

Prevalence of reproductive morbidity among women of the Qashqa'i tribe, Islamic Republic of Iran

A. Sadeghi-Hassanabadi,¹ H. Keshavarz,¹ E. Setoudeh-Maram¹ and Z. Sarraf²

انتشار المراضة الناجمة عن الإنجاب بين نساء قبيلة قشقائي في جمهورية إيران الإسلامية
علي صادقي حسن آبادي وهما كشاووز واسفنديار ستوده مرام وزهرا صراف

خلاصة : تمت دراة المشكلات الخاصة بالأمراض النسائية المرتبطة بالحمل بين ألف وعشرة من نساء قبيلة قشقائي شبه البدويات . وتبين أن المشكلات الأكثر انتشاراً بينهن هي القيلة المثانية (56.0%) وتدلي الرحم (53.6%) والقيلة المستقيمة (40.4%) . وكانت هناك حالات أخرى مثل تأكل عتق الرحم والتهاباته وسلس البول وعسر الجماع ، وتراوحت معدلات انتشارها بين 24% وبين 40% . واقراً اعتبر أن صغر السن عند الزواج والحمل ، وكثرة الولادات وتعذر الوصول إلى المراكز الطبية ، هي أهم العوامل المؤدية إلى هذه المعدلات العالية ، وإن كان نمط حياة النساء في هذا المجتمع يمكن كذلك أن يكون من العوامل الرئيسية المسببة لهذه الحالات .

ABSTRACT Gynaecological problems related to childbearing were studied in 1010 married women of the semi-nomadic Qashqa'i tribe. The most common problems were cystocele (56.0%), uterine prolapse (53.6%) and rectocele (40.4%). The prevalence of other problems such as cervical erosion and inflammation, urinary incontinence and dyspareunia was found to be between 24% and 40%. Early age at marriage and childbearing, high parity and poor access to medical facilities are considered to be the most important factors leading to these high prevalence rates, although the lifestyle of the women in this community could also be a major contributing factor.

Prévalence des pathologies liées à la reproduction chez les femmes de la tribu des Qashqa'i en République islamique d'Iran

RESUME Les problèmes gynécologiques liés à la maternité ont été étudiés chez 1010 femmes mariées appartenant à la tribu semi-nomade des Qashqa'i. Les problèmes les plus courants étaient la cystocèle (56,0%), le prolapsus utérin (53,6%) et la rectocèle (40,4%). La prévalence des autres problèmes tels l'érosion et l'inflammation cervicales, l'incontinence d'urine et la dyspareunie a été estimée à un niveau se situant entre 24% et 40%. Le mariage et la maternité à un jeune âge, le grand nombre d'enfants et le manque d'accès aux établissements médicaux sont considérés comme étant les facteurs les plus importants à l'origine de ces taux élevés de prévalence bien que le mode de vie des femmes dans cette communauté puisse également être un facteur majeur y contribuant.

¹Department of Community Medicine; ²Department of Obstetrics and Gynaecology, Shiraz University of Medical Sciences, Shiraz, Islamic Republic of Iran.

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Introduction

Over 500 000 women die each year worldwide because of the complications of pregnancy and childbirth. Most of these deaths occur among young, poor mothers in developing countries in Asia and Africa. A woman living in eastern, middle or western Africa is 75 to 100 times more likely to die when she becomes pregnant than a woman who lives in western Europe [1]. As more reliable data have been accumulated about maternal mortality in developing countries, concern has grown about this problem [2].

However, what has been almost totally neglected are the long-term effects of pregnancy and childbirth on women, particularly younger women, and in 1989 a World Health Organization workshop was held with the purpose of stimulating research into reproductive morbidity [3]. Most of our knowledge about the problem of reproductive morbidity stems from limited research work in Asia and Africa and most studies have been hospital-based and have focused only on one problem (e.g. uterine prolapse) [4,5]. Because of lack of uniformity in research methods, there is no reliable basis for comparison. For example, the prevalence of uterine prolapse has been reported to be between 3% and 25% in some developing countries [3].

It has been said that for every maternal death there are about 16 episodes of illness related to pregnancy and childbirth [3]. This means that we are faced with more than 8 million episodes of reproductive morbidity each year. When one realizes that at least half of these illnesses progress to a chronic state and remain with the women for the rest of their lives, the importance of early detection and management becomes evident.

Therefore, this study was carried out to investigate the following conditions related to reproductive morbidity: uterine prolapse,

rectocele, cystocele, urinary incontinence, dyspareunia and secondary infertility.

Because of the importance of age, parity, age at marriage and sociocultural characteristics as risk factors in developing these conditions, they were considered independent variables in analysing the data. One of the major reasons why the Qashqa'i people were chosen for the study was their poor access to medical facilities. The study was carried out in conjunction with a major study, the main purpose of which was to determine the prevalence of cervical pathologies and their risk factors in the same population [6].

Subjects and methods

The members of the Qashqa'i tribe, who are native to Fars Province, live a semi-nomadic life, migrating twice a year between the mountainous areas of the north and the semi-tropical areas of the south. The total population of the tribe has been estimated at 112 519 (57 194 males and 55 325 females) and includes six major branches (*taife*) comprising 16 908 households [6]. The major occupation in the tribe is traditional sheep raising; other occupations include agriculture, gardening and the production of handmade products such as carpets.

The male dominance in the culture of this community means that women carry out many different tasks, such as baking bread, bringing water from a distance, weaving carpets, supervising the herds and preparing dairy products, as well as being housewives and mothers. At the time of the study, the available information [7] suggested that the literacy rate among the women under study was only 8%, that 86.5% of those of reproductive age did not use any form of contraception, and more than 50% had had seven or more pregnancies.

One thousand households were proportionally selected at random out of the 16 908 households of the six major branches. In each household, every married woman who was not pregnant or menstruating was selected to be included in the study. The details of the selection process and the original study are given elsewhere [6]. In all, 1010 women were finally included in the study.

The study was carried out during the summer and autumn of 1990. About 20 different locations all over the province were used to visit and examine the studied women. The interviews and vaginal examinations were carried out by a nurse-epidemiologist and a female physician under close supervision of an obstetrician-gynaecologist. The examination was done inside the family tent where the household had settled in a pastoral location or on the way between the mountainous north and semi-tropical south during the autumn migration.

Results

The age distribution, age at marriage and parity of the women studied are presented in Table 1. The data show that 77.9% of the women had had four or more pregnancies during their reproductive period up to the time of the study and 83.8% of them were married by the age of 20 years. It was also found that 72.8% of all deliveries took place in the tents within the community with no educated birth attendant, and 73.2% of the women studied had never been visited by a gynaecologist. More than 43.0% of the women had their first pregnancy within the first year of marriage and 84.0% within the first two years of marriage.

Table 2 shows the overall prevalence of major gynaecological problems among the women studied. The most common condition was cystocele (56.0%) followed by

uterine prolapse of any degree (53.6%) and rectocele (40.4%). In 397 cases (39.3%), both cystocele and rectocele were present. Other gynaecological problems such as cervical erosion and inflammation, urinary incontinence and dyspareunia (as reported by the women themselves) were found to be highly prevalent. Secondary infertility was reported by 21 women (2.1%).

Table 3 indicates a statistically significant difference ($P < 0.01$) when the prevalence of these problems are looked at according to different age groups (the only exception being secondary infertility). The three major gynaecological problems (uterine prolapse, cystocele and rectocele) increased significantly with increasing age while the other problems, such as cervical erosion and inflammation and dyspareunia, were more prevalent in the younger age groups.

Table 1 Age distribution, age at marriage and number of pregnancies among 1010 Qashqa'i women, 1990

Characteristic	No.	%
<i>Age (years)</i>		
< 20	41	4.1
20-29	227	22.5
30-39	276	27.3
40-49	196	19.4
50-59	149	14.8
≥ 60	121	12.0
<i>Age at marriage (years)</i>		
< 16	345	34.2
16-20	465	46.0
21-25	132	13.1
≥ 26	25	2.5
Unknown	43	4.3
<i>Number of pregnancies</i>		
0	61	6.0
1-3	162	16.0
4-6	268	26.5
≥ 7	519	51.4

Table 2 Prevalence of different gynaecological problems among 1010 Qashqa'i women, 1990

Gynaecological problem	No.	%
Cystocele	566	56.0
Uterine prolapse	541	53.6
Cervical inflammation	411	40.7
Rectocele	408	40.4
Cystocele and rectocele	397	39.3
Cervical erosion	306	30.3
Urinary incontinence	273	27.0
Dyspareunia	246	24.4
Cystocele, rectocele and incontinence	126	12.5
Cystocele, rectocele and cervical inflammation or erosion	52	5.1
Secondary infertility	21	2.1

Table 3 also shows the prevalence of the different conditions according to the number of pregnancies. The prevalence was significantly different in women with different numbers of pregnancies ($P < 0.05$ to $P < 0.001$). When the data of women with four or more pregnancies were compared with those of women with three or fewer, the risk ratios for the three major problems were the highest of the problems studied; uterine prolapse (3.42), rectocele (3.23) and cystocele (3.14). The risk ratio calculated for urinary incontinence was also high (2.19).

The proportionate distribution of different degrees of uterine prolapse according to age and number of pregnancies is presented in Table 4. As expected, the older age groups and those with a greater number of pregnancies had a higher degree of prolapse.

To examine the effect of pregnancy on the findings, the effect of age on each condition was controlled using a logistic regression model and the regression coefficients were calculated for every complication

considering age and number of pregnancies (Table 5).

Discussion

The high prevalence of gynaecological problems in this group of women could be attributed to many factors, the most important of which were early age at marriage, early and repeated pregnancies and lack of access to medical facilities. In addition, the low literacy rate, the lifestyle and the involvement of women in different tasks of semi-nomadic life are among the major cultural factors contributing to life-long illnesses in these women.

Although we do not have reliable population-based information about the problems studied in the general population of the Islamic Republic of Iran, on the basis of reported prevalences in different countries [3], the rates in this semi-nomadic community are amongst the highest found in the world.

Very early marriage (in adolescence) and pregnancy (within the first and second year of marriage) can be considered to carry very serious health and social risks [8]. The risk of maternal mortality due to obstetric complications, such as obstructed labour, eclampsia, sepsis and haemorrhage, are more frequent in pregnancies occurring at a young age [2,8]. The risk of chronic complications, such as fistulae and prolapse, is also higher in teenage pregnancy. The mechanical stress of repeated pregnancies and long labours, particularly where marriage and childbearing begin early, are considered to be among the most important predisposing factors for major reproductive morbidities, including uterine prolapse [3].

It has been reported from other similar sociocultural communities in India and Bangladesh that reproductive morbidity and gynaecological disorders have a very high

Table 3 Prevalence of different gynaecological problems among 1010 Qashqai women according to age and number of previous pregnancies, 1990

Variable	No. studied	Cystocele No. %	Uterine prolapse No. %	Cervical inflammation No. %	Rectocele No. %	Cervical erosion No. %	Urinary incontinence No. %	Dyspareunia No. %	Secondary infertility No. %								
<i>Age (years)</i>																	
≤19	41	1	2.4	5	12.2	13	31.7	0	12	29.3	2	4.9	7	17.1	1	2.4	
20-29	227	68	30.0	65	28.6	103	45.4	48	21.1	85	37.4	45	19.8	65	28.6	10	4.4
30-39	276	158	57.2	158	57.2	129	46.7	104	37.7	107	38.8	82	29.7	89	32.2	4	1.4
40-49	196	147	75.0	132	67.3	94	48.0	98	50.0	52	26.5	70	35.7	57	29.1	3	1.5
50-59	149	108	72.5	91	61.1	43	28.9	85	57.0	27	18.1	50	33.6	22	14.8	3	2.0
≥60	121	84	69.4	83	68.6	29	24.0	73	60.3	23	19.0	34	28.1	6	5.0	0	0
χ^2	-	164.4	114.6	34.5	108.2	34.0	24.7	47.5	8.4	<0.0001	<0.0001	<0.001	<0.0001	<0.0001	0.09		
P	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.001	<0.0001	0.09								
<i>No. of pregnancies</i>																	
0	61	3	4.9	0	0	9	14.8	2	3.3	7	11.5	0	0	11	18.0	-	-
1-3	162	44	27.2	41	25.3	62	38.3	31	19.1	49	30.2	29	17.9	34	21.0	15	9.3
4-6	268	150	56.0	139	51.9	118	44.0	105	39.2	94	35.1	70	26.1	81	30.2	3	1.1
≥7	519	369	71.1	354	68.2	222	42.8	275	53.0	155	30.0	174	33.5	120	23.1	3	0.6
χ^2	-	169	167.8	19.6	95.6	13.2	41	7.8	48.7	<0.0001	<0.0001	<0.0001	<0.0001	<0.05	<0.0001		
P	-	<0.0001	<0.0001	<0.0002	<0.0001	<0.005	2.19	1.27	-								
Risk ratio ^a	-	3.14	3.42	1.36	3.23	1.24	2.19	1.27	-								

^aRisk ratio = > 3 previous pregnancies/≤ 3 previous pregnancies

Table 4 Proportionate distribution of different degrees of uterine prolapse in Qashqa'i women according to age and number of pregnancies, 1990

Age and parity	% 1st degree	% 2nd degree	% 3rd degree	Total no.	%
<i>Age (years)</i>					
< 20	80.0	20.0	0	5	0.9
20-29	56.0	44.0	0	68	12.7
30-39	54.6	41.7	3.7	163	30.1
40-49	33.1	60.9	6.0	133	24.6
50-59	40.2	55.4	4.3	92	17.0
≥ 60	41.3	48.8	10.0	80	14.8
<i>Number of pregnancies</i>					
1-3	58.1	39.5	2.3	43	7.9
4-6	46.5	49.3	4.2	142	26.2
≥ 7	43.3	51.4	5.3	356	65.8
Total	245	270	26	541	100.0

Table 5 RISK ratios of different gynaecological problems in Quashqa'i women according to the number of pregnancies (> 3/≤ 3) in different age groups, 1990

Age (years)	Cystocele	Uterine prolapse	Cervical inflammation	Rectocele	Cervical erosion	Urinary incontinence
20-29	1.0	2.3	1.5	1.7	1.6	2.0
30-39	2.5	2.3	1.3	1.9	2.1	1.4
40-49	2.0	9.2	2.1	2.2	2.3	2.4
50-59	2.1	3.5	3.3	1.6	2.1	1.5
≥ 60	1.6	2.0	3.4	2.4	1.1	3.4

prevalence, especially in rural areas [9,10]. Nevertheless, it was found in one study [9] that although 55% of women examined had one or more gynaecological problem, only 8% had received medical attention. A similar situation was found in this population [6]; more than 73% of the women studied had never been examined by an obstetrician/gynaecologist before in spite of their high parity (seven or more pregnancies in more than 50% of the women) and high prevalence of gynaecological disorders.

The high prevalence of major gynaecological disorders, especially in the young age groups of the Qashqa'i women, indicates the need for a prompt and organized effort to combat the problem. Controlling sociocultural factors and changing lifestyles in these traditionally semi-nomadic communities are not easy tasks. What should be addressed and is a feasible task for health authorities is to provide suitable health services of an acceptable quality and coverage through a primary health care network.

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