

## The Comparing of Health Cares's Satisfaction in Main and Satellite Villages of Qom Province, Iran

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**Abstract:** Background: Patient satisfaction survey is an instrumental component in health centers quality of care monitoring in relation to cost and services. This study was conducted to evaluate patient satisfaction and its related factors. Methods This cross sectional study was based on clients who were admitted in health houses in Qom province. The data was collected from 13 health house. Sample size was according to the four geographic areas of Qom province. To study the satisfaction rate, a questionnaire (Verified by researchers) was used in a sample of 384 people referring to urban centers. The reliability of questionnaire according to  $\alpha$  cronbach in health houses in 30 sample sizes was determined 0/70. Random numbers were used to choose the individuals for the study. The questionnaires were given to the clients after they agreed to complete them. No evidence of unwillingness was detected, and all consented to cooperate. In this study, the satisfaction rate more than 75% was acceptable. **Results:** Total satisfaction in central villages was 84.8% and in satellite villages were 72.8% and was significant ( $p=0.006$ ). In addition, the satisfaction of behvarz about respective relationship (77%, 57%,  $p=0.008$ ), Active care at home (77%, 57%,  $p=0.001$ ), Health education (51%, 22%,  $p=0.001$ ) and timely care (91%, 69%,  $p=0.001$ ) in central and satellite villages were significant. The higher satisfaction has been seen in 26-40 ages in both villages. In addition, the satisfaction rate in main and satellite villages (satisfaction of behvarz) showed significant difference ( $p=0/001$ ). **Conclusion** Usually the satisfaction rate more than 75% is optimal in health system. In our study, the satisfaction rate in main and satellite villages (satisfaction of behvarz) showed significant difference ( $p=0/001$ ). In general, patients weren't quite satisfied with health center care. More studies such as this survey are required to improve the quality of care and overall health care's outcome in health centers and health houses..

**Key words:** Satisfaction • Care • Behvarz • Client • Main and Satellite Health Houses

### INTRODUCTION

Satisfaction is an important issue in health care nowadays. Although it may seem impossible to keep all clients satisfied, we can achieve a high level of satisfaction by working on related indicators and trying to improve them [1]. Studies from other countries indicate that using the results obtained from satisfaction surveys can have a profound effect on the quality of services [2,3]. Customer satisfaction is defined as a feeling of pleasure or disappointment resulting from comparing product's perceived performance (or outcome) in relation to his or her expectations [4].

Currently, in Iran, approximately 33% of the total population live in rural Areas [5] and people benefit from a well-established health network, consisting of village-based local "health houses", from which health workers (known as Behvarzes) work. The main function of the Behvarz is to offer primary health care services to the local population and to gather health information. Usually the Behvarzes are selected from their local community and can therefore establish a very close relationship with community members. This, in turn, can help to gather accurate data. Health house workers also contribute to the simple but well-integrated health information system [6]. Iran is an integrated and stratified health-care delivery

system. The rural health center is a village-based facility staffed by a general practitioner, several health technicians and administrative personnel, and has 1–5 health houses under its supervision. The ‘health house’ is the most peripheral rural facility in the network, covering an average of 1500 people. A male and a female villager known as Behvarz’ work in each health house. Their principal duty is the provision of PHC services for the covered population. Every health house covers one or several villages (satellite villages). A village on the route to urban areas is accessible to a larger population, and is usually the site of establishment of the health house [7].

Based on the results of a few small-scale experimental studies carried out in the 1970s, the Ministry of Health and Medical Education launched in the early 1980s a large-scale PHC system with a focus on rural areas and small towns [6]. The focal point of activity for this programme was the establishment of the health houses (khanebehdasht). Each health house is designed to cover a target population of about 1500. Since most Iranian villages have fewer than 1500 residents, each health house also serves several “satellite” villages. Such villages are carefully grouped according to a realistic consideration of their cultural and social compatibility. The distance between the main and satellite villages is also pragmatically defined to be no more than 1-hour’s walk (rather than a certain number of kilometres).

The behvarz comes from the same village where he/she is to be stationed in the future. Choosing behvarz from among the local population has been a key policy decision, closely observed throughout the expansion of the PHC network. As a result, the behvarz often knows every mother, child and family who seeks health care at the health house. Such a close relationship between the behvarz and his/her community facilitates the accurate collection of health information, among other things. According to the latest available statistics, there were 16 340 rural health houses scattered among the 66 000 villages and settlements, covering about 85% of the rural population [12].

The rest of the rural population is covered by mobile teams. Each team is composed of doctor from the RHC, a health technician for basic laboratory tasks and 1 or 2 behvarz. The team visits their designated remote villages each month and provides PHC support. The main function of a health house is to offer PHC services to the community it serves including:

- Annual census of the population covered,
- Collection, recording and storage of health information and regular reports,

- Public health education and promotion of community participation,
- Provision of family health care,
- Antenatal, prenatal and postnatal care,
- Care of children under 5 years,
- Care of school-age children,
- Family planning services,
- Immunizations,
- Disease control services,
- Environmental health activities [8].

Behvarz have strong community ties with their villages. The behvarz is nearly always chosen from the main village where the health house will be stationed. However, if this is not feasible, a candidate is recruited from one of the satellite villages. The behvarz are selected from among 16- to 24-year-old female candidates, and 20- to 28-year-old males with direct participation from village authorities, such as the village council, local clergy and other influential figures of the community. The process of training the behvarz provides a good example of the use of appropriate technology at the village level. Given the low rural literacy rate, candidates are required to have 8 years of formal schooling (nowadays frequently a high-school diploma). Candidates must successfully complete a written examination and interview before enrolment in the training course. Their studies, which span 2 years, are a contrast with traditional pedagogy. Memorization of large amounts of written material has been eliminated. Training is effected through group discussion, role-playing exercises and working at the health houses alongside a carefully selected qualified behvarz. Students receive free training and financial support throughout the 2-year period of the programme. In return, they are formally obliged to remain and serve at the village health house for a minimum of 4 years after completing their study. Each student’s progress is assessed by instructors at monthly intervals. Students who successfully complete all the courses, pass the examination at the end of each block, and pass the final examination, receive the “Certificate for Completion of Behvarz Training”. Then they are ready to start providing PHC in a friendly environment to their home villages and nearby villages, where they usually have relatives and family acquaintances [8].

There is a lack of studies about patient satisfaction among clients received care in health houses (main and satellite villages). Therefore the aim of this study was to find out patient satisfaction with care in explore the associated factors.

## MATERIALS AND METHODS

This cross sectional study was based on satisfaction in clients in Qom province from behvarz's cars. The data was collected from 13 health houses. To study the satisfaction rate, a questionnaire (Verified by researchers) was used in a sample of 768 randomly selected people referring to rural health canterers.

Sample size was according to the four geographic areas of Qom. And  $n = \frac{z^2 p q}{d^2}$   $z = 1.96$ ,  $d = 5\%$ ,  $p = 1/2$ ,  $\alpha = 5\%$

The reliability of questionnaire according to  $\alpha$  cronbach in behvarz's questioner (in rural area) in 30 sample size was determined 0/70. Random numbers were used to choose the individuals for the study. The questionnaires were given to the patients after they agreed to complete them. No evidence of unwillingness was detected, and all consented to cooperate. In this study, the satisfaction rate more than 75% was optimal.

Data analysis was performed by using spss 13 software Associations between categorical variables within the sample were tested.

## RESULTS

Usually the satisfaction rate more than 75% is optimal in health system. The average age of samples was 37.5% and the satisfaction in center and satellite villages was <26 years; 84%, 74%, 26-40 years; 88%, 73% and > 40 years; 82%, 71%. Also the satisfaction in men was 87% and in women was 85% totally. The higher demand of care was Family planning in both village (22 % in central and 25 % in satellite village). Total satisfaction in central villages was 84.8% and in satellite villages were 72.8% and was significant ( $p = 0.006$ ). In addition, the satisfaction of behvarz about respective relationship (77%, 57%,  $p = 0.008$ ), Active care at home (77%, 57%,  $p = 0.001$ ), Health education (51%, 22%,  $p = 0.001$ ) and timely care (91%, 69%,  $p = 0.001$ ) in central and satellite villages were significant. the higher satisfaction has seen in 26-40 ages in both villages. In addition, the satisfaction rate in main and satellite villages (satisfaction of behvarz) showed significant difference ( $p = 0.001$ ).

Table 1: Demand of care

Kind of Care Village	Others	Prenatal Care	Child Care	Family Planning	Total	Index
Central(main)	122	8	33	46	209	Frequency (%)
	58.4	3.8	15.8	22.0	100	
Satellite	44	3	10	19	76	Frequency (%)
	57.9	3.9	13.2	25.0	100	
Total	166	11	43	65	285	Frequency (%)
	58.2	3.9	15.1	22.8	100	

Table 2: Satisfaction of behvarz

Satisfaction (%) Village	0-26	26-50	51-75	76-100	Total	Satisfaction
Central(main)	1	37	43	180	209	Frequency (%)
	0.4	14.2	165.5	69.0	100	
Satellite	11	22	19	57	109	Frequency (%)
	10.1	20.2	17.4	52.3	100	
Total	12	59	62	237	370	Frequency (%)
	3.2	15.9	16.8	64.1	100	

Table 3: Total satisfaction of behvarz

Index Village	Mean (%)	S.D
Central(main)	84.8	3.14
Satellite	72.9	1.8

T= 5.4p = 0.006

Table 4: Satisfaction of behvarz about respective relationship, Active care, Health education and timely care

Index Village	Frequency	Mean (%)	S.D
Central(main)	259	86.5	3
Satellite	208	69.5	1.3

P=0.0001 F=296.2

Table 5: Total satisfaction with age

Age Village	0-25	26-40	>41	Mean (%)
Central(main)	84.29	88.41	81.72	84.81
Satellite	74.44	73.16	70.91	72.84
Mean	79.37	80.79	76.32	78.82

Table 6: Satisfaction with age about respective relationship, Active care, Health education and timely care

Age Village	0-25	26-40	>41	Mean (%)
Central(main)	85.36	90.42	73.33	76.37
Satellite	67.59	70.39	70.45	49.48
Mean	76.48	80.41	76.89	77.92

Table 7: Total satisfaction of behvarz

Village	Satisfaction	
	%	Frequency
Central(main)	71.2	270
Satellite	28.8	109
Total	100	379

## DISCUSSION

Patient satisfaction is considered one of the important quality indicator(s) Measurement of patient satisfaction stands poised to play an increasingly important role in the growing push toward accountability among health care providers [2]. The study by Ghazizadeh in Iran shows that the satisfaction of behvarz in child cares was good [9]. Also in this study the people were satisfied with this cares.

The study by Hall and Press (1996) in the US shows that an association exists between patients' satisfaction and the respect they receive from physicians and nurses during waiting times [3]. The findings of the study by Omidvari and colleagues at five large hospitals of the Tehran University of Medical Sciences were to some extent similar to our findings: 85.6% and 41.8% of clients showed satisfaction above average and very good; respectively It is also true that those who waited longer were less satisfied [10]. In another study in provincial teaching hospitals in Ghazvin, Iran, 94.4% of the clients were satisfied with hospital services. This study shows that a meaningful relationship exists between age, gender, education level and satisfaction [11]. In this study, satisfaction rate of rural centers in males was 87% and in female was 84%.The satisfaction rate more than 75% is optimal [12].

Gender, sex and education play a major role in patient satisfaction [13]. In Iranian surveys, satisfaction level of patients who were treated by male doctors was greater than females and an inverse relationship between patient satisfaction and education was observed [14,15]. In our study, the satisfaction of behvarz was significant in center villages and satellite villages.

We recommend that management, when devising long-term mission and strategy, give sufficient attention to the development of their human resources. Such a strategy should be leveraged on attracting and retaining competent and customer-oriented administrative staff, investing in continuous professional development of human resources and using advanced technologies to improve the quality and speed of admission and administrative services. Also active cares are performed in

satellite villages; if this strategy is adopted, it is likely that health centers attract and retain more customers who also actively engage in informing others of unique characteristics of the health houses and suggesting treatment in the health centers and health houses to relatives and friends.

## CONCLUSION

In general, patients weren't quite satisfied with health houses cares especially in satellite villages. More studies such as this survey are required to improve the quality of cares and overall health cares outcome in health centers and health houses so the people in satellite village need to health cares more with high quality.

**Authors' Contributions:** FT supervised all aspects of the study including data analysis and drafted the manuscript ZA supervised all field activities of the study and provided input to the manuscript and conducted the data analysis and provided input to the manuscript

## ACKNOWLEDGEMENTS

The authors offer Medical personnel in health centers and health houses. The special thanks because of Qom University of Medical sciences" for their cooperation.

**Ethical Approval:** The study did not involve human or animal subjects, or personal identifying data. Therefore, it was not necessary to seek formal external ethical approval. The project team committed to following all local and university governance procedures.

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