**TITLE**

Development of a Cultural Adaptation Model of the South Asian Healthy Lifestyle Intervention (SAHELI): A Qualitative Approach

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**ABSTRACT**

*Background:* South Asians have increased risk for atherosclerotic cardiovascular disease (ASCVD) compared to other Asian groups and non-Hispanic whites. Cultural adaptations of evidence-based health education have been shown to improve health outcomes immigrant and minority populations when compared to usual care. Few studies have identified core elements to culturally adapt lifestyle interventions for South Asian immigrant populations in the US.

*Purpose:* This study aims to describe how the SAHELI intervention culturally adapts the evidence-based Diabetes Prevention Program for a US-based South Asian immigrant population.

*Methods:* Qualitative analysis of SAHELI health education audio recording transcripts from 5 cohorts across three community sites (health department, community center, school district). Following generation of thematic constructs from written transcript analysis, coding was applied to 32 English-speaking and 8 Urdu-speaking group education sessions.

*Results:* SAHELI culturally adapts evidenced-based lifestyle interventions by applying both surface-level cultural knowledge (South Asian language, food, festivals, religion); deep-structure cultural knowledge (South Asian values, gender roles, health beliefs); and activation of cultural identity (shared ethnic background, SAHELI group identity).

*Conclusions:* SAHELI utilizes both surface-level and deep-structural cultural knowledge and activation of cultural identity within a group motivational interviewing framework to promote health behavior change via lifestyle interventions grounded by South Asian sociocultural contexts.

## INTRODUCTION

The South Asian population, or people of Indian, Pakistani, Bangladeshi, Sri Lankan and Nepali heritage, has increased risk and higher proportional mortality rates from atherosclerotic cardiovascular disease (ASCVD) in comparison to other Asian groups and non-Hispanic whites.(1) According to the American College of Cardiology and American Heart Association, the current gold standard calculator to predict ASCVD based on current epidemiological evidence "may *underestimate* the 10-year and lifetime risk for persons from some race/ethnic groups, especially American Indians, some Asian Americans (e.g., of south Asian ancestry)."(2)

The risk of CVD in South Asian populations is multifactorial, and includes increased prevalence of type 2 diabetes and hypertension, dietary practices, and low levels of physical activity.(1) These risk factors are potentially modifiable, but few studies have investigated lifestyle interventions focusing on diet modification and increasing physical activity for South Asians in the United States. In addition, the majority of US South Asians are first generation immigrants with distinct sociocultural contexts that influence health, behavior, and engagement in healthy lifestyle programs.

Cultural adaptations of evidence-based health education has been shown to improve health outcomes in immigrant and minority populations when compared to usual care.(3–5) The South Asian Healthy Lifestyle (SAHELI) Study is a two-arm randomized-control trial led by a multi-sector community-academic partnership, which has been previously described.(6,7) Designed as a community stakeholder-informed, culturally-adapted Diabetes Prevention Program, SAHELI promotes a curricular focus on South Asian CVD risk factors, health behaviors, and the sociocultural context in which they manifest: the shared values, norms, and interpersonal social interactions of the South Asian community.

Cultural knowledge, defined as "observable social and behavioral characteristics of a target population"(5) is crucial for cultural adaptations. Common surface-level features of cultural knowledge include counseling on nutritional contents of South Asian foods (fried foods, vegetarian food, cooking techniques)(5), use of South Asian languages (Hindi, Gujarati, Urdu, Bengali), ethnic or linguistic concordance with health educators, counseling using culturally-appropriate physical activities, or adaptations for low-English literacy participants.(8–11)

While many of the aforementioned features target superficial structures of culture, interventions informed by deeper cultural foundations systematically "infuse the unique cultural worldviews, beliefs, values, and behaviors of a population into a prevention curriculum that has been developed and normed on a different population." (12) Deep-structure cultural adaptations may include respecting familialism by allowing the presence of family members as support (6,11) and incorporating South Asian explanatory models of health and disease, such as

the importance of psychosocial stress, spiritual fate, and susceptibility to adverse events.(13) In addition to cultural adaptation, interventions that activate group identity may also develop social cohesion, allowing for setting shared goals and improved group problem solving.(14)

To date, few studies have identified key elements to culturally adapt lifestyle interventions for South Asian immigrant populations in the US. This project aims to describe how the SAHELI intervention effectively targets deep-structure cultural adaptations in a US-based South Asian immigrant population, in particular the application of both cultural knowledge and activation of cultural identity within a group lifestyle intervention grounded by South Asian sociocultural contexts.

## METHODS

### *The South Asian Healthy Lifestyle Intervention (SAHELI)*

The SAHELI intervention is a 16-week culturally-adapted, group lifestyle intervention for South Asian immigrants from India and Pakistan, recruited from community-based settings with high proportions of South Asians in the Chicago, IL metropolitan area (Rogers Park neighborhood of Chicago, suburban townships of Skokie, Niles, Lincolnwood, and Naperville).(6) The aim of the study is to determine if participants improve physical activity, dietary behaviors, psychosocial outcomes, and clinical CVD risk factors through 12 months' follow-up.(15) The intervention arms who received group lifestyle education were facilitated by culturally and linguistically-concordant community health educators trained in motivational interviewing skills, delivered in

a group setting of roughly 8-12 participants. In contrast, the control group were mailed monthly copies of printed culturally-adapted health education materials.(7)

To give context on its development, SAHELI was based on the social ecological model (SEM) of health prevention to target the US South Asian sociocultural context operating on the individual, interpersonal, community, and organizational/policy levels (Table 1). (16) Developed under a community-based participatory research (CBPR) framework, the study partners collaborated to "plan and implement SAHELI, engage and retain South Asian research participants, increase awareness about South Asian ASCVD disparities, and disseminate results to academic and non-academic stakeholders and community."(6)

*Data Collection Methods*

The qualitative approach of this investigation analyzed health education session audio recordings of participants from five of the initial SAHELI group intervention cohorts to glean inferences from participants' lived experiences and group interactions. The research team consisted of an English-speaking physician with experience in immigrant and refugee health (MLP), an English-speaking expert in motivational interviewing and qualitative research (LEJ), and the principal investigator of the SAHELI study (NRK).

Qualitative data collection was performed by manual transcription of 40 existing English-language audio recordings of health education group sessions at the Skokie Health Department (2 cohorts) and Naperville (1 cohort) study sites. To compare the generalizability of the findings

across low-English proficiency immigrants with lower levels of acculturation to the United States, an Urdu-speaking group from parents of children who attend Skokie School District 69 (1 cohort) study site was also included. Urdu audio recordings were transcribed into English.

*Sampling Strategy*

Audio recordings from all 16 one-hour sessions of a single English-language cohort (Skokie Health District cohort 1) were transcribed by a single researcher (MLP). Boldened sessions in Table 2 denote the eight SAHELI group health education sessions identified by the research team likely to elicit the greatest frequency of South Asian lived experiences, and participant discussion relative to other curricular topics. Following selection of eight high-yield topics to apply to the remaining cohorts (Skokie Health District cohort 2, Naperville cohort 1, Skokie School District cohort 1), subsequent transcriptions and coding were included for final analysis.

*Ethical Issues Pertaining to Human Subjects*

The SAHELI study protocol was approved by the Northwestern University Institutional Review Board (IRB) and received a Waiver of HIPAA Authorization.(6)

*Data Analysis*

We used a thematic approach to summarize participant, health educator, and curriculum components exemplifying cultural-adaptation in SAHELI. This approach included open coding of health education session transcripts, and describing, classifying, and interpreting the data into codes and themes. We used an inductive analytic approach to produce the codebook based on

157 open coding of 16 health education audio sessions from Skokie Health District cohort 1. The
158 research team reviewed the coded transcripts of the first cohort to discuss initial findings and
159 make modifications. NRK and LEJ adjudicated the final coded constructs to reconcile differences
160 as part of quality control to ensure trustworthiness and credibility. Each example of South Asian
161 culturally-targeted content was coded for a single, most representative construct. The entire
162 team met regularly to review and harmonize codes across the five cohorts. A list of constructs
163 derived from the codebook of the English- and Urdu-language transcriptions may be found
164 under Table 4 in the RESULTS section.
165
166 Through this iterative process, cultural-adaptation in SAHELI was identified by the themes of (1)
167 cultural knowledge, (2) cultural group identity, and (3) sociocultural context. From these
168 constructs, the study team developed a novel theoretical model (Figure 1) to describe how
169 SAHELI culturally adapts the Diabetes Prevention Program to a South Asian population. Through
170 the interaction of surface-level and deep-construct cultural knowledge by the SAHELI
171 participants, facilitator, and curriculum, this group empowerment model describes how
172 culturally-adapted interventions may promote South Asian participants' lifestyle behavior
173 change while influenced by a shared sociocultural context.
174
175 **RESULTS**
176 For study participants from the Skokie Health District, Naperville, and the Skokie School District
177 69 cohort intervention arms, the mean age at baseline was approximately 51 years and the
178 mean number of years in the US was 17.5 (Table 3A). Descriptive demographics of study

participants (Table 3B) revealed 34/45 (75.5%) were female and 11/45 (24.5%) were male, and over 84% (38/45) reported India as their country of birth. Although the language of instruction for the Skokie Health District and Naperville cohorts was English, the most common languages in initial one-on-one interviews were Hindi (51.1%) and English (37.7%). Urdu, the language of instruction in the Skokie School District 69 cohort comprised 11.1% of participants. The 45 participants in this sample represent 16.4% of the total SAHELI study goal of 275 participants recruited to intervention arm receiving group education sessions.

Across both the English-language and Urdu-language cohorts, common themes emerged from the interaction between the participants with the culturally and linguistically-concordant facilitator and curriculum of the SAHELI intervention with a focus on South Asian (1) cultural knowledge, (2) cultural group identity, and (3) sociocultural context.

*Cultural Knowledge*

An important example of cultural knowledge for immigrant populations is use of language adaptations (Table 4.IA.) by participants and health educators. For English-dominant groups, use of substitution of a single word or short phrase in Hindi, Urdu, Gujarati, or other South Asian language may be used to describe names of food, festival names, or religious rituals. For South Asian-language dominant groups, this may include use of English-language to describe medical terminology.

Cultural knowledge is also explicitly addressed throughout the SAHELI curriculum via scripted scenarios and educational videos on South Asian CVD risk and health behaviors. For example, in Session 5: Reduce fat and salt, the curriculum video participant proclaims a culturally targeted message, "When I make whole wheat bread, whether it is a chapati or a paratha, I make sure I do not add any salt or oil to the dough," to highlight the high-salt, high fat content found in certain South Asian spices and cooking oils. Session 8: Maintaining a healthy weight informs the participants about South Asians' elevated CVD risk, when the video narrator states, "Asian Indians and Pakistanis carry more weight around the waist, means you have a greater chance of having diabetes, overweight, and high cholesterol."

*Cultural Group Identity*

The analysis also revealed multiple statements relating to identification of a South Asian cultural identity such as national origin, ethnic group, religious affiliation, or linguistic organization (Table 4.II). This includes statements indicating affiliation with the larger South Asian community group using inclusive phrases such as "our people", "we as South Asians", "us Indians", etc. (Table 4.II.A). Promotion of group identity may also include fluid code switching, in which speakers switch from one language to another to show solidarity with a social group and discuss certain South Asian topics in a manner not possible when translated to English.

Additionally, coded themes from initial analysis (Table 4.II.C) include statements relating to identification of SAHELI Community identity, statements of health beliefs or health behaviors affected by participation in SAHELI, and statements relating to health promotion by educating

others outside of the SAHELI community. They demonstrate how cultural group identity and SAHELI community identity also play an important role in the development of motivational "change talk" among South Asian participants tied to passing on of traditions to the wider community and future generations. ("So, my kids want me to write them a recipe book of all the items they really love. I experiment all the time, so we can still keep the tradition, but in a healthier way.")

*Sociocultural Context*

There is abundant evidence of deeper manifestations of culture within the SAHELI intervention to address the sociocultural context of participants, or the interpersonal relationships of South Asian families and community spaces (Table 4.III). Both superficial and deep cultural knowledge are accessed by the participants and facilitator as a common reference point to influence and inform a therapeutic relationship of open dialogue and collective problem-solving. (17)

This is exemplified by the common practice of offering high-calorie food as a marker of affection, ("You wouldn't have any friends anymore if you just had healthy food."), coupled with strongly repeated and ascriptions of guilt to persons who reject such offers of hospitality. ("In our culture, we have to say no more than one time.") Social relationships such as familial responsibilities of women ("It's a culture change we need to go through as a society. If you only have vegetables at your party, no one will come to your house.") and gender-norms are referenced frequently ("If my health is not good, then how can I take care of anybody else?") through the recording transcripts (Table 4.III.A).

Acknowledging and activating South Asian identity by the curriculum, facilitator, and participants promotes open dialogue regarding the difficulties to instigate individual behavior change without first addressing the challenges of the sociocultural context.

## DISCUSSION

Similar to previous models of cultural competency in a systematic review (18) of public health programs, SAHELI utilizes a combination of language-focused strategies, culturally-focused strategies, and community-focused strategies to influence health behaviors with an emphasis on (1) cultural knowledge, (2) cultural group identity, and (3) sociocultural context (Figure 1).

This study was limited by the predominant analysis of English-language cohorts, despite the fact that a majority of SAHELI interventions are delivered in South Asian languages. Trustworthiness of the findings include evidence that key aspects of the model was seen in all recorded transcripts regardless of session language or curriculum topic. Future studies will be required to determine effect size of cultural-adaptation dependent on level of acculturation and English proficiency of the participants or health educator. This analysis does not contain outcomes data to prove the effectiveness of SAHELI to fill the knowledge gap that conventional CVD prevention messaging does not address for many immigrant communities.(19)

### *Targeting Both Surface and Deep-Structures of Cultural Knowledge*

Strengths of the study include describing the integration of biomedically focused physiologic and behavioral causes of CVD and operationalizing how it is integrated with deeper shared values, beliefs, and social norms of South Asians in a lifestyle intervention. As previously demonstrated in systematic reviews of cultural-adaptations to the Diabetes Prevention Program for diverse ethnic groups, culturally-targeted curricula allows participants to fully engage in their preferred language, form communal goals, and achieve sustainable behavior change.(3,20,21)

The delivery of SAHELI in community spaces by culturally- and linguistically-concordant health educators allow one's lived experience as a person of South Asian descent to manifest deep-structures of cultural knowledge, such as the use of bilingual code switching to signal ingroup solidarity or situational interpersonal speech accommodation.(22) In this manner, health educators serve as real-time cultural brokers with access to deeper structures of cultural knowledge within the curriculum and the lived-experience testimonials of the participants.

*Promotion of Cultural and SAHELI Group Identity*

Previous studies of evidence-based behavior change, particularly in collectivist societies like those found in Asia, the Middle East, and many African nations, have found that group interactions provide influential social support. (8,11) Especially when ethnic identification with South Asian values or customs is tied to group membership in immigrant communities, it is crucial the SAHELI intervention was intentionally designed for group facilitation, rather than individual one-on-one education.

Group medical visits where a stable group of participants meet consistently to build relationships, and engage with a culturally-adapted curricula have been shown to positively improve outcomes in pediatric obesity(23), chronic pain(24), and prenatal care.(25) Through promotion of group cohesion(26), this alone may "provide social and psychological support for the participants and help motivate them to follow their treatment plan and to take more responsibility for their own health."(27)

Although the SAHELI intervention is an enclosed model with a specific target population with a predetermined curriculum, it still exhibits many features of the empowerment group visit model. Empowerment models of behavior change shift focus away from the individual focusing instead onto the structural factors which make up the social environment and community context of the individual.(28) Similar to a Kerala-based DPP with culturally-concordant participants and health educators in India that favored a "collectivist approach to behavior change techniques with decision-making at the family level", the SAHELI study also addresses issues of migration and immigration status.(29)

Beyond providing didactic information on diabetes prevention, SAHELI may increase self-efficacy through a group empowerment model by promoting therapeutic relationships between individual participants and the health educator.

*South Asian Sociocultural Context in Lifestyle Interventions*

When addressing population health in immigrant communities, it is necessary for health educators and group medical visit facilitators to engage individuals within the context of the complex social, cultural, family, and community relationships which drive individual behaviors.

Within SAHELI, the sociocultural context includes not only the individual health beliefs, values, social norms, level of acculturation, and family structure of any one participant, but also the communal socioenvironmental context of diet, access to physical activity, health information, and healthcare services in South Asian spaces. The psychosocial context must also be considered to identify barriers of migration-related social isolation or perceived stress and social pressure in South Asian communities.(15) Through this sociocultural lens, participants develop positive attitudes and self-confidence towards dietary and physical activity change, as well as develop self-monitoring skills coupled with goal-setting and problem-solving.(9,23)

Previous studies of culturally adapted lifestyle interventions reported improved participant engagement, knowledge acquisition, and health outcomes for diverse populations including low-income Latinos (9,11,23), American Indians (10,30) , Native Hawaiians and Pacific Islanders (31), South Asians in Europe (32) and in the Middle East(33). Although representing disparate populations, these studies demonstrate how patients' sociocultural contextual factors, such as shared values, norms, and community interactions, may impact health outcomes in contrast to usual care settings focused on individual behavior change.(5) This analysis fills a need, as few studies have identified key elements to culturally adapt lifestyle interventions for South Asian immigrant populations in the US.

While this analysis focuses on culturally-adapted health education to promote behavior change for South Asian communities, the proposed framework may be applicable to guide future cultural adaptation of lifestyle intervention groups for diverse ethnicities. Additional investigations are needed to evaluate the effectiveness of different facilitators to promote the various levels of cultural knowledge, cultural group identity, and sociocultural context. Given the importance of cultural adaptation with an increasingly diverse patient population, this study further highlights the need for workforce diversity in healthcare and public health systems to promote health equity.

## CONCLUSIONS

SAHELI uses a social ecological framework to leverage South Asian cultural-adaptation in a healthy lifestyle intervention and generate deeper conversations between participants and health educator to activate individual behavior change and promote South Asian community health.

The SAHELI intervention targets deeper-structure cultural factors including adaptations to South Asian language, social gatherings, the role of social pressure, South Asian foods, health beliefs, the sociocultural context of family, gender norms, South Asian spaces, and migration.

Key features of a culturally-targeted model for lifestyle intervention trials in South Asian communities includes addressing cultural knowledge, cultural group identity, and sociocultural context.

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**Table 1: SAHELI Intervention Social Ecological Model (SEM) Framework Design and Influences**

| Level of Influence | Interaction or Outcome |
|---|---|
| Individual | Increased health knowledge, increased self-efficacy, individual behavior changes |
| Interpersonal | Facilitator/curriculum-mediated self-disclosure, SAHELI group cohesion, family-level behavior changes |
| Community | South Asian cultural targeting, facilitator/curriculum-mediated cultural group identity activation, South Asian community health promotion |
| Organizational | Partnerships with Skokie Health Department, Village of Skokie School District D69, Metropolitan Asian Family Services (FQHC), NorthShore Health System, Patel Brothers grocery store |
| Policy | H.R. 3592: The South Asian Heart Health Awareness and Research Act of 2019, principal sponsor US Rep. Pramila Jayapal |

506 **Table 2: SAHELI Protocol, 16-week South Asian Healthy Lifestyle Intervention**

| Session | Topic | Cultural Targeting |
|---|---|---|
| 1 | Understanding your test results and what motivates you | 1:1 rapport with SA health educator |
| **2** | **Understanding heart disease and prevention** | **SA CVD risk** |
| **3** | **Enjoy more fruits and vegetables and whole grains** | **SA vegetable cooking** |
| 4 | Get more exercise | SA group fitness instructor |
| **5** | **Reduce fat and salt** | **High-salt SA spices, fats in SA cooking oils** |
| **6** | **Nutrition label and food logging** | **SA social gatherings, social pressure** |
| 7 | Self-monitoring, goal setting | Group goal-setting, problem solving |
| **8** | **Manage your weight** | **SA food plate** |
| 9 | Resistance exercises | SA group fitness instructor |
| **10** | **Manage your stress** | **Psychosocial SA health beliefs, stress** |
| 11 | Problem solving, Revisit goal setting | Group goal-setting, problem solving |
| **12** | **Tip the calorie balance, mindfulness, and added sugar** | **Usha recently immigrated to US, Mohammed fasting for Ramadan** |
| 13 | Being active every day, resistance exercises | SA group fitness instructor |

| | | |
|---|---|---|
| **14** | **Managing slips, get social support from family and friends** | **SA social gatherings, social pressure, family/community support** |
| 15 | Social cues and eating out | SA social gatherings, social pressure |
| 16 | Staying motivated | Group goal-setting, problem solving |

**Figure 1: Theoretical Model of Cultural Adaptation in the South Asian Healthy Lifestyle Intervention (SAHELI)**

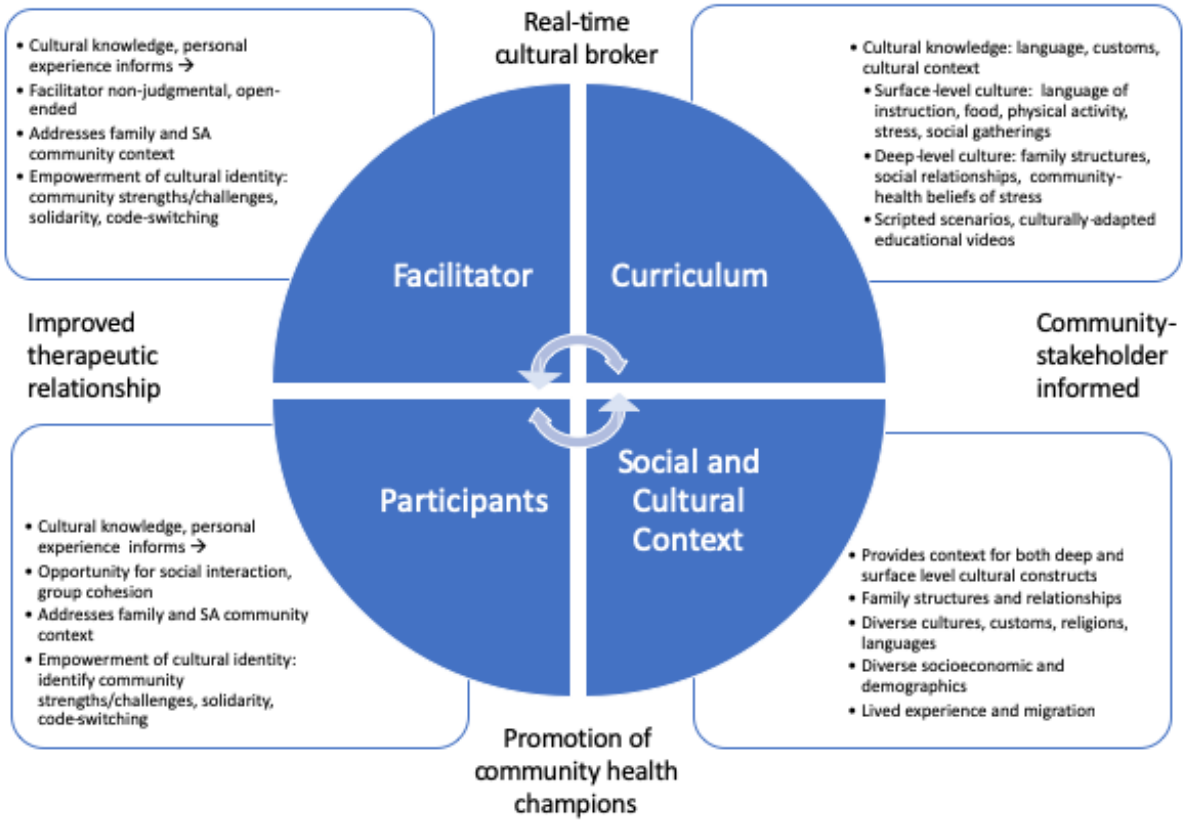

**Table 3A: Demographics of SAHELI Participants, Age and Years in US**

| | Range of Years | Mean | Std. Dev. |
|---|---|---|---|
| Age at baseline | 27 - 65 | 50.96 | 8.19 |
| Years in US | 2 - 47 | 17.53 | 13.27 |

555 **Table 3B: Demographics of SAHELI Participants, Continued**

| | Number (n=45) | Percentage (%) |
|---|---|---|
| Gender | | |
| Female | 34 | 75.5 |
| Male | 11 | 24.4 |
| Country of Birth | | |
| Bangladesh | 1 | 2.2 |
| India | 38 | 84.4 |
| Pakistan | 4 | 8.8 |
| US | 2 | 4.4 |
| Level of Education | | |
| Less than High School | 15 | 33.3 |
| High School | 5 | 11.1 |
| Some college/technical/associate | 1 | 2.2 |
| Bachelor's | 12 | 26.6 |
| Graduate | 12 | 26.6 |
| English Proficiency | | |
| Very well | 13 | 28.8 |
| Well | 5 | 11.1 |
| Fairly well | 5 | 11.1 |

| | | |
|---|---|---|
| Fair | 7 | 15.5 |
| Not at all | 7 | 15.5 |
| Interview Language | | |
| Urdu | 5 | 11.1 |
| Hindi | 23 | 51.1 |
| English | 17 | 37.7 |
| Language Spoken at Home | | |
| Both South Asian and English languages equally | 7 | 15.5 |
| Only South Asian Language | 21 | 46.6 |
| More South Asian language than English | 3 | 6.6 |
| More English than South Asian language | 5 | 11.1 |
| Only English | 7 | 15.5 |
| South Asian Languages Spoken at Home | | |
| Bengali/Bangla | 1 | 2.2 |
| Gujarati | 17 | 37.7 |
| Hindi | 7 | 15.5 |
| Punjabi | 5 | 11.1 |
| Tamil | 1 | 2.2 |
| Telegu | 1 | 2.2 |
| Urdu | 5 | 11.1 |

556

557

**Table 4: Constructs of Cultural Knowledge, Cultural Group Identity, and Sociocultural Context in the SAHELI Intervention**

| Construct | Selected Example |
|---|---|
| **I. Cultural Knowledge** | |
| **I.A Language** | "Do spices have calories? I'm not talking about ready mix. I'm talking about natural ones like haldi, methi, halia, jeera." |
| I.A.1 Single word translations | |
| I.B.2 Code switching | |
| I.C.3 South Asian language | |
| **I.B. Social customs (behaviors)** | "You wouldn't have any friends anymore if you just had healthy food." |
| **I.B.1. Social gatherings** | |
| I.B.1.a Weddings | |
| I.B.1.b Festivals | |
| I.B.1.c Religion | |
| **I.B.2 Social pressure** | "In our culture, we have to say no more than one time." |
| **I.C. South Asian Food** | HE: "Are you familiar with this channa masala box? It's a Shaan [brand] masala. One teaspoon of this contains 10,210 mg, which Is 50% of your daily value. |
| I.C.1 Fried foods | |
| I.C.2 Vegetarians | |
| I.C.3 Chai | |
| I.C.4 Cooking | |

| | |
|---|---|
| | P1: ”It's all salt! F What do we recommend?”<br>P2: ”Make your own spices” |
| **I.D Health beliefs** | HE: Why do we [stress] more?<br>P3: We think, ‘what will he say, what will he say’?<br>P1: They {Americans} don’t worry about tomorrow, while we worry about the next fifty years. |
| I.D.1 Stress | |
| I.D.2. Physical activity | |
| **II. Cultural Identity and SAHELI Group Identity** | |
| II.A South Asian community | “It's a culture change we need to go through as a society. If you only have vegetables at your party, no one will come to your house.” |
| II.B SAHELI community | HE:” A round of applause for all of you [congratulating the group].”<br>P: “We have a great teacher.”<br>HE: “I have great students.” |
| **II.C Promoting community health** | P: “By coming here and sitting with ten people, I benefited a great deal.” |

| | |
|---|---|
| | HE: “That’s so happy. I am very happy.”<br>P: ”Believe me, my neighbors have also improved.” |
| **III Sociocultural context (people and places)** | |
| **III.A. Family** | “ So my kids want me to write them a recipe book of all the items they really love. I experiment all the time, so we can still keep the tradition, but in a healthier way.” |
| III A.1 Children | |
| III.A.2 Spouses | |
| III.A.3 Siblings/cousins | “If my health is not good, then how can I take care of anybody else?” |
| III.A.4 Parents/grandparents | |
| **III. B Social relationships** | HE: [Nothing] will happen [overnight]. Don’t bring about any [drastic change]. But our [goal] is that whatever we are teaching here, you have to [continue] it for a [lifetime] for yourself, your [family] and your children. |
| **III.B.1 Gender norms** | |
| III.B.2 Friends and coworkers | |
| III.B.3 South-Asian Influences | |
| **III.C South Asian Spaces** | |

| | |
|---|---|
| III.C.1 South Asian community-based organizations | "I go to the masjid, they have a ladies' section. Aunties bring in good food. Good, so much sweets! You know how it is [directed to health educator]" |
| III.C.2 Temples/mosques/places of worship | |
| III.C.3 Devon Avenue/South Asian enclaves | |
| **III.D Migration** | " I think the thing is that immigrants, probably, if you live in an area where there aren't a lot of people like you, you're shy. It's difficult to mix with others, different groups. You have to come out of your shell a little. If you live in an area without a lot of South Asians." |
| III.D.1 South Asian Customs in country of origin | |
| III.D.2 South Asian Customs in US | |

561