

## **Clients' Satisfaction of the Premarital Counseling Service in Bahrain**

Shaikha Al Arrayed, MB.BCh, DHCG, PhD\* Amani Al Hajeri, MD, CABFM, IBFM,  
MSc MG\*\*

**Background:** In an attempt to reduce the incidence of genetic disease in Bahrain a premarital screening program was introduced in 1985, which included a national campaign to increase the awareness of genetic blood diseases among the population.

In 1992, the premarital counseling service was extended to include all health centers and on the 23<sup>rd</sup> June 2004, a law has been issued mandating premarital screening and counseling for all individuals wishing to get married.

**Objective:** The aim of this study is to evaluate the clients' satisfaction from the premarital counseling service after four years of issuing the law.

**Setting:** Genetic Clinic at Salmaniya Medical Center.

**Design:** Cross sectional study.

**Method:** A questionnaire was distributed to the attendants of the genetic clinic (GC) for premarital counseling. Those who received and answered the questionnaire were referred from health centers (HC) after being evaluated and found at risk. The study was conducted from January 2005 to December 2007. SPSS was used to analyze the data.

**Result:** One thousand five hundred and sixty-six clients answered the questionnaire, 70% of the respondents reported that the service is excellent in general. In the HC, 82% faced no problems in taking an appointment and 89% had no problems during the interview.

At the GC, 91% agreed that there were no significant problems in getting an appointment and 97% had no problems during the consultation. Eight-two percent of the referred couples preferred to have the certificate stamped in the GC.

It took one week for 73.5% of the clients to get an appointment in the HC. Seventy-eight percent got their laboratory results within a week and 86% were seen in the genetic department within one week.

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\* Chairperson

\*\* Chief Resident

Genetic Department

Salmaniya Medical Complex

Kingdom of Bahrain

Email: ssarrayed@batelco.com.bh; alhajeriamani@gmail.com

**Conclusion: After almost 4 years of issuing the premarital law in Bahrain, most clients attending the premarital service in GC are satisfied with the level of the service. The delay in getting an appointment in the HC and in getting the laboratory results are major problems the clients are concerned about.**

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Many nations around the world started to realize the vital importance of premarital counseling as a public health measure. It has been indicated that 240 million people world wide are heterozygous for genetic disorders. About 200,000 lethally affected homozygotes are born annually, major proportion of these are sickle-cell anemia and thalassemia syndromes<sup>1</sup>. The economic and the societal burdens of these diseases are tremendous<sup>2</sup>. It is well recognized that their prevention can lead to significant benefits across the healthcare spectrum<sup>3</sup>.

The burden of genetic blood disorders in Bahrain is enormous. This is well demonstrated when considering that as much as 1-2% of the neonates are born with sickle-cell disease; 11% are found to be sickle cell carriers and 2% are found to have carrier state for b-thalassaemia<sup>4,5</sup>.

Genetic counseling has been defined as "the process by which patients or relatives at risk of a disorder that may be hereditary are advised of the consequences of the disorder, the probability of developing or transmitting it and the ways this may be prevented, avoided or ameliorated"<sup>6</sup>. The process of premarital genetic counseling is primarily educational, non-directive in nature. It aims at helping individuals at risk to make their own informed decisions according to their own values.

In Bahrain, a premarital screening service has been available at the genetic department in the Ministry of Health since 1985. It was established as an attempt to reduce the incidence of genetic diseases. In 1992, premarital counseling was incorporated in the primary health care services to be included in all health centers throughout the Kingdom of Bahrain. A new law has been passed by the Bahrain Government which requires that all Bahraini couples, who are planning to marry, undergo mandatory premarital counseling<sup>7</sup>.

Any Bahraini citizen planning to get married is required to undergo obligatory premarital counseling for hereditary, sexually transmitted, and other common diseases according to regulations issued by the Minister of Health<sup>8</sup>. This process is essential to obtain a legal marriage document. The service provided by physicians supported by trained health nurses at all health centers and is based on clearly defined protocols and guidelines laid down by the Ministry of Health<sup>8</sup>.

The initial screening consists of history taking, physical examination and laboratory tests for hereditary as well as infectious diseases. Any further investigations will be dictated by the individual's health status. Couples have shown to be at risk of hemoglobinopathies are referred to the genetic department at the SMC where they receive counseling and are

provided with further information as booklets and educational materials. It should be stressed that according to the new genetic counseling decree it is “compulsory to be tested but not compulsory to take the advice” and therefore individuals are not obliged to accept the advice given by the geneticist.

A certificate is issued after counseling to the individual stating that they have received pre-marital counseling. This certificate does not contain any personal genetic health information, but merely states that the individual has received premarital counseling and it is the formal document required by the Ministry of Religious Affairs to permit the issuing of a legal marriage document<sup>7</sup>.

The aim of this study is to evaluate the clients’ satisfaction from the service of the premarital counseling provided in the primary health care centers and the genetic clinic in Salmaniya Medical Complex during the first four years of issuing the law.

## **METHOD**

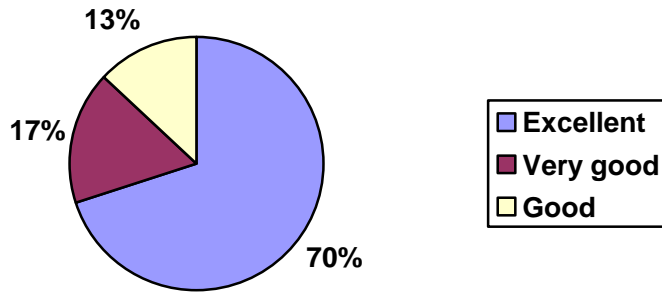
An anonymous self administered questionnaire was distributed to the attendants of the genetic clinic for premarital counseling. Those who received and answered the questionnaire were referred from health centers after being evaluated and found at risk of having affected offspring. The study was conducted from January 2005 to December 2007. The questionnaire consisted of 11 multiple choice questions with enough spaces provided for further explanations and comments. The questions covered the service provided at the level of primary care and at the genetic department. SPSS was used to analyze the data.

## **RESULT**

One thousand five hundred and sixty-six clients answered the questionnaire. Seventy percent reported that the service is excellent generally, see Figure 1. Eighty-two percent faced no problems in taking an appointment at the health center and 89% had no problems during the interview. Eighty-two percent had faced no problem in getting their laboratory result.

The majority (91%) who were referred to the genetic department agreed that there were no significant problems in taking an appointment and 97% of them did not face any problem during the consultation in the genetic department, see Table 1.

Eighty-two percent of the clients who were referred from the HC preferred to stamp the premarital examination certificate in the genetic department, see Table 2.



**Figure 1: What Do You Think of Premarital Service? Total Number of Those Who Answered This Question Is 1349**

**Table 1: Problems Faced by Clients at HC**

Question	No Problem		There is Problem		Total
	No.	Valid %	No.	Valid %	
Any problem related to appointment in HC?	1165	86.1	188	13.9	1353*
Any problem related to interviewing in HC?	1207	89.4	143	10.6	1350*
Any problem in getting the results?	1099	82	245	18	1344*
Any problem in getting an appointment for the					
: Problems faced by clients at genetic clinic?	1231	91.4	116	8.6	1347*
Part 1 - Basic Information					
Any problem related to interviewing in the genetic clinic?	1272	97	40	3	1312*

\* Total number of those who answered the question

**Table 2: Stamping the Certificate Preference**

Question	In the HC		In the GC		Total
	No.	Valid %	No.	Valid %	
Where do you prefer the certificate to be finally stamped?	225	17.5	1061	82.5	1286*

\* Total number of those who answered the question

Delay of premarital service was a major concern, but the survey showed that, 73.5% had their first appointment at the health center within a week, 17.8% within two weeks and only 8.7% within three weeks. Similar results were obtained for the second appointment at the health center. Almost 78% got their blood results within a week, 18% within two and only 4% within three weeks.

Eighty-six percent had their appointment in the genetic department within a week, 12% within two and 2% within three weeks, see Table 3.

**Table 3: Service Length in Weeks**

Question	1 week		2 weeks		3 weeks		Total
	No.	Valid %	No.	Valid %	No.	Valid %	
How long it took to have an appointment in HC?	978	73.5	235	17.5	116	9	1329*
How long it took to have the second appointment in HC?	1011	78	237	18	54	4	1302*
How long it took to have the results?	1037	78	242	18	54	4	1333*
How long it took to have an appointment in the genetic clinic?	1134	85.5	162	12.2	30	2.3	1326*

\* Total number of those who answered the question

Clients' complaints and suggestions varied; mainly they were concerned about the confidentiality of information in HC, early appointments and early laboratory results. They suggested increasing the number of physicians who are able to perform premarital screening in the HC and to establish an evening clinic for this service.

## DISCUSSION

The majority of the clients attending the genetic department for premarital counseling are satisfied with the service. We also found that the level of satisfaction with the service provided at the genetic department is higher compared to health centers. This can be attributed to the amount of knowledge provided to the couples by the specialists and the adequate time allowed for each couple at the GC.

The majority agreed that stamping the premarital examination certificate should be at the genetic department because this will save time and effort.

The clients had suggested early screening programs, which would allow the individuals to know their carrier or disease status, this has already been achieved. Students screening program has been established since 1998 and newborns since 2007. Nevertheless, we recommend studying the clients concerns about the confidentiality issues, the delay in obtaining appointments and laboratory results and to improve the service in general.

There is a lack of similar studies because this kind of service is not available in most countries. An Australian study evaluated client expectations, psychological adjustment

and satisfaction with genetic counseling service for patients attending familial cancer clinic, general genetic clinic in which the service included antenatal, adult onset conditions and pediatric clinic. Although they had a much smaller sample (122 clients) compared to our study (1566 clients) they found that the majority of clients attending genetic counseling reported that they were very satisfied<sup>9</sup>.

Shiloh et al studied the attitudes, beliefs and decisions among counseled, non-counseled and unrelated couples in Israel but have not discussed their satisfaction after counseling<sup>10</sup>.

Al-Gazali assessed the level of understanding of genetic advice given in the Genetic Clinic, attitudes toward consanguineous marriages, prenatal, abortion and preconception diagnoses in the UAE. He concluded that for an effective genetic counseling it is advisable to educate the population and recommended the introduction of carrier screening and preconception diagnosis in affected families<sup>11</sup>.

Since patient satisfaction is becoming an important issue in evaluating medical care, we recommend further assessment of all aspects of satisfaction with genetic counseling in future studies covering the three major components (instrumental, affective, and procedural) as it has been suggested by many researchers<sup>9,12</sup>.

## CONCLUSION

**After four years of issuing the premarital law, most of our clients are satisfied with the service. Nevertheless, there are areas for improvement at both the primary health care and the genetic department.**

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