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Mental Health Wellness of South Asian Students of Minnesota: A Mixed-method Study of Determinants, Attitudes, and Barriers

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Abstract

Mental Health Wellness of South Asian Students of Minnesota: A Mixed-method Study of Determinants, Attitudes, and Barriers

By Ayesha Bhatia

Objectives: There is a dearth of research on factors influencing a South Asian student's mental health wellness in the Midwest. The objective of this study was to understand: (1) the mental health issues and what factors influence them, (2) associations between mental health status and social, environmental, and personal factors, and (3) barriers to mental health services and supports in South Asian students of Minnesota. The study was conducted in order to improve upon AshaUSA's current programs and develop new programs towards mental health wellness. AshaUSA is a nonprofit organization located in Minnesota.

Methods: This study utilized a mixed-methods approach consisting of an online survey administered to 133 South Asian Minnesotan students and 17 in-depth interviews. The study was conducted between May 2018 and August 2018. ANOVA and chi-square (X^2) tests were conducted to identify social, environmental, and personal characteristics associated with mental health status. Qualitative data were recorded, transcribed verbatim, and analyzed for common themes using thematic analysis.

Results: 22.66% of students had a negative perceived mental health wellness status and 32.76% of students had a diagnosed mental illness. Perceived mental health status was significantly associated with sources of stress including school, GPA, clubs and organizations, finances, the level of parent and peer supportiveness, and the level of mental health awareness of surrounding adults. The qualitative interview themes supported findings from the survey. Themes included the definition of mental health wellness, support, coping strategies, accessing and barriers to accessing mental health resources, and major factors of stress including family, time, future, school work, stigma, and pressure from self, family, peers, and community. The main barriers to accessing resources were stigma and lack of knowledge about resources.

Discussion: Mental health in South Asian American students is affected by factors related to stigma, sources of stress in life including family, thoughts of the future, academics, and pressure from self, family, peers, and community. The analyses also provided support that factors such as stigma in the community and family, a busy schedule, lack of information, and finances act as barriers to accessing mental health services and supports. New programs should address self-pressure, family pressure, and de-stigmatizing mental health in society. Recommendations fall under the broader branches of education, social marketing and media engagement, community engagement, social leadership, and evaluation.

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This thesis is dedicated to the students who participated in the study and shared their views for the benefit of AshaUSA to create new programs surrounding mental health. These students were courageous to talk about their mental health wellness in a society that is still plagued with stigma, and I hope they can inspire others to step out of their comfort zone to continue to educate others about mental health.

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CHAPTER 1: INTRODUCTION

Introduction and rationale

According to the World Health Organization (WHO) (2014), mental health wellness is "a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community." Poor mental health has been associated with social exclusion, an unhealthy lifestyle, stress from work, and rapid social change (WHO, 2018).

Mental health wellness has become a predominant issue in the public health spectrum with poor mental health status strongly correlating to health and developmental concerns in young people (Patel et al., 2007). Mental disorders burden young people in all societies, with most mental disorders beginning between 12-24 years of age (Patel et al., 2007). Although young adulthood is the stage at which most mental disorders often develop, they are often detected later in life (Patel et al., 2007). Young adulthood and adolescence is a critical period of time, and often what happens to an individual during this period will influence and have a profound and long-lasting effect on their future. During young adulthood, cognitive, emotional, and psychosocial maturation is still occurring, which leads to a heightened psychological vulnerability (Bonnie, Stroud, & Breiner, 2014). Thus, providing support to young adults during this vulnerable part of their life is of utmost importance in order to prevent future distress and promote healthy development.

As of 2010, over 3.4 million South Asians (people originally from India, Pakistan, Bhutan, Nepal, Bangladesh, and Sri Lanka) live in the United States, with about 555,000 South Asian living in the Midwest, and 44,000 South Asians living in Minnesota (US Census, 2010). Being the third largest and fastest growing minority group in the United States, the South Asian

population has increased over 60% from 2000 to 2010 (Masood, Okazaki, & Takeuchi, 2009). In the Midwest, Minnesota has the fourth largest South Asian population, following Illinois, Ohio, and Michigan (US Census, 2015). With the increase in population, challenges associated with acculturation in terms of health, development, and family relationships have become more distinct, with an increased need for culturally specific programs (AshaUSA, 2016). Due to South Asian populations increasing in the Midwest, this study uses a mixed methods approach to examine mental health wellness among South Asian students from Minnesota to address the increased need to develop programs to help South Asians with their mental health needs.

AshaUSA is a local Minnesota non-profit organization that focuses on creating healthy, happy, and harmonious South Asian communities by engaging and empowering South Asian women, men, and children through culturally specific programs and services (AshaUSA, 2016). There is currently a dearth of programs and research about mental health wellness among South Asians living in the Midwest, and many of the current programs do not address the issues in a cultural context, which may impact the effectiveness of these programs with this population. The lack of research about South Asians living in the Midwest makes it challenging for organizations, activists, and health professionals to assist South Asian Americans with their mental health needs. Education about the mental health needs of the local South Asian community can help people to understand and aid South Asian Americans who may be facing barriers in accessing mental health wellness programs. For example, research done with this demographic can lend itself to securing resources and addressing needs in order to deliver practical, culturally sensitive mental health wellness programs. When assessing and helping with a person's health and well-being, it is essential to understand where they come from, including

cultural history and background. Understanding an individual's cultural norms can also allow programs to build rapport and ensure effective help quickly.

In general, Asian American college students have been reported to have higher levels of depression, anxiety, and suicidal ideation compared to their white counterparts (Wong et al., 2011). That being said, Asian Americans also underutilize mental health services compared to their Caucasian counterparts (Leong & Lau, 2001). According to Leong & Lau (2001) the problem of underutilization of mental health services by Asian Americans can be understood by two main barriers: (1) Barriers to initiating the usage of mental health services and (2) Barriers to persistently pursue care once it is sought. South Asian students generally report negative attitudes towards seeking psychological help, which is likely due to stigma and shame associated with mental disorders and psychological help-seeking among South Asians (Soorkia, Snelgar, & Swami, 2011). Thus, it is important to understand how to provide support to South Asian students by understanding what factors affect their mental health wellness and how to overcome barriers that may exist to seeking help.

Problem statement

Little is known about factors surrounding mental health wellness among South Asian students. Furthermore, there is little documentation on how South Asian students perceive mental health wellness and how that affects their interaction with mental health services. Given the dearth of research surrounding mental health wellness in South Asian students, and the sizeable communities of South Asian Americans in the Midwest, the current study partners with AshaUSA to study mental health wellness in a population of students living in Minnesota.

Purpose statement

The purpose of this study is to explore factors surrounding South Asian Minnesotan students' a) diagnosed mental health issues; b) perception of mental health wellness; and c) interaction with mental health services in Minnesota. This is important because if mental health is left unacknowledged, it can contribute to poorer performance at school and work, decreased quality of life, and increased risk of suicide. The impact of these problems remaining unaddressed in addition to the South Asian American population growing will be detrimental to the community at large.

Objectives

The specific objectives of this project are:

1. To identify, through self-report and in-depth interviews, the diagnosed mental health issues present for South Asian students in Minnesota.
2. To investigate, through self-report, differences between perceived positive mental health status and perceived negative mental health status, and differences between formally being diagnosed with mental illness and not being diagnosed with mental illness in social, environmental, and personal characteristics.
3. To understand, through in-depth interviews, the factors that influence a South Asian student's mental health wellness in Minnesota.
4. To identify barriers, through self-report and in-depth interviews, to mental health wellness in a South Asian student's life in Minnesota.

Significance statement

Prior research in South Asian populations indicates that they have higher risk and rates of developing mental illness compared to their Caucasian counterparts (Thapar-Olmos & Myers,

2017). Not as much is known about factors surrounding mental health wellness among South Asian students who live in Minnesota. Additionally, little is known about how South Asian students in Minnesota perceive mental health wellness and how that affects their interaction with mental health services. These factors are essential to understand in order to guide the development and creation of programs. This research project aims to understand factors surrounding a South Asian student's mental health wellness, their perception of mental health wellness, and their interactions with mental health services. The general findings of this project will lead to increased knowledge in this area and specifically inform and help AshaUSA to create and improve upon their current programs to help the South Asian youth and young adults with their mental health needs.

Definition of terms

Mental Health Wellness: According to WHO (2014) mental health wellness is defined as "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community." There are many external and internal factors that contribute to mental (emotional and cognitive) well-being, including relationships, home environment, coping behaviors, and others. "When one or more factors prove overwhelming, acute (anger, anxiety, depression) or chronic stress may result" (UNC Charlotte, 2019). The definition for mental health wellness for this study incorporates both positive and negative mental health wellness.

Midwest: For the purposes of the project, the following states consist of the Midwest: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

South Asian: For the purposes of the project, people from South Asian origin are from the following countries: India, Pakistan, Bhutan, Nepal, Bangladesh, and Sri Lanka.

Stigma: "Stigma is the unwarranted and incorrect stereotype of mental health problems. Stigma happens when we treat individuals with physical illnesses differently than we treat those with mental illnesses" (American Mental Wellness Association, 2019).

Student: For the purposes of the project, the definition of student included those studying during the summer of 2018 in a middle school, high school, undergraduate, graduate, or professional program. Participants who graduated between summer 2016 and 2018 were also allowed to participate in the study.

CHAPTER 2: LITERATURE REVIEW

Mental health wellness worldwide

Definition. With definitions ever-changing and new insights, it is important to understand the current definitions of mental health wellness and mental illness. According to the World Health Organization (WHO, 2014) mental health wellness consists of a state of well-being, in order for an individual to realize their own potential, be able to manage the typical stresses of life, be able to work efficiently and effectively, and be able to contribute to their community. Poor mental health wellness has been associated with social exclusion, unhealthy lifestyle, stress from work, and rapid social change (WHO, 2018).

Currently, mental health involves "effective functioning in daily activities resulting in productive activities, healthy relationships, and ability to adapt to change and cope with adversity", mental health and emotional wellness inspires "self-care, relaxation, stress reduction and the development of inner strength" in order to build a foundation for self-esteem and resilience, while mental illness refers "collectively to all diagnosable mental disorders involving significant changes in thinking, emotion and/or behavior, and distress and/or problems function in social, work or family activities" (American Psychiatric Association, 2018; UC Davis, 2019). In the past 30 years these definitions have come from being one synonymous term to two separate dimensions (Manderscheid et al., 2009).

It is known that common risk factors for poor mental health wellness include biophysical, psychological, social and spiritual factors (American Mental Wellness Association, 2019). These factors may include a family history of mental health problems, stressful life situations such as financial problems, low self-esteem, poor academic achievement, poor communication skills, discrimination, lack of access to support services, and perception of insignificance (American

Mental Wellness Association, 2019). Furthermore, common protective factors may include reliable support from caregivers, good coping skills, and supportive relationships with family, economic and financial security, good peer relationships, and access to support services (American Mental Wellness Association, 2019).

Prevalence. With mental health wellness and illness being influenced by social determinants of health, and findings that positive mental health wellness can influence physical health and biological functioning, mental health wellness has become a predominant issue in the public health spectrum with poor mental health wellness strongly related to health and developmental concerns in young people (Patel et al., 2007). In 2015, there were 1.2 billion youth aged 15-24 years old, which accounts for one out of every six people worldwide (United Nations, 2015). Mental disorders burden young people in all societies. While most mental disorders begin between 12-24 years of age, they are often first detected later in life (Patel et al., 2007). In the United States, 1 in 5 youth aged 13-18 will have a serious mental illness, 50% of all lifetime cases of mental illness begin by age 14, and 75% of all lifetime cases of mental illness begin by age 24 (National Institute of Mental Health (NIMH), 2019). According to the NIMH (2019), in the United States young adults aged 18-25 years had the highest prevalence of any mental illness (25.8%), and an estimated 49.5% of adolescents aged 13-18 had a mental disorder. A meta-analysis exploring worldwide prevalence of mental disorders in children and adolescents across 41 studies and 27 countries concluded that the worldwide prevalence of mental disorders was 13.4% (Polanczyk et al., 2015).

The prevalence and rates of diagnoses of mental disorders affecting children and adolescents have increased extensively in the past few decades, with children and adolescents now requiring more pharmacological and psychotherapeutic treatments, educational

interventions, accommodations, and special services (Polanczyk et al., 2015). Among young adults, mental disorders and substance abuse are the greatest source of disability, with nearly two-thirds of the burden of disability associated with such a disorder, and with more than half of all individuals having experienced a disorder by the age of 29 (Bonnie, Stroud, & Breiner, 2014). With cognitive, emotional, and psychosocial maturation still occurring, leading to a heightened psychological vulnerability, it can be assumed that mental health wellness can impact a young adult in a critical period of time of their life, and can have a profound and long-lasting effect on their future (Bonnie, Stroud, & Breiner, 2014). Although there has been an increase in awareness about mental health wellness worldwide, much more research needs to be conducted to understand how mental health wellness is influenced in cultural populations.

Historical context of South Asians in the United States

History. South Asians are individuals who can trace their origins to Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan, and Sri Lanka (South Asian Americans Leading Together (SAALT), 2015). As of 2010, over 3.4 million South Asians live in the United States (US Census, 2010). It has been estimated by the American Psychological Association (2012) that by 2020 immigrant-origin youth will account for one-third of the child populations in the United States. Furthermore, it has also been estimated that by 2050, approximately 8% of the United States population will be Asian American (Passel, 2011). Being the third largest and fastest growing group in the United States, South Asians have increased over 60% from 2000 to 2010 (Masood, Okazaki, & Takeuchi, 2009). According to the United States Census Bureau (2000) between 1990 and 2000 the South Asian Indian population grew 130%, which was 10 times the national average of 13%.

A large presence of South Asian immigrants began to settle in the United States in the late 1800s (South Asian American Digital Archive (SAADA), 2015). This first wave of immigrants was blue collar and uneducated workers, who settled to work as farm labor and migrant workers (Puram et al., 2014). These immigrants would began to settle in with communities of color in cities like Detroit, New York, Baltimore, and within the West Coast of Canada, however they would face a long winding road, filled with difficult living conditions as well as discrimination (SAADA, 2015).

Starting in 1917, an immigration act passed by the United States Congress would restrict migrants from the "Asiatic Barred Zone", a zone which consisted entirely of the South Asian territory, and in 1923 a United States Supreme Court Case, which would stand for two decades, ruled that South Asians were ineligible for naturalization and also stripped citizenship from those who were already granted the status (SAADA, 2015). The case was eventually reversed in 1946, by the Luce-Celler Act, which granted naturalization rights back to South Asians, but still barred the amount of migrants allowed into the country. With the passing of The Immigration & Nationality Act in 1965, immigration quotas based on national origin were banned, leading to a rapid increase in migration from the South Asian subcontinent into the United States (SAADA, 2015). This second wave of immigrants in 1965 included a highly skilled workforce including a mix of social identities and diverse occupational skills and led into a third wave of immigrants in 1975, who took working class jobs such as working in convenience stores, motels, and driving taxis (Puram et al., 2014). The third wave focused on reuniting families, while the last wave of immigrants, arriving in the late 1990s until present time, focused on pursuing higher education opportunities and joining the growing technology sector, taking on highly skilled technical jobs (Puram et al., 2014).

Following the events of September 11th, 2001, there was a rapid increase in racial profiling and violence towards South Asians. Domestic security policies that were passed after 2001 ranged from surveillance of mosques and communities to delaying naturalization, including a halt and restriction on immigration from South Asian communities due to an increase of fear from the surrounding society (Mishra, 2011). According to SAALT (2015) 92% of xenophobic political statements documented in a 2014 report were motivated by anti-Muslim sentiment. Furthermore, the report found that 84% of the hate violence incidents documented were motivated by anti-Muslim sentiment (SAALT, 2015). A survey conducted on anti-Arab, Muslim, and South Asian discrimination published by the New York City Commission on Human Rights (2003) concluded that 69% of survey respondents (N=659) reported one or more incidents of perceived discrimination or bias-related harassment. Due to the concept of "model minority" and "perpetual outsider", South Asians were defined by physical features such as skin color, and were straddled with terms such as "strangers", "suspicious", and "terrorists" (Mishra, 2016).

Stereotypes. The concept of "model minority" was established to represent that the South Asian community was a highly functional and successful group that worked hard to assimilate into the United States culture and society (Lee & Joo, 2005). The concept would bring about a myth and image that all South Asians were to be successful, have no health concerns, and be well educated within society. This further lead to misrepresentative characteristics that frame the South Asian community and undermine the negative experience this cultural group may face (Das Gupta, 2006). The perceptions of South Asians being "model minorities" may instigate people to think of South Asians as "others" (Cheryan & Monin, 2005). On top of being "model minorities", South Asians may be profiled coming from two different socioeconomic statuses: 1) As convenience store owners, cab drivers, or motel operators who are uneducated

and live with their extended families in small and crowded homes or 2) Snobbish engineers or doctors who lack English-speaking fluency (Claus, Diamond, & Mills, 2003). These stereotypes are built upon media and shows, such as The Simpsons character Apu, a convenience store owner with a strong and thick accent, and contrasts with reality (Sánchez, 2011).

The concepts of "model minority" and stereotypes perpetuated by media and shows may influence stereotype threat. Stereotype threat is a concept thought to result from increased concerns about being evaluated in terms of a negative group stereotype (Steele, 1997). Stereotype threat has been shown to depress intellectual performance, impede learning, undermine identity, and cause a strain on an individual (Mangels et al, 2012; Taylor & Walton, 2011; Steele, 1997). Efforts to suppress or prevent the fulfillment of the stereotypes can also lead to emotional, cognitive, and physiological elements of anxiety (Mangels et al., 2012). For South Asians, stereotypes that portray them to be outsiders including being a "model minority", a "perpetual outsider", and being from a lower socioeconomic status may influence stereotype threat. For this population, these stereotypes may strain their self-esteem and impede on their development. Thus, it could be postulated that the concept of stereotype threat may have indirect consequences on mental health wellness among South Asians.

South Asians in Minnesota

As of 2010, there are about 555,000 South Asian living in the Midwest, and 44,000 South Asians living in Minnesota (US Census, 2010). In the Midwest, Minnesota has the fourth largest South Asian population, following Illinois, Ohio, and Michigan. Between 2010 and 2015, the fastest growing racial group in Minnesota was Asians, growing by 22% (US Census, 2015). Most of Minnesota's South Asian population lives in the metro and surrounding suburban areas of the Twin Cities (Kao, 2012).

Challenges. As immigrants in an environment that holds education and status to the highest esteem, South Asians face difficulties daily. South Asians in Minnesota have varying limited English proficiency skills. Individuals who do not speak English as their primary language and who have a limited ability to read, speak, write, or understand English can be limited English proficient. Of each population for those 5 years of age or older, 46% of Bangladeshis, 26% of Pakistanis, 22% of Indians, and 22% of Sri Lankans have limited English proficiency skills. Furthermore, only 47% of Bangladeshis and more than 55% of Indians, Pakistanis, and Sri Lankans hold a Bachelor's degree. In Minnesota, 23% of South Asians from Pakistani and Bangladeshi origin and 12% from Indian origin lack health insurance (Kao, 2012). The poverty rates in Minnesota are 20% for Bangladeshis, 15% for Pakistanis, 9% for Sri Lankans 9%, and 9% for Indians.

On top of the difficulties of being immigrants in a predominantly Caucasian environment, South Asians in Minnesota and the Midwest have also been impacted by recent hate crimes following 9/11. On April 5, 2006, the Hindu Mandir of Minnesota was vandalized just before its inauguration, allegedly on the basis of religious discrimination, where vandals damaged temple property worth $200,000 (Hindu American Foundation (HAF), 2006). Furthermore, on August 5, 2012, a Sikh Gurdwara, a place of worship, came under attack by a white supremacist who was pushed by racial hatred and shot eight people, killing six, in Oak Creek, Wisconsin (Laris, Markon, & Branigin, 2012). In 2016, the University of Minnesota's Muslim Student Association's hand-painted mural was vandalized with the word "ISIS" painted over it, which was one action among many that targeted Minnesota Muslims (Sawyer, 2016). The University of Minnesota's Bias Response and Referral Network recorded 107 individual reported bias incidents in 2017-2018, which was a 40% increase from the previous year (Kennedy, 2018).

Environments and surrounding atmospheres may impact an individual. It is known that humans need to be aware to their surroundings to survive, meaning that they have an innate sense of awareness of their environment (University of Minnesota (UMN), 2019). People seek out a strong need for safety, physical and psychological comfort, and security in their environment. It is further known that a person's environment can influence peoples' behavior, motivation to act, and influence mood (UMN, 2019). With the current environment and atmosphere having strong negative influences, it can also influence personal stress. With increasing stress, a person's immune system and mental wellbeing be suppressed (UMN, 2019). Thus, it can be assumed that the current atmosphere of fear and discrimination has impacted the mental health wellness of South Asians living in Minnesota.

South Asian and mental health wellness

Although there has been an increase in awareness of mental health wellness globally, there is still a dearth of research conducted on mental health wellness of South Asian Americans. The majority of the studies that have been conducted in this area have focused on India, the United Kingdom, Canada, and the East and West coast of the United States. In a UK study, it was shown that older Indian and Pakistani women and middle-aged Pakistani men reported significantly higher rates of depression and anxiety compared to similarly age Caucasian counterparts, after adjusting for differences in socioeconomic status (Weich et al., 2004). Furthermore, additional studies have also shown that there is high susceptibility to self-harm and certain mental illnesses, including depression, anxiety, insomnia, and eating-related pathology, among immigrant South Asian females (Rehman, 2010). The disproportions of these rates show that compared to their Caucasian counterparts, South Asian mental health wellness is impacted more negatively.

Acculturation. Acculturation also has a major impact on South Asian mental health wellness. Acculturation describes when there are cultural shifts due to the contact between two or more cultural groups. From the contact, a cultural change occurs, due to balancing two heritages, beliefs and behaviors while adapting to the prevalent culture of current society; individuals incorporate themselves into society while trying to maintain their original cultural values (Tummala-Narra, Deshpande, & Kaur, 2016). Research on acculturation has shown that immigrants and migrants may begin to lose touch with their traditional cultural norms due to adapting to a new environment, which can impact their physical and mental health (Tummala-Narra, Deshpande, & Kaur, 2016; Puram et al., 2014). Some of these added stressors may include adjusting to a new environment, adapting to a new family structure, pressures in learning English, minority status, and discrimination (Romero et al., 2007).

Studies indicate that many South Asian adolescents struggle and feel conflicted between adopting a "Western" value system while still maintaining a "South Asian" value system (Farver et al., 2007). It has been said that the South Asian value system is centered on a "we-self", meaning that the individual is not separated from its family, which is a staggering difference from Western conceptualizations of the topic (Masood, Okazaki, & Takeuchi, 2009). Most South Asians are learning to function with a dual identity, while also coming from a South Asian family that includes a tight network of close relatives and friends. Therefore it is important for counselors and therapists to keep in mind the degree of acculturation their South Asian client has undergone and the type of ethnic cultural identity their client has developed in order to provide help (Das & Kemp, 1997). Family life plays a central role in the South Asian American experience, with South Asians having a sense of familial duty that may be in conflict with their self and individual goals, especially if they are discrepant from their family's expectations

(Inman & Tewari, 2003; Pettys & Balgopal, 1998; Dugsin, 2001). Research has shown that for South Asian immigrants, if there is a disruption in their family support, whether it be their nuclear or extended family, it may create feelings of isolation and acute distress (Ahmed & Lemkau, 2000). Dugsin (2001) also discovered that South Asian culture has a duty-based moral orientation, which can create inner conflicts when a South Asian makes decisions unpopular with their family, leading to increased distress and a profound effect on themselves as well as their family.

An example of how familial factors affect South Asian Americans and their mental health wellness can be examined in South Asian women immigrants. South Asian American women have psychological pressures exerted on them by family and society to maintain traditional cultural values (Inman et al., 2001). However, women usually divert from these cultural expectations in order to assimilate into a new society, which can lead to greater distress (Inman et al., 2001; Masood, Okazaki, & Takeuchi, 2009). Furthermore, a focus group of South Asian women immigrants discussed stress-inducing factors after moving from their homes, including: loss of social support, economic uncertainties, downward social mobility, mechanistic lifestyle, barriers in accessing health services, and climatic and food changes. Many of the participants attributed their depressive feelings and loneliness to the loss of social support due to the loss of their extended family system as well as diverting from expectations of their family (Ahmad et al., 2005).

Although there has been an increase in awareness of mental health wellness globally, improvement is still needed in the South Asian American community. Most South Asian Americans are still learning to function in society with acculturation. Adapting to a dual-identity may cause distress for some South Asian Americans. Thus, when creating programs to help with

mental health wellness it is important to consider factors that play a central role in a South Asian American's experience, such as identity, family life, and acculturation.

South Asian student mental health wellness

Asian American college students have been reported to have higher levels of depression, anxiety, and suicidal ideation compared to their white counterparts (Wong et al., 2011). According to García Coll & Marks (2012) minority youth are affected by multiple contextual forces, with one being a socioecological perspective. The socioecological perspective states that mental wellness is affected by the interaction between home and school life. A person may need to adjust their identity or behavior when their home and school life interacts (García Coll & Marks, 2012). For a South Asian student, there are many important factors that may influence the socioecological perspective, including race, social class, and other variables. It has been studied that the effects of concepts like racism and segregation within social class and race on a minority youth may influence positive developmental outcomes and mental health wellness (García Coll et al., 1996). Thus, it would be important to examine a student's mental health wellness and stress through variables such as the context of ethnicity, family, and social interactions.

For South Asian students, and youth in particular, understanding the effect of how family, school, and historic events may interact and influence their mental health wellness and help seeking is important. The majority of the current South Asian students grew up and attended classes in a post 9/11 context in the United States. During this time many South Asians were influenced by stereotyping and racial attacks that remained largely invisible to the public (Inman et al., 2007). During adolescence, a period of time of self-growth and coming to identity, it can be asserted that this changing political atmosphere had a negative effect on a South Asian student's mental health wellness.

A study conducted in the Peel Region of Canada reviewed determinants of mental health wellness of South Asian youth through in-depth interviews. About one half of the youth spoke of mental health negatively and solely in terms of illness rather than health. They also reported that recovery needed to be self-motivated, and many felt that support from family was lacking because of stigma, which resulted in social isolation (Islam et al., 2017). Many of the youth in the study felt that their mental health wellness was affected by a variety of factors: (1) Acculturation stress and intergenerational conflict- conflicts with parents caused by a dynamic of two different cultures having to coexist under the same roof; (2) Academic pressure from parents- academic pressure to succeed at school and have a good career due to parents conforming to the South Asian community's expectations and norms of what success should look like rather than considering their child's feelings and frustration of being compared to some other "model student"; (3) Relationship stress- arguments between parents and youth over marriage, dating, and opposite gender interaction; (4) Financial Stress; (5) Divorce; (6) Mental illness in the family- mothers with untreated depression perpetuating the stigma surrounding mental illness; and (7) Mental health disorders, addictions, and drug use (Islam et al., 2017).

It can be asserted that although South Asian students' mental health wellness may be impacted by similar factors compared to their Caucasian counterparts, they are still impacted by unique factors of acculturation and cultural conflict. Less research has been conducted on the effect of acculturation on South Asian youth as well as understanding the effect of stigma from their family and community, and in order to efficiently help the South Asian youth with their mental health needs it is imperative to understand these factors and how they interact with seeking help.

Barriers to seeking mental health wellness programs and support

South Asians underutilize mental health wellness programs and supports compared to their Caucasian counterparts (Leong & Lau, 2001). Utilizing mental health wellness services is important for South Asians students in order to bring emotional wellness and stability to their lives. The problem of underutilization of mental health wellness services by South Asians can be understood by two primary factors: barriers to initiate the usage of mental health services and barriers to persistently pursue care once it is sought (Leong & Lau, 2001; Das & Kemp, 1997; & Islam et al., 2017). South Asians are less likely to seek out the usage of mental health wellness services due to many factors including: a cultural prohibition against talking about personal and intimate problems with strangers, stigma, the denial of mental health and emotional problems, and the lack of knowledge and access to mental health wellness services and resources (Leong & Lau, 2001; Das & Kemp, 1997; & Islam et al., 2017). However, once South Asians utilize resources, they may discontinue to utilize them due to conflict between South Asian cultural values and values learned through counseling and psychotherapy (Leong & Lau, 2001; Das & Kemp, 1997; & Islam et al., 2017). Specifically for South Asian adolescents and young adults, due to not having the financially capability to access resources, having the lack of knowledge of what resources exist, and societal stigma surrounding mental health wellness causing them to feel ashamed of accessing resources, they are less likely to access mental health wellness services and supports (Islam et al., 2017).

Finance and Culture. People are often faced with financial and cultural barriers when trying to access therapy or care. In order to access therapy or care, health insurance is required. Compared to 18% of all Americans, about 21% of South Asians do not have health insurance coverage (SAALT & Asian American Federation, 2012). Furthermore, for South Asians that do

have health insurance, there are still barriers when it comes to accessing quality health care, especially for mental health wellness needs. Some barriers include cultural barriers, language barriers, discordance between providers and patients due to beliefs, identity, misconceptions, and stigma (Puram et al., 2014). A survey conducted on health care barriers in the South Asian American community indicated that out of 1,154 people 19% indicated that they were dissatisfied or very dissatisfied that health care providers did not understand South Asian culture, and 16% indicated that they were dissatisfied that health care providers did not understand the South Asian family support structure (Puram et al., 2014). Furthermore, out of 1,154 people, the primary barriers to seeking medical care were as follows: inability to navigate the system or understand what services are covered, health care providers not understanding South Asian culture, lacking health insurance, lacking transportation, and lacking interpretation services (Puram et al., 2014). Along with impacting medical care, these barriers impact the access to mental health wellness services and programs within the South Asian community.

Stigma. The concept of stigma is highly prevalent in the South Asian community. A survey conducted on South Asian students enrolled in Ohio (N=185) discovered that 88.6% did not consult a health care provider for psychological issues in the past year and 95.1% have never consulted a health care provider for psychological (mental and/or emotional) issues (Atri, Sharma, & Cottrell, 2007). Furthermore, South Asian families tend to take on caregiver burdens by hiding family members with severe mental health issues in their homes. This is due to stigma and cultural perceptions of family honor, shame, moral responsibility, and lack of cultural acceptance of biomedical approaches to mental health wellness treatment (Marrow and Luhrmann, 2012).

Asian Americans are less willing to report their problems and express them to the public due to feelings of shame and stigma (Leong & Lau, 2001). South Asian students generally report negative attitudes towards seeking psychological help, which is likely due to stigma and shame associated with mental disorders and psychological help-seeking among South Asians (Soorkia, Snelgar, & Swami, 2011). Young adult South Asian college students reported higher self-stigmatization among associates of the students, towards moderate symptoms of depression compared to their Caucasian counterparts (Thapar-Olmos & Myers, 2017; Mak & Cheung, 2008). For South Asian American students, it was shown that education about the causes of mental illness in conjunction with personal experiences with mental health had the strongest impact on stigma reduction (Thapar-Olmos & Myers, 2017). Due to there being barriers to the underutilization of mental health wellness services and supports, and that South Asian students have a large underutilization of mental health wellness services and supports, it is key to understand how to overcome these barriers when developing programs for mental health wellness needs.

Overview of cultural mental health wellness organizations and programs

In the United States there are currently only a few mental health wellness organizations dedicated towards South Asians. Some of these organizations include MannMukti (a social media storytelling nonprofit and platform that normalizes and discusses mental health issues across the nation), MySahana (a nonprofit based in California dedicated to spreading awareness about mental health issues), and South Asian Mental Health Initiative & Network (a nonprofit based in New Jersey that was created to address a broad range of mental health needs of the New Jersey South Asian community). The majority of these organizations have been founded in the

past decade, and are still developing effective and efficient mental health wellness programs for South Asian Americans.

In Minnesota, there are two organizations dedicated towards creating cultural health wellness programs: AshaUSA and SEWA- Asian Indian Family Wellness. Although both organizations are dedicated to serving and promoting wellness for South Asians in Minnesota, AshaUSA is the only organization that has an entire campaign dedicated towards mental health. The campaign was launched to "increase awareness and remove stigma associated with mental illness and seeking mental health help, with a goal to spread the message about mental health and create programs that will help the South Asian community be more open to sharing that mental health matters" (AshaUSA, 2016). Although this program exists, along with others, it is still under development and is fairly new. When assessing and providing support to a person's health and well-being, it is important to understand where they come from, their culture being an essential part of that. Understanding an individual's cultural norms can allow programs to quickly build rapport and ensure effective help. Culture plays a significant role in how we understand and perceive health and illness, as well as modifying coping styles and treatment-seeking patterns (Gopalkrishnan & Babacan, 2015).

Many of the current programs and resources that provide support with mental health wellness in Minnesota have emerged from Western cultural traditions and Western understandings of the human condition. Some examples of these programs and resources include those distributed by NAMI, Mental Health Minnesota, and programs and resources at schools and universities. Although these programs have been helpful in creating a framework for other programs, the framework may be problematic when applied to the context of non-Western cultures without the consideration of their complexity (Gopalkrishnan, 2018). It has been

proposed that Western cultural approaches to health tend to be "predicated on a model that focuses on individual intrapsychic experience or individual pathology, while other traditions may be based more on community or familial processes" (Tribe, 2005, pg. 8). Furthermore, if any of these resources and programs do have a multicultural approach, for example the resources provided by the NAMI Multicultural Young Adult Advisory Board, these resources and programs do not consider South Asians.

There is currently a dearth of programs for South Asians that take a cultural standpoint in relation to mental health wellness issues in the Midwest. With the increase of South Asian populations in Minnesota and recent challenges associated with acculturation in terms of health, development, and family relationships, as well as a change in political atmosphere, there has been an increased need for culturally specific programs (AshaUSA, 2016). Furthermore, with the increase in the South Asian population and lack of knowledge about South Asian students and their mental health wellness in the Midwest, including factors surrounding their mental health and barriers to receiving help, creating a culturally specific mental health wellness program becomes difficult. In order to effectively and efficiently help the South Asian Minnesotan population with their mental health wellness needs and develop the existing program in Minnesota, it is important to understand factors relating to their mental health wellness as well as barriers to them receiving help. The current study aims to gain insight on factors surrounding South Asian students and a) their diagnosed mental health issues; b) their perception of mental health wellness; and c) their interaction with mental health services in Minnesota to inform and help AshaUSA to create and improve upon their current programs.

CHAPTER 3: MANUSCRIPT

STUDENT CONTRIBUTION

The student's contribution spanned from conceptualization to execution of this project. Ayesha Bhatia was the principal investigator for the study. She designed the research protocol, survey instrument, in-depth interview guide, and also submitted the IRB application. Ayesha collected data, conducted in-depth interviews, transcribed interviews, analyzed both quantitative and qualitative data, conceptualized figures and tables, and developed the manuscript. Dr. Sayali Amarapurkar, AshaUSA board member, provided insight in conception of the project and guidance by editing and reviewing survey instrument and in-depth interview guide, reviewing qualitative analysis, and reviewing the manuscript. Dr. Rachel Waford provided insight in conception of the project and guidance in editing and reviewing the manuscript.

Mental Health Wellness of South Asian Students of Minnesota: A Mixed-method Study of Determinants, Attitudes, and Barriers

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Abstract

Objectives

There is a dearth of research on factors influencing a South Asian student's mental health wellness in the Midwest. The objective of this study was to understand: (1) the mental health issues and what factors influence them, (2) associations between mental health status and social, environmental, and personal factors, and (3) barriers to mental health services and supports in South Asian students of Minnesota. The study was conducted in partnership with AshaUSA to improve upon current programs and develop new programs towards mental health wellness.

Methods

This study utilized a mixed-methods approach consisting of an online survey administered to 133 South Asian Minnesotan students and 17 in-depth interviews. The study was conducted between May 2018 and August 2018. ANOVA and chi-square (X^2) tests were conducted to identify social, environmental, and personal characteristics associated with mental health status. Qualitative data were recorded, transcribed verbatim, and analyzed for common themes.

Results

22.66% of students had a negatively perceived mental health wellness status and 32.76% of students had a diagnosed mental illness. Perceived mental health status was significantly associated with sources of stress including school, grade point average, clubs and organizations, finances, the level of parent and peer supportiveness, and the level of mental health awareness of surrounding adults. The qualitative interview themes supported findings from the survey. Themes included support, coping strategies, accessing and barriers to accessing mental health resources, and major factors of stress including family, time, future, school work, stigma, and pressure from self, family, peers, and community. The main barriers to accessing resources were stigma and lack of knowledge about resources.

Conclusions

Mental health in South Asian American students is affected by factors related to stigma, sources of life stress including family, thoughts of the future, academics, and pressure from self, family, peers, and community. Factors such as stigma in the community and family, a busy schedule, lack of information, and finances act as barriers to accessing mental health services and supports. New programs should address pressure from self and family and de-stigmatizing mental health in society. Recommendations fall under the broader branches of education, social marketing and media engagement, community engagement, social leadership, and evaluation.

Introduction

According to WHO (2014) mental health wellness is “a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community”. Poor mental health wellness has been associated with social exclusion, unhealthy lifestyle, stress from work, and rapid social change (WHO, 2018).

Mental health wellness has become a predominant issue in the public health spectrum with poor mental health wellness status strongly correlating with health and developmental concerns in young people (Patel et al., 2007). Mental disorders burden young people in all societies, with most mental disorders beginning between 12-24 years of age. However, these issues are often detected later in life (Patel et al., 2007). Young adulthood is a critical period of time in life, and often what happens to an individual during this period will influence and have a profound and long-lasting effect on their future. During young adulthood cognitive, emotional, and psychosocial maturation is still occurring, which leads to a heightened psychological vulnerability (Bonnie, Stroud, & Breiner, 2014). Thus, importance must be given to providing support to young adults during this vulnerable part of their life in order to prevent future distress and promote healthy development.

As of 2010, over 3.4 million South Asians (people originally from India, Pakistan, Bhutan, Nepal, Bangladesh, and Sri Lanka) live in the United States, with about 555,000 South Asian living in the Midwest, and 44,000 South Asians living in Minnesota (US Census, 2010). Being the third largest and fastest growing minority group in the United States, South Asians population has increased over 60% from 2000 to 2010 (Masood, Okazaki, & Takeuchi, 2009).

There is a lack of research on factors influencing a South Asian student's mental health wellness in the Midwest. In general, Asian American college students have been reported to have higher levels of depression, anxiety, and suicidal ideation compared to their white counterparts (Wong et al., 2011). That being said, Asian Americans also underutilize mental health wellness services compared to their Caucasian counterparts (Leong & Lau, 2001). According to Leong & Lau (2001) the problem of underutilization of mental health wellness services by Asian Americans can be understood by two main barriers: (1) Barriers to initiate the usage of mental health services and (2) Barriers to persistently pursue care once it is sought. South Asian students generally report negative attitudes towards seeking psychological help, which is likely due to stigma and shame associated with mental disorders and psychological help-seeking among South Asians (Soorkia, Snelgar, & Swami, 2011).

The lack of research surrounding South Asians living in the Midwest makes it challenging for organizations, activists, and health professionals to assist South Asian Americans with their mental health wellness needs. Education about the mental health wellness needs of the local South Asian community can help people to understand and aid South Asian Americans who may be facing barriers in accessing mental health wellness programs. For example, research done with this demographic can lend itself to securing resources and addressing needs in order to deliver effective and culturally sensitive mental health wellness programs. When assessing and helping with a person's health and well-being, it is important to understand where they come from, including cultural history and background. Understanding an individual's cultural norms can also allow programs to quickly build rapport and ensure effective help.

With the increase in South Asian population, challenges associated with acculturation in terms of health, development, and family relationships, and a change in the political atmosphere

has increased the need for culturally specific programs (AshaUSA, 2016). There is currently a dearth of culturally sensitive programs serving South Asians in the Midwest, due to the deficiency of research with this population. In order to address the dearth of research surrounding mental health wellness among South Asian Students in the Midwest, this study focuses on a specific Midwest population, South Asian students living in Minnesota.

The purpose of this study was to explore factors surrounding South Asian students and a) their diagnosed mental health issues; b) their perception of mental health wellness; and c) their interaction with mental health services in Minnesota.

The specific objectives of this project were:

1. To identify, through self-report and in-depth interviews, the diagnosed mental health issues present for South Asian students in Minnesota.
2. To investigate, through self-report, differences between perceived positive mental health status and perceived negative mental health status, and differences between formally being diagnosed with mental illness and not being diagnosed with mental illness in social, environmental, and personal characteristics.
3. To investigate, through self-report, relationships between the independent variable and social, environmental, and personal factors for formally diagnosed mental illness and self-perceived mental health status.
4. To understand, through in-depth interviews, the factors that influence a South Asian student's mental health wellness in Minnesota.
5. To identify barriers, through self-report and in-depth interviews, to mental health wellness in a South Asian student's life in Minnesota.

Methods

A mixed-methods approach (qualitative and quantitative) was adopted for this study. The first phase of the study was a quantitative phase that consisted of an online survey. The second phase was a qualitative phase that consisted of in-depth interviews. Research was conducted under the guidance of AshaUSA, a local Minnesota non-profit organization aiming to explore mental health wellness issues in students of South Asian origin to improve upon their current programs and develop new programs. The organization focuses on creating healthy, happy, and harmonious South Asian communities by engaging and empowering South Asian women, men, and children through culturally specific programs and services (AshaUSA, 2016).

Population and Sample. The study was conducted in the Twin Cities and surrounding areas of Minnesota. South Asian refers to people originally from the countries of India, Pakistan, Bangladesh, Bhutan, Nepal, and Sri Lanka. The definition of student included those studying during the summer of 2018 in a middle school, high school, undergraduate, graduate, or professional program. Participants who graduated after summer 2016 were also allowed to participate. Eligibility criteria to participate in the first phase, the quantitative survey, included currently living in Minnesota, identifying as a student, and identifying as South Asian. Eligibility criteria to participate in the second phase, which was the qualitative portion of in-depth interviews, included meeting the eligibility of phase one and also providing consent to be contacted and recorded during the interview. Consent to be contacted for the interview was sought after phase one and those who consented were included in phase two. A snowball sampling method was used, as described in the data collection procedure below. Snowball sampling has been found to be the most effective way to do research with immigrant groups and

hidden populations that are difficult to recruit for a research study. A total of 133 surveys were collected (Table 1) and 17 in-depth interviews were conducted (Table 2).

Data Collection Procedure. Data collection was conducted by a team of three undergraduate students and the current author (principle investigator), under the supervision of Dr. Sayali Amarapurkar, a specialist in Family Social Science. Prior to data collection, the researchers were trained in the study methods. They were given an overview and objectives of the study as well as explanations for the study. They received training on the importance of confidentiality, and as part of the training they were given the chance to understand the survey as well as preparation on how to use the snowball sampling method to reach the subjects for the project. The research team collected data from May 2018-September 2018, with in-depth interviews being conducted from June 2018-September 2018.

Recruitment

High concentrations of South Asian students were identified through local university community organizations of South Asians, places of worship for South Asians, and the local ethnic community organizations that serve South Asians. Each of these organizations were sent a description of the study (Appendix A) to share with their listservs through email, post on their social media pages (Facebook, Instagram, Snapchat, and Twitter) and groups, and word of mouth. The description sent to participants included a brief overview of the study including a screening of the eligibility criteria. Participants who met the eligibility criteria were invited to continue in the study by clicking on a link to sign a consent form (Appendix B & C) to participate. After signing a consent form, they were directed to another link for the survey. The survey was administered through Qualtrics, an online survey platform that is approved by the Institutional Review Board (IRB).

Recruitment for in-depth interviews was conducted with convenience sampling. On completion of the survey, participants had the option of providing their contact information to participate in a semi-structured in-depth interview to gain further knowledge into their perceptions and issues of mental health (Appendix E). For interviews the principal investigator met with interested participants at a location convenient for them, explained the purpose of the research study, and obtained verbal consent (Appendix F & G) and permission to record the interview on an iPhone application. The recordings were saved on a password-protected device. A total of 11 hours and 21 minutes of semi-structured interviews with participants were undertaken. Interviews were conducted in English and transcribed verbatim from audio recordings. All transcribed interviews were saved on a password-protected flash drive, and the recordings of the interviews were saved for one year after the interview. After the in-depth interview, all participants were provided with local mental health resources in the event that they faced distress due to the interview (Appendix I).

Research Instruments.

Survey. The survey instrument was developed by the principal investigator and was administered through Qualtrics. The survey was designed to reflect gaps in current literature on mental health wellness issues in South Asian populations. From the literature gaps were identified, these gaps were developed into a conceptual framework, and from there developed into questions by determining objectives and indicators. The survey consisted of total 55 questions (Appendix D). Forty questions collected information on the participant's demographic characteristics, their general health status and mental health wellness status, factors surrounding their mental health wellness, their perception of mental health wellness, and their access to mental health wellness resources. For Q2.3, Diagnosed Mental Illness, a few mental illnesses

were listed to be chosen, and participants could pick more than one illness or write-in their own category. Participants also responded to a shortened version of the PHQ Depression and Anxiety Scale, a scale developed as a composite measure of depression and anxiety (Kroenke et al., 2016), as well as the Stigma Scale for Receiving Psychological Help, a scale developed to measure stigma surrounding receiving psychological help (Pinto, Hickman, & Thomas, 2014).

Interview. Additionally, the principal investigator developed a semi-structured in-depth interview guide that consisted of topics to be discussed during the in-depth interviews. The guide consisted of 20 questions, which examined areas such as defining "mental health wellness", stress and challenges, academic stress, coping mechanisms, resources, and barriers to receiving help (Appendix H). The topics in the interview were developed to further understand and examine the findings of the quantitative survey. A range of probes were used when needed. A pilot study of the in-depth interview guide was conducted in June 2018 with a 20-year-old male student. The pilot indicated what to expect for interviews and no changes were made to the interview schedule. The rest of the interviews were conducted between June 2018 and September 2018.

Data Analysis. This paper aims to understand: (1) the relevant mental health wellness issues for South Asian American students in Minnesota and what factors influence them, (2) associations between mental health status and social, environmental, and personal factors, and (3) barriers to mental health wellness services and supports in South Asian students of Minnesota.

Quantitative Analysis. Out of the 55 questions asked on the survey, eight main variables will be taken for analysis (Table 3). Descriptive statistics were performed to describe and summarize the population and data. The independent variables included mental health status

(Q2.2) and diagnosed mental illness (Q2.3). The dependent variables include social, environmental, and personal characteristics (Q3.1, Q3.2, Q3.3, Q3.3.1, Q3.6, Q4.1, Q4.3, Q4.4, Q5.1, and Q5.3). For analysis, mental health status (Q2.2), diagnosed mental illness (Q2.3), Q4.1, Q4.3, Q4.4, and Q5.3 were dichotomized. Participants ranked variables listed for Q3.2 (1-12) and Q3.3 (1-7), from most stressful to least stressful. For analysis purposes, each individual factor listed for Q3.2 and Q3.3 were assumed to be an individual question.

Perceived Mental Health Status. Pearson chi-square (X^2) tests for association (categorical variables) or ANOVA tests (numerical variables) were used to examine differences between perceived positive mental health status and perceived negative mental health status in social, environmental, and personal characteristics. Categorical variables included Q3.3, Q3.3.1, Q3.6, Q4.1, Q4.3, Q4.4, Q5.1, and Q5.3. Numerical variables included Q3.1 and Q3.2.

Diagnosed Mental Health Status. Pearson chi-square (X^2) tests for association (categorical variables) or ANOVA tests (numerical variables) were also used to examine differences between being diagnosed with a mental illness and not being diagnosed with a mental illness in social, environmental, and personal characteristics. The same categorical and numerical variables as above were used.

Assumptions of the Pearson chi-square (X^2) tests and ANOVA tests were met before continuing with analysis. The Fischer's Exact test was used when assumptions for the Chi-square test were not met. The test statistic, odds ratios, and risk ratios were used to determine significance, which was set at $p < 0.05$. The quantitative analyses were conducted with SAS 9.4.

Qualitative Analysis. All in-depth interviews were recorded and transcribed verbatim, with each transcript being compared to the original recording to review quality. The transcripts

were then de-identified for analysis. Thematic theory was used to guide systematic data coding and develop variables to examine themes throughout the transcriptions of the in-depth interviews. Thematic theory emphasizes pinpointing, examining, and recording patterns ("themes") within the data through coding data and letting the themes emerge from the semi-structured interviews (Komori, 2019). The PI developed a codebook from one initial transcript. Prior to analysis and applying the developed codes to all transcripts, one of the undergraduate researchers applied the codes to one transcript. The coded transcript of the undergraduate researcher was compared to the coded transcript of the PI to ensure that the coded definitions were clear and were consistently being applied. All seventeen transcripts were then coded and segmented using the codebook, eventually leading to a case summary that would be analyzed across transcripts to identify common themes. Illustrative quotes from the interviews showcasing the themes are shown as results. MAXQDA 18 was used for coding and analysis. Qualitative data analyzed in this article addressed the definition of mental health wellness, support, coping strategies, accessing and barriers to accessing mental health wellness resources, and major factors of stress including family, time, future, school work, stigma, and pressure from self, family, peers, and community.

Ethical Considerations. IRB approval was waived for this project. It was determined that the current study did not meet the definition of research with human subjects or "clinical investigation" as set forth in Emory policies and procedures and federal rules, due to the project consisting of a means to quality improvement of future projects at the request of the host organization.

Results

Quantitative Results. Frequency distributions of demographics are presented in Table 1. For this study, a total of 133 students filled out the survey. Education ranged from 11.02% (*n*=14) having completed less than high school, 18.11% (*n*=23) being a high school graduate, 25.98% (*n*=33) having completed some college education, 40.16% (*n*=51) being a college graduate, 3.94% (*n*=5) having completed professional school, and 0.79% (*n*=1) as other. Perceived mental health status was dichotomized, with 22.66% (*n*=29) having negative mental health status and 77.34% (*n*=99) having positive mental health status. Diagnosed mental illness was dichotomized, with 32.76% (*n*=38) having being diagnosed with a mental illness and 67.24% (*n*=78) having not been diagnosed with a mental illness. Mental health status and mental health diagnosis were significantly related; students who perceived a negative mental health status were significantly associated with having been diagnosed with a mental illness. The top barriers that exist in accessing mental health services and supports for survey participants were 37.50% (*n*=45) stigma, 25.83% (*n*=31) busy schedule, 13.33% (*n*=16) lack of information, 8.33% (*n*=10) other, 7.50% (*n*=9) cost, 4.17% (*n*=5) long wait, and 3.33% (*n*=4) hours of service.

Perceived Mental Health Status. ANOVA tests were used to examine differences between perceived positive mental health status and perceived negative mental health status for social, environmental, and personal characteristics (sources of stress in life and sources of stress in school). Results are displayed in Table 4. Pearson chi-square (X^2) tests were used to examine differences between perceived positive mental health status and perceived negative mental health status in social, environmental, and personal characteristics (having a MH crisis in school, talked to someone about their MH, parent and peer supportiveness on MH, surrounding adults

awareness on MH, awareness about MH resources, accessed MH resources, and trigger to school MH crisis). Results are displayed in Table 5.

Results from the ANOVA demonstrated that the average ratings of stress for homework, exams and tests, grade point average, and clubs and organizations were significantly lower in those who identified as having positive mental health status than those who identified as having negative mental health status. However, for those who identified as having positive mental health status rated finances significantly higher than individuals who endorsed negative mental health status. For each of these variables, participants were asked to rank them in order of most stressful to least stressful (1-7). Thus, a lower rating reflects that the participant believed that the characteristic was considered less stressful compared to others. A higher rating reflects that the participant believed that the characteristic was considered more stressful compared to others.

Chi-square statistics cross-tabulated in Table 5 demonstrate that there is a significant relationship between perceived mental health status and the following variables: having a MH crisis in school, talking to someone about their MH, parent supportiveness on MH, peer supportiveness on MH, surrounding adults' awareness on MH, and accessed MH resources. A significantly higher percentage of students who identified as having negative mental health status also had a MH crisis in school, talked to someone about their MH, did not have parent supportiveness on MH, did not have peer supportiveness on MH, did not have surrounding adults' aware about MH, and accessed MH resources than who identified as having positive mental health status.

Diagnosed Mental Health Status. ANOVA was used to examine differences between being diagnosed with a mental illness and not being diagnosed with a mental illness for social, environmental, and personal characteristics (sources of stress in life and sources of stress in

school). Results are displayed in Table 6. Pearson chi-square (X^2) tests for association (categorical variables) were used to examine differences between being diagnosed with a mental illness and not being diagnosed with a mental illness in social, environmental, and personal characteristics (having a MH crisis in school, talked to someone about their MH, parent and peer supportiveness on MH, surrounding adults' awareness on MH, awareness about MH resources, accessed MH resources, and trigger to school MH crisis). Results are displayed in Table 7.

ANOVA results revealed that those who identified as not being diagnosed with a mental illness rated finances significantly higher than individuals who endorsed being diagnosed with a mental illness. For each of these variables, participants were asked to rank them in order of most stressful to least stressful (1-7). Thus, a higher rating reflects that the participant believed that the characteristic was considered more stressful compared to others. Chi-square statistics cross-tabulated in Table 7 show a significant relationship between diagnosed mental illness and the following variables: having a MH crisis in school, talking to someone about their MH, surrounding adults' awareness on MH, and accessed MH resources. A significantly higher percentage of students who identified as being diagnosed with a mental illness had a MH crisis in school, talked to someone about their MH, had surrounding adults' aware about MH, and accessed MH resources than who were not diagnosed with a mental illness.

Qualitative Results. Table 2 lists the demographic characteristics of the 17 interview participants. The age of participants ranges from 14 to 30 years old (M=19.59, SD=3.92). 52.94% (n=9) were female. The PI asked participants to state their country of origin; 82.35% (n=14) stated India, 5.88% (n=1) stated Pakistan, 5.88% (n=1) stated Sri Lanka, and 5.88% (n=1) stated Bangladesh. The PI also asked the students to state the current program they are enrolled in; 29.41% (n=5) stated high school, 41.18% (n=7) stated bachelors, 23.53% (n=4) stated

graduate, and 5.88% (*n*=1) stated PhD. A summary of the qualitative interviews and themes are presented in Table 8. The following themes emerged from the interviews: mental health wellness definition, support, coping strategies, accessing mental health resources, barriers to accessing mental health resources, and major factors of stress including family, time, future, school work, stigma, and pressure from self, family, peers, and community.

Mental Health Wellness Definition. Participants (*n*=13) commonly described mental health wellness as a state of taking care of oneself in order to effectively and efficiently do tasks throughout life. In order to have positive mental health wellness, many participants (*n*=10) reported that it was important to not have a mental illness, or to have the mental illness under control and stable. Furthermore, participants (*n*=7) discussed being able to handle stress and staying calm was also important to having "good" mental health wellness, while not being able to handle stress was an indicator of having "poor" mental health wellness. Participants (*n*=13) stated that having stress and feeling stressed was also an indicator of having "poor" mental health wellness, and also used these two terms interchangeably. Most of the participants (*n*=14) stated that their mental health status had not changed in the past few months, and indicated that they would consider themselves to have "positive" mental health wellness.

Support. The majority of participants (*n*=15) described that the main sources of support they received in their daily life were from their peers. Their peers were the ones they would turn to in times of need, seeking comfort from them, asking for help in their school work, discussing family issues, and discussing different stress they may be facing. A few participants (*n*=5) reported that they turn to their significant other to discuss the stress in their life, and that their significant other kept them grounded and offered a place for them to forget about their current worries. A few participants (*n*=3) also stated that they would turn to their parents for guidance

and support when needed in relation to their mental health. A few participants (*n*=2) were comfortable seeking support from their parents due to their parents' understanding and awareness surrounding mental health. Several participants (*n*=4) discussed that they were beginning to feel comfortable seeking support in their parents due to their parents' attitudes towards mental health wellness changing. The participants reported that their parents' attitudes changed due to viewing how negative mental health wellness affected someone their parents' knew. Lastly, a few participants (*n*=5) reported support they receive from their school, including teachers and academic counselors, especially in relation to the stress they would experience from their academics.

Coping Strategies. The participants discussed a variety of coping methods throughout the interviews. A few participants (*n*=5) discussed they would cope with stress by making a list of their responsibilities of the week, and then scheduling those responsibilities and activities. A vast number of the participants (*n*=15) discussed that they cope with stress by engaging in activities with their friends and peers. Several participants (*n*=7) discussed that they would busy themselves with other activities including learning a new instrument, taking extra classes, cooking, watching Netflix, and others. They discussed that they would push off the stress to another day, not actually dealing and coping with it, in order to be engaged with other activities. A few participants (*n*=3) stated that they had no way of coping with stress, and would usually end up crying due to the stress or thinking about it consistently. Although majority of the participants (*n*=13) believed that their coping skills were effective, a few believed that their coping skills could be more efficient (*n*=3) and wanted to know what others did to cope with stress.

Accessing and Barriers to Accessing Mental Health Resources. Participants (*n*=12) discussed how they had a general idea on how to find more information about mental health wellness resources through their university, but did not know how to find more information about mental health wellness resources outside of their university. Participants (*n*=3) who knew of resources felt shame in reaching out to resources due to stigma surrounding the topic, and the thought that therapists and counselors did not have the same cultural background as them to offer support. A few participants (*n*=3) reported accessing mental health wellness resources through their university, and attempted to access mental health wellness resources outside of the university setting. The participants who attempted to access resources through their university were given an appointment a few weeks out and did not have the opportunity to talk to someone quicker. Participants (*n*=3) that attempted to access resources outside of the university setting were met with insurance and cost issues; they were unable to afford services they knew of. Those participants also did not know of more affordable services and resources. Majority of the participants (*n*=13) believed that their mental health concerns did not warrant using mental health wellness resources. They believed that compared to peers their issues and problems were not as extreme, and due to that they did not need to seek out help. Furthermore, some participants believed that they did not have the time to utilize and seek out resources due to a busy schedule.

Major Factors of Stress that Causes Change in Mental Health Wellness. Emerging from the interviews were major factors of stress that caused change in mental health wellness status. Reported factors included family, time, school work, future, stigma, and pressure from self, family, peers, and community.

Family. A few participants (*n*=4) indicated that issues in their family could affect their level of stress. These issues included having family undergoing health complications and a lack

of communication between members. These participants indicated that if they were unable to communicate with their parents or other family members, or if miscommunication occurred it would lead to a change in their mental health wellness.

Time and School Work. For a vast number of participants (*n*=13) stress due to lack of time also coincided with stress due to school work. Many participants (*n*=13) indicated that they did not have enough time to complete their activities and tasks for the day. These tasks mainly consisted of tests, homework, studying, job searching, and others. Due to the stress of time, some participants (*n*=5) reported procrastinating on their work, leading to a greater stress the next day. Furthermore, some participants (*n*=8) reported that if they believed they did not have enough time to complete assignments or understand concepts for tests, it would lead to a greater source of stress. Participants (*n*=8) reported feeling stressed due to feeling that they would not receive the grades they needed to succeed in their future or to make their parents proud. A majority of the participants (*n*=11) also indicated that they experienced stress due to not being able to schedule their day properly.

Future. Participants (*n*=15) stated that they felt stress related to worrying about if they will be successful in their future. Participants (*n*=10) discussed that academic pressure and pressure to make their parents feel proud contributed to stress they felt in relation to their future. Participants (*n*=8) reported that they had increased levels of stress when they believed that their academics were an indicator of their future. Furthermore, participants (*n*=12) stated that they felt stress when they did not know what their future entailed.

Stigma. Another source of stress for participants was the concept of stigma. Many participants (*n*=14) reported that they felt that family members and their community did not understand the concept of mental health. Participants (*n*=9) stated that they felt that the terms

they used to describe mental health wellness differed from the terms their parents used to. Furthermore, these participants described that their family and community believed that people from their culture and background thought of mental health issues as being "crazy" or that "they were weak". Participants (*n*=6) indicated that they were afraid of being labeled in their community and "log kya kehenge [what will people think]". Many participants (*n*=13) indicated that most of their community refused to talk about mental health wellness and that if they did talk about mental health wellness it would only be about blaming the causes of why the issue existed.

Pressure. The last source of stress a vast number of participants (*n*=15) discussed was pressure from four main sources: self, peers, family, and community. The majority of participants (*n*=12) faced internal pressure around wanting to live up to expectations they set for themselves. These participants reported high expectations for themselves and described pressure to reach those expectations. Furthermore, participants (*n*=9) reported that they felt that their parents and community were setting high expectations and they felt internal pressure to reach those "expectations". Participants (*n*=10) felt pressure from peers due to competition with their school work. Participants (*n*=10) reported comparing themselves to their peers, and discussing what scores they "should" be receiving on assignments and how successful they needed to be in the future.

Summary. Major factors that were significantly associated with perceived mental health status included having a MH crisis in school, talking to someone about their MH, parent and peer supportiveness on MH, surrounding adults' awareness on MH, accessed MH resources, and sources of stress-related to homework, exams and tests, GPA, clubs and organizations, and finances. Major factors that were significantly associated with a diagnosed mental illness

included having a MH crisis in school, talking to someone about their MH, surrounding adults' awareness on MH, accessed MH resources, and sources of stress-related finances. Themes that emerged from the interviews included mental health wellness definition, support, coping strategies, accessing mental health resources, barriers to accessing mental health resources, and major factors of stress including family, time, future, school work, stigma, and pressure from self, family, peers, and community. Taken together, these results suggest that although the factors that surround mental health wellness in South Asian students in Minnesota correspond to factors that surround mental health wellness in previous studies studying all students, there is also the additional factor of stress related to family and community.

Discussion

Summary of findings. Mental health wellness affects students greatly due to adolescents and youth still undergoing emotional and physical development. With cultural populations growing in the United States and the lack of programs addressing mental health wellness among culturally diverse students, it is important to study these populations. Due to South Asian populations increasing in the Midwest, this study used a mixed methods approach to examine mental health wellness among South Asian students from Minnesota to address the increased need to develop programs to help South Asians with their mental health wellness needs. The quantitative survey identified key characteristics that are associated with mental health status and diagnosed mental illness of South Asian students from Minnesota. The qualitative interviews served to contextualize and further understand the characteristics from the quantitative data, as well as serve as an opportunity for participants to offer their opinions on mental health wellness resources. The mixed methods approach provides a deeper understanding of mental health wellness of South Asian students from Minnesota by examining the

participants' current mental illnesses and perceptions, factors surrounding their mental health, and their access to mental health wellness resources.

Objective 1. From the data collected for this study, the reported prevalence of poor mental health status was 22.66% and diagnosed mental illness was 32.76%. The prevalence for diagnosed mental illness in this population was greater than the 13.4% prevalence of mental illness among children and adolescents reported by a meta-analysis conducted on a world-wide sample (Polanczyk et al., 2015). The top three diagnoses for participants included depression (22.41%), anxiety disorders/generalized anxiety disorder (18.10%), and panic attacks (12.07%).

The prevalence may be greater in the study population, due to the fact that mental health wellness is a stigmatized topic in South Asian populations. South Asian populations are less likely to participate in studies examining mental health wellness and are less likely to answer survey questions accurately (Woodall et. al, 2010). Thus, the actual prevalence of mental illness in these populations may be greater than the prevalence portrayed in previous studies. Furthermore, since participants self-selected to participate in the study, it can be assumed that they are open to discussing their mental health wellness. This factor may increase the prevalence of mental illness in this population, because students who have gone through their own journey with mental illness may be more likely to participate in studies.

Objective 2.

Perceived Mental Health Status. It was found that the average ratings for homework, exams and tests, grade point average, and clubs and organizations were significantly lower and finances was significantly higher in those who identified as having positive mental health status than those who identified as having negative mental health status. This suggests that having

perceived positive mental health status is related to having lower stress levels in relation to homework, exams and tests, grade point average, and clubs and organizations, and higher stress levels in relation to finances. Furthermore, there is a significant relationship between perceived mental health status and the following variables: having a MH crisis in school, talking to someone about their MH, parent supportiveness on MH, peer supportiveness on MH, surrounding adults' awareness on MH, and accessed MH resources. Thus, it can be postulated that intrapersonal factors that may affect where a student will end up after graduation, including homework, exams and tests, and grade point average, in correlation to the interpersonal factors parent and peer supportiveness is associated with perceived mental health status.

Diagnosed Mental Health Status. Those who identified as not being diagnosed with a mental illness rated finances significantly higher than individuals who endorsed being diagnosed with a mental illness. Furthermore, there was a significant relationship between diagnosed mental illness and the following variables: having a MH crisis in school, talking to someone about their MH, surrounding adults' awareness on MH, and accessed MH resources. Taken together, diagnosed mental health status is related to interpersonal factors.

The factors from this study that were associated with perceived mental health wellness and diagnosed mental illness correspond to factors from previous literature. From previous literature, it is known that common risk factors for poor mental health wellness include biophysical, psychological, social and spiritual factors (American Mental Wellness Association, 2019). These factors may include a family history of mental health problems, stressful life situations such as financial problems, low self-esteem, poor academic achievement, poor communication skills, discrimination, lack of access to support services, and perception of insignificance (American Mental Wellness Association, 2019). Furthermore, common protective

factors may include reliable support from caregivers, good coping skills, and supportive relationships with family, economic and financial security, good peer relationships, and access to support services (American Mental Wellness Association, 2019).

For South Asians in particular, since mental health is a stigmatized topic in the community, having surrounding adults' awareness on MH be significantly associated with perceived mental health wellness is understandable. Since adults in the South Asian community are less likely to talk about mental health wellness because it being a stigmatized topic, they may have less awareness surrounding the topic. Furthermore, due to the concept of "model minority", which has known to affect mental health wellness, South Asians are stereotyped as being intelligent and achieving high standards. This concept may affect South Asian students negatively by pushing them to think that they need to achieve high standards in school and potentially neglect their mental health. This would correspond to the study results of mental health wellness being associated with the sources of stress related to homework, exams and tests, and grade point average.

Objective 3. The major factors of stress for participants who elected to be part of the in-depth interview included family, time, future, school work, stigma, and pressure from self, family, peers, and community. These major factors of stress were also associated with quantitative results from the survey, including the top three rated highest: thoughts about the future, exams and tests, and grade point average. From previous literature, it was known that factors that affected a South Asian students' mental health wellness included academic pressure, finances, and mental illness (Islam et al., 2017). Self-pressure was heavily discussed throughout the interviews but does not appear to have been discussed in previous studies. From this study, it was learned that self-pressure influences stress related to many factors including thoughts about

the future and comparing oneself to others, as well as internalizing thoughts of what "society and family may expect".

Some of the participants acknowledged that they had self-pressure due to the assumption that society and their parents had specific goals for them. This assumption resulted in an increase in self-pressure, and may stem from acculturation. It is known that South Asian Americans may face internal pressure due to having a duel identity and trying to balance their "new" culture of being an American while also maintaining their family's culture (Das & Kemp, 1997). Thus, participants may be facing a change in their mental health wellness due to acculturation.

Furthermore, several participants discussed parental and family pressure, as well. This may also stem from acculturation. A student's parents and family may be putting pressure on their child to succeed in the future, due to the fact that they may still feel like "outsiders". Due to acculturation, they may believe that their child being successful in the future will allow them to overcome being an "outsider".

Objective 4. From the survey, the top barriers that exist in accessing mental health wellness services and supports were stigma (37.50%), busy schedule (25.83%), lack of information (13.33%), other (8.33%), cost (7.50%), long wait (4.17%), and hours the services is open (3.33%). Some other examples included poor reviews from other students, the amount of funding and therapists available, feeling unable to open up and talk to others, and fear that accessing help negatively affects their chances into getting into graduate school. These barriers corresponded with the barriers brought up by interview participants, including cost, time, lack of information, and stigma. Furthermore, these barriers correspond with the ideas Leong & Lau (2001) discussed regarding the underutilization of mental health wellness services by Asian Americans. These include (1) Barriers to initiate the usage of mental health services and (2)

Barriers to persistently pursue care once it is sought. The majority of the barriers that were brought up by participants fall under the barriers to initiate the usage of mental health services.

Students juggle many responsibilities in a day including school, work, family, friends, relationships, and other tasks (Ross, Niebling, & Heckert, 1999). Thus, "busy schedule" and "lack of time" are understandable barriers. Furthermore, as students, they are less likely to have the financial capability to access resources (Shim et al., 2010). If students are under 18, they are still under the support and care of their guardian, and are less likely to have financial independence to seek out care. If students are over 18, even if they have financial independence, their income is less than other individuals, and they may have to focus their finances on other aspects of their life including food, shelter, and other needs. Although there are options to access care and therapy for low costs, students may not have access to information on how to find them, which was also discussed by participants.

The overall findings of the study, including the prevalence of mental illness, characteristics associated with mental health wellness, characteristics associated with diagnosed mental illness, and barriers to accessing mental health services and supports correspond to previous literature and studies. New findings include the levels of pressure (pressure from self, family, peers, and the community) that affect mental health wellness. Furthermore, throughout the study, participants perceived differences between how they and their parents viewed mental health wellness. This difference may lead to further research opportunities.

Limitations. When examining the results of the study, it is important to consider a number of limitations. First, it is important to take into consideration the manner in which participants were recruited.

Self-Selection Bias. The sample is not a random sample due to participants self-selecting to participate in the study. This makes the study susceptible to self-selection bias. Since the survey was conducted online, it is possible that the sample recruited is not representative of the South Asian Minnesotan student community as a whole. The access to internet is not equal to all, and the internet tends to be used primarily by younger and more educated individuals. The participants would be biased towards the characteristics of the online population such as gender, age, education level, socioeconomic level, etc. Furthermore, participants were also recruited through the snowball sampling method, which would have caused the sample selection to be heavily influenced by the first participants and the social networks of the organizations the recruitment was being conducted through.

There may have been a readiness bias playing a role in the second phase of the study. Again, participants are self-selecting to participate in the interview portion of the study, which will make the study at risk for self-selection bias. Participants who agreed to the in-depth interview may have been more receptive to participating in this phase of the study compared to others that declined, which may indicate differences between the two groups and affect the overall findings.

Self-Report Bias. The survey relies on self-reported data by participants. With self-report data there may be a discrepancy between reality and what is being reported. Responses are also vulnerable to recall and reporting biases.

Procedural Limitations. This method and study was one of the first to combine qualitative and quantitative methods for assessment purposes to study South Asian student populations in the Midwest. Since the study was conducted with only a small portion of the South Asian student population, results from this study may not be generalizable to other South

Asian student populations. Questions asking about diagnosed mental illness were listed with a write-in option. This may have influenced participants choosing categories that best fit their diagnosis, and would have influenced results. Lastly, some survey questions were written specifically for this population in mind, and would not be useful or generalizable to other populations. Furthermore since perceived mental health status and diagnosed mental illness were significantly associated, and the analysis done with both of these variables were done with the same characteristics, it is possible that the results shown are redundant. However, both results were kept in the study, due to the amount of students having perceived positive mental health status (*n*=99) differing from the amount of students having not been diagnosed with a mental illness (*n*=78).

Research Implications and Recommendations. Findings from this study indicate that students believe that there are perceived generational differences in understanding mental health wellness due to stigma and acculturation. With South Asian culture being family oriented, further research should examine generational differences in understanding mental health wellness, the effect of acculturation and stigma, and how family relationships may affect mental health wellness, specifically in South Asian families living in America. Understanding these factors may identity risk and protective factors for mental health wellness in South Asian families, and lead to further program development.

Despite the need for further research, the findings of this project allow AshaUSA to generate immediate interventions regarding mental health wellness factors for the South Asian student population from Minnesota. This study determined which factors are associated with mental health wellness as well as barriers to accessing resources in South Asian students from Minnesota. Future programs should focus on how stigma and pressure affect a student's life,

create awareness of affordable mental health wellness resources in the community, and take a cultural perspective by incorporating language and including family. Recommendations fall under the broader branches of education, social marketing and media engagement, community engagement, social leadership, and evaluation.

Education. A program should be developed to train mental health professionals on South Asian culture and language to improve services. In order to develop a program, AshaUSA will first need to conduct research on what terms the South Asian community uses to discuss mental health wellness. AshaUSA can work with local partners, such as NAMI Minnesota (MN). NAMI has a NAMI Provider program that "introduces mental health professionals to the unique perspectives of people with mental health conditions and their families" (NAMI, 2019). AshaUSA can work with NAMI MN to expand upon the current curriculum that exists through this program, and adding a component that highlights topics, issues, and terms that relate to the South Asian community and mental health wellness.

Social Marketing and Media Engagement. A social marketing plan should be implemented by AshaUSA to encourage mental health wellness and to destigmatize mental health wellness among South Asians. It has been shown that campaigns using various methods are effective in distributing messages (Wakefield, Loken, & Hornik, 2010). Furthermore, having concurrent availability of and access to services and resources is crucial for social marketing and media campaigns to be successful (Wakefield, Loken, & Hornik, 2010). AshaUSA should create a PSA, digital fliers, and other methods targeting the message of destigmatizing mental health and raising awareness on what factors affect students with poor mental health wellness. Furthermore, AshaUSA should also focus on campaigns that distribute information on the availability of and access to services and resources. The media can be shown at local community

events, such as cultural shows and tabling during community events like IndiaFEST, and other events.

AshaUSA's website lacks resources to provide awareness and support. AshaUSA should add to their current website by creating an online directory by providing detailed information on mental health wellness and community resources, tailored to the South Asian population in general, as well as separate sections for young adults, family and friends, and professionals. Some information to include would be therapists, psychiatrists, and psychologists from a South Asian background, student run clinics and other clinics that may offer cheap or insurance free financial options, online resources, phone apps, and help hotlines in regard to mental health wellness. Information should be provided on the location, prices, and accessibility of the resources.

Community Engagement. A community engagement day should be created to bring people, of all ages, with and without experience of mental health problems together to break down stigma surrounding mental health wellness. This event should include speakers that have gone through their own mental health problems, and are willing to talk about those issues. Evidence shows that for events and campaigns targeting stigma, knowing and hearing someone with mental health problems is one of the most powerful tools in changing people's attitudes (Evans-Lacko et al., 2013). Furthermore, other mental health wellness organizations and mental health professionals can be engaged throughout the event by having booths set up to provide more information regarding local resources.

Social Leadership. Youth, young adults, and other members of the South Asian community of Minnesota should be trained in order to provide peer support and mentoring to other students who are currently going through mental health problems. Through this initiative,

youth and young adults will be given the opportunity to gain leadership skills as well as provide back to the community. The peer volunteers will lead groups that will meet monthly. Each monthly meeting will have a different topic that will be geared towards discussion, awareness, and support. These groups will be considered open and safe spaces for students. Peer-to-peer support is valuable for impacting personal self-esteem and increasing confidence of peers receiving and providing support (Solomon, 2004). Thus, it would be a beneficial way to impact South Asian students.

Evaluation. Regarding any of the recommendations, it is important for AshaUSA to evaluate their outcomes. It would be imperative that AshaUSA routinely collect data in order to measure the impact of any of the recommendations. Some evaluation methods to use include annual surveys to measure knowledge, attitudes, and behaviors surrounding mental health wellness in the local community, pre- and post- surveys of events and campaigns, and focus group discussions. It has been shown that qualitative research produces healthy effects, and is effective when researching stigmatized topics, such as mental health wellness (McCoyd & Shdaimah, 2007).

Conclusion. As the South Asian population continues to grow and mental health wellness continues to become a prevalent public health topic, it becomes important to understand what factors relate to mental health wellness and the barriers in accessing mental health wellness resources, particularly for students. South Asian students are a vulnerable population compared to others. The analyses provided demonstrated that factors such as family, thoughts of the future, academics, and pressure were associated with mental health wellness. The analyses also showed that factors such as stigma in the community and family, a busy schedule, lack of information, and finances act as barriers to accessing mental health wellness services and supports. This is

consistent with literature that emphasizes acculturation, stigma, familial relationships, finance, and the history of South Asians affecting mental health wellness and acting as barriers to accessing support.

Findings from this study suggest that future research should examine generational differences and family relationships in terms of acculturation and stigma, and how they may affect mental health wellness. New programs should address pressure and de-stigmatizing mental health in society, with recommendations fall under the broader branches of education, social marketing and media engagement, community engagement, social leadership, and evaluation.

AshaUSA has made considerable progress in creating a program to promote that “mental health is real”, and committing to learning how to improve their current program. To improve upon their current programs, AshaUSA should consider the recommendations that have arisen from this study. By considering these recommendations, AshaUSA would strengthen its approach in promoting mental health wellness in the South Asian community, as well as further enhance their efforts to support students undergoing mental distress, working towards achieving a strong sense of well-being. If AshaUSA can incorporate these findings in new projects that strive to improve mental health wellness among South Asian students from Minnesota, they are likely to achieve great success in helping this population with their mental health wellness.

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Tables and Figures

Table 1:
Descriptive characteristics of survey participants

Character	Count (%) or Mean (SD)
Total sample	133
Gender (missing = 5)	
Male	49 (38.28)
Female	79 (61.72)
Age (missing = 5)	
<13	2 (1.56)
14-17	15 (11.72)
18-21	58 (45.31)
22-25	44 (34.38)
26+	9 (7.03)
Highest level of formal education (missing = 6)	
Less than high school	14 (11.02)
High school graduate	23 (18.11)
Some college	33 (25.98)
College graduate	51 (40.16)
Professional school	5 (3.94)
Other	1 (0.79)
Religion (missing = 5)	
Hindu	76 (59.38)
Muslim	8 (6.25)
Jain	4 (3.13)
Sikh	2 (1.56)
Christian	1 (0.78)
Atheist	20 (15.63)
Other	17 (13.28)
Born (missing = 5)	
United States	82 (64.06)
India	34 (26.56)
Pakistan	2 (1.56)
Nepal	1 (0.78)
Sri Lanka	1 (0.78)
United Kingdom	2 (1.56)
Bangladesh	2 (1.56)
Other	4 (3.13)

Character	Count (%) or Mean (SD)
Raised	
In USA only	80 (62.50)
Mostly in USA, some in South Asia	24 (18.75)
Equally in USA and South Asia	2 (1.56)
Mostly in South Asia, some in USA	1 (0.78)
In South Asia only	15 (11.72)
Other	6 (4.69)
Diagnosed Mental Illness (missing = 17)	
None	78 (67.24)
Anxiety Disorders/Generalized Anxiety Disorder	21 (18.10)
Post-traumatic Stress Disorder	6 (5.17)
Seasonal Affective Disorder	1 (0.86)
Phobias	2 (1.72)
Attention Deficit/Hyperactivity Disorder	5 (4.31)
Bipolar Disorder	1 (0.86)
Depression	26 (22.41)
Eating Disorders	3 (2.59)
Obsessive-Compulsive Disorder	3 (2.59)
Panic Attacks	14 (12.07)
Other	3 (2.59)
Perceived Mental Health Status (missing = 5)	
Poor	3 (2.34)
Fair	26 (20.31)
Good	43 (33.59)
Very Good	40 (31.25)
Excellent	16 (12.50)
Length of time in USA (years)	16.95 (6.29)

Table 2:

Descriptive characteristics of in-depth interview participants

Participant	Gender	Age	Country of Origin	Current Education
1	F	21	India	Bachelors
2	F	22	Pakistan	Graduate
3	M	24	Sri Lanka	Graduate
4	M	14	India	High School
5	F	18	India	Bachelors
6	M	17	India	High School
7	F	16	India	High School
8	F	19	India	Bachelors
9	F	21	India	Graduate
10	M	18	India	Bachelors
11	M	17	India	High School
12	F	18	India	Bachelors
13	F	30	Bangladesh	PhD
14	M	20	India	Bachelors
15	M	22	India	Bachelors
16	F	22	India	Graduate
17	M	14	India	High School

Table 3:

Questions Chosen for Analysis

Variable	Question	Answer	Dichotomized As for Analysis
Independent	Q2.2: Describes the individual's perceived mental health status	"Excellent", "Very Good", "Good", "Fair", "Poor"	**"Positive"** = "Excellent", "Very Good", Good"; **"Negative"** = "Fair", "Poor"
Independent	Q2.3: Describes the diagnosed mental illnesses the participant reported	"None", "Anxiety Disorders/Generalized Anxiety Disorder", "Post-traumatic Stress Disorder", "Seasonal Affective Disorder", "Phobias", "Attention Deficit/Hyperactivity Disorder", "Bipolar Disorder", "Depression", "Eating Disorders", "Obsessive-Compulsive Disorder", "Panic Attacks", "Other"	**"Yes"** = those who responded being diagnosed with any of the mental illnesses listed and "Other" **"No"** = those who responded as not being diagnosed with any of the mental illnesses listed
Dependent Variable	Q3.1: Describes sources that resemble the stress in their life	"School Life- Classrooms, teachers, etc.", "Homework" Exams and Tests", "GPA", "Clubs and Organizations", "Peers", "Parents/Guardians", "Siblings", "Thoughts about Future", "Finances", "Health", "Other"	--

Variable	Question	Answer	Dichotomized As for Analysis
Dependent Variable	Q3.2: Describes sources that resemble stress in their school life	"Teachers", "Homework", "Exams and Tests", "GPA", "Clubs and Organizations", "Peers", "Other"	--
Dependent Variable	Q3.3: Describes if the participant experienced a mental health crisis in school	"Yes", "No"	--
Dependent Variable	Q3.3.1: Describes what caused a mental health crisis while in school	"Extreme feelings of anxiety, panic, depression about school and life", "Difficulty adjusting to a new routine and environment", "Feelings of loneliness and isolation", "Stressed or overwhelmed about course load", "PTSD episode triggered by class content", "Medications stopped working", "Other"	--
Dependent Variable	Q3.6: Describes if they have talked to anyone about their mental health	"Yes", "No"	--
Dependent Variable	Q4.1: Describes the level of supportiveness of the student's parents	"Very supportive", "Supportive", "Somewhat supportive", "Not supportive", "Not at all supportive"	**"Supportive"** = "Very supportive", "Supportive", "Somewhat supportive" **"Not supportive"** = "Not supportive", "Not at all supportive"
Dependent Variable	Q4.3: Describes the level of awareness surrounding mental health of the adults in the participant's life	"Very aware", "Aware", "Somewhat aware", "Not aware", "Not at all aware"	**"Aware"** = "Very aware", "Aware", "Somewhat aware" **"Not aware"** = "Not aware", "Not at all aware"

Variable	Question	Answer	Dichotomized As for Analysis
Dependent Variable	Q4.4: Describes the level of supportiveness of the student's peers	"Very supportive", "Supportive", "Somewhat supportive", "Not supportive", "Not at all supportive"	**"Supportive"** = "Very supportive", "Supportive", "Somewhat supportive" **"Not supportive"** = "Not supportive", "Not at all supportive"
Dependent Variable	Q5.1: Describes if the participant is aware of mental health wellness resources	"Yes", "No"	--
Dependent Variable	Q5.3: Describes if the participant accessed mental health wellness resources	"Yes-Community", "Yes-School", "Other", "No"	**"Yes"** = "Yes-Community", "Yes-School", "Other" **"No"** = "No"

Table 4:

ANOVA summary for perceived mental health

	Negative Perceived Mental Health	**Positive Perceived Mental Health**				
	M (SD)	*M (SD)*	*df*	*F*	*MSE*	*p*
Sources of Stress in Life			120			
School Life- Classrooms, teachers, etc.	5.63 (2.76)	6.08 (3.16)	1	0.46	4.34	0.5001
Homework	7.00 (2.80)	5.56 (2.57)	1	6.37	43.72	**0.0129***
Exams and Tests	4.93 (2.35)	3.83 (2.49)	1	4.16	25.18	**0.0437***
GPA	5.85 (3.01)	4.26 (2.73)	1	6.82	53.06	**0.0102***
Clubs and Organizations	8.11 (2.28)	7.01 (2.59)	1	4.00	25.47	**0.0477***
Peers	7.07 (2.57)	6.63 (2.39)	1	0.70	4.12	0.4059
Parents/Guardians	5.11 (3.32)	6.11 (2.88)	1	2.34	20.78	0.1291
Siblings	8.78 (2.98)	8.95 (2.38)	1	0.10	0.60	0.7584
Thoughts about Future	2.89 (2.50)	3.40 (2.73)	1	0.76	5.49	0.3840
Finances	5.41 (3.59)	7.13 (3.25)	1	5.63	62.12	**0.0193***
Health	6.52 (3.15)	7.75 (2.99)	1	3.46	31.75	0.0653
Other	10.70 (3.17)	11.29 (2.49)	1	1.04	7.34	0.3093
Sources of Stress in School			118			
Teachers	4.15 (1.51)	4.42 (1.24)	1	0.91	1.54	0.3426
Homework	3.15 (1.13)	3.25 (1.24)	1	0.14	0.21	0.7100
Exams and Tests	2.11 (1.25)	1.95 (0.98)	1	0.52	0.57	0.4728
GPA	3.04 (1.85)	2.33 (1.48)	1	4.22	10.36	**0.0421***
Clubs and Organizations	4.52 (1.48)	4.45 (1.41)	1	0.05	0.094	0.8304
Peers	4.41 (1.85)	4.73 (1.56)	1	0.83	2.19	0.3648
Other	6.63 (1.36)	6.87 (0.88)	1	1.21	1.22	0.2734

*significant at $p<0.05$

Table 5:

X^2 summary for perceived mental health

	Negative Perceived Mental Health	**Positive Perceived Mental Health**				
	n (%)	*n* (%)	*df*	X^2	*OR/RR (95% CI)*	*p*
Mental Health (MH) Crisis in School			1	21.94	0.09 (0.03-0.29)	**<0.0001***
No	4 (14.81)	63 (65.63)			0.15 (0.053-0.40)	--
Yes	23 (85.19)	33 (34.38)			6.88 (2.53-18.71)	--
Talked to someone about their MH			1	5.75	0.27 (0.085-0.83)	**0.0208***
No	4 (14.81)	38 (39.58)			0.34 (0.12-0.91)	--
Yes	23 (85.19)	58 (60.42)			2.98 (1.10-8.06)	--
Parent Supportiveness on MH			1	5.97	3.54 (1.23-10.15)	**0.0145***
Not supportive	8 (29.63)	10 (10.64)			2.41 (1.25-4.65)	--
Supportive	19 (70.37)	84 (89.36)			0.42 (0.22-0.80)	--
Peer Supportiveness on MH			1	10.71	--	**0.0102***
Not supportive	3 (11.11)	0 (0.00)			4.92 (3.44-7.03)	--
Supportive	24 (88.89)	94 (100.00)			0.20 (0.14-0.29)	--
Surrounding adults' awareness on MH			1	9.63	0.26 (0.10-0.62)	**0.0019***
Not aware	15 (55.56)	23 (24.21)			2.76 (1.43-5.32)	--
Aware	12 (44.44)	72 (75.79)			0.36 (0.19-0.70)	--
Awareness about MH resources			1	1.61	0.38 (0.082-1.77)	0.3600
No	2 (7.69)	17 (17.89)			0.45 (0.12-1.74)	--
Yes	24 (92.31)	78 (82.11)			2.24 (0.58-8.68)	--
Accessed MH resources			1	12.88	0.20 (0.079-0.50)	**0.0003***
No	9 (34.62)	69 (72.63)			0.29 (0.14-0.60)	--
Yes	17 (65.38)	26 (27.37)			3.43 (1.67-7.02)	--
Trigger to School MH Crisis			5	7.33	--	0.1970
Extreme feelings of anxiety, panic, depression about school and life	10 (43.48)	16 (48.48)	--	--	--	--
Difficulty adjusting to a new routine and environment	1 (4.35)	0 (0.00)	--	--	--	--
Feelings of loneliness and isolation	4 (17.39)	7 (21.21)	--	--	--	--
Stressed or overwhelmed about course load	1 (4.35)	6 (18.18)	--	--	--	--
PTSD episode triggered by class content	2 (8.70)	0 (0.00)	--	--	--	--
Medications stopped working	0 (0.00)	0 (0.00)	--	--	--	--
Other	5 (21.74)	4 (12.12)	--	--	--	--

*significant at $p<0.05$

Table 6:

ANOVA summary for diagnosed mental illness

	Diagnosed with Mental Illness	**Not Diagnosed with Mental Illness**				
	M (SD)	*M (SD)*	*df*	*F*	*MSE*	*p*
Sources of Stress in Life			108			
School Life- Classrooms, teachers, etc.	5.96 (2.92)	6.00 (3.19)	1	0.66	6.05	0.4198
Homework	6.10 (2.81)	5.73 (2.60)	1	2.78	20.02	0.0982
Exams and Tests	4.31 (2.54)	3.92 (2.47)	1	1.50	9.82	0.2232
GPA	4.92 (3.05)	4.42 (2.72)	1	1.73	14.57	0.1913
Clubs and Organizations	7.29 (2.63)	7.23 (2.52)	1	1.49	9.65	0.2247
Peers	6.79 (2.45)	6.69 (2.43)	1	0.01	0.089	0.9029
Parents/Guardians	5.48 (3.04)	6.15 (2.96)	1	1.54	13.98	0.2167
Siblings	9.42 (2.05)	8.58 (2.73)	1	1.76	11.76	0.1874
Thoughts about Future	3.21 (2.66)	3.34 (2.71)	1	0.32	2.33	0.5708
Finances	6.25 (3.53)	7.07 (3.27)	1	5.04	55.37	**0.0269***
Health	7.23 (3.10)	7.64 (3.05)	1	3.13	29.70	0.0796
Other	11.04 (2.71)	11.24 (2.63)	1	0.85	6.57	0.3590
Sources of Stress in School			106			
Teachers	4.32 (1.29)	4.38 (1.32)	1	0.80	1.37	0.3730
Homework	3.36 (1.21)	3.14 (1.22)	1	1.10	1.64	0.2956
Exams and Tests	2.13 (1.15)	1.89 (0.97)	1	3.37	3.70	0.0692
GPA	2.40 (1.60)	2.55 (1.59)	1	0.03	0.092	0.8533
Clubs and Organizations	4.66 (1.49)	4.34 (1.37)	1	2.13	4.35	0.1474
Peers	4.47 (1.73)	4.78 (1.56)	1	1.47	3.97	0.2286
Other	6.66 (1.34)	6.92 (0.70)	1	3.03	3.33	0.0844

*significant at $p<0.05$

Table 7:

X^2 summary for diagnosed mental illness

	Diagnosed with Mental Illness	**Not Diagnosed with Mental Illness**				
	n (%)	*n* (%)	*df*	X^2	*OR/RR (95% CI)*	*p*
Mental Health (MH) Crisis in School			1	27.04	11.30 (4.14-30.87)	**<0.0001***
No	6 (16.67)	52 (69.33)			2.07 (1.50-2.84)	--
Yes	30 (83.33)	23 (30.67)			0.48 (0.35-0.67)	--
Talked to someone about their MH			1	10.29	5.64 (1.81-17.56)	**0.0011***
No	4 (11.11)	31 (41.33)			0.27 (0.10-0.71)	--
Yes	32 (88.89)	44 (58.67)			0.65 (0.52-0.82)	--
Parent Supportiveness on MH			1	2.75	0.41 (0.14-1.20)	0.0971
Not supportive	8 (22.86)	8 (10.81)			0.70 (0.42-1.17)	--
Supportive	27 (77.14)	66 (89.19)			1.42 (0.85-2.36)	--
Peer Supportiveness on MH			1	4.31	--	0.1011
Not supportive	2 (5.71)	0 (0.00)			3.24 (2.44-4.31)	--
Supportive	33 (94.29)	74 (100.00)			4.14 (0.33-52.14)	--
Surrounding adults' awareness on MH			1	3.93	2.32 (1.00-5.36)	**0.0474***
Not aware	16 (44.44)	19 (25.68)			0.74 (0.53-1.03)	--
Aware	20 (55.56)	55 (74.32)			0.58 (0.35-0.98)	--
Awareness about MH resources			1	0.97	1.81 (0.55-5.96)	0.4143
No	4 (11.43)	14 (18.92)			0.65 (0.26-1.62)	--
Yes	31 (88.57)	60 (81.08)			0.85 (0.64-1.13)	--
Accessed MH resources			1	22.07	7.78 (3.15-19.23)	**<0.0001***
No	10 (28.57)	56 (75.68)			0.26 (0.14-0.49)	--
Yes	25 (71.43)	18 (24.32)			0.49 (0.34-0.71)	--
Trigger to School MH Crisis			5	4.52	--	0.4768
Extreme feelings of anxiety, panic, depression about school and life	15 (50.00)	9 (39.13)	--	--	--	--
Difficulty adjusting to a new routine and environment	1 (3.33)	0 (0.00)	--	--	--	--
Feelings of loneliness and isolation	5 (16.67)	6 (26.09)	--	--	--	--
Stressed or overwhelmed about course load	2 (6.67)	4 (17.39)	--	--	--	--
PTSD episode triggered by class content	2 (6.67)	0 (0.00)	--	--	--	--
Medications stopped working	0 (0.00)	0 (0.00)	--	--	--	--
Other	6 (16.67)	4 (17.39)	--	--	--	--

*significant at $p<0.05$

Table 8:

Summary of themes from qualitative interviews

Topic	Definition	Example
Family	Stress that arises due to family situations.	"I would say my parents or my mom specifically. She hasn't been diagnosed but I'm sure that she has either paranoia disorder or schizophrenia. So she - her behavior sometimes can cause like irrational thoughts and stuff like that. So just having to talk to her sometimes it's kind of a lot of its really draining. So that has been like a constant stressor in my life for a while now and other than that my family has like a lot of communication issues so that in general."
Time	Stress that arises due to lack of time.	"[Stress] means either having too much work to do too much things on your plate and spreading yourself too thin which can definitely cause stress. Because you're running. You only have 24 hours in a day but you have so much stuff to do."
Stigma	Stress that arises due to stigma surrounding mental health in self, peers, family, and community.	"Yeah so in our culture people don't believe in mental health. I mean now they are getting a little bit more aware about it but my parents' generation they don't like think that it is a real thing or like if I overhear - I realize in others - oh they're like a lot of things that people are aware of and it's actually like reason if you say that I need a mental health day it's like okay they'll understand, but if you say that in like my culture they'll just be like-- they'll look at you as weak kind of. And um just seeing like a psychiatrist or therapist it's just has a bad connotation towards it. Yeah basically that's about it."
Pressure	Stress that arises from internal (self), peers, family, and community pressure	"I'm just thinking of like a bunch of like, what are scenarios, like maybe like comparing myself to like people that are a year older than me or like two years older than me like I know how they've been doing. So like maybe I'll [um] I'm really feeling bad about it or something. I'll think of all the possible different scenarios."

Topic	Definition	Example
Future	Stress that arises due to the uncertainty of the future.	"Second kind of certainty, having certainty in my life and knowing like this is the future, this is what I'm going to do and I'm going to be happy with it. There isn't going to be any regrets or there isn't going to be like things aren't going to work out. So all those things I feel like if I had the chance to change [anything in my life]."
School Work	Stress that arises from school work; ex. tests, homework, teachers, etc.	"Definitely stress about. Getting ready for school and learning the things I should know beforehand because obviously it's a specialized program that I'm going into for my master's. So there is specific information that I need to know and also stress about making sure I know that and so I can do well in the program."
Coping Strategies	How one deals with their stress.	"I would say something like, major sources of pleasure are probably like, I'm more like an extroverted person. So like talking to others, being in the company of other people. I find that I am a competitive person. So I like winning things, I guess. But yeah, and then there's like, a few specific activities that I just really like. So I really like playing the saxophone. I improvise. I do that for the jazz band."
Support	Support from family, peers, school, and the community.	"Yeah. So in middle school, I had some, like, body image problems and I sort of would just talk to [my parents] like, oh, I'm like super skinny. I don't know anybody that's like, as skinny as me. They would always like to show me that, like, oh, you're completely health, like even look at the statistics here, you're like a healthy child. So that would make me feel good."
Accessing Resources	Assistance or barriers in accessing resources, as well as if the individual has accessed resources.	"But yeah, I would think also, my school has a lot of different groups for mental health. And I am saying, you know, as of right now, I don't think that I like- If I had a problem I think I would definitely utilize those things. I don't know if I actually had a problem what I would do, but as of right now, I wouldn't be afraid to utilize any of those services. So I also feel supported by my school, but I feel like I've only needed to utilize the help of my parents so far."

Topic	Definition	Example
Suggestions	Personal thoughts on how to overcome barriers on accessing resources.	“For me personally I think that [adults/the community] need to be educated [on mental health and stigma].They need to hear it from people other than like their children and like our generation. They need to have like - I don't know courses or programs or presentations on it where they're made aware of how real it is. Where they are given examples of people who have gone through it and if they get help, it can be treated and if they just ignore it, how worse it can get. And also just in like schools. I feel like teachers and professors need to be constantly educated about how they need to interact to behave with students that may have mental health issues.”

CHAPTER 4: PUBLIC HEALTH IMPLICATIONS

Results from this study indicate an association between family, thoughts of the future, academics, and pressure with mental health wellness. Results also showed that factors such as stigma in the community and family, a busy schedule, lack of information, and finances act as barriers to accessing mental health services and supports. AshaUSA's current programming includes having a few meetings a year to discuss mental health wellness in the community that are geared towards adults, an annual film festival that shows movies with the message that "mental health matters", and a one time workshop geared towards opening communication between adults and their children regarding mental health wellness (AshaUSA, 2016). Recommendations for improved public health practices and policies expand upon AshaUSA's current programming. Policies and programs targeting mental health wellness through raising awareness and destigmatizing mental health in the community, incorporating culture and language, creating awareness about resources in the community, and creating resources and awareness on how to deal with pressure are essential to improving students' mental health wellness in Minnesota. Recommendations fall under the broader branches of education, social marketing and media engagement, community engagement, social leadership, and advocacy and support.

Education

A program should be developed to train mental health professionals on South Asian culture and language to improve services. In order to develop a program, AshaUSA will first need to conduct research on what terms the South Asian community uses to discuss mental health wellness. In the South Asian culture, family and family values are a large aspect of an individual's identity. The family support structure is important in providing support to a

student's life. Providers in the area need to incorporate family aspects of support, such as having open spaces for families to discuss and communicate with other families going through similar issues. Furthermore, when dealing with older generations, there may be a gap in knowledge due to language barriers.

AshaUSA can work with local partners, such as NAMI Minnesota (MN). NAMI has a NAMI Provider program that "introduces mental health professionals to the unique perspectives of people with mental health conditions and their families" (NAMI, 2019). AshaUSA can work with NAMI MN to expand upon the current curriculum that exists through this program, and adding a component that highlights topics, issues, and terms that relate to the South Asian community and mental health wellness.

Social Marketing and Media Engagement

One of the major issues that was brought up through the study was that participants were unaware of what resources existed beyond the walls of their community, as well as understanding and coming to the terms of if they needed to utilize those resources. In order to address student's understanding of when to access resources, it is important for AshaUSA to send the message that no problem is a "small" problem, and that everyone and their mental health wellness matters.

A social marketing plan should be implemented by AshaUSA to encourage mental health wellness and to destigmatize mental health wellness with the message that "mental health wellness matters," among South Asians. It has been shown that campaigns using various methods to be effective in distributing messages (Wakefield, Loken, & Hornik, 2010). Furthermore, having concurrent availability of and access to services and resources is crucial for social marketing and media campaigns to be successful (Wakefield, Loken, & Hornik, 2010).

AshaUSA should create a PSA, digital fliers, and other methods spreading the message of destigmatizing mental health and raising awareness on what factors affect students with poor mental health wellness. Furthermore, AshaUSA should also focus on campaigns that distribute information on the availability of and access to services and resources. The media can be shown at local community events, such as cultural shows and tabling during community events, such as the annual IndiaFEST..

AshaUSA's website lacks resources to provide awareness and support. AshaUSA should add to their current website by creating an online directory providing detailed information on mental health wellness and community resources, tailored to the South Asian population in general, as well as separate sections for young adults, family and friends, and professionals. Some information to include would be therapists, psychiatrists, and psychologists from a South Asian background, student run clinics and other clinics that may offer cheap or insurance free financial options, online resources, phone apps, and help hotlines for mental health wellness. Information should be provided on the location, prices, and accessibility of the resources. After compiling this list and information together, it is important that AshaUSA make it easily accessible and to distribute the list to let students know that it exists.

Community Engagement

The community should be educated in order to raise awareness and destigmatize mental health at home. Participants from both phases of the study indicated that there is a strong influence of stigma surrounding mental health wellness in the South Asian community, which influences their decisions to reach out and use resources and supports. There are misconceptions about what causes mental illness as well as misconceptions surrounding mental health wellness

in the community. Thus, the first step would be educating the adults and older generations about mental health wellness.

A community engagement day should be created to bring people, of all ages, with and without experience of mental health problems together to break down stigma surrounding mental health wellness. This event should include speakers that have gone through their own mental health problems, and are willing to talk about those issues. Speakers should bring their own personal stories discussing what they went through, the help they received, how surrounding people impacted their journey, and how stigma impacted with their mental health wellness. Evidence shows that for events and campaigns targeting stigma, knowing and hearing someone with mental health problems is one of the most powerful tools in changing people's attitudes (Evans-Lacko et al., 2013). Other mental health wellness organizations and mental health professionals can be engaged throughout the event by having booths set up to provide more information regarding local resources. The event can end with splitting the audience into groups to discuss feelings and thoughts that were brought up by the personal stories. Different generations discussing their opinions and thoughts regarding mental health wellness may lead to building branches and closing the generational gap between students and adults in their lives.

Furthermore, one major factor to arise from the study was stress related to dealing with pressure. From the study it was learned that there is pressure coming from self, peers, parents, and the community. One aspect of the community engagement day can be to create a workshop around teaching students how to deal with pressure, and addressing outside pressure. The audience could be split by their status (student vs. non-student) and be provided with different information. The workshop should incorporate the following points: identify triggers- what exactly is causing the pressure and how to anticipate those things when they do arise, addressing

the causes, accepting that there may be things they can't change, and teaching new coping methods and time management skills (Mind for better mental health, 2019). Students would be given the resources to fully be able to cope with pressure, and to utilize those resources to create a plan that works for them to overcome internal pressure. Regarding outside pressure, pressure coming from peers, parents, and the community, people would discuss how their actions and words may be influencing students around them.

Social Leadership

Youth, young adults, and other members of the South Asian community of Minnesota should be trained in order to provide peer support and mentoring to other students who are currently going through mental health problems. Through this initiative, youth and young adults will be given the opportunity to gain leadership skills as well as provide back to the community. The peer volunteers will lead groups that will meet monthly. Each monthly meeting will have a different topic that will be geared towards discussion, awareness, and support. These groups will be considered open and safe spaces for students. Peer-to-peer is valuable for impacting personal self-esteem and increasing confidence of peers receiving and providing support (Solomon, 2004). Thus, it would be a beneficial way to impact South Asian students.

Research and Evaluation

Ongoing evaluation of these recommendations will be critical. Some evaluations methods to use include annual surveys to measure knowledge, attitudes, and behaviors surrounding mental health wellness in the local community, pre- and post- surveys of events and campaigns, and focus group discussions. It has been shown that qualitative research produces healthy effects, and is effective when researching stigmatized topics, such as mental health wellness (McCoyd & Shdaimah, 2007).

Findings from this study indicate that students believe that there are perceived generational differences in understanding mental health wellness due to stigma and acculturation. With South Asian culture being family oriented, further research should examine generational differences in understanding mental health wellness, the effect of acculturation and stigma, and how family relationships may affect mental health wellness, specifically in South Asian families living in America. Understanding these factors may identity risk and protective factors for mental health wellness in South Asian families, and lead to further program development. Despite the need for further research, the findings of this project allow AshaUSA to generate immediate interventions regarding mental health wellness factors for the South Asian student population from Minnesota.

Conclusion

As the South Asian population continues to grow and mental health wellness continues to become a prevalent public health topic, it becomes important to understand what factors relate to mental health wellness and the barriers in accessing mental health wellness resources, particularly for students. This study used a mixed methods approach to examine mental health wellness among South Asian students from Minnesota to address the increased mental health wellness needs of South Asian students. South Asian students are vulnerable compared to others. Thus, providing support to young adults during this vulnerable part of their life is of utmost importance in order to prevent future distress and promote healthy development.

The analyses showed that family, thoughts of the future, academics, and pressure were associated with mental health wellness. The analyses also showed that factors such as stigma in the community and family, a busy schedule, lack of information, and finances act as barriers to accessing mental health wellness services and supports. This is consistent with literature that

emphasizes acculturation, stigma, familial relationships, finance, and the history of South Asians affecting mental health wellness and acting as barriers to accessing support.

Findings from this study suggest that future research should examine generational differences and family relationships in terms of acculturation and stigma, and how they may affect mental health wellness. New programs should address pressure and de-stigmatizing mental health in society.

AshaUSA has made considerable progress in creating a program to promote that “mental health is real”, and committing to learning how to improve their current program. To improve upon their current programs, AshaUSA should consider the recommendations that have arisen from this study. By considering these recommendations, AshaUSA would strengthen its approach in promoting mental health wellness in the South Asian community, as well as further enhance their efforts to support students undergoing mental distress. If AshaUSA can incorporate these findings in new projects that strive to improve mental health wellness among South Asian students from Minnesota, they are likely to achieve great success in helping this population with their mental health wellness.

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APPENDIX

Appendix A. Recruitment letter

Hello,

My name is Ayesha Bhatia, and I am a Masters student in Public Health at Emory University working on my thesis project. I attended Wayzata High School and graduated from the University of Minnesota in 2016.

- Do you or have you lived in Minnesota?
- Are you currently a student at any level (high school, college, graduate, etc.)?
- Do you identify with South Asian origin?
- Would you like the chance to win a Target gift card?

If you answered yes to the questions above, I invite you to participate in a research study I am conducting in collaboration with AshaUSA, a non-profit organization focused on health and wellness in the South Asian Community through culturally specific programs and services. The purpose of this research study is to explore the wellness of students of South Asian origin in Minnesota. Your participation will help researchers better understand the wellness of students of South Asian origin, and lead to new programs geared to help with health wellness in the future. The survey has been exempted from the IRB. **The short survey will take approximately 10-15 minutes to complete**. Participants who complete the entire study will be eligible to win a Target gift card. **Participation and responses will be confidential and anonymous, and participation is completely voluntary. No identifiable information will be connected to your survey responses.**

If you are over 18 years old, to participate, follow this link to the survey:
Take the Survey
Or copy and paste the URL below into your internet browser:
https://umn.qualtrics.com/jfe/form/SV_6mUzmw8aJzKioBv

If you are under 18 years old, to participate please read and follow this link to the survey with your parent/legal guardian:
Take the Survey
Or copy and paste the URL below into your internet browser:
https://umn.qualtrics.com/jfe/form/SV_2mjxGiM8gf8nmLj

Thank you in advance for your time and consideration!

For any questions, or for more information, please contact:
1) Ayesha Bhatia (Master's Student)
Email: ayesha.bhatia@emory.edu
2) Dr. Sayali S Amarapurkar (AshaUSA)
Email: emailsayali@gmail.com

Best Wishes,
Ayesha

Ayesha Bhatia
M.P.H. Candidate, Global Health
Emory University
ayesha.bhatia@emory.edu

Appendix B. Parental survey consent for under 18

Parental Permission for Children Participation in Research

Title: Exploring mental health issues of South Asian high school and college students in Minnesota

Principal Investigator: Ayesha Bhatia

If under 18 years old, please read and fill out the following form with your parent or legal guardian.

Introduction

The purpose of this form is to provide you (as the parent of a prospective research study participant) information that may affect your decision as to whether or not to let your child participate in this research study. The person conducting the research will describe the study to you and answer all your questions. Read the information below and ask any questions you might have before deciding whether or not to give your permission for your child to take part in the study. If you decide to let your child be involved in this study, this form will be used to record your permission.

Purpose of the Study

Ayesha Bhatia is a Masters student in Public Health at the Rollins School of Public Health at Emory University. Your child is invited to participate in a research study she is conducting on behalf of AshaUSA, a non-profit organization focused on creating healthy, happy South Asian communities by engaging and empowering South Asian women, men, and children through culturally specific programs and services. The purpose of this research study is to explore the mental health status of high school and college students of South Asian origin in Minnesota. This study has been given exemption from the IRB.

What is my child going to be asked to do?

If you allow your child to participate in this study, they will be asked questions about their age, country of origin, quality of life, their perception about mental health issues, and their perception of mental health resources in the Twin Cities area.

At the end of the survey, your child will be asked if they are interested in participating in an additional interview in person. This is optional, and if they provide consent to be contacted for an in-depth interview, their name, and contact information, will be collected and your child may be contacted via email, for an in-depth interview. We will be requesting additional consent from you at that time.

This survey will take approximately 10 minutes to complete.

What are the risks involved in this study?

Sometimes when people are asked to think about their feelings, they feel sad or anxious. If you would like to talk to someone about your feelings at any time, you can call toll-free, 24 hours a day:

Metro Area Mental Health Crisis Response

- Anoka: 763-755-3801, Carver/Scott: 952-442-7601
- Dakota: 952-891-7171, Washington: 651-777-5222
- Ramsey: adults - 651-266-7900, children - 651-266-7878
- Hennepin: adults - 612-596-1223, children - 612-348-2233
- Crisis Text Line (https://www.crisistextline.org/) refers many texters to dozens of other organizations, depending on the issue they are struggling with. Text 741741.

What are the possible benefits of this study?

Your child will receive no direct benefit from participating in this study; however, the indirect benefit of participating will be knowing that your child helped researchers better understand the status of mental health issues among people of South Asian origin.

Does my child have to participate?

No, your child's participation in this study is voluntary. Your child may decline to participate or to withdraw from participation at any time. Withdrawal or refusing to participate will

not affect them in anyway. You can agree to allow your child to be in the study now and change your mind later without any penalty.

What if my child does not want to participate?

In addition to your permission, your child must agree to participate in the study. If your child does not want to participate they will not be included in the study and there will be no penalty. If your child initially agrees to be in the study they can change their mind later without any penalty.

Will there be any incentives for participation?

Neither you nor your child will receive any type of incentive for participating in the survey. If your child participates in the in-depth interview they will be entered in a Target giftcard drawing.

How will your child's privacy and confidentiality be protected if s/he participates in this research study?

The survey answers will be sent to a link at umn.qualtrics.com where data will be stored in a password protected electronic format. Qualtrics does not collect identifying information such as your name, email address, or IP address. Any information provided and/or identifying records will remain confidential and kept in a locked file and/or password-protected computer file for a minimum of five years. All data collected from your child will be coded with a number or pseudonym (fake name). Their real name will not be used. The results of this research project may be made public and information quoted in professional journals and meetings, but information from this study will only be reported as a group, and not individually. If at the end of the interview your child chooses to provide contact information, such as an email address, their survey responses may no longer be anonymous to the researcher, however, no names or identifying information would be included in any publications or presentations based on these data, and their responses to this survey will remain confidential.

If it becomes necessary, the Institutional Review Board may need to review the study records. If this happens, information that can be linked to your child will be protected to the extent permitted by law. Your child's research records will not be released without your consent unless required by law or a court order.

Whom to contact with questions about the study?
If you have any questions about this research, you may contact either:

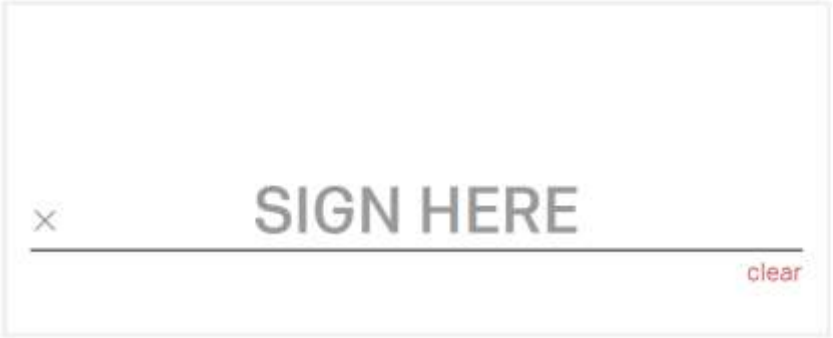
1) Ayesha Bhatia
Email: ayesha.bhatia@emory.edu
Phone: (763) 744-8940

2) Dr. Sayali S Amarapurkar
Email: emailsayali@gmail.com
Phone: (651) 210-6742

You are making a decision about allowing your child to participate in this study. Your signature below indicates that you are 18 years or older and have read the information provided above and have decided to allow them to participate in the study. If you later decide that you wish to withdraw your permission for your child to participate in the study you may discontinue his or her participation at any time. You may be given a copy of this document- please email ayesha.bhatia@emory.edu.

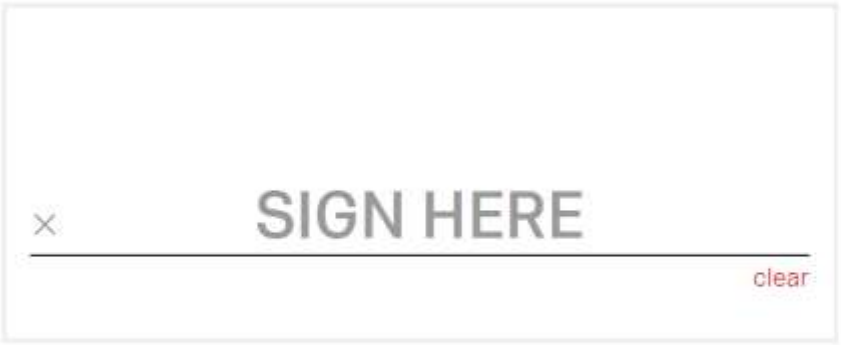
- ○ My child MAY be contacted further for an in-depth interview
- ○ My child MAY NOT be contacted further for an in-depth interview

Guardian Signature (left click to sign)



Guardian Name (First, Middle Initial, Last)

Participant Signature (left click to sign)



Participant Name (First, Middle Initial, Last)

Date Signed (mm/dd/yyyy)

Powered by Qualtrics

Appendix C. Survey consent over 18

Research Participant Consent Form- Electronic

For the research study entitled:

"Exploring mental health issues of South Asian high school and college students in Minnesota"

If you are over 18 years old, please fill and read the following form. If you are under 18 years old, please fill and read this form (https://umn.qualtrics.com/jfe/form/SV_2mjxGiM8gf8nmLj) with your parent/legal guardian.

I. Purpose of the research study

Ayesha Bhatia is a Masters student in Public Health at the Rollins School of Public Health at Emory University. You are invited to participate in a research study she is conducting on behalf of AshaUSA, a non-profit organization focused on creating healthy, happy South Asian communities by engaging and empowering South Asian women, men, and children through culturally specific programs and services. The purpose of this research study is to explore the mental health status of high school and college students of South Asian origin in Minnesota. This study has been given exemption from the IRB.

II. What you will be asked to do

If you decide to be in this study, you will be asked to complete a survey about your age, country of origin, quality of life, your perception about mental health issues, and your perception of mental health resources in the Twin Cities area.

At the end of the survey, you will be asked if you are interested in participating in an additional interview in person. This is optional, and if you provide your consent to be contacted for an in-depth interview, your name, and contact information, will be collected and you may be contacted via email, for an in-depth interview.

This survey will take approximately 10 minutes to complete.

III. Probable risks or discomforts

Sometimes when people are asked to think about their feelings, they feel sad or anxious. If you would like to talk to someone about your feelings at any time, you can call toll-free, 24 hours a day:

Metro Area Mental Health Crisis Response

- Anoka: 763-755-3801, Carver/Scott: 952-442-7601
- Dakota: 952-891-7171, Washington: 651-777-5222
- Ramsey: adults - 651-266-7900, children - 651-266-7878
- Hennepin: adults - 612-596-1223, children - 612-348-2233
- Crisis Text Line (https://www.crisistextline.org/) refers many texters to dozens of other organizations, depending on the issue they are struggling with. Text 741741.

IV. Benefits

There is no direct benefit to you from participating in this study, however, the indirect benefit of participating will be knowing that you helped researchers better understand the status of mental health issues of people of South Asian origin.

V. Confidentiality

Your survey answers will be sent to a link at umn.qualtrics.com where data will be stored in a password protected electronic format. Qualtrics does not collect identifying information such as your name, email address, or IP address. Any information provided and/or identifying records will remain confidential and kept in a locked file and/or password-protected computer file for a minimum of five years. All data collected from you will be coded with a number or pseudonym (fake name). Your real name will not be used. The results of this research project may be made public and information quoted in professional journals and meetings, but information from this study will only be reported as a group, and not individually. If at the end of the interview you choose to provide contact information, such as your phone number or email address, your survey responses may no longer be anonymous to the researcher, however, no names or identifying information would be included in any publications or presentations based on these data, and your responses to this survey will remain confidential.

VI. Compensation

There is no compensation for the study.

VII. Voluntary Nature of this Research

Participation in this study is entirely voluntary. You do not have to do this, and you can refuse to answer any question or quit at any time. Deciding not to participate or not answering any of the questions will have no effect on any benefits you're entitled to. **You can withdraw from this study at any time without penalty.**

VIII. Contact Information

If you have any questions about this research, you may contact either:

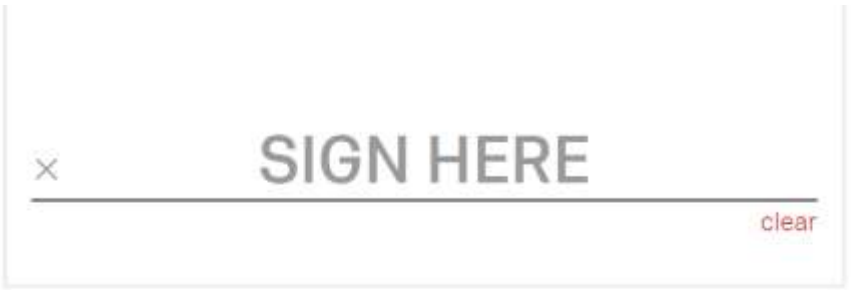
1) Ayesha Bhatia
Email: ayesha.bhatia@emory.edu
Phone: (763) 744-8940

2) Dr. Sayali S Amarapurkar
Email: emailsayali@gmail.com
Phone: (651) 210-6742

You can receive a copy of this information if you would like- Please reach out to ayesha.bhatia@emory.edu.

If you are under 18 years and wish to participate in the study, you will have to receive permission from your parent and guardian. To proceed with the survey, please fill out the following form with your parent/legal guardian: https://umn.qualtrics.com/jfe/form/SV_2mjxGiM8gf8nmLj.

You understand that typing your name below serves as an electronic signature. Your signature below indicates that you are 18 years or older. You have read and understand this form, and consent to the research it describes. (Left click on the mouse to sign)



Name (First, Middle Initial, Last)

Date Signed (mm/dd/yyyy)

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Appendix D. Survey instrument

Introduction

Hello, thank you for participating in my survey. These are questions for a research project I am conducting on behalf of AshaUSA, for my masters thesis project. This survey should take you less than 10 minutes. There are no right or wrong answers. I am interested in how you feel. You may skip any question that you find intrusive or offensive, but it will help me if you respond to as many questions as you feel comfortable with. If you need to stop the survey at any time, please bookmark the link and access it at a later day. Once you re-click on the link you will be able to continue from the point where you left off. You will have a week to finish the survey. Thank you. I really appreciate your help!

Ayesha Bhatia
MPH Candidate, Global Health
Emory University
ayesha.bhatia@emory.edu

Demographics

How old are you?

- ○ 13 years or younger
- ○ 14 to 17 years old
- ○ 18 to 21 years old
- ○ 22 to 25 years old
- ○ 26 years or older

What is the highest level of formal education you have completed?

- ○ None
- ○ Less than high school graduate
- ○ High school graduate
- ○ Some college
- ○ College graduate
- ○ Professional degree
- ○ [ ] Other (please specify)

What gender do you identify with?

- ○ Male
- ○ Female
- ○ [ ] Other (please specify)

What is your religious preference?

- ○ Hindu
- ○ Muslim
- ○ Christian
- ○ Jain
- ○ Sikh
- ○ Atheist
- ○ [ ] Other (please specify)

What race do you identify yourself as?

- ○ American Indian or Alaska Native
- ○ African American
- ○ South Asian (Bangladesh, Bhutan, India, Pakistan, Nepal, and Sri Lanka)
- ○ Asian
- ○ Caucasian

○ Other (please specify)

Where were you born?

○ United States
○ Canada
○ United Kingdom
○ India
○ Bangladesh
○ Nepal
○ Pakistan
○ Sri Lanka
○ Other (please specify)

Where were you raised?
Raised is where you spent most of your childhood living from when born to 18 years old.

○ In South Asia only
○ Mostly in South Asia, some in USA
○ Equally in South Asia and USA
○ Mostly in USA, some in South Asia
○ In USA only
○ Other (please specify)

How long have you been living in the United States? (specify in _____Years)

How often have you been in contact with people in South Asia? (Check all that apply)

- ☐ Lived in South Asia for any extended period of time
- ☐ Occasional visits to South Asia
- ☐ Frequent visits to South Asia
- ☐ Occasional communications (letters, messages, phone call, etc.) with people in South Asia
- ☐ Frequent communications with people in South Asia
- ☐ No exposure with people in South Asia

General/Mental Health

How do you view your general health status?

- ○ Excellent
- ○ Very Good
- ○ Good
- ○ Fair
- ○ Poor

How would you describe your mental health?

- ○ Excellent
- ○ Very Good
- ○ Good
- ○ Fair
- ○ Poor

Have you been diagnosed with any of the following mental health disorders? For definitions: https://psychcentral.com/disorders/.
(Check all that apply)

- ☐ Alcohol/Substance Abuse
- ☐ Anxiety Disorders/Generalized Anxiety
- ☐ Opioid Use Disorder Symptoms
- ☐ Panic Attacks

Disorder

- ☐ Phobias
- ☐ Attention Deficit/Hyperactivity Disorder (ADHD/ADD)
- ☐ Bipolar Disorder
- ☐ Depression
- ☐ Eating Disorders
- ☐ Obsessive-Compulsive Disorder
- ☐ Postpartum Depression
- ☐ Post-traumatic Stress Disorder (PTSD)
- ☐ Schizophrenia
- ☐ Seasonal Affective Disorder (SAD, see Depressive Disorder with Seasonal Pattern)
- ☐ None
- ☐ Other (please specify)

How satisfied are you with your life?

- ○ Very satisfied
- ○ Somewhat satisfied
- ○ Satisfied
- ○ Somewhat dissatisfied
- ○ Very dissatisfied

Over the last month, how often have you been bothered by any of the following problems:

	Not at all	Several days	More than half the days	Nearly every day
Little interest or pleasure in doing things	○	○	○	○
Feeling down, depressed, or hopeless	○	○	○	○
Trouble falling or staying asleep, or sleeping too much	○	○	○	○
Feeling tired or having little energy	○	○	○	○
Poor appetite or overeating	○	○	○	○
Feeling bad about yourself- or that you are a failure or have let yourself or your family down	○	○	○	○

	Not at all	Several days	More than half the days	Nearly every day
Trouble concentrating on things, such as reading a book or watching television	○	○	○	○
Feeling nervous, anxious, on edge, or worrying a lot about different things	○	○	○	○
Feeling restless so that it is hard to sit still	○	○	○	○
Muscle tension, aches, or soreness	○	○	○	○
Becoming easily annoyed or irratable	○	○	○	○

Issues Surrounding Mental Health

Rank the following sources to resemble the stress in your life overall.
Click and hold the source, while dragging and dropping from Most Stressful (1) to Least Stressful (12)

School Life- Classrooms, teachers, etc.

Homework

Exams and Tests

GPA

Clubs and Organizations

Peers

Parents/Guardians

Siblings

Thoughts about Future

Finances

Health

Other (Please specify) ____

Rank the following sources to resemble the stress you endure during school.
Click and hold the source, while dragging and dropping from Most Stressful (1) to Least Stressful (7)

Teachers

Homework

Exams and Tests

GPA

Clubs and Organizations

Peers

Other (please specify) ____

Have you experienced a mental health crisis while in school?

- O Yes
- O No

What triggered your crisis?

- O Extreme feelings of anxiety, panic, depression about school and life
- O Difficulty adjusting to a new routine and environment
- O Feelings of loneliness and isolation
- O Stressed or overwhelmed about course load
- O Post-traumatic stress disorder episode triggered by class content
- O Medications stopped working
- O ____ Other (please specify)

What are the recurring conflicts you have with your parents/guardians? (Check all that apply)

- ☐ Grades
- ☐ Chores
- ☐ Significant Other
- ☐ Religion
- ☐ Future
- ☐ _____ Other (please specify)
- ☐ None

How do you mainly cope with stress? (Check all that apply)

- ☐ Exercise
- ☐ Reading
- ☐ Television
- ☐ Cooking
- ☐ Talking with Peers
- ☐ Talking with Parents/Guardians
- ☐ Medications
- ☐ Natural Remedies
- ☐ Eating
- ☐ Drinking
- ☐ _____ Other (please specify)

Have you ever talked with anyone about your mental health?

- ○ Yes
- ○ No

If yes, who? (Check all that apply)

- ☐ Parent/Guardian
- ☐ Peer
- ☐ Professional/Therapist
- ☐ Counselor
- ☐ Teacher
- ☐ _____ Other (please specify)

If no, why not?

_____

Perception of Mental Health

How supportive are your parents on mental health issues?

- ○ Very supportive
- ○ Somewhat supportive
- ○ Supportive
- ○ Not supportive
- ○ Not at all supportive

How supportive is your family on mental health issues?

- ○ Very supportive
- ○ Somewhat supportive
- ○ Supportive
- ○ Not supportive
- ○ Not at all supportive

How aware are the adults around you on mental health issues?

Awareness is knowledge and understanding of mental health issues related to yourself or others.

- ○ Very aware
- ○ Somewhat aware
- ○ Aware
- ○ Not aware
- ○ Not at all aware

How supportive are your peers on mental health issues?

- ○ Very supportive
- ○ Somewhat supportive
- ○ Supportive
- ○ Not supportive
- ○ Not at all supportive

How in agreement are the following statements:

	Strongly agree	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	Strongl disagre
I consider anxiety to be a weakness or negative attribute	○	○	○	○	○	○	○
Psychological disorders are unlikely to be cured regardless of treatment	○	○	○	○	○	○	○
Seeing a mental health practitioner for emotional or interpersonal problems carries social stigma	○	○	○	○	○	○	○
It is a sign of personal weakness or inadequacy to see a mental health practitioner for emotional or interpersonal problems	○	○	○	○	○	○	○

Mental Health Resources

Do you know about your school or community's mental health services and supports?

- ○ Yes
- ○ No

If yes, how did you find out about the mental health services and supports? (Check all that apply)

- ☐ School Website
- ☐ Community Website
- ☐ Student Health Center/Office
- ☐ Faculty or Staff
- ☐ Peer
- ☐ _____ Other (please specify)

How helpful is the information on how to receive help for mental health needs at your school?

- ○ Very helpful
- ○ Helpful
- ○ Somewhat helpful
- ○ Not very helpful
- ○ Unhelpful

Have you accessed mental health services and supports at your school or community?

- ○ Yes- School
- ○ Yes- Community

- ○ No
- ○ Other (please specify)

If yes, what kind of services?

How would you rate the services and supports overall you received?

- ○ Excellent
- ○ Good
- ○ Average
- ○ Poor
- ○ Terrible

If yes, what kind of services?

How would you rate the services and supports overall you received?

- ○ Excellent
- ○ Good
- ○ Average
- ○ Poor
- ○ Terrible

What kind of services?

How would you rate the services and supports overall you received?

- ○ Excellent
- ○ Good
- ○ Average
- ○ Poor
- ○ Terrible

What is the top barrier that exists in accessing mental health services and supports?

- ○ Stigma
- ○ Busy schedule
- ○ Hours of service
- ○ Lack of information
- ○ Long wait
- ○ _____ Other (please specify)
- ○ Cost

If long wait, how long have you had to wait for an appointment?

- ○ One day
- ○ One to two days
- ○ Two to four days
- ○ More than five days

What services and supports are critical to your mental health wellness? (Check all that apply)

- ☐ Walk-in health center
- ☐ Individual counseling
- ☐ Crisis services
- ☐ Off-campus referrals
- ☐ Medications
- ☐ Peer Support

- [ ] 24-hour hotline
- [ ] Screening and evaluation
- [ ] Group Counseling
- [ ] Other (please specify)

What is one way the community can help support you with your taking care of your mental health? (Check all that apply)

- [ ] Monthly group discussions
- [ ] Website about places for support
- [ ] Contacts with older students
- [ ] Referral list of places for support
- [ ] Other (please specify)

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Appendix E. Post-survey consent to contact for in-depth interview

Research Participant Consent Form to Contact Participants- Electronic

For the research study entitled:

"Exploring mental health issues of South Asian high school and college students in Minnesota"

Thank you for your interest in the in-depth interview. Participating in an additional interview in person will help me greatly with this project. The interview will take less than an hour. This is optional, and if you provide your consent to be contacted for an in-depth interview, your name, and contact information, will be collected and you may be contacted via email, for an in-depth interview. Once completing the in-depth interview, you will be entered in a drawing for a Target gift card.

If you have any questions about this research, you may contact either:

1) Ayesha Bhatia
Email: ayesha.bhatia@emory.edu
Phone: (763) 744-8940

2) Dr. Sayali S Amarapurkar
Email: emailsayali@gmail.com
Phone: (651) 210-6742

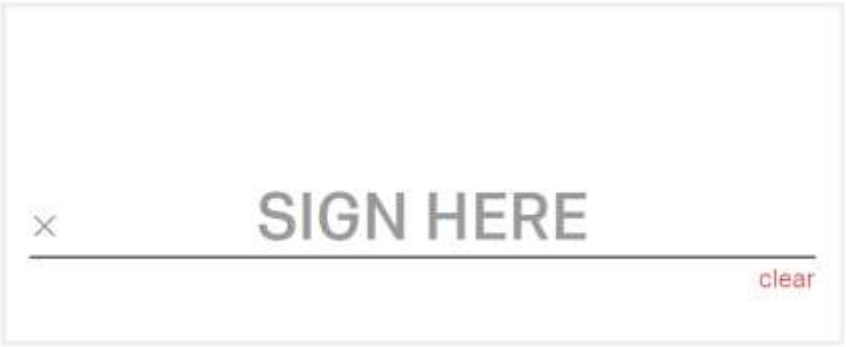
You can receive a copy of this information if you would like- please email ayesha.bhatia@emory.edu.

You understand that typing your name below serves as an electronic signature. Your signature below indicates that you are 18 years or older. If you are not 18 years or older

and wish to participate in the study, you will have to receive permission from your parent and guardian.

You have read and understand this form, and consent to the research it describes.

I consent to being contacted for an in-depth interview and will provide my name and contact information below. (Left click to sign)



Name (First, Middle Initial, Last)

Date Signed (mm/dd/yyyy)

Email Address

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Appendix F. Parental in-depth interview consent for under 18

Study No.: 103468 | Emory University IRB IRB use only | Document Approved On: 05/16/2018

Parental Permission for Children Participation in Research

Title: Exploring mental health issues of South Asian high school and college students in Minnesota
Principal Investigator: Ayesha Bhatia

Introduction
The purpose of this form is to provide you (as the parent of a prospective research study participant) information that may affect your decision as to whether or not to let your child participate in this research study. The person conducting the research will describe the study to you and answer all your questions. Read the information below and ask any questions you might have before deciding whether or not to give your permission for your child to take part in the study. If you decide to let your child be involved in this study, this form will be used to record your permission.

Purpose of the Study
Ayesha Bhatia is a Masters student in Public Health at the Rollins School of Public Health at Emory University. Your child is invited to participate in a research study she is conducting on behalf of AshaUSA, a non-profit organization focused on creating healthy, happy South Asian communities by engaging and empowering South Asian women, men, and children through culturally specific programs and services. The purpose of this research study is to explore the mental health status of high school and college students of South Asian origin in Minnesota.

What is my child going to be asked to do?
If you allow your child to participate in this study, they will be asked in-depth questions about their quality of life, their perception about on mental health issues, and their perception of mental health resources in the Twin Cities area. These questions will go into depth of the responses from the questions on the survey.

This interview will take approximately an hour to complete. Your child will be audio recorded with your permission.

What are the risks involved in this study?
Sometimes when people are asked to think about their feelings, they feel sad or anxious. If you would like to talk to someone about your feelings at any time, you can call toll-free, 24 hours a day:
Metro Area Mental Health Crisis Response

- Anoka: 763-755-3801, Carver/Scott: 952-442-7601
- Dakota: 952-891-7171, Washington: 651-777-5222
- Ramsey: adults - 651-266-7900, children - 651-266-7878
- Hennepin: adults - 612-596-1223, children - 612-348-2233
- Crisis Text Line (https://www.crisistextline.org/) refers many texters to dozens of other organizations, depending on the issue they are struggling with. Text 741741.

What are the possible benefits of this study?
Your child will receive no direct benefit from participating in this study; however, the indirect benefit of participating will be knowing that your child helped researchers better understand the status of mental health issues among people of South Asian origin.

Does my child have to participate?
No, your child's participation in this study is voluntary. Your child may decline to participate or to withdraw from participation at any time. Withdrawal or refusing to participate will not affect them in anyway. You can agree to allow your child to be in the study now and change your mind later without any penalty.

What if my child does not want to participate?
In addition to your permission, your child must agree to participate in the study. If your child does not want to participate they will not be included in the study and there will be no penalty. If your child initially agrees to be in the study they can change their mind later without any penalty.

Will there be any incentives for participation?
Your child will be entered in a drawing for a Target giftcard.

How will your child's privacy and confidentiality be protected if s/he participates in this research study?
Any information provided and/or identifying records will remain confidential and kept in a locked file and/or password-protected computer file for a minimum of five years. All data collected from your child will be coded with a number or pseudonym (fake name).

Their real name will not be used. The results of this research project may be made public and information quoted in professional journals and meetings, but information from this study will only be reported as a group, and not individually.

If it becomes necessary, the Institutional Review Board may need to review the study records. If this happens, information that can be linked to your child will be protected to the extent permitted by law. Your child's research records will not be released without your consent unless required by law or a court order.
If you choose to participate in this study, your child will be audio recorded. Any audio recordings will be stored securely and only the research team will have access to the recordings. Recordings will be kept five years and then erased.

Whom to contact with questions about the study?
If you have any questions about this research, you may contact either:

1) Ayesha Bhatia
Email: ayesha.bhatia@emory.edu
Phone: (763) 744-8940

2) Dr. Sayali S Amarapurkar
Email: emailsayali@gmail.com
Phone: (651) 210-6742

Whom to contact with questions concerning your rights as a research participant?
For questions about your rights or any dissatisfaction with any part of this study, you can contact, anonymously if you wish, the Emory Institution Review Board, at 404-712-0720 or by email at irb@emory.edu .

Signature
You are making a decision about allowing your child to participate in this study. Your signature below indicates that you are 18 years or older and have read the information provided above and have decided to allow them to participate in the study. If you later decide that you wish to withdraw your permission for your child to participate in the study you may discontinue his or her participation at any time. You will be given a copy of this document.

_____ My child MAY be audio recorded.

_____ My child MAY NOT be audio recorded.

_____
Printed Name of Child

_____
Printed Name of Parent(s) or Legal Guardian

_____ _____
Signature of Parent(s) or Legal Guardian Date

_____ _____
Signature of Investigator Date

Appendix G. In-depth interview consent over 18

Study No.: 103468 | Emory University IRB IRB use only | Document Approved On: 05/16/2018

Research Participant Consent Form- In-Depth Interview

For the research study entitled:

"Exploring mental health issues of South Asian high school and college students in Minnesota"

I. Purpose of the research study

Ayesha Bhatia is a Masters student in Public Health at the Rollins School of Public Health at Emory University. You are invited to participate in a research study she is conducting on behalf of AshaUSA, a non-profit organization focused on creating healthy, happy South Asian communities by engaging and empowering South Asian women, men, and children through culturally specific programs and services. The purpose of this research study is to explore the mental health status of high school and college students of South Asian origin in Minnesota.

II. What you will be asked to do

If you decide to be in this study, you will be asked in-depth questions about your quality of life, your perception about on mental health issues, and your perception of mental health resources in the Twin Cities area. These questions will go into depth of the responses from the questions on the survey.

This interview will take approximately an hour to complete and will be audio corrected with your permission.

III. Probable risks or discomforts

Sometimes when people are asked to think about their feelings, they feel sad or anxious. If you would like to talk to someone about your feelings at any time, you can call toll-free, 24 hours a day:

Metro Area Mental Health Crisis Response

- Anoka: 763-755-3801, Carver/Scott: 952-442-7601
- Dakota: 952-891-7171, Washington: 651-777-5222
- Ramsey: adults - 651-266-7900, children - 651-266-7878
- Hennepin: adults - 612-596-1223, children - 612-348-2233
- Crisis Text Line (https://www.crisistextline.org/) refers many texters to dozens of other organizations, depending on the issue they are struggling with. Text 741741.

IV. Benefits

There is no direct benefit to you from participating in this study, however, the indirect benefit of participating will be knowing that you helped researchers better understand the status of mental health issues among people of South Asian origin.

V. Confidentiality

Any information provided and/or identifying records will remain confidential and kept in a locked file and/or password-protected computer file for a minimum of five years. All data collected from you will be coded with a number or pseudonym (fake name). Your real name will not be used. The results of this research project may be made public and information quoted in professional journals and meetings, but information from this study will only be reported as a group, and not individually.

VI. Compensation

You will be entered in a drawing for a Target giftcard.

VII. Voluntary Nature of this Research

Participation in this study is entirely voluntary. You do not have to do this, and you can refuse to answer any question or quit at any time. Deciding not to participate or not answering any of the questions will have no effect on any benefits you're entitled to. **You can withdraw from this study at any time without penalty.**

VIII. Contact Information

If you have any questions about this research, you may contact either:

1) Ayesha Bhatia

Email: ayesha.bhatia@emory.edu
Phone: (763) 744-8940

2) Dr. Sayali S Amarapurkar
Email: emailsayali@gmail.com
Phone: (651) 210-6742

For questions about your rights or any dissatisfaction with any part of this study, you can contact, anonymously if you wish, the Emory Institution Review Board, at 404-712-0720 or by email at irb@emory.edu .

You can receive a copy of this information if you would like.

Your signature below indicates that you are 18 years or older. You have read and understand this form, and consent to the research it describes.

Signature of Participant _____ Date _____

Name of Participant (**Printed**) _____

Signature of Investigator _____ Date _____

Appendix H. In-depth interview guide

IN-DEPTH INTERVIEW GUIDE
Research Question: What Influences Mental Health Wellness and Managing Stress among South Asian Students living in Minnesota.

Introduction
Thank you for interviewing with me today. My name is (Interviewer) *ex. Ayesha Bhatia and I am from the* (School) *ex. Rollins School of Public Health at Emory. This research is being conducted to better understand factors that influence mental health wellness and stress among South Asian Students living in Minnesota. I am conducting this research for AshaUSA, a non-profit organization focused on creating healthy, happy South Asian communities. AshaUSA's Mental Health Matters campaign aims to create programs to help the South Asian youth and young adults with their mental health needs.*

The questions I would like to ask you relate to mental health wellness and your experiences surrounding stress. We are interested in knowing your thoughts, feelings and experiences, so please feel free to be open and honest when sharing your opinion. I would like to record this interview so that we don't miss anything that you say. Everything you tell me will only be used for this research project and will not be shared with anyone outside of the research team. To make sure that no one can identify you with any answers, your name or any identifying information will not be used. We can skip any questions, pause the recording, or stop the interview at any time. Is it ok with you if I record the interview?

The interview should last about an hour. Do you have any questions before we begin?

I would like to start with some general questions about your thoughts regarding stress and mental health wellness.

Opening Questions
1. What does mental health wellness mean to you?
2. How would you describe your mental health wellness currently?

Probe: any current change in your mental health status? Negative? Positive?

I would like to now switch to the subject of stress.

Stress and Challenges
3. What does stress mean to you?
4. In what areas of your life do you have stress?
5. What are things that cause you stress?

Probe: Homework, Friends, Future, Applications

6. What does a typical day look like for you?

Probe: School, Work, Homework, Activities

7. In your opinion, what are some challenges that you face in your life on a day to day basis?

Probe: Homework, Exams

8. How do those challenges make you feel?

9. What are the things that make life good and bad for you?
Probe: What is important/unimportant to you? What would you change to make your life better? What would make your life worse? Has anything stopped/enabled you doing the things you want to do? Has there been a time in your life when you feel your life was better/worse than it is now? What is it about these times that has made a difference? What do you think are the most important of the things you have mentioned and why?

I would like to now switch to the subject of academia.

Academics
10. In your opinion, what are some of the stressors you face in school?
Probe: Homework, Tests, Teachers
11. How do you feel academically supported by your school?
Probe: faculty/ staff/ TAs/ counselors
12. How has school affected your mental health wellness?

I would like to now speak about how you handle stress related to academia.

Stress
13. Tell me a little about how you cope with stress?
Probe: What are things you enjoy doing?
14. How effective are your coping strategies?
15. Where have you felt support in your life? From whom?
Probe: parents, family, friends

I would like to now speak about stress and mental health wellness resources.

Resources
16. What resources are you aware of for stress management and mental health wellness?
17. Have you used any of those resources before? If so, how effective were they and how did they make you feel? If not, how come?
18. In your opinion what is the main barrier in accessing mental health services and supports?

Thank you for your responses. I just have a few more questions for you.

Closing Questions
19. What do you think could have been done or made to make your experience with handling stress as a student better?
20. What advice would you give students regarding mental health wellness?
21. Is there anything else you would like to tell me that you haven't already?

Those are all of the questions I have for you, thank you for taking the time talk to me. If you are interested in any stress management and mental health resources, I have a list that I can share with you.

(End recording)

Appendix I. Resources provided to participants

Mental Health Wellness Resources

- Websites/Apps
  - Mental Health Screening Tool
    - https://screening.mentalhealthamerica.net/screening-tools?ref=MHAMN
    - Taking a mental health screening is one of the quickest and easiest ways to determine whether you are experiencing symptoms of a mental health condition.
  - TalkSpace
    - https://www.talkspace.com/
    - Chat with a licensed therapist anytime and anywhere with Talkspace online therapy. Join the over 300,000 people who are already feeling better today!
  - Headspace
    - https://www.headspace.com/
    - Headspace uses mindfulness and meditation to help you perform at your best each day. The app's mission is to provide you with the essential tools to achieve a happier, healthier life.
  - Happify
    - https://www.happify.com/
    - Happify is a space to overcome negative thoughts and stress and build resilience. Whether you are feeling stressed, anxious, or sad, Happify helps you to regain control of your thoughts and feelings.
  - 7 Cups
    - https://www.7cups.com/
    - If you are feeling lonely, sad, stressed, or worried, 7 Cups could be the perfect app for you. It provides online therapy and emotional support for anxiety and depression.
  - Calm
    - https://www.calm.com/
    - This app is designed to reduce anxiety, improve sleep, and help you to feel happier. Calm focuses on the four key areas of meditation, breathing, sleep, and relaxation, with the aim of bringing joy, clarity, and peace to your daily life.

- **Help Lines**
  - Crisis Text Line
    - Text "MN" to 741741
  - National Suicide Prevention Lifeline
    - 1-800-273-TALK (8255)
  - Metro Counties (including Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington)
    - Call **Crisis (**2-7474)

- The Trevor Project
  - https://www.thetrevorproject.org/
  - Their trained counselors are here to support you 24/7. If you are a young person in crisis, feeling suicidal, or in need of a safe and judgment-free place to talk, call the TrevorLifeline now at 1-866-488-7386.
- Children's Mental Health Crisis Response Phone Numbers
  - https://mn.gov/dhs/people-we-serve/children-and-families/health-care/mental-health/resources/crisis-contacts.jsp
- Adult Mental Health Crisis Response Phone Numbers
  - https://mn.gov/dhs/people-we-serve/adults/health-care/mental-health/resources/crisis-contacts.jsp

- Organizations
  - AshaUSA – Mental Health Matters
    - https://www.ashausa.org/mental-health-matters
    - AshaUSA launched a mental health awareness campaign on May 1st, 2016 to increase awareness and remove stigma associated with mental illness and seeking mental health help. Their goal is to spread the message about mental health and create programs that will help the South Asian community be more open to sharing mental health matters.
  - MannMukti
    - https://www.mannmukti.org/
    - MannMukti translates to "mental liberation" in Hindi. Our mission is to encourage healthy, open dialogue of mental health issues in an effort to remove stigma, improve awareness and promote self-care. The MannMukti website is a one-stop resource for South Asians to learn about and address mental health concerns with each other.
  - NAMI Minnesota
    - https://namimn.org/
    - NAMI Minnesota (National Alliance on Mental Illness) is a non-profit organization dedicated to improving the lives of children and adults with mental illnesses and their families. NAMI Minnesota works with individuals with mental illness, their families, professionals and the community at large by providing education, support and advocacy.
  - Mental Health Minnesota
    - https://mentalhealthmn.org/
    - Mental Health Minnesota's mission is to enhance mental health, promote individual empowerment, and increase access to treatment and services for persons living with mental illness. They work to help people in their journey toward mental health recovery and wellness through peer-to-peer programs and services, public policy advocacy, education and outreach.

- SEWA – AIFW (Asian Indian Family Wellness)
  - https://www.sewa-aifw.org/
  - Serve and promote "Total Family Wellness" for Asian-Indians in Minnesota.
  - 24x7 Confidential & Culturally Specific Crisis Line: (952) 912-9100
- National Institute of Mental Health
  - https://www.nimh.nih.gov/index.shtml
  - The NIMH is the lead federal agency for research on mental illnesses. The mission of the NIMH is to transform the understanding and treatment of mental illnesses through basic and clinical research paving the way for prevention, recover, and cure.
- South Asian Mental Health Alliance (SAMHAA)
  - http://samhaa.org/
  - SAMHAA's mission is to create awareness, foster acceptance, provide links to support & resources, & empower all affected by mental illness.
- mySahana
  - http://mysahana.org/
  - MySahana, a nonprofit organization dedicated to increasing awareness about mental health, emotional health and well-being in the South Asian community.
- South Asian Mental Health Initiative & Network (SAMHIN)
  - https://samhin.org/
  - South Asian Mental Health Initiative and Network, SAMHIN, was formed in 2014 to address a broad range of mental health needs of the growing South Asian community in the United States.

Appendix J. IRB Letter

EMORY UNIVERSITY | Institutional Review Board

May 16th, 2018

Ayesha Bhatia
Rollins School of Public Health

RE: Determination: No IRB Review Required
IRB#: 103468
Title: *Exploring mental health in South Asian high school and college students in Minnesota*
PI: Ayesha Bhatia

Dear Ms. Bhatia,

Thank you for requesting a determination from our office about the above-referenced project. Based on our review of the materials you provided, we have determined that it does not require IRB review because it does not meet the definition of research with human subjects or "clinical investigation" as set forth in Emory policies and procedures and federal rules, if applicable. Specifically, in this project, you will conduct a survey study for the purposes of quality improvement of AshaUSA.

Please note that this determination does not mean that you cannot publish the results. This determination could be affected by substantive changes in the study design, subject populations, or identifiability of data. If the project changes in any substantive way, please contact our office for clarification.

Thank you for consulting the IRB.

Sincerely,

Parul Reddy, BS
Research Protocol Analyst