affected the natural flow of conversation,

potentially limiting depth and spontaneity. I also did not collect health information beyond what participants voluntarily shared, so I could not assess whether personal health conditions, such as heart disease, diabetes, or past cardiovascular events, influenced the behaviors and attitudes that they conveyed.

Needless to say, the small sample size of 12 participants and my snowball sampling recruitment technique further constrained the scope of my findings. My sample did not include Muslim and Sikh Indians, while Jains, known for their disciplined lifestyles as well as their strict vegetarian diet and avoidance of eggs and root vegetables due to religious principles, were overrepresented (Vallely 2004, 1). Although the participants in my study did not observe a strict Jain diet, they all followed pure vegetarian practices, limiting the generalizability of my findings regarding food attitudes and choices. Additionally, my study did not examine the role of caste, which can directly affect diet and indirectly impact lifestyle through domains including profession, socioeconomic background, and social network (Hasnain & Srivastava 2023, 273). Also, participants only included individuals from six out of 28 states in India, neglecting key Bay Area Indian communities such as the Punjabi population. This limitation was exacerbated by language accessibility. Since all interviews were conducted in English, some eligible participants from more diverse geographical, occupational, socioeconomic, or cultural backgrounds declined to participate due to concerns about their English fluency, which constrained the range of perspectives I could capture. Finally, due to the breadth of my interview questions, I was blessed with a wealth of data that I could not fully explore in this thesis. This limited the depth of my analysis. Overall, the small sample size, the snowball sampling methodology, the sample composition, and the qualitative, exploratory nature of this research limit generalizing my findings to the Bay Area Indian immigrant population at large.

Implications for Public Health

As this study was exploratory, there are no immediate public health or epidemiological findings to act upon. However, empirically considering the themes identified in this study could provide valuable insights for the development and evaluation of future public health interventions, ensuring they are better tailored to the cultural and social contexts of their local target populations. For example, participants were most likely to resonate with the need for a lifestyle modification if that realization was influenced by both a professional domain source and a popular domain source. Practically, this finding suggests that public health professionals, who represent the professional domain, can consider investigating the value of drawing support from partnerships with sources in an individual's or community's popular domain, such as trusted friends or family members. This could involve comparing whether it is more effective for family or friends to share a doctor's advice for a behavior change, or for doctors to directly communicate the advice themselves. Furthermore, within my sample, participants demonstrated creative and insightful resistance resources for chronic and acute stressors, such as approaching health and lifestyle priorities through the mindset of responsibility toward family to contradict the stigma around personal health investment as selfish. To better tailor lifestyle-related public health interventions to individual communities, public health research could focus on identifying community-specific resistance resources. Research could also investigate whether the resistance resources identified by my participants resonate with the larger Bay Area Indian immigrant population and if they can serve as focal points for future public health initiatives. Finally, my discussion on cultural consonance and personal agency demonstrates the potential role of cultural belonging on health related decisions and indicating that researchers could explore how tailoring

health messaging to align with the cultural or societal values of the target audience influences behavior change and affects intervention effectiveness.

Suggestions for Further Research

From the conversations I shared with my participants, it is evident that there were several key areas that were not fully explored in this study. Future research could focus more deeply on a single lifestyle category, such as stress management, or a single field of influence on lifestyle habits, such as corporate life in the technology industry or caregiver stress. Additionally, further research could include investigating how religion, religiosity, and spirituality impact health-related lifestyle behaviors. Yet another avenue of vital further research involves delving into the role of socioeconomic background on enabling or hindering health practices, exploring the role of financial stability and access to resources. Most importantly, future research could involve supplementing this qualitative exploration with epidemiological quantitative investigation of the prevalence of the trends I observed. Finally, the themes I identified could be explored among other South Asian immigrant populations across the U.S., allowing for comparison of findings.

Concluding Thoughts

Through my exploration, I have discovered that health behaviors among this group are not isolated but continuously negotiated through everyday interactions, drawing from both intergenerational cultural values and characteristics unique to immigrant life in Silicon Valley. I have highlighted how these influences transcend simple cultural stereotypes, revealing that

health behaviors are not only deeply rooted in cultural, social, and professional dynamics but also determined by collective divergence from a norm and/or individual assertions of agency. Overall, this study affirms that health-related lifestyle behaviors and attitudes among older, first-generation Indian immigrants in the SF Bay Area are shaped by a confluence of factors, including expert advice, personal experiences, family dynamics, social networks, cultural background, living in the U.S., and professional life. These factors rarely operate alone—Kleinman and Dressler convey that to interpret circumstances as lifestyle realities needing attention or stressors presenting adaptive demands, both professional and popular domains must exert influence. Even when making an individual adjustment, developing successful resistance resources is often dependent on those resources reflecting consonance with a culture. Although not necessarily generalizable, my findings suggest clear takeaways. First, this research advocates for the importance of public health research on localized diasporic communities to better understand the nuanced mindsets and backgrounds of individual populations. Second, by positioning every health decision at numerous complex intersections—family and self, collective and individual, professional and personal, Indian and American, traditional and modern, familiar and new—at the least, this research generates empathy for my study participants and for all immigrants navigating personal health choices.

APPENDIX A: Recruitment Form

Exploring Factors that Influence Cardiometabolic Lifestyle Behaviors in Older South Asian Immigrants in the U.S

Text for Recruitment Form - (Google form will be used)

Thank you for your interest in our ethnographic research study. The purpose of this study is to understand the current habits, attitudes, and understandings around certain lifestyle aspects among first generation South Asian immigrants aged 45-65 currently residing in the San Francisco Bay Area that have lived in the U.S. for a total of at least ten years.

If you join, you will be asked to participate in a Zoom interview about your beliefs and experiences regarding several aspects of lifestyle, including diet, sleep, exercise, and meditation. The interview will last about one hour. As part of the research process, I will audio record our interview, and later, our conversation will be transcribed into written text for analysis with any identifiers removed. Consent for the study and recording will be requested at the start of the Zoom interview.

If you are interested, please sign-up by filling out the following items. If selected for an interview, you will be contacted for your availability. Please reach out to anusha.kothari@emory.edu if you have any questions or concerns. Thank you!

1. First Name:
2. Last Name:
3. What is your gender? (free response)
4. What is your age?
    a. 45-50 years old
    b. 50-55 years old
    c. 55-60 years old
    d. 60-65 years old
5. Do you currently live in the San Francisco Bay Area?
    a. Yes
    b. No
6. Did your family originate from one of the following countries? India, Pakistan, Bangladesh, Sri Lanka, Nepal, Bhutan, or the Maldives
    a. Yes
    b. No
7. Were you born outside of the U.S.?
    a. Yes

    b. No
8. Have you lived in the U.S. for at least ten years?
    a. Yes
    b. No
9. Email:
10. Phone Number:
11. Preferred method of contact:
    a. Email
    b. Phone/Text
    c. Other

APPENDIX B: Oral Consent Form

Title: Exploring Factors that Influence Cardiometabolic Lifestyle Behaviors in Older South Asian Immigrants in the U.S.

IRB #: 00008316

Principal Investigator: Dr. Rachel Hall-Clifford, PhD, MPH, MSc; Assistant Professor, Center for the Study of Human Health and Sociology, Hubert Department of Global Health

Introduction and Study Overview

Thank you for your interest in our study on diet and physical activity. We would like to tell you what you need to think about before you choose whether to join the study. It is your choice. If you choose to join, you can change your mind later on and leave the study.

The purpose of this project is to study current habits, attitudes, and understandings about certain parts of your lifestyle. The population studied will be first generation South Asian immigrants that are ages 45-65. They must be from the San Francisco Bay Area. Also, they must have lived in the U.S. for at least ten years. This study will take about 8 months to complete (September 2024-May 2025).

If you join, you will be asked to be in a Zoom interview about your beliefs and experiences about several lifestyle aspects. These aspects will include diet, sleep, exercise, and meditation. The interview will take about 60 minutes. As part of the research process, I will audio record our interview. Later, I will transcribe our conversation into written text for analysis and I will remove any identifiers.

Being in this study is low risk. Potential risks to you include breach of confidentiality and loss of privacy. To ensure this does not happen, I will not discuss what you say during the interview with anyone outside the study team. This includes your decision to be in or not be in this study. I will record our conversation today so that I can have a record of it for analysis. Once the interview is complete, I will transfer the audio recording to a password-protected laptop and then delete it from the recording device.

You may not benefit from joining the study. This study is designed to learn more about the lifestyle habits of first generation South Asian immigrants in the U.S. The study results may be used to help others in the future.

Storing and Sharing your Information

We will remove all identifying information from interview transcripts. We will delete your interview recording immediately after transcription. We will store all the transcripts and any data that you provide in a secure Emory database. We will not include your name, initials, date of birth, medical record number, or other identifying information. When we present the results of this study, we will not allow your name and any other facts that might identify you to appear. We believe that it is highly unlikely that anyone could identify you. Despite these measures, we cannot guarantee the anonymity of your personal data.

Confidentiality
Certain offices and people other than the researchers may look at study records. These offices can include government agencies and Emory employees overseeing proper study conduct. Specifically, these offices include the Office for Human Research Protections, the Emory Institutional Review Board, the Emory Office of Compliance. Study funders may also look at your study records. Emory will keep any research records we create private as required to do so by law. We will use a study number rather than your name on study records wherever possible. Your name and other facts that might identify you will not appear when we present this study or publish its results.

Contact Information

If you have questions about the study procedures, appointments, research-related injuries or bad reactions, contact Anusha Kothari at 408-497-0774.

An ethics committee has reviewed this study to ensure the protection of research participants. If you have questions about your rights as a research participant, or if you have complaints about the research or an issue you would rather discuss with someone outside the research team, contact the Emory Institutional Review Board at 404-712-0720 or 877-503-9797 or irb@emory.edu.

To tell the IRB about your experience as a research participant, fill out the Research Participant Survey at https://tinyurl.com/ycewgkke.

Consent

Do you have any questions about anything I just said? Were there any parts that seemed unclear?

Do you agree to take part in the study?

Participant agrees to participate:
Yes

No

If Yes:

_____

Name of Participant

Signature of Person Conducting Informed Consent Discussion
Date Time

Name of Person Conducting Informed Consent Discussion

APPENDIX C: Interview Guide

Exploring Factors that Influence Cardiometabolic Lifestyle Behaviors in Older South Asian Immigrants in the U.S

Interview Questions

Follow-up questions will be asked as needed.

Demographics

General

1. How old are you?
2. What is your gender?
3. Do you identify with any religion?

Geography/Immigration

4. Where were you born?
5. What part of South Asia would you identify as your region of origin?
6. When did you move to the U.S.? Why did you immigrate to the U.S.?
7. How many years have you lived in the U.S. for? Where in the U.S. have you lived?
8. Are there any places outside of South Asia or the U.S. that you have lived in for an extended period?

Family

9. Are you married, widowed, divorced, separated, or never married?
10. Who lives in your household currently?
11. Do you have kids? How old are they?
12. Are you (or were you, if retired) a single- or double-income household?
13. What do your family/household responsibilities involve?

Education/Employment

14. What is the highest level of school you have completed or the highest degree you have received?
15. Are you employed or have you been employed in the past? If yes, what field do you work in?

Social Network

16. How would you describe your social network? How often do you socialize?

Lifestyle

1. When I say lifestyle medicine or healthy lifestyle habits, what comes to mind?

2. On a scale of 1-10, 1 being not stressed at all and 10 being extremely stressed, how would you rate your typical stress levels? What contributes to your stress?

Exercise

1. When I say “exercise” what ideas, thoughts, or feelings come to mind?
2. What activities would you define as exercise?
3. Do you have an exercise routine, or have you had one in the past?
4. What does your weekly or daily exercise routine look like? How many total hours a week do you exercise?
5. What motivates you to exercise?
6. When did you start exercising? Have you always had an exercise routine?
7. Have you always been able to prioritize exercise? What has enabled you to prioritize exercise?
8. Did you exercise in your childhood?
9. What are some challenges you face with exercise? Do you have challenges making time for exercise?
10. If you face difficulty making time for exercise, what are some things that take up that time?
11. What are some sources or factors that have influenced whether you do exercise and what types of exercise you do?
12. Do you exercise alone or with anyone else?
13. Do other members of your family exercise?
14. Do you find that your work or lifestyle requires you to sit for an extended time? (working, watching TV, etc.)
15. Would you say that your parents had an active lifestyle while you were growing up?
16. Do you feel that there is a specific narrative/messaging on exercise in the South Asian community? What about more broadly? How does this make you feel?

Diet

1. When I say “diet” what ideas, thoughts, or feelings come to mind?
2. When I say “food” what ideas, thoughts, or feelings come to mind?
3. How would you describe the role that food plays in your life/family life/social or cultural life?
4. What do your meals typically look like in a day? Breakfast, lunch, dinner?
5. What is your dietary preference?
6. Has your diet evolved over time? What has influenced these changes?
7. Who decides what you eat?
8. Do you cook regularly? Does someone else in the household cook?
9. How often do you cook in a week?
10. Does everyone in your household eat the same food?

11. What are some factors (background, experiences, information, media) etc. that have influenced your diet?
12. How often do you eat from a restaurant in a week?
13. Do you think diet/food can be related to health? How?
14. Would you describe your diet as healthy? Why or why not?
15. Do you believe a South Asian diet can be a healthy and/or balanced diet?
16. More broadly, what would you define as a healthy diet?
17. Where do you get your food/groceries from? Outside of produce, what groceries do you typically get?
18. What motivates you to eat the way that you eat?
19. Do you feel that there is a specific narrative/messaging on food and diet in the South Asian community? What about more broadly? How does this make you feel?
    a. South Asian community has started becoming aware of heart health, discussion on healthy choices is growing
    b. Even food options at parties/social gatherings are changing accordingly
20. Do you have tea or coffee frequently? Do you have any sugar/other sweetener in it?
21. How many sweets do you typically have in a day/week?
22. What percent of the time would you say that your lunch or dinner meals have vegetables?
23. Are you familiar with starchy vs non starchy vegetables?
24. What are some of the biggest stresses or challenges you face when it comes to your diet? Meal-planning, cooking, avoiding certain foods, etc.?

Meditation

1. When I say “meditation” what ideas, thoughts, or feelings come to mind?
2. Do you feel that meditation relates to health in any way? How?
3. Do you feel that there is a specific narrative/messaging on meditation in the South Asian community? What about more broadly? What do you think about this/how does this make you feel?
4. Do you meditate/have you meditated before?
5. How often do you meditate? How long are your meditation sessions?
6. What type of meditation do you practice? Is it with a recording or a class or do you practice it alone?
7. How long have you been practicing meditation?
8. Has your meditation practice changed over time?
9. When did you start meditation? Why did you start?
10. Have you felt any benefits from your meditation practice?
11. What motivates you to meditate consistently?
12. Do you have any thoughts regarding South Asian vs Western forms of meditation?
13. What are some of the biggest challenges you face when it comes to meditation?
14. Do other members of your household or family practice meditation?

Sleep

1. When I say “sleep” what ideas, thoughts, or feelings come to mind?
2. Do you feel that sleep relates to health in any way? How?
3. How many hours do you sleep per night?
4. Do you have a consistent sleep schedule? Did you always have a consistent sleep schedule?
5. Do you feel that you get enough sleep? Do you feel well-rested when you wake up/throughout the day?
6. How would you describe the quality of your sleep?
7. Are there any specific difficulties you face in getting enough sleep or getting good quality sleep?
8. Do you face any difficulties falling or staying asleep?
9. What do you usually do before you go to bed? Do you have a consistent routine?
10. Do you feel that you have any habits in particular that help/hurt your sleep?
11. Have you made any major changes to your sleep schedule in the past? What motivated these changes/did they have the desired effect?

Lifestyle – Other

1. Are there any other lifestyle habits that you engage that you believe have a significant impact on your health, good or bad?
    a. When did this become a habit?
    b. What influenced this to become a recurring habit?
2. Is there anything else that you would like to add?

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