Report

Bahraini women's health: a background paper

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SUMMARY This study assessed the trends in the health status of Bahraini women from the early 1980s to the mid 1990s through review of census data and health data. Sociodemographic characteristics, reproductive health, mortality, morbidity and lifestyle patterns were studied. The implications of the data and measures needed to be taken to further improve the health and health care services of women are discussed.

Introduction

Bahrain has undergone rapid economic development following the discovery of oil and has become a centre for commercial and financial activities in the region. Economic development has been accompanied by an improvement in health services and an increase in the number of educational establishments. Health services are provided free to all residents by the government: there are 21 health centres, 4 maternity centres, 2 general hospitals, 1 psychiatric hospital and 1 geriatric hospital. There are also 3 private general hospitals and several private clinics. Education is provided by 180 government and 38 private schools. Higher education is available at 2 universities and several colleges and institutes [1]. Economic development has resulted in an improvement in socioeconomic status and a change in food habits and lifestyle [2]. Cigarettes have gained in popularity over the traditional waterpipe and sedentary lifestyle patterns have prevailed [2,3].

The current study assessed trends in the health status of Bahraini women from the early 1980s to the mid 1990s with secondary data. Non-Bahraini women were excluded because of their heterogeneity and transient nature. Census data for 1971. 1981 and 1991 and official health data for 1982-1995 were reviewed. Life expectancy, fertility indicators, mortality indicators and morbidity data were used. When unavailable, rates were calculated using published estimated population figures. The prevalence of certain conditions and lifestyle patterns such as anaemia, diabetes, hypertension, obesity, smoking, physical exercise and intake of fruits and vegetables were abstracted from all available publications. The term "women" was used for females ≥ 15 years except when the only available information was for females of all ages; then "females" was used. The total fertility rate represents the average number of children a Bahraini woman would have in her reproductive lifetime at the age spe cific fertility rates of a given year. The gen-

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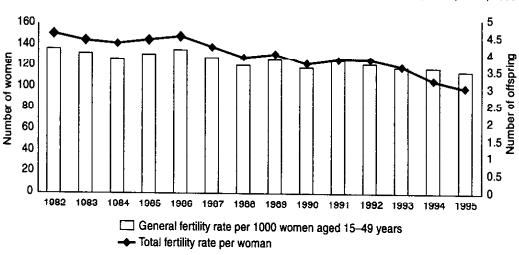


Figure 1 General fertility rate and total fertility rate among Bahraini women,1982-1995

Mortality

The available reports did not provide maternal deaths for Bahraini and non-Bahraini women individually but for both combined. The maternal mortality rate for Bahraini and non-Bahraini women combined fluctuated during the period because of the small number of deaths; the average was 22.4 per 100 000.

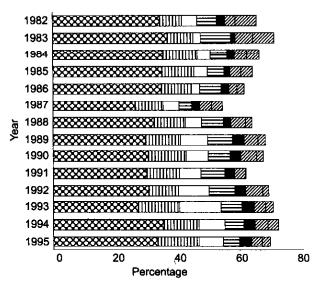
Bahraini females in the early 1980s had a higher percentage of deaths below the age of 50 years (45.1%) than Bahraini males (41.5%). The percentage of deaths among Bahraini females, however, has declined more sharply than that among Bahraini males, reaching 26.0% and 32.2% in females and males respectively in 1995. This decline in the percentage of deaths for Bahraini females < 50 years of age could partly be attributed to the decrease in the age-specific death rates of Bahraini females < 5 years of age and the increase in mortality in those ≥ 50 years (Table 1).

Circulatory diseases were the leading cause of death among Bahraini females

throughout the 14-year period, accounting for one-third of the deaths in 1995 [4]. The proportional mortality ratios (PMR) of neoplasms and of endocrine, nutritional and metabolic diseases, and immunity disorders increased throughout the period, while those of diseases of the digestive system only increased slightly from 1989 onwards. However, the PMR of injury and poisoning decreased and has become more or less stable for other causes (Figure 2). The average proportion of deaths attributed to complications of pregnancy, childbirth and puerperium during the 14-year period was 0.4%.

Morbidity

Diagnosis at discharge was not provided separately for Bahrainis and non-Bahrainis before 1992. The percentage of discharges from the main general hospital, Salmaniya Medical Complex, diagnosed as neoplasms (48%), diseases of the digestive system (43.6%), infectious and parasitic diseases



- 🖴 Diseases of the circulatory system, 2.0%
- Neoplasms, 87.3%
- Endocrine, nutritional and metabolic diseases and immunity disorders, 57.1%
- □ Diseases of the respiratory system, 17.5%
- Diseases of the digestive system, 48.1%
- Diseases of the genitourinary system, 0%
- Injury & poisoning, 61.8%

Figure 2 Proportional mortality ratios of leading causes of death among Bahraini females and percentage change, 1982–1995

(24%), diseases of the genitourinary system (5.9%) and diseases of the respiratory system (2.1%) increased for Bahraini females from 1992 to 1995; the incidence of other diseases decreased [4].

A quarter of Bahraini women ≥ 15 years of age reported having a doctor-diagnosed chronic illness or disability; 12.1% had cardiovascular disorders [6]. Reporting a diagnosis of chronic illness or cardiovascular disease increased with age, reaching 58.0% and 40.4% for women aged 60–69 years respectively. A woman was considered to have a chronic illness or disability if she was reported to have had any of the following doctor-diagnosed conditions: high blood pressure, heart disease, diabetes, stroke, asthma, joint

disease, peptic disease, renal disease, liver disease, nervous system disease, cancer or any condition of long duration which prevented or limited her participation in activities normal for a person of her age [6]. A woman was classified as having a cardiovascular disorder if she had any of the following conditions confirmed by a doctor: cardiac disease, other heart trouble, stroke, high blood pressure or diabetes [6].

Several studies have found diabetes to be a common health problem among Bahraini women [6,8-13]. Variations in the prevalence of diabetes among studies of similar age groups has been attributed to case definitions which were based on clinical and laboratory tests or reported by interview (Table 4). A quarter of women aged ≥ 20 years and 36.4% of those aged 50-69 years had diabetes based on clinical and laboratory evidence [11,13].

Hypertension was another health problem for older Bahraini women [6,12,13]. Over one-half of Bahraini women 50–69 years of age were diagnosed with hypertension (systolic pressure \geq 140 mmHg, diastolic pressure \geq 90 mmHg) and 27% of those aged \geq 50 years reported having hypertension (Table 4) [6,13].

Iron deficiency anaemia was prevalent among non-pregnant (49.6%) and pregnant (41.7%) Bahraini women (haemoglobin < 11 g/dL) [14,15]. Adolescents aged 15–18 years were also

Table 4 Prevalence of diabetes and hypertension among Bahraini women

Study	Diabetes %	Hypertension %			
Al-Mahroos and					
McKeigue ^a [13]					
50-59 years	35.4	_			
60–69 years	37.6	_			
Total	36.4	55.0			
Musagier and Al-Room ^p [12]					
30-49 years	6.6	7.4			
50-79 years	19.8	28.1			
Total	12.4	16.6			
Yacoub et al. ^b [6]					
≥ 50 years	19.0	27.0			

^{*}Clinical and laboratory measurements

found to have a high prevalence of anaemia (41.9%) [16].

The total rate of disability among Bahraini females declined between the period of

the 1981 census (102/10 000) and that of the 1991 census (98/10 000). The rates of specific disabilities such as blindness, deafness and paralysis decreased [5].

Lifestyle patterns

Obesity has been reported to be a major health problem among Bahraini women since the 1970s [14]. Recent studies have also found that obesity (BMI $\geq 30 \text{ kg/m}^2$) and overweight (BMI = $25-29.9 \text{ kg/m}^2$) were high among Bahraini women of various age groups. Of women aged 20-65 years, 29.4% were overweight and 31.4% obese [17]. Obesity has been a major health problem particularly among Bahraini women 50-79 years old, half of whom have been reported to be obese [12]. Studies have also found that overweight was a common health problem among adolescents [18]. Lack of exercise, high intake of energy-rich food, sedentary lifestyle, multiple pregnancies and sociocultural factors are some of the possible explanations for

Table 5 Prevalence of cigarette and all types of tobacco smoking among Bahraini women

Age group (years)	1981*		1995	
	Cigarettes %	All types %	Cigarettes %	All types %
15–19	0.7	1.2	0.5	0.9
20–29	0.6	3.9	0.6	2.7
30-39	0.7	12.2	1.2	8.8
40-49	1.4	23.6	1.2	17.0
50-59	0.3	22.1	1.2	22.8
60-69	0.0	16.9	1.6	22.6
≥70	-	23.3	0.7	22.6
Total	0.6	9.5	0.9	9.3

^{*}Source: [3]

^{*}Self reported

^{*}Source: [6]

the high prevalence of obesity among Bahraini women [19].

The prevalence of smoking (daily and occasional) of all types (9.3%) among Bahraini women [6] was lower than that of women in industrialized countries and some of the neighbouring countries. When available data for the early 1980s and 1995 [3,6] were compared, a decline was noted in the prevalence of smoking among all the age groups except those aged 50-59 years, which had a slight rise and those aged 60-69 years, which increased from 16.9% to 22.6% (Table 5). The percentage of women reporting eigarette smoking increased from 0.6% to 0.9%. The increase in the prevalence of cigarette smoking was highest among those ≥ 50 years. Daily regular smoking of cigarettes, other tobacco and all types of tobacco has increased among women [20].

Practice of exercise (8.3%) was very low among Bahraini women 30–79 years of age but daily intake of fruits (65.4%) and vegetables (81.1%) was high [12].

Conclusion

The percentage of Bahraini women < 20 years who were ever married (20.6%) declined but was still higher than that of industrialized and some developing countries. The decline in the general and total fertility rates corresponded to global figures [21]. The average number of children born to Bahraini women was still higher than that of North American and European women [21]. The percentage of first births to Bahraini women under 20 years (8.8%) was one of the lowest globally, which may be due to the rise in age at marriage, the improvement of the educational level of women and to the religion (Islam) which prohibits sexual relationships outside of marriage [21].

Bahraini women have a longer life expectancy than most women in developing countries [22]. However, women aged \geq 60 years account for only 5.2% of the female population whereas in industrialized countries they account for 20% and in the developing countries for 7% [22]. This low proportion might partly be explained by the fact that birth registration was not mandatory in Bahrain until 1 June 1970 and that the elderly, particularly elderly women, did not know their actual birth date and hence were included in younger age groups. Thus, the proportion of women ≥ 60 years is expected to continue rising; older women will require access to a range of long-term care services in the future.

Circulatory diseases were the leading cause of death among Bahraini females as it is among women in industrialized countries [23]. The high PMR due to circulatory diseases and the high prevalence of avoidable contributing factors warrants attention, especially because a larger proportion of women will be in the elderly age group and the prevalence of diabetes, hypertension, obesity, smoking and lack of exercise is high among these age groups. The increase in mortality due to neoplasms that are mostly diet and smoking related further emphasizes the need to control these risk factors [24].

The high prevalence of anaemia among pregnant Bahraini women corresponds to the global figure of 51% and is higher than that of European (17%) and North American (17%) women [21,25,26]. Bahraini adolescent girls suffer from iron deficiency anaemia similar to adolescent girls in devel oping countries [25]. Deliberate reduction of food intake during pregnancy and dictary iron intakes below those of the recommended dietary allowance have been reported [15]. Teenage students have been

reported to have unsound food habits [27]. The high prevalence of anaemia among women of the adolescent and reproductive age who are in particular need of good nutrition indicates the need to promote healthy eating habits among them.

Efforts should concentrate on the reduction of morbidity of noncommunicable diseases by developing strategies to promote healthy behaviour throughout a woman's lifespan. Early detection and efficient management of diabetes, hypertension and

circulatory diseases should be stressed. Ongoing policies and structures that promote the health, educational and social development of Bahraini women should be encouraged and supported.

Baseline field studies on serum cholesterol levels, abortion, menopause and other conditions where data are lacking should be undertaken. Studies to assess the change in the health status of women with respect to conditions for which baseline data have been collected is of utmost importance.

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