Report

Reproductive behaviour in women in Shiraz, Islamic Republic of Iran
T. Kazerooni,1 A.R. Talei,1 A. Sadeghi-Hassanabadi,1 M.M. Arasteh1 and J. Saalabian1

SUMMARY Data on the reproductive behaviour of women in Shiraz are presented. A total of 9934 randomly selected women aged ≥ 35 years of all socioeconomic levels were interviewed. The mean age at menarche ± standard deviation was 13.96 ± 1.23 years, mean age at first marriage was 17.10 ± 4.24 years and mean age at first pregnancy was 19.50 ± 3.90 years. The mean number of children was 4.56 ± 1.70 children, although for illiterate women it was 6.76 ± 1.76 children and for high-school- or university-educated women it was 3.36 ± 1.70 children. The mean age at menopause was 47.80 ± 3.78 years.

Introduction

The most important use of population information within different countries is for economic development planning. Since the resources allocated to different economic activities are directly related to population, accurate information on variables such as age, sex, race distribution, family structure, occupation, income and social status can have great value for such planning [1,2]. The results are useful for increasing the abilities of countries to conduct population and fertility studies, and in making a comparison between statistical values in different countries and changing world patterns of fertility.

Subjects and methods

In this report we present the results of reproductive information gathered about women in Shiraz in southern Islamic Republic of Iran. The information relates to 9934 women aged ≥ 35 years, selected randomly from a population-based breast cancer-screening programme in Shiraz, which is a city of 1.2 million people.

The data were gathered at 10 cooperative health centres located in different parts of the city, and represented all the socioeconomic sectors of the city.

Results

The mean age of menarche of the women studied was 13.96 ± 1.23 years, of whom only 8.42% were aged ≥ 15 years at menarche. Out of 9782 women who provided information on their age at first marriage, 80.73% married before 20 years and 3177 (32.48%) married before 15 years of age. The mean age at first marriage ± standard deviation was 17.10 ± 4.24 years, and 1.21% of the group under study were unmarried. The mean age at first pregnancy was 19.50 ± 3.90 years, and in 89.09% of first deliveries the mother was less than 25 years old.
years of age, as shown in Table 1. More than 14% of first births were to mothers < 15 years of age and most families had 4–6 children. The mean number of children in the family was 4.56 ± 1.70. Table 2 shows that the most commonly used form of contraception was the oral contraceptive pill (OCP) (58.30%) and the least common method was vasectomy (1.97%).

The mean number of children born to illiterate women was 6.76 ± 1.76 children.

The figure was 3.36 ± 1.70 children for women with a high-school or university education. With respect to the husband’s education, the number of children in the family was as follows: 5.38 ± 1.96 children for illiterate men and 3.85 ± 1.81 children for those with a high-school or university education.

Table 3 shows the size of the family in relation to the occupation of both parents. Working women with husbands employed in government offices had the fewest number of children.

Out of the study population, 3397 women had reached menopause, and the mean age of menopause was 47.80 ± 3.78 years.

<table>
<thead>
<tr>
<th>Variable</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age at menarche (years)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 12</td>
<td>588</td>
<td>6.17</td>
</tr>
<tr>
<td>12–15</td>
<td>8140</td>
<td>85.41</td>
</tr>
<tr>
<td>&gt; 15</td>
<td>802</td>
<td>8.42</td>
</tr>
<tr>
<td>Total</td>
<td>9530</td>
<td>100</td>
</tr>
<tr>
<td><strong>Age at first marriage (years)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 15</td>
<td>3177</td>
<td>32.48</td>
</tr>
<tr>
<td>15–19</td>
<td>4720</td>
<td>48.25</td>
</tr>
<tr>
<td>20–25</td>
<td>1501</td>
<td>15.34</td>
</tr>
<tr>
<td>&gt; 25</td>
<td>384</td>
<td>3.93</td>
</tr>
<tr>
<td>Total</td>
<td>9782</td>
<td>100</td>
</tr>
<tr>
<td><strong>Age at first pregnancy (years)</strong></td>
<td></td>
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<tr>
<td>No pregnancy</td>
<td>255</td>
<td>2.60</td>
</tr>
<tr>
<td>&lt; 15</td>
<td>1416</td>
<td>14.42</td>
</tr>
<tr>
<td>15–24</td>
<td>7331</td>
<td>74.67</td>
</tr>
<tr>
<td>25–34</td>
<td>750</td>
<td>7.84</td>
</tr>
<tr>
<td>&gt; 34</td>
<td>66</td>
<td>0.67</td>
</tr>
<tr>
<td>Total</td>
<td>9818</td>
<td>100</td>
</tr>
<tr>
<td><strong>Age at menopause (years)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35–40</td>
<td>341</td>
<td>10.04</td>
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<tr>
<td>41–45</td>
<td>549</td>
<td>16.16</td>
</tr>
<tr>
<td>46–50</td>
<td>1051</td>
<td>40.00</td>
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<tr>
<td>&gt; 50</td>
<td>856</td>
<td>25.20</td>
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<tr>
<td>Total</td>
<td>3397</td>
<td>100</td>
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</table>

*Age of menarche was not known for 404 women

<table>
<thead>
<tr>
<th>Variable</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Marital status</strong></td>
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<tr>
<td>Married</td>
<td>8238</td>
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<tr>
<td>Divorced</td>
<td>91</td>
<td>0.92</td>
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<tr>
<td>Widowed</td>
<td>1461</td>
<td>14.74</td>
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<tr>
<td>Unmarried</td>
<td>120</td>
<td>1.21</td>
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<tr>
<td>Total</td>
<td>9910</td>
<td>100</td>
</tr>
<tr>
<td><strong>Number of children</strong></td>
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<td></td>
</tr>
<tr>
<td>0</td>
<td>243</td>
<td>2.48</td>
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<td>1–3</td>
<td>2150</td>
<td>21.99</td>
</tr>
<tr>
<td>4–6</td>
<td>4364</td>
<td>44.63</td>
</tr>
<tr>
<td>&gt; 6</td>
<td>3022</td>
<td>30.90</td>
</tr>
<tr>
<td>Total</td>
<td>9779</td>
<td>100</td>
</tr>
<tr>
<td><strong>Method of contraception (n = 9934)</strong></td>
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</tr>
<tr>
<td>Oral contraceptive pill</td>
<td>5789</td>
<td>58.27</td>
</tr>
<tr>
<td>Condom</td>
<td>2792</td>
<td>28.11</td>
</tr>
<tr>
<td>Intrauterine device</td>
<td>2051</td>
<td>20.98</td>
</tr>
<tr>
<td>Tubal ligation</td>
<td>1827</td>
<td>16.38</td>
</tr>
<tr>
<td>Vasectomy</td>
<td>196</td>
<td>1.97</td>
</tr>
<tr>
<td>Other</td>
<td>2647</td>
<td>20.00</td>
</tr>
</tbody>
</table>

*Marital status was not known for 24 women

*aSome women had used more than one method of contraception
Table 3 The average family size ± standard deviation in different occupations of women and their husbands in Shiraz

<table>
<thead>
<tr>
<th>Wife's occupation</th>
<th>Unemployed</th>
<th>Labourer</th>
<th>Government employee</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housewife</td>
<td>5.64 ± 1.83</td>
<td>5.46 ± 1.78</td>
<td>4.52 ± 1.83</td>
<td>5.08 ± 1.83</td>
</tr>
<tr>
<td>Employed outside the home</td>
<td>3.33 ± 2.56</td>
<td>4.66 ± 2.16</td>
<td>2.92 ± 1.51</td>
<td>3.16 ± 1.84</td>
</tr>
</tbody>
</table>

Discussion

Accurate information on the fertility pattern of the female population and social status of women is of great importance in economic development planning. In our study, some useful information was obtained in this respect in a population of 9934 women in the Islamic Republic of Iran.

In Switzerland, the United States of America and the United Kingdom, the corresponding figures for age of menarche are 13.40 ± 1.10 years, 13.30 ± 1.30 years and 13.50 ± 1.00 years respectively, with no significant difference [3,4]. However, the age of menarche of our group was significantly different from the reported age in India and Sri Lanka (12.80 years) and Hong Kong (12.50 years). These differences are usually caused by geographic, genetic, dietary and stress factors [5]. Some studies have proved the effect of genetic factors in identical and non-identical twins [6–9].

The mean age at first marriage in our study was comparable with other studies in the world. In 1993, the mean age of first marriage was 17.50 years in the country, and in Shiraz it was 17.60 years [10]. In studies conducted in 1979 and 1986, the incidence of first marriage < 15 years of age was 6.00% and 9.20% respectively [11]. It is obvious that the age at first marriage is significantly lower in our country compared with other countries. For example, marriage at < 15 years is 3.05% in Cyprus [12], 2.77% in the United States [13] and 0.37% in Turkey [4]. Marriage after the age of 35 years was very rare, and only 1.21% of women were unmarried.

The consequence of early marriage is early pregnancy. In different countries, the age at first pregnancy varies and depends largely on cultural factors. In a survey in our country conducted in 1993, mean age for first pregnancy was 18.20 years [10]. An increase in the legal age for marriage and better education in contraceptive methods seems to be the best way to tackle this problem. As the World Health Organization (WHO) has announced, 20%–40% of maternal deaths are preventable, merely by the use of contraception [1,14]. According to a report by the Population Crisis Committee, 74.00% of the community in China uses some form of contraception, while the figure for the Islamic Republic of Iran is only 15.00% [15,16]. In other words, China has had a 55.00% decline in the total fertility rate, while the decline for our country is only 24.00% [10,17]. These figures indicate the problems that will face the Islamic Republic of Iran in the future. On the whole, the most popular method was OCP, which is comparable to the rest of the world.
The level of education and employment of couples has an important effect on family size. In a similar study carried out 20 years ago in India, the ideal family size was reported to be 8 children. However, during 1992–93 the corresponding figure was 2.90 children [18]. The author of the study attributed this change to the increasing level of parental education. The study emphasized that the mother’s job had a far more significant effect on the number of children than that of the father.

The age of menopause appears to be lower in the Islamic Republic of Iran compared with other countries. In the United States it is 51 years [19]. In a study carried out in Italy, the average age of menopause was 44.30 ± 4.40 years, which is a younger age compared with our study [16].

Conclusion

In our study, some useful information was obtained for a sample of 9934 women from Shiraz. The age at menarche, first marriage and first pregnancy is lower in the Islamic Republic of Iran and eastern countries than western ones. In the areas of contraceptive methods, impact of education on family size and age of menopause, there were no differences. Our recommendation to the government is to increase the legal age of marriage, improve the educational level of women and provide better health services for an improved quality of life.

Acknowledgements

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References


