

Satisfaction and Related Factors among the Service Users of Private Rehabilitation Centers

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Objectives: The aim of present study was determining the level of satisfaction and its relative factors among parents of mentally retarded children using the services of private rehabilitation centers.

Methods: This was a descriptive-analytical study that was conducted on parents of 150 mentally retarded children, who were selected by quota sampling from eight private rehabilitation centers in Tehran. Questionnaires were used to collect data, and correlation tests, independent t-test, and one-way analysis of variance were utilized to analyze data.

Results: Upon the results, overall 88% of participants expressed their satisfaction. The major related factors were the behavior of managers and employees, receiving training for follow-up rehabilitation and education programs for the child at home, and the child's progress. The factors related to dissatisfaction included nutrition services, physical condition of the center and lack of parental participation in decision-making on matters related to the child. A significant relationship was found between parental satisfaction and family size, father's job, and the number of other disabled people in the family.

Discussion: According to the findings, it seems that patient satisfaction is also affected by the behavioral aspects of care, in addition to the technical aspects. Considering the humans' need for respect and compassion and the sense of being valuable, this finding could be anticipated. The managers of private rehabilitation centers, for attracting and retain clients, need to pay attention to the factors which have impact on service users' satisfaction.

Keywords: Satisfaction, mentally retarded children, Parents, Rehabilitation centers, Disability.

Submitted: 9 September 2014

Accepted: 10 November 2014

Introduction

Patient satisfaction is an important outcome of patient-oriented treatment (1). This approach requires a thorough understanding of patients' experiences that can be obtained through the regular assessment of their satisfaction and can provide useful information about the quality of treatment received by patients as well as the areas that need improvement (2). Quality of treatment is traditionally assessed by the adherence to standards and practices determined by treatment professionals, or by taking into account the treatment

outcomes perceived by the patients who receive services. Therefore, patient satisfaction is an important indicator for assessing the quality of treatment, based on which the values and preferences of patient are emphasized in valid standards in order to determine the objectives of the treatment and evaluation (3).

With this in mind, the quality of healthcare services need not only be widely available, but must also be used by people in need of services, because the use of medical services is a sign of

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client satisfaction. Satisfaction has cognitive and emotional aspects and is related to previous experiences and expectations. Client satisfaction with rehabilitation services is a prerequisite for acceptance and commitment to therapeutic orders. Evidences imply that satisfied patients comply better with treatment methods, reveal important information, more probably refer for future treatment, and recommend the rehabilitation center to others. Conversely, dissatisfied patients reduce the efficacy of treatment with their insufficient participation in rehabilitation activities or with not fulfilling the prescriptions after discharge. Sharing negative comments with their friends, physicians or financial supporters may in turn can cause negative feelings in them too. Finally, they may interrupt their treatment course (3-7).

Patients' judgment about the quality of services received and their answers regarding satisfaction can help professionals and managers to improve services. In order to attract and retain clients, service providers better be aware of their feelings and satisfaction level toward the service received. Due to the subjective nature of patient information, there are pitfalls in utilizing it. For example, the patients tend to focus on personal aspects of treatment, e.g. how comfortable they are, an issue which may help improve the quality of treatments provided or not. Also, feelings that are not related to treatment may affect the results of many satisfaction studies. Furthermore, patients may not be able to judge the efficacy of specialized treatment. On the other hand, patients may be afraid of expressing criticizing opinions about treatment due to fear of negative feedbacks from therapists. Thus, the debate on the benefits of satisfaction measurement is increasingly rising (6). Patient and family satisfaction is particularly effective in the success rate of rehabilitation measurements, which is influenced by different factors itself. King et al. (8) examined the main factors influencing the satisfaction and dissatisfaction of parents who had used rehabilitation services for their children and concluded that the provision of services along with respect and support was the main factor influencing parental satisfaction; and lack of coordination, continuity and access to existing services was the main factors influencing dissatisfaction. In a study conducted by Siebes et al. (9) on parental participation in rehabilitation services for children in the Netherlands, high parental satisfaction was related to their participation in setting objectives,

active involvement in the treatment process and desired communication with therapists. In another study that was conducted in northern Europe, North America, Great Britain and Ireland about patient satisfaction of outpatient services for musculoskeletal physical therapy, high patient satisfaction was shown to be influenced by personal characteristics of the therapist and the amount of satisfaction with the treatment process (1).

In general, despite the importance of family satisfaction, there is little information on the factors related to service provision influencing parental satisfaction of children who receive rehabilitation services. In order to partially overcome this gap, this study was designed and conducted to evaluate the satisfaction of parents of mentally retarded children using services of private rehabilitation centers in Tehran city, and the factors affecting it. One important point is that the study was conducted at daily rehabilitation training centers where the children are present from 8 am till 2 pm, and in addition to receiving rehabilitation services (including occupational therapy, physical therapy and speech therapy), they receive psychological and educational as well as nutrition and transportation services. No specific study on satisfaction measurement had yet been performed in these kinds of centers in Iran at the time of the present study and thus it could be different from other studies that have focused on satisfaction with the services of outpatient rehabilitation centers.

Measuring the satisfaction of users of these centers can lead to the formulation of strategies for promoting and improving the quality of services, by revealing the existing strengths and weaknesses in the provision of services, which can then be followed by increase in effectiveness and finally by fulfillment of the ultimate goals of rehabilitation. Also, determining the most important factors that influence satisfaction and dissatisfaction can inform rehabilitation managers about what is necessary to be done in the area of service delivery (8).

Methods

This was a descriptive-analytical (cross-sectional) study, conducted in daily private centers for training and rehabilitation of mentally retarded children under 14 years old, all of which were under the supervision of Social Welfare Organization in Tehran city (eight centers). The research population consisted of 340 parents of mentally retarded children who were using the

services of the centers mentioned above and were receiving the allowances of the Social Welfare Organization as subsidies to pay the charges. The size of the sample was determined at 150, and the sample was recruited, using quota sampling from each of eight centers. At each center the sample was randomly selected using a list of clients. The respondent was considered to be one of the parents (father or mother) of the mentally retarded child who had information about the services provided by the center for his/her child and was able to answer the research questions.

Data was collected through interviews and the completion of questionnaires, by the first author. The study was conducted at the setting of rehabilitation centers to which the participants were invited. The participation rate was 100%.

The questionnaire was designed by the first author of the paper in two parts: the first part consisted of 24 closed questions related to child and the parents' characteristics, as well as the services received at the center. The second part contained 31 questions for assessing the level of parental satisfaction with the services provided. The level of satisfaction was measured on the basis of a five choice Likert scale, from "dissatisfied" to "satisfied", and the total score could vary between a minimum of 31 to a maximum of 155. It should be noted that only three categories of "dissatisfied", "neutral" and "satisfied" were defined for data analysis. The first draft of the questionnaire was developed by the first author of the paper using relevant literatures and resources, as well as her past experiences with parents of mentally retarded children who had used the centers

in question for their children during the past year. The content validity of the tool was determined by gathering expert opinions from five lecturers specialized in the field of rehabilitation and changes were made in the questionnaire accordingly. In the next stage, the questionnaire was initially tested through interviews with some of the parents; and the remaining defects were identified and finalized.

Ethical considerations: At the beginning of the interview, the purpose of the study was explained to parents and it was noted that all information obtained would be kept confidential by the first author, and the results would be reported without mentioning names of people. In the questionnaire codes were used instead of names. The participants were assured that, if desired, can withdraw at any stage of the interview. Finally, informed consent was acquired. Ethical approval for the study was obtained from the research ethics committee of the University of Social Welfare and Rehabilitation Sciences Iran, Tehran. The SPSS-14 Software was used for data analysis using correlation tests, independent t-test, and one-way analysis of variances.

Results

In total, 150 parents participated in this study: 117 mothers (78%) and 33 fathers (22%). The age range of participants was generally between 22 and 77 years, with a mean age of 36.560 (SD 8.335). The mentally retarded children of participants were in the age range of 3 to 14 years with a mean age of 8.34 (SD 2.976). Ninety five children were male (63.3%), and 55 (36.7%) were female. Other characteristics of the study population are shown in Table (1).

Table 1. Demographic characteristic of the study participants

Variables	Status	Frequency	Percent
Father's education	Illiterate	10	6.7%
	Low literacy	6	4%
	Elementary education	41	27.3%
	Guidance school	34	22.7%
	High school	39	26%
	University level	20	13.3%
Mother's education	Illiterate	19	12.7%
	Low literacy	5	3.3%
	Elementary education	33	22%
	Guidance school	33	22%
	High school	51	34%
Father's job	University level	9	6%
	Employee	73	48.7%
	Self employed	60	40%
	Retired or Unemployed	17	11.3%
Family size	3 member	16	10.7%
	4 member	49	32.7%
	5 member	39	26%
	6-10 member	46	30.7%
Number of other disabled people in the family	0	135	90%
	1	12	8%
	2	2	1.3%
	3	1	0.7%

Regarding the factors that influence satisfaction, household economic status was measured with the three variables of income level, housing status, and infrastructure of the house. The average income of participants was 6534700 IRR. Fifty nine point three percent had a personal home, and 40.7% were living in a rented house. In 70% of cases, the infrastructure of residential home was less than 80 square meters. Eighty-three parents (55.3%) had been introduced by the Social Welfare Organization to the centers. Among which 95.3% cited their expectation for their child's progress, as their cause for the use of the centers. One hundred and eight children (72%) were using the centers' transportation services. Regarding the distance, 87.3% of parents were satisfied with the distance of the center from their place of residence and most of them (66.7%) spent less than half an hour to reach the center.

Rate of satisfaction with the services offered by the center. Satisfaction with the rehabilitation centers was studied with regard to variables which were classified in to four groups based on their common characteristics as follows:

A) Behavior and criticizability of managers and employees:

As can be seen in Table (2), over 80% of the parents were satisfied with the behavior of the managers or employees with the child or themselves, and in terms of "behavior of employees with the parents" this rate reached to its maximum value, that is 98.6%. Regarding "criticizability of manager" and "criticizability of employees", apparently there was no issue to recall for 76.7% of parents. This is why they chose the "neutral" choice.

Table 2. Rate of participants' satisfaction from behavior and criticizability of manager and employees

Variable	Status	Frequency	Percent
The behavior of the manager with parents	Dissatisfied	1	0.7%
	Neutral	11	7.3%
	satisfied	138	92%
The behavior of the employees with child	Dissatisfied	13	8.7%
	Neutral	0	0
	satisfied	137	91.3%
The behavior of the employees with parents	Dissatisfied	1	0.7%
	Neutral	1	0.7%
	satisfied	148	98.6%
criticizability of manager	Dissatisfied	8	5.3%
	Neutral	115	76.7%
	satisfied	27	18%
criticizability of employees	Dissatisfied	3	2.6%
	Neutral	115	76.7%
	satisfied	32	20.7%

B) The services provided by the centers:

Services can be divided into two areas for children and for parents. In terms of services provided for parents, 90%, 18.6%, 80.6%, 86.7%, 33.3%, and 63.3% of parents expressed their satisfaction with "how the initial interview was conducted", "the use of parental opinions when making decisions on matters related to the child", "provision of progress reports", "receiving training for follow-up rehabilitation and education programs for the child at home" and "organization of group and

individual counseling sessions", respectively. Regarding the participants' satisfaction with the services provided to the children, as shown in Table 3, the greatest rate of satisfaction is related to the provision of "personal hygiene services for children in the center" (92.7%), and the greatest amount of dissatisfaction was related to the center's "nutrition services" (72.7%). Overall, 87.3% of respondents were satisfied with the "child's progress" (table 3).

Table 3. Rate of participants' satisfaction with services provided to the child

Variable	Status	Frequency	Percent
Assessment process	Dissatisfied	49	32.7%
	Neutral	0	0
	satisfied	101	67.3%
Occupational therapy services	Dissatisfied	54	36%
	Neutral	0	0
	satisfied	96	64%
Physical therapy services	Dissatisfied	4	2.7%
	Neutral	132	88%
	satisfied	14	9.3%
Speech therapy services	Dissatisfied	47	31.3%
	Neutral	3	2%
	satisfied	100	66.7%
Psychological services	Dissatisfied	99	66%
	Neutral	0	0
	satisfied	51	34%
Educational services	Dissatisfied	25	16.6%
	Neutral	1	0.7%
	satisfied	124	82.7%
Personal hygiene services	Dissatisfied	9	6%
	Neutral	2	1.3%
	satisfied	129	92.7%
Nutrition services	Dissatisfied	109	72.7%
	Neutral	4	2.6%
	satisfied	37	24.7%
Transportation system	Dissatisfied	12	8%
	Neutral	41	27.3%
	satisfied	97	64.7%
Hour of child attendance at the center	Dissatisfied	16	10.7%
	Neutral	0	0
	satisfied	134	89.3%
Child's progress	Dissatisfied	19	12.7%
	Neutral	0	0
	satisfied	131	87.3%

C) Hygiene status and physical condition of the centers:

Ninety-six percent of parents were satisfied with the "hygiene status" of the center. Regarding the physical conditions of the centers, 54.6%, 55.4%, 52% and 46.7% of parents expressed their satisfaction with the "safety", "location", "the amount of lighting" and "general equipment and decoration" respectively. It should be noted that over 20% of parents were neutral about the last four issues.

D) Cost:

Regarding the participants' satisfaction with "expenses", 39.4%, 65.3% and 92% of parents expressed their satisfaction with the "costs of transportation services", "the share of the parents in monthly tuition" and "the amount of subsidy paid by the Welfare Organization" respectively. In the case of "transportation services", 42 parents (28%) who were being transported by vehicles other than the transportation services provided by the center, were neutral.

Finally an overall satisfaction issue was posed, that is, "whether the parents were willing to change the rehabilitation center at which their child was receiving services" and 87.3% of parents were against it; and 5.3% of the cons mentioned the low quality services as their reason.

Correlation of different individual variables with the level of satisfaction: Using the ANOVA test, a significant relationship was found between the mean parental satisfaction scores and variables of "family size" ($P=0.037$), "number of other disabled people in the family" ($P=0.013$), "income level" ($P=0.0274$), "the cost of transportation services" ($P=0.000$), and "father's job" ($P=0.007$). The post hoc testing was used for more exact results as follow: In terms of the "father's job", significant difference in satisfaction was observed between the group of self-employed fathers and the group of retired or unemployed fathers. Regarding the "income level", there was a significant difference between the satisfaction of parents with a monthly income of over 7500000 IRR and the other two

groups with lower incomes. Post hoc testing performed on the variables of “family size” and the “number of other disabled people in the family” showed no significant differences between the sub-groups. It is noteworthy that in the ANOVA test, the relationship was not significant between the respondents' mean satisfaction scores and variables of “education level”, the “infrastructure of residential home” and “rental rate”. Also in order to investigate other factors influencing satisfaction, the independent T test was conducted between mean satisfaction scores and variables of “interest in changing the center”, “time to reach the center”, “housing status”, and the “level of family participation in the monthly tuition”. Except for the first variable, which was significant with a p-value 0.003, no relationship was found for the other variables. Also, according to regression analysis, there was no significant relationship between the mean satisfaction score and the “age of the respondent”.

Discussion

The results of the present study demonstrated that the majority (88%) of participants expressed their satisfaction with the services provided by the private rehabilitation centers the finding which is consistent with the level of satisfaction with rehabilitation services in many studies, both inside and outside the country. For example, levels of client satisfaction with private outpatient rehabilitation centers of Kurdistan province (10), medical health centers of Veterans Foundation (11) and rehabilitation centers of the Red Crescent in Tehran (12) were 81.1%, 65% and 67 %, respectively. Similar results have been reported in studies abroad on satisfaction with services of rehabilitation centers for children in the Netherlands (9), physical therapy services for patients with musculoskeletal disorders in northern Europe, North America, the United Kingdom and the Ireland (1), rehabilitation services for patients with neurological problems (2), and a review conducted by Keith (6) on literature over the past 10 years regarding satisfaction with rehabilitation services.

Although the level of satisfaction with service delivery processes is generally very high in studies, and often shows levels of 90% and more, satisfaction with more specialized aspects of the services often show lower figures; however figures lower than 80% are infrequently reported(13). One of the reasons for the high levels of satisfaction in the present study may be the satisfaction of 87.3%

of parents with their child's progress. Considering the fact that 95% of them cited their child's progress as the cause for the use of the rehabilitation center and also the fact that over 80% of parents were not willing to change their child's rehabilitation center, it is logical to think that they were satisfied with the services provided and their outcomes. But Buhrlen et al. (14) and Hash et al. (1) also did not find a relationship between satisfaction and outcomes of rehabilitation for patients with musculoskeletal disorders in their studies. Among the different aspects of satisfaction in the present study, 86.7%-98.6% of parents were satisfied with the behavior of the manager and employees, receiving training for follow-up rehabilitation and education programs for the child at home and the child's progress.

According to the mentioned findings, it seems that patient satisfaction is also affected by the behavioral aspects of care, in addition to the technical aspects. Considering the humans' need for respect and compassion and the sense of being valuable, this finding could be anticipated. Also similar results have been reported in some national and international studies concerning the effects of behavior, good communication, respect and empathic behavior along with compassion, on satisfaction (1,2,4,8,9,12,13,15). Also we found that, 86.7% of parents were satisfied with their training services and the educational information they received. Since other studies such as patient satisfaction in rehabilitation of patients with multiple sclerosis in Norway (16), Measuring outpatient satisfaction with rehabilitation services in Vancouver Canada (17) and determining and evaluating the needed psychological support and education to families of children with special health care needs in Konya-Turkey (18), have also found relationship between the provision of information and satisfaction level, the effective role of this factor on satisfaction is emphasized. In addition the parents that receive the educational information, are able to follow up the treatment programs at home and full time care can improve rate of children progress and finally parents' satisfaction is greater.

Regarding the relatively high rate of parental satisfaction with the child's progress (87.3%) in the current study, one of the possible reasons that can be cited in addition to the high quality of services, is the lack of parents' knowledge about the potential abilities of their disabled children. This

can greatly increase the importance of the child's progress for parents. Based on generally high levels of satisfaction in most studies, it seems that researchers should actively seek sources of dissatisfaction in order to determine defective aspects of service which need to be changed on the basis of the opinion of service users (13). Thus, the sources of dissatisfaction were also considered in the present study. We found the most notable issue with which 75.3% of parents were dissatisfied, was the consideration of their opinions when making decisions on matters related to the child. Regarding the effective role of parents and patient participation in determining the objectives of treatment and the treatment plan, on satisfaction, which has been demonstrated in studies conducted by Razavi et al. (12), Siebes et al. (9), Wain et al. (2), Holmoy et al. (16), and Quaschnig et al. (19) as well as the impact of participation on patient motivation and the process of recovery, it seems that the lack of parental involvement in the treatment process has had an adverse impact on their satisfaction in the present study.

One other factor in current study that related to dissatisfaction of 72% of the parents was the centers' nutrition services. Given that proper nutrition has positive impact on recovery and thus satisfaction, and that Haase et al. (5) in his study about factors contributing to patient satisfaction with medical rehabilitation in German hospitals, also found a relationship between the status of food services and the overall satisfaction of patients, any neglect seems to have negative results.

Another source of dissatisfaction for almost half of the parents (46.7%-55.4%) was the physical condition of the centers, which included the safety, location, amount of lighting as well as equipment and decoration. According to the results of studies were conducted by Hatamizadeh et al. (4), Haase et al. (5) and Medina-Mirapeix et al. (20) optimal physical space, use of vivid colors, enough lighting in the environment, form of equipment and safety, have great impact on satisfaction. Thus improving the physical conditions of the centers is an important factor in increasing satisfaction, which should be considered. It should be pointed out that due to multicultural characteristics and high number of population of Tehran city, it can be said that the results of this study can be generalized to other locations in the country. So this can be a positive aspect of this study.

In terms of study limitations, considering the possibility that the time frame, in which satisfaction measurement is performed, can also be effective on the satisfaction rate of clients, this potential impact cannot be ignored in the present study despite the efforts of the first author to gain the trust of the parents about the confidentiality of their responses. Keith (6) and Hemati et al. (13) have discussed that clients who are currently receiving rehabilitation services may be afraid that their critical views may have impacts on the service delivery or staff behavior. Discharged clients may forget the issues or make comments on the results of services from a non-professional aspect. However, Buhrlen et al. (14) in his study regarding patient satisfaction in rehabilitation of musculoskeletal diseases, stated that the time of questioning had no effect on satisfaction. Overall, we think this can be considered a limitation for our study. The other limitations of this research project included, unfamiliarity of some parents with the Persian language, low education level of most parents which consequently caused difficulty in understanding the questions, as well as unwillingness of some parents to respond to the questionnaire due to depressed moods as well as the inconvenient time of questioning.

Conclusion

Managers of private rehabilitation centers can increase the satisfaction of clients (which is the main objective of all service providers) by emphasizing on the factors affecting satisfaction which were discussed in detail in this paper, especially increasing parental participation in the rehabilitation process of the child. Increasing parental awareness about the services provided, organizing training courses for parents, training the staff for improving service delivery as well as focus on customer, and paying more attention to the physical conditions of the centers can be mentioned among the possible suggestions for satisfaction improvement.

Acknowledgment

At the end, we appreciate the cooperation of the managers and employees of the private rehabilitation centers as well as the parents of mentally retarded children using the services of the centers in which this study was conducted.

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