Food Insecurity and Some Scio-Economic Factors Affecting Women Suffering from Acne

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Abstract: Food insecurity is defined as the limited provision of adequate food throughout the active and healthy life. Acne as a chronic inflammatory skin disease brings about undesirable mental and social effects for people. Recent studies indicate the vast percentage of food insecurity in Iranian society. The present study is aimed to examine the food security status and some socio-economic status affecting women suffering from acne. It was a sectional study done on 70 women with acne between 18 and 30 years of old. The public and socio-economic specifications and food security status were examined using the 18-item public questionnaire of the household socio-economic status and food security of the US Department of Agriculture. Statistical analysis was done using SPSS16. Food insecurity percentage was %70. Statistically significant relationship was observed between household, low economic level, low education and occupational status and food insecurity (p<0.05). Regarding the higher percent of food insecurity in the women suffered from acne in society, probably the food insecurity and some factors influenced by this increase the probability of acne outbreak in Iranian population. Hence, the reduction of food insecurity is effective in the manifestation of acne.

Keywords: Acne, socio-economic factors, food insecurity, women, Iran

1-Introduction

Food insecurity is defined as limited or uncertain access to adequate and secure food or limited or insecure ability for having access to acceptable foods from socially acceptable ways. Although food insecurity and hunger are resulted from the limit of financial resources, the measurement of poverty and income do not present clear information on the status of food security of the household. Studies showed that many low income households have food security and less percentage of non-poor households have also food insecurity (1,6). In different studies, factors affecting food insecurity are age, education of the householder, economic status, being fired, not having fixed job and saving, single household, increasing the household dimension, and losing food aids. The present study is aimed to examine the
food security status and some socio-economic factors affecting women suffering from acne (2,7,16). In Iran, for examining the household’s food security, direct and indirect methods are used (6,20-4). Acne is a chronic inflammatory skin disease which is of the prevalent diseases (especially in adolescence) which continues till adulthood. Maturity is the main factor beginning acne. Other factors inducing acne are inheritance, tension, hormonal changes and diet. Food insecurity is one of the factors affecting diet. Studies showed that food insecure people have higher carbohydrate reception (8). Yet, other studies have shown the relationship between acne and high carbohydrate consumption with high glycemic index (9). However, so far, no cited studies are done on the relationship between acne and food insecurity. The present study is aimed to examine the food security status and some socio-economic factors affecting women suffering from acne.

2-Methodology

This sectional study was done on 70 women with acne who had referred to Skin Clinic, Imam Khomeini Hospital, Tehran in 2012. The public data of the hospital included age, marital status, occupational status, education, ownership of house, the number of living items (economic status), household dimension, number of children, number of the people employed, having children below 18 and food security status were reviewed using the 18-item public questionnaire of the household socio-economic status and food security of the US Department of Agriculture. It must be noted that during previous studies in Iran, the validity of the questionnaire was examined (6, 12, 18). Before doing the main study, a pre-test was conducted on 30 people with acne to get familiar with the study environment, how patients respond the questionnaires, changes required for public questionnaires, socio-economic factors and the accuracy of the study. Regarding the input criteria including having mild or medium acne with below six-month diagnosis, the first time visiting the doctor for treatment, being woman and between 18 and 30 years of old, people entered the study. The preventing or exiting criteria included age below 18 and over 30, having hormonal problems, taking any kind of medicine, suffering from any disease and lack of cooperation till the end of survey. The researcher distributed both questionnaires among the participants after referring to the reception and recognizing the people, giving them required explanation and their conscious consent. Of total patients, only two had no consent to enter the study whom were replaced with next patients. Regarding the confidentiality of information and lack of intervention, ethics were considered. In general questionnaire, the economic status of family was examined based on the number of ninth items of living including house and car, dish washing machine, washing machine, LCD TV, side-by-side refrigerator, knitted carpet, lap top computer and microwave. And, below 3 items was considered as undesirable (bad) economic status, 4 to 6 as medium economic status, and over 7 items as good economic status. Scoring the 18-item USDA questionnaire of household food security is as follow: responses “most of the time correct”, “sometimes correct”, “almost every month”, “some months”, and “yes” are scored 1 and responses “is not correct”, “does not know or avoids”, “only once or twice a month”, and “no” are scored 0. And, finally, 0 to 2 are placed in food secure, 3 to 7 in food insecure without hunger, 8 to 12 in food insecure with medium hunger, and 13 and more in food insecure group with strong hunger. Data was analyzed using SPSS 16. The status of food insecurity was considered as two food secure and food insecure status. To examine the relationship between qualitative and quantitative variables of food insecurity with food security score, Chi2, Mann-Whithney and Pearson’s coefficient tests were respectively used. The significance level of 0.05 was acceptable.
3-Results
Of 70 women with acne, 21 were food secure and 49 food insecure. Married women (21), diploma and associate individuals (38), low and medium economic status people (57), <3 people families (51), household women (49), and had overweight and obesity. Different variables related to food insecurity are presented in the table below.

Table 1: the relationship between socio-economic factors and food insecurity

<table>
<thead>
<tr>
<th>Variable</th>
<th>Food insecure</th>
<th>Food secure</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupational status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housewife</td>
<td>42 (85.7%)</td>
<td>7 (14.3%)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Employed</td>
<td>7 (33.3%)</td>
<td>14 (66.7%)</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diploma and associate</td>
<td>34 (89.5%)</td>
<td>4 (10.5%)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>BS and above</td>
<td>15 (46.9%)</td>
<td>17 (53.1%)</td>
<td></td>
</tr>
<tr>
<td>Economic status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor (weak) and medium</td>
<td>49 (86%)</td>
<td>8 (14%)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Good (rich)</td>
<td>0 (0%)</td>
<td>13 (100%)</td>
<td></td>
</tr>
<tr>
<td>Household dimension</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;3 people</td>
<td>6 (31.6%)</td>
<td>13 (68.4%)</td>
<td></td>
</tr>
<tr>
<td>&gt;3 people</td>
<td>43 (84.3%)</td>
<td>8 (15.7%)</td>
<td></td>
</tr>
</tbody>
</table>

4-Discussion
Several studies are conducted in Iran on food insecurity for the whole population so that food insecurity percentage were reported as %30.5 in Yazd, %36.6 Isfahan, %50.5 Shahr-e Ray, and %36.3 Asadabad, Tabriz (12-15). Also, a study is conducted in Iran regarding the relationship between the disease and food insecurity. A study on people with upper digestion system cancer reported the food insecurity percentage as %69.17 in these individuals (21). This study examines the relationship between food insecurity and some socio-economic factors affecting women suffered from acne for the first time. The percentage was %70. The basic factors like low economic status and the food insecurity resulted from it push people toward the reduction of spending cost for food, reduction of having food and changing in the type of food consumed in which the food diversity and the consumption of highly caloric foods. These foods which include refined cereals containing trans or highly saturated fats have low nutritional quality and are less costly than their co-caloric substitutes. These food patterns result in the outbreak of acne (22). In studies conducted in Isfahan, Tabriz, and Ray in this regard, there is significant relationship between the household aspect and food insecurity correlated with the results of this study (12, 14, 15). As the household dimension increases, the provision of family’s needs gets risky and food insecurity happens. Based on Tabriz and Ray studies, there is significant relationship between the occupational status and food insecurity correlated with the results of this study (14, 15). A study on people with upper digestion system cancer and also Yazd and Ray studies reported significant relationship between low economic status and the food insecurity percentage which correlate with the results of the present study (13, 15, 21). In the past studies in Iran, it was realized that food-insecure people have lower economic status, as well (3,5). Foreign studies on food insecurity ad also reverse significant relationship with economic level (10, 11, 17). Economic level is the major determinant of food insecurity and the vital factor to access food in society. Households with higher income
and better economic status have further right of choice regarding food and can spend a further part of their income on food (19); accordingly, it can be said that economic level can affect all aspects of food security. With respect to the lack of previous cited studies on the relationship between food security status and socio-economic factors in women suffered from acne, more accurate comparisons and detailed studies must be carried out. Studying the percentage of food insecurity and some factors directly affecting the women with acne was done in Iran for the first time which is the advantage of this study.

5-Conclusions
So far, no studies were conducted to examine the food insecurity percent of women suffering from acne. And, it was not possible to describe the factors affecting their food insecurity. Yet, with respect to the higher percentage of food insecurity in the individuals with acne to the food insecurity percent of different studies in Iran, it can be said that likely the higher percentage of insecurity is related to the manifestation of acne. And, perhaps, with the reduction of food insecurity, the outbreak percentage will also be reduced. Since the present study was a sectional one, it is not possible to exactly determine the cause and effect. And, to prove the relationship between food insecurity and different factors including acne, observation or prospective studies must be carried out.

6-Acknowledgement
This study is based on the proposal approved by research deputy of Academy of Nutrition and Diet, Tehran University of medical sciences for the fulfillment of MS degree. Thanks to the honorable deputy of research, Faculty of Health, Tehran University of medical sciences who has provided the chance for doing this study and to the honorable personnel of Skin Clinic, Imam Khomeini Hospital. In the end, special thanks to the women suffered from acne and perfectly cooperate with us during the study.

References:

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