

FOOD HABITS STUDY OF IRANIAN IMMIGRANTS TO AUSTRALIA

M. SHAHNASERI and JAMES. G. BERGAN

Summary

The food habits of sixty-one Iranian immigrant women residing in Sydney, Australia were studied. The principal survey tool was a structured interview and a three day food diary. The relationship between years of residency and changing food habits was ascertained. Appreciable change was noted in those subjects who resided more than four years in Australia. The most marked changes in food habits were an increase in frequency of consumption of coffee, sliced white bread and beef, as well as a change in dinner time. Nutrient intake analysis showed a high intake of protein (134% RDI) but reported a low energy intake (64% RDI). Interestingly length of residency was significantly associated with increased weight and body mass index (BMI).

I. INTRODUCTION

Approximately 17,000 Iranians have recently immigrated to Australia (Pyaemia Hamyar 1994) with more than 7,000 presently residing in New South Wales (Payame Hamyar 1993). Australian Bureau of Statistics (1993) reported that from 1991 to 1993 more than 4000 people immigrated to Australia from Iran. Whilst food habits are often established early in life, they may be subject to change (Fieldhouse 1986). Different events and changes in the lives of individuals may result in major changes in eating habits (Schafer and Keith 1981); migration is one such event. Migrants to Australia have come from countries with different backgrounds and varied problems (McMichael 1983). The study of different immigrant's eating habits can provide an explanation for changes in health status which may be either beneficial or harmful. It may also enable the prediction for future changes in health status or may give information about various influences on eating habits (Schafer and Keith 1981). Studies with immigrants from Greece (Rutishauser and Wahlquist 1983); Lebanon (Hadj 1988) and Vietnam (Breaky 1983) reported an increased consumption of meat. Italian immigrants (77%) reported that their diet had changed with a decrease in the consumption of vegetables, fruit, salt and starch (Hopkins et al. 1980). No reports have been found on changing food habits of Iranian immigrants in Australia. This research describes the food habits of sixty-one Iranian migrant women, mostly Moslem, and reports changes occurring as a result of immigration in terms of consumption of new foods, meal preparation and patterns and anthropometry including weight. It also ascertains the effect of duration of residency in Australia upon food habits.

II. METHODOLOGY

The population studied consisted of sixty-one Iranian women immigrants presently residing in Sydney (Australia). The subjects were selected from five different Iranian cultural meetings. The method used was a structured interview, anthropometric measurements and a three-day-food-diary. During the interview, weight, height, hip, waist, upper arm circumference and skin fold thickness were measured.

The interview covered the following areas: demographic data, dietary practices, life style questions, and food frequencies. The questionnaire requested information about age and years of residence in Australia as well as who made the purchasing decision and who prepared food in Australia. Food frequency questionnaire was used to determine the frequency consumption of Iranian and Australian food items. To aid the subject in the satisfactory completion of questionnaire the food record was printed in both English and Persian and contained a partially completed example of a food record. Data were collected, coded and analysed using the computer programs Microsoft Excel version 4 and Microstat. Diet records were analysed for their nutrient composition using a computer program, System On-line Dietary Analysis version 4.1.

III. RESULTS AND DISCUSSION

Of the 61 respondents 33% were under 28 years old, 34% were between 28 and 40 years and 25% were 41 to 50 years old. Approximately equal number of subjects had been resident in Australia for three periods, namely less than three years, three to four and a half years and more than four and a half years. The average years of residency was five and a quarter years. The majority (67%) of Iranian immigrant women reported that they gained weight after their arrival in Australia. Similar results have been reported for Vietnamese immigrant women in which 72% gained weight, thought to be due to the consumption of more food (Baghurst et al. 1989). BMI was used to determine the degree of obesity. Length of time in Australia not only had an effect on weight gain but also there was positive correlation at the 90% level between length of residence and BMI. Table 1 shows the percent distribution of BMI by years of residency. No effect of age was evident.

Table 1. Percent distribution of BMI (%)

Years in Australia	BMI			
	17 to 20	21 to 24	>25	
under 3	10.5	52.6	36.8	
3 to 4.5	14.2	42.8	42.8	
> 4.5	9.5	38.1	52.4	
	% of total	11.5	44.3	44.3

According to perceived food consumption changes, meats showed the largest increase (75%) and dairy products the second largest (72%). A similar report was presented by Powels et al. (1988). He reported that Greek siblings who had migrated to Australia consumed more meats, more milk and more ice cream than those living in Greece. An increase in consumption of meat was reported also for Italians (Reid and Tropf 1990) and Vietnamese migrant women (Baghurst et al. 1991). Coffee, margarine and sliced white bread were among the most frequently consumed western foods. Rutishauser and Wahlquist (1983) reported that coffee was the most prevalent beverage consumed by Greek immigrants to Melbourne. After migration to Australia, Iranians did switch to Lebanese flat white bread (59% daily) and then to traditional Australian sliced white bread (29.5% daily) as well as substituting coffee for tea and margarine for butter. Feta cheese is the most common cheese consumed by Iranians in Iran. The result of this study shows significantly positive association ($P < 0.05$) between length of time in Australia

and the frequency consumption of cottage, cheddar and cream cheeses (Table 2).

A significant positive relation ($P < 0.01$) was found between years of residency and increased use of beef meat (Table 2).

Foods	Under 3 years	3 - 4.5 years	> 4.5 years
Lebanese white bread	26.2	19.7	26.2
Sliced white bread	6.6	11.5	29.5
Beef	6.6	16.4	37.7

Cheese	Under 3 years	3 - 4.5 years	> 4.5 years
Cottage	8.2	19.7	26.2
Cheddar	1.6	4.9	16.4
Feta	13.1	21.3	11.5
Cream	1.6	13.1	26.2

Table 2 Frequency consumption of different foods (% increase)

The duration of stay in Australia significantly affected the dinner time of Iranian immigrants ($P < 0.005$). With increasing length of residence, dinner time became earlier, moving from 2000 hours to approximately 1900 hours. It may be due to differences in business time, school time and office hours in Australia in comparison with Iran. The average nutrient intakes of the Iranian women immigrants were determined from the three day diaries. While the average nutrient intakes were adequate, up to 12 individuals had intakes below 50% RDI for calcium, energy, potassium, iron and retinol. Preliminary evidence indicated that the diaries appeared to indicate a low fat diet. This observation requires further study.

IV. CONCLUSION

Analyses of data indicated that some significant changes to food habits do occur with the migration of the Iranian immigrants to Australia. These changes may be effected by factors such as length of residence, age, employment and education. A major reason for change seems to be cultural familiarity, availability, preference, convenience and cost. The changes are greater for eating patterns. The major changes are an increase in frequency in the consumption of western foods such as sliced white bread, coffee and margarine. The consumption of meat and dairy products increased with duration of residence; also, earlier evening meal time occurred. The majority of subjects gained weight (67%). Over 44% of the subjects had a BMI in excess of 25 (overweight or obese with 25% showing characteristics of android obesity). This study investigated the changes in food habits of Iranian immigrants in Sydney and new food items were only examined in terms of frequency, not quantity. These findings provide some important insights into the kind and continuity of change that these women are experiencing in Australia. It would be interesting and of value to investigate the reason for the apparent change and compare those whose food habits do change with those who retain the more traditional food habits.

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