Research Article

Food Behaviors and Dietary Acculturation of Asian Indians in the US

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ABSTRACT

Objective: To examine food behaviors and dietary acculturation of Asian Indians in the US.

Design: Qualitative focus group discussions.

Setting: Public library and university.

Participants: Thirty Asian Indian adults in a US Midwestern state.

Main Outcome Measures: Participant perceptions of food behaviors and 24-hour modified weekday and weekend dietary recalls.

Analysis: Eight focus group transcripts and participant dietary recalls were independently analyzed by 2 Asian Indian moderators using the constant comparison method.

Results: The sample (n = 16 males and 14 females) consisted of a variable group of Asian Indians from different generations, religions, and places of origin in India. Key themes associated with modification of traditional behaviors were social independence, social network influences, increased health awareness, cost and quality of Asian Indian foods, and time constraints and convenience.

Conclusions and Implications: This study elucidated dietary behaviors and factors that contribute to dietary acculturation of Asian Indians, which are important considerations for health professionals. These findings inform researchers regarding the development of culturally appropriate dietary assessment measures targeted at Asian Indian individuals.

Key Words: Asian Indian, dietary acculturation, focus groups, taste preferences, health awareness, social network (*J Nutr Educ Behav*. 2017;■■:■■–■■.)

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INTRODUCTION

Asian Indian individuals, who comprise about 1% of the US population, are the second largest Asian group in the US.[1] They have a high prevalence of diet-related chronic diseases, especially type 2 diabetes, which is also higher than that of the general population (17% to 29% in Asian Indian individuals vs 13.1% in non-Hispanic black, 8.7% in Mexican American, and 7.4% in non-Hispanic white individuals).[2-5] Although genetic factors are important in the development of diet-related chronic diseases, environmental risk factors should also be considered, eg, unhealthy diets. The dietary quality of individuals who relocate to another country could be significantly influenced by acculturation. Dietary acculturation is the extent to which members of a migrating group adopt the eating patterns and practices of their new environment.[6]

The traditional Asian Indian diet, which is predominantly carbohydrate based, has been shown to change nutritionally among those who relocate. For example, an increased intake of energy and fat consumption was documented among Asian Indian individuals in Britain compared with age-, gender-, and caste-matched individuals in India.[7,8] In the US, Asian Indian individuals frequently select non-Indian foods and replace traditional ones with other ethnic or western foods. More specifically, they consume more convenience foods, whole grains, fish, poultry, meat, salty snacks, alcohol, and desserts compared with their diets in India.[9] Another study showed a decline in saturated fat and fiber content of the foods consumed by Asian Indian individuals after relocation to the US.[10]

These changes occur because immigration and/or relocation results in exposure to a new environment, which includes new foods and food sources.[6] It is well known that individuals who relocate to western countries may alter dietary intake by including or excluding certain foods as a consequence of dietary acculturation.[10-12] Along with sociodemographic and cultural factors,

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exposure to a new host culture may lead to collective changes in psychosocial factors, taste preferences, and food procurement and/or preparation methods, leading to different dietary patterns.[6]

According to the conceptual model of dietary acculturation proposed by Satia-Abouta et al,[6] sociodemographic factors include age, gender, age at time of relocation, duration in the host country, education, income, employment, marital status, presence of children or seniors in the household, host language fluency, country of origin, rural vs urban residence in country of origin, and voluntary vs involuntary migration. Cultural factors include religion, cultural beliefs, attitudes and values, and residence in an ethnic enclave. Psychosocial changes are diet and disease-related knowledge, attitudes and beliefs, values ascribed to traditional eating practices and host country assimilating patterns, and changes in taste preferences. Finally, environmental contributors are availability, accessibility, and affordability of traditional foods in stores and restaurants, and changes in food procurement and preparation owing to media influence, time constraints, and availability of packaged and convenience foods.[6]

For any population, nutrition assessments and interventions should consider these underlying factors, and ethnic-specific exploration of dietary practices within a host country environment is essential. Therefore, the purpose of this study was to describe food choices qualitatively and determine the factors that contribute to dietary changes among Asian Indian individuals in the US. More specifically, cultural, environmental, and psychosocial factors contributing to dietary acculturation in this population were examined from a focus group study, which was originally conducted to develop a culturally appropriate dietary acculturation tool for the Asian Indian population.

METHODS

The Michigan State University Institutional Review Board approved the study. Audio-taped focus group discussions were conducted in a Midwestern state between November, 2012 and January, 2013. Participant recruitment was facilitated through a flyer distributed to member listservs of Asian Indian sociocultural and student clubs and temples, and Asian Indian specialty stores, restaurants, and physicians' offices. Individuals of Asian Indian descent aged ≥18 years who were able to read and converse in English were included in the study. Focus groups were not separated by age or gender. The incentive for participation was a $20 gift card to a store.

Each discussion was conducted in English, either in a university classroom or in the study room of a public library. Audio-taping the discussions facilitated data transcription and coding accuracy. Focus groups included 2–5 participants. Both the moderator and assistant moderator were of Asian Indian descent, with nutrition backgrounds and trained in qualitative focus group methodology. The assistant moderator recorded the field notes, and assisted with technological needs.[13]

Participants signed a consent form and then self-completed a short sociodemographic questionnaire. Discussions were conducted using a structured guide for approximately 1–2 hours. Each participant had an opportunity to speak and was allowed to agree or disagree politely with the other participants. At the end of the discussion, participants were encouraged to discuss additional dietary information that was not covered during the discussion. Data saturation occurred after 8 focus groups, when no new information was obtained and further coding was not likely.[14]

The researchers developed a focus group guide (Supplementary Data) consisting of 16 open-ended questions with additional probes based on the Predisposing, Reinforcing, and Enabling Constructs in Educational Diagnosis and Evaluation model.[15] According to this model, behavior is influenced by preceding (attitudes, beliefs, and values), reinforcing (social support), and enabling (skills and resources) factors. The focus group guide was validated by 3 experts in nutrition and/or qualitative research and 2 pilot interviews for appropriateness of content and clarity of questions.

Two modified, 24-hour dietary recalls were conducted by phone, representing a weekday and a weekend within a week of each focus group. Nutrient compositions of the dietary recalls were not analyzed; therefore, participants' typical day rather than previous 24-hour intakes were captured. The recalls (15–20 minutes) were administered by the primary researcher, who was trained in the 5-step validated US Department of Agriculture multiple-pass method, which includes a quick list of foods and beverages consumed, forgotten foods, mealtime occasions, preparation methods with portion sizes, and a final review.[16]

Sociodemographic data were analyzed using Statistical Package for the Social Sciences (version 20.0, SPSS Inc, Chicago, IL, 2011). The 2 moderators transcribed focus group discussions verbatim and individually coded them. Using the constant comparison method, data were continuously examined for recurring themes, which allowed for joint coding and analysis while the focus groups were conducted.[17] The coding process was facilitated by a codebook (based on the dietary acculturation model),[6] which consisted of the factors, themes, codes, rules for application, and illustrations. The 2 researchers discussed coding disagreements until consensus, to minimize bias. Themes were examined by organizing and managing the data using Nvivo software for qualitative research (version 8, QSR International Pty Ltd, Doncaster, Victoria, Australia; 2008). Asian Indian and non-Indian foods consumed during each meal occasion were identified from the dietary recalls.

RESULTS

A total of 30 Asian Indian individuals participated in the focus groups (mean age, 36.0 ± 13.9 years), which were composed of 16 males (mean age, 38.3 ± 15.7 years) and 14 females (mean age, 33.4 ± 11.7 years). Table 1 lists participant characteristics. The majority were first-generation Asian Indian. Individuals who were born in the US or relocated before 3 years were categorized as second generation.