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THE RELATIONSHIP BETWEEN HEALTHCARE SATISFACTION, DEPRESSION AND HOPELESSNESS LEVEL OF MOTHERS OF CHILDREN WITH CEREBRAL PALSY

Abstract

The aim of this study was to examine the significance of the relationship between parent's depression, hopelessness and healthcare satisfaction about services that their children received at the Rehabilitation Center. Thirty mothers and 30 fathers participated in the research. Beck Hopelessness Scale (BUT), Beck Depression Scale and Health Care Parental Satisfaction Scale were used to collect the data. Independent Sample T-Test and Pearson Correlation Analysis were used in the analysis of the data. As a result of the research, among parents it is found out that the depression level of primary school graduates is higher than that of high school and university graduates; the depression and hopelessness level of parents who have child at school age and adolescent is higher than parents of the preschool children; the hopelessness level of the parents whose last child diagnosed is higher than those of the parents whose first child diagnosed. Positive relationship encountered between depression and hopelessness in parents and a significant negative relationship encountered between depression, parental healthcare satisfaction, technical skill and overall satisfaction.

Keywords: Cerebral Palsy, Healthcare Satisfaction, Depression, Hopelessness

Introduction

Cerebral Palsy (CP) was thought up by William Little and was defined as an illness occurring after the problematic births. After that Sigmund Freud, performed many studies about CP and its reasons, assigned that CP could arise in pregnancy. In the following years, the number of studies about CP has been increased and the name of the illness was given as “Cerebral Palsy” after the study performed by Burgess and Phelps (Alp, 2010).

According to the Miller (2005), CP was explained as stable and permanence neurodevelopment disorder in brain. Çullu (2012) reported that besides cognitive, voluptuous and behavioral problems, skeletal-muscle system and disorders like epilepsy could attend to CP which also effected by the central nervous system. Moreover, Sankar and Mundkur (2005) defined CP as a disorder that occurred with many neurological problems.

The last researches show that, the prevalence of CP differs in both developed and developing countries and the average ratio of prevalence was around two per thousands. According to the data from the study performing by Garne and his colleagues (2008), the observation frequency of CP was one per thousands in normal pregnancy period however, it is known that this ratio was obtained in the interval of 6-10 per thousands in early and hard births. Livanelioğlu and Günel (2009) reported that there are many studies in Turkey in where the observation frequency as 4.4 per thousands. The main reasons of this high prevalence were the lack of services in baby care, consanguineous, the high ratio of the diseases in pregnancy, unfavorable conditions in birth and malnutrition/inadequate nutrition in pregnancy. When the structure of CP and the treatment methods were examined it was found that CP was a multidiscipline disorder and it showed differences from the classical medical treatments. Due to these differences, Deniz (2005) used the statement of CP management instead of the CP treatments for all treatments intended to CP and for the rehabilitative studies of CP. The aim of the CP management is to increase the growth and development potential of the child to maximum level. Moreover, it requires the intervention in early ages when the disorder is diagnosed.

Due to the differences in symptoms and clinical indications attended to CP and the prevalence, it was required that in addition to medical expertise many speciality like emotional and social development, hearing and talking development, learning and perceptive development, and motion development have to work together. According to Lima and coworkers (1998) CP management enclosed the diagnosis, detection of other disorders, control of muscle tonus, treatment of epilepsy, detection of hearing-seeing problems, physiotherapy-rehabilitation, providing psychological support, surgical intervention and family oriented support services.

Due to the variability of CP, the affection level of the families shows variety, continuously. For this reason, the knowledge about the environment of child with CP and the structure of the family is very crucial for both educationalists and the therapists. According to Miller (2005) the ratio of the success of the CP treatment was lower in families have inherent problems.

Care Responsibilities in Mothers of Cerebral Palsy Children

As in all disorders or diseases that need for care, parents should share the responsibilities with each other in Cerebral Palsy. However, many studies showed that generally these responsibilities fell on the female figure in family namely mothers (Given, Given, & Kozachik, 2001; Kasuya, Polgar-Bailey, & MPH Robbyn Takeuchi, 2000; Marco et al., 2010; Rivera-Navarro et al., 2009; Toseland, Smith, & McCallion, 2001). According to Atagün and his friends (2011),

the main reason of the suitability of mother figure in healthcare is the perception of the necessity of dealing with family and housework for mothers in society. As reported by Demiral (2016), CP is a serious medical disorder due to accompaniment of many disorders with it.

The primary caring people face up to some health problems and some psychological problems like insomnia, fear, hopelessness, depression and guilty during the provision of vital requirements of CP children, rehabilitation and the planning of healthcare processes. According to Karadağ (2014), the social, psychological, physical and financial problems were occurred during the healthcare process and these problems decreased the life quality of both CP child and the caring person.

The parents who hope to have a healthy child in accordance with the usual flow of life and planning all things for this see many conversions in their expectations, life style, society and financial situations with CP child. Bahar and colleagues (2009) stated that caring parents have needed to psychological support to handle this situation as they lived some problems due to lack of knowledge. According to the conducted researches (Can, 2010; İnci, 2006; Karadağ, 2014) about parents who care the CP child, the psychologic effects of caring parent was multidimensional. The changes in the quality of the responsibility of the mother can be occurred when the nature of motherhood in care combined with the functional limitations and the necessities for the healthcare.

Mothers have to give almost all her interest and energy to the child in order to meet the requirements. This situation resulted in that mothers spare her time to her other child, if he/she was present, and her husband, limitedly. In such a case, deteriorations in the marriages, family structure and the life style are obtained. As CP child was born, the serious differences in family's life style were observed. Family have started this process with wobble because they have not been ready to this situation and they did not know what should have been done. According to Bailey and Simeonson (1992), the key point in this process is the comprehension of the CP, thoroughly. Then, mothers have to inform their healthy children primarily, then their social environment and their parents. The mother in healthcare has many difficulties beginning from the first day in self-catering, walking and writing of child. For that reason, they worry about her child's education, marriage and the situations like them. Due to the insufficiency of the child, mother feel guilty, failure to accept the situation and blame the others for the experiences. This causes the problems with the other members of the family and the society. This insufficiency of the child affect the mother in many ways. According to Küçüker (1997), these effects could be listed as complaint, anger, guilty, isolation, stress and the formation of somatic symptoms and fear of being stigmatized during the crisis.

During the growth and the development of the CP child, he/she has occupations different from his/her peers affect the mother's living problems in some periods. Although mothers have serious troubles in the duration of healthcare periodically, Mutlu et al. (2010) stated that mothers have dense problems in infancy. Mother endeavor to produce the environment for healthy development while she is in a situation of being protectionist behalf of her child. As an extension of this, the requirement of special education for CP child forces the financial situation of the family. Usually, mothers has to quit from the labor for healthcare therefore, sharing the economic load is affected adversely. For that reason some mothers has to work in side jobs in order to meet the expenses.

Main premises of the problems that the mother of CP child exposes are (Raina et al., 2005; Richter-Kanık, 1998; Urhan, 1998);

- Long duration in child's healthcare and then the occurrence of time problem
- The problems in basic maintenance needs like nutrition, bath, and clothing
- No time left for mother's private events like sleeping, resting etc.
- Isolation of mother from the society like neighbors
- Troubles in the orientation of the child's behavior
- Mother's pessimistic feelings for her child's future
- Depression in the mother is a burden on other family members who can cope better with extreme anxiety
- Continuity of medical requirements the costs of expenses
- Financial problems due to additional expenses
- Hardness of the continuity in healthcare of the child
- Problems in the marriage due to the difficulties in healthcare of the handicapped child and feeling guilty
- Problems caused by direct or indirect responses of the brother to CP child.

At this point, it is not easy for the mother to accept the fact that she had a child with CP, to prepare herself psychologically and to re-design her life in line with this reality. Işıksan (2005), stated that mothers who encountered these difficulties were directed to alcohol, drugs, cigarettes or several of them at the same time. It was observed that out of these situations some mothers avoid confrontation with problems by retreating or withdrawal. On the other hand, some mothers disregard this disease in the face of the difficulties during the healthcare of CP child then, choose to stay out of the events and leave the father to care. As a method of coping with the stress experienced, it was understood that many of the mothers went to overreaction and some of them were completely unresponsive. Especially in mothers in the last situation, unresolved problems and uncontrollable stress can turn into depression over time.

Depression and Hopelessness Level in Mothers of Cerebral Palsy Children

Processes since the birth of children with CP often lead mothers to despair. Hopelessness leads mothers to pessimism about their children's future and to lower their expectations for their own future. Akkök (1997) stated that mothers with high level of hopelessness may give up the effort to provide a better life to their children with CP in the future. According to Gölalınış (2005), mothers do not plan for the future due to the hopelessness in their experiences, or they have the pessimism about the planning they will have.

According to Fontaine and et al. (1993), the main reason of the depression in mothers that have children with CP was the hopelessness. Beck (1963) stated that people who are prone to depression start to evaluate the external world and their future negatively. The individual in depression sees himself / herself as deficient, defective and unworthy.

According to Smith et al. (1993), mothers who care for the handicapped children have emotional difficulties and have symptoms of depression compared to mothers who have healthy children. Young et al. (1996) conducted a study about the relationship between the individual's hopelessness level and being depressed. They detected that the person who has depression is in high hopelessness level. At this point, a presence of significant relation between depression and hopelessness can be stated. The increase in the level of hopelessness often leads to depression and the individual begins to see himself or herself as worthless and insufficient, and with the anxiety of the future, he/she experiences more hopelessness in the world of thought. The individual begins to see life as more difficult and full of obstacles with despair and depression.

It is known that the depression level of mothers of CP child is higher than that of health ones. According to Firat (2000) and Ceylan (2004) there was meaningful relation between depression level and being a mother of handicapped child. Firat (2000) conducted a research with mothers of children aged 3 to 12 who have been diagnosed as handicapped, in order to evaluate the mothers' anxiety, depression, alexithymia and psychological situations. The results of the research showed that the mothers of children with disabilities were found to have higher levels of depression than mothers of healthy children and it was determined that among the mothers of children with disabilities mothers of boys were much anxious than that of girls. In addition, it was found that the level of depression increased when the mother was older and the child was singleton. According to Öksüz (2008), Beck Depression Level of mothers of children with disabilities were higher than that of mothers of normal children. Moreover, he stated that when the differences between mother and father of child with disability, it was seen that the depression level of mothers were higher than that of fathers. The relationship between depression before pregnancy and having child with disability was also found in this study.

When these results are interpreted, as mothers of children with CP have more concrete indications, they can accept their children's situation more easily, thus they are less psychologically affected. On the other hand, mothers of mildly disabled children were more psychologically affected due to have less concrete indications. Furthermore, it was thought taking a strong interest of mother in child and taking more responsibilities about child affect mothers psychologically. Obsessive compulsive-like behaviors in children with disabilities were reported to affect the behavior of mothers who had close contact with them and obsessive-compulsive behaviors were occurred in mothers.

Healthcare Satisfaction in Mothers of Cerebral Palsy Children

The rate of children with disorders such as CP or various diseases is increasing day by day in the whole world and this situation provides a basis for transformations in the understanding of health care. Historically, some tribal societies are known to have abandoned the weakened individuals. Many tribes have built special huts out of their lives, where people with disabilities are left to death. Historically, people with disabilities have been left to death due to inadequate resources (Zastrow, 2013). Nowadays, families who have an individual dependent on their environment can benefit directly or indirectly from health care services. Health care services have become an indispensable element in today's complex and ever-changing society. Health care services aim to provide benefits that aim mainly to enable people to live their lives while aiming to provide the highest level of help. In terms of children with CP, it is possible to minimize the effects of SP because it is not a disease but a disorder. Due to the differences in symptoms and clinical indications attended to CP and the prevalence, it was required that in addition to medi-

cal expertise many speciality like emotional and social development, hearing and talking development, learning and perceptive development, and motion development have to work together. The attenuation of the symptoms caused by the disorder in the treatment of CP may increase the level of independence of the child with CP and make the care of the child more comfortable.

In the health care service for the child with CP have many services like diagnosis, detection of other disorders, control of muscle tonus, treatment of epilepsy, detection of hearing-seeing problems, physiotherapy-rehabilitation, providing psychological support, surgical intervention and family oriented support services. In this respect, various practices are put forward in order to be rehabilitated or treated. The effect of rehabilitating health services is great for individuals to be added to society, to be productive and happy individuals. The results can be taken by rehabilitating health services, such as adaptation to the situation and facilitating in the disorders that make it difficult to live without being dependent on other individuals and participation in daily life like CP (Marco et al., 2010).

Occupational therapy (occupational therapy), physiotherapy, surgical interventions and medical devices in children with CP reveal valid results. Children with CP have problems such as slowness, weakness, balance disorders, tremors and stiffness. In addition to that, intensive exercise programs have begun to prevent surgical interventions in eliminating these problems. In the direction of brain development, such rehabilitation practices give very clear results especially for children up to 6 years of age. In the rehabilitation of children with CP, speech and swallowing therapy, occupational therapy, physical therapy, special education, medication and surgical treatments and instrumentation should be planned and carried out in a coordinated manner within a team understanding in relevant health care facilities. Moreover, Children with CP are also offered home health services and a variety of practices are carried out to enable children to use their hands and feet. Especially, home health services play an important role in the rehabilitation and treatment of children with CP who have difficulty in walking.

In the health promotion of children with CP, it is aimed to increase the quality of life and increase the life span with the determination of physical and mental health conditions.

Health care services taken by children with CP can be perceived as a psychological support element as well as reducing the burden of mothers' care. With the healthcare service the mothers can relax in the care-giving function (Rivera-Navarro et al., 2009). At this point, health care services should be planned and managed correctly in order for mothers to relax both psychologically and functionally. In this context, mothers' satisfaction with the health care services is very important for their care giving burden and psychology.

Methods

Sampling

The universe is a big group, which is the result of the generalization of the findings in a research. Each components that have the same properties can be evaluated in the universe. Researchers can constitute many universes in different sizes by limited the groups with respect to specific properties (Gürbüz & Şahin, 2014: 127). In this study, the universe of the research was limited as the parents whose children was cerebral palsy and have taken the services in Rehabilitation Center in Aksaray. Approximately, 64 parents that composed the universe totally, were participated in this research. During the study, there was no need to use any sampling methods because there was not any disadvantages for interviewing with these parents. Through-

out the study, questionnaires were applied to each parents. Firstly, among the participants who did not fill the scales or leave the scales after some items or check more than one items were ascertained. Then, 4 participants were rejected from the research sampling. As a result, the observation of 60 parents were included in the research analysis.

Data Gathering materials

Beck Hopelessness Scale (BHS): This scale was developed by Beck and his colleagues (1974) in 1974 to evaluate the individuals' negative expectations for the future. Items were answered as "Yes" or "No". Scales were self-report forms and composed of 11 right, 9 wrong key answers and 20 right-wrong suggestions. One point was given for each compatible answer with the key and 0 point for incompatible ones. In scale, 1 point was given for the answer of "No" in questions 1, 3, 5, 6, 8, 10, 13, 15, and 19; and for the answer of "Yes" in questions 2, 4, 7, 9, 11, 12, 14, 16, 17, 18, and 20. For the other answers 0 point was given. The total score of the scale was minimum "0" and maximum "20". In BHS, the items 1., 3., 7., 11. ve 18. were established the lower level of "Emotions and the Expectations about Future", items 2., 4., 9., 12., 14., 16., 17. and 20. were composed of the lower level of "Loss of Motivation" and finally, items 5., 6., 8., 10., 13., 15. and 19. were about the lower level of "Hope" (Durak & Palabıykoğlu, 2006). Beck and his friends (1974) found the Cronbach reliability coefficient as $\alpha=.93$ and item-total score correlation in the range of .39 and .76. Durak and Palabıykoğlu (2006) adapted this scale in Turkish. As the score of hope and the emotion-expectation for future increase, the level of hope and the emotion-expectation for future decreases. The reason of this situation is the presence of the cross-check items during the calculation of total scale score.

Beck Depression Scale: This is the self-assessment scaled that was composed of 21 items and developed by (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). It evaluates the signs of emotion, cognition and motivation in depression. Each item determines one behavioral property about the depression. Scale was composed of 21 likert type items, totally. The aim of this scale is to quantify the degree of the signs objectively, not to diagnose the depression. The maximum score of the scale is "63" and the minimum score is "0". In research conducted by Hisli (1989), 259 university students were participated and the correlation of two half tests and internal reliability coefficient (Cronbach Alpha) was found as .74 and .80, respectively.

Parental Healthcare Satisfaction Scale: PedsQL satisfaction scale was composed of six separate sections as information (5 items), family participant (4 items), communication (5 items), technical skills (4 items), emotional requirements (4 items) and overall satisfaction (3 items) (Varni, Seid, & Kurtin, 1999). The questions in the scale were graded according to the quintet grading as "0=never pleased, 1=sometimes pleased, 2= quite often pleased, 3=usually pleased, 4=always pleased, N/A=no application (implies the services not taken due to the age of child). The high scores denoted the increase in the pleasure. The scale was first translated to Turkish and applied by Ulus (2004). Çoban (2007) evaluated the factorial structure and the reliability of the scale and the value was found as .78.

Application:

Data was collected by closed enveloped from the parents of children who diagnosed cerebral palsy and take support from Rehabilitation Center. Participation was achieved based on voluntariness. It took 1 month to gather the all data. For this study, confirmation was taken from the ethics committee of the rehabilitation center. Independent sample T-Test and Pearson Correla-

tion coefficient were used in data analysis. The internal consistency of the scales in this study for Beck Depression Scale, Beck Hopelessness Scale, Parental Healthcare Satisfaction, Information Lower Dimension, Parent Participation Lower Dimension, Communication Lower Dimension, Technical Skill Lower Dimension, Emotional Requirements Lower Dimension and Overall Satisfaction Lower Dimension were calculated as 91, 81, 91, 83, 68, 71, 73, 76, respectively.

Findings

Differences according to demographic variables:

Independent Sample T-Test was applied in order to understand whether there is a significant difference or not between depression, hopelessness and parental healthcare satisfaction of the parents of children who diagnosed cerebral palsy and take support from Rehabilitation Center and gender, working status, educational status, ranking of child in family, level of support in child care of the other parent, gender of child and the age group of the child.

Table 1. Differences of depression, hopelessness and parental healthcare satisfaction with respect to gender.

	Female (n=30)		Male (n=30)		t	sd	p
	Avg.	Std.	Avg.	Std.			
Depression	26.87	12.71	25.30	14.80	.440	58	.662
Hopelessness	6.60	4.55	6.87	4.16	-.237	58	.814
Parental Healthcare Satisfaction	66.80	11.53	67.97	10.84	-.404	58	.688
Information	13.40	3.74	14.13	2.10	-.937	58	.353
Family Participation	11.40	2.36	11.20	1.67	.379	58	.706
Communication	14.37	2.57	13.83	2.07	.886	58	.379
Technical Skills	10.77	2.50	11.37	1.77	-1.072	58	.288
Emotional Requirements	10.87	2.61	10.97	1.92	-.169	58	.866
Overall Satisfaction	6.00	2.38	6.47	2.76	-.701	58	.486

The comparison according to gender was given in Table 1. Results showed that there was no significant difference between mothers and fathers in depression ($t_{(58)} = .440, p > .05$), hopelessness ($t_{(58)} = -.237, p > .05$), parental healthcare satisfaction ($t_{(58)} = -.404, p > .05$), information ($t_{(58)} = -.937, p > .05$), family participation ($t_{(58)} = .379, p > .05$), communication ($t_{(58)} = .886, p > .05$), technical skills ($t_{(58)} = -1.072, p > .05$), emotional requirements ($t_{(58)} = -.169, p > .05$) and overall satisfaction ($t_{(58)} = -.701, p > .05$).

Table 2. Differences of depression, hopelessness and parental healthcare satisfaction with respect to working status.

	Working (n=32)		Unemployed (n=28)		t	sd	p
	Avg.	Std.	Avg.	Std.			

Depression	25.25	14.07	27.04	13.45	-.501	58	.619
Hopelessness	6.59	4.18	6.89	4.56	-.265	58	.792
Parental Healthcare Satisfaction	67.56	10.44	67.18	12.02	.132	58	.895
Information	14.22	2.24	13.25	3.71	1.242	58	.219
Family Participation	11.16	1.63	11.46	2.43	-.584	58	.562
Communication	13.84	2.08	14.39	2.59	-.911	58	.366
Technical Skills	11.38	1.79	10.71	2.52	1.181	58	.243
Emotional Requirements	10.78	1.91	11.07	2.65	-.490	58	.626
Overall Satisfaction	6.19	2.71	6.29	2.45	-.147	58	.884

Table 2 includes the results of comparison of parents according to their working status. As given in the table there was no significant differences between working and unemployed parents in depression ($t_{(58)} = -.501, p > .05$), hopelessness ($t_{(58)} = -.265, p > .05$), parental healthcare satisfaction ($t_{(58)} = .132, p > .05$), information ($t_{(58)} = 1.242, p > .05$), family participation ($t_{(58)} = -.584, p > .05$), communication ($t_{(58)} = -.911, p > .05$), technical skills ($t_{(58)} = 1.181, p > .05$), emotional requirements ($t_{(58)} = -.490, p > .05$) and overall satisfaction ($t_{(58)} = -.147, p > .05$).

Table 3. Differences of depression, hopelessness and parental healthcare satisfaction with respect to educational status.

	Primary school (n=28)		High school and over (n=32)		t	sd	p
	Avg.	Std.	Avg.	Std.			
Depression	30.93	12.33	21.84	13.60	2.696	58	.009
Hopelessness	7.21	3.48	6.31	4.97	.803	58	.425
Parental Healthcare Satisfaction	67.07	10.14	67.66	12.06	-.202	58	.841
Information	13.07	3.38	14.38	2.59	-1.690	58	.096
Family Participation	11.50	2.06	11.13	2.01	.712	58	.480
Communication	14.43	2.56	13.81	2.10	1.024	58	.310
Technical Skills	10.93	1.86	11.19	2.43	-.458	58	.649
Emotional Requirements	11.07	2.32	10.78	2.25	.490	58	.626
Overall Satisfaction	6.07	2.18	6.38	2.89	-.454	58	.652

The comparisons according to educational status was given in Table 3. The results showed that there was no significant difference between parents who graduated from primary school and high school-university in hopelessness ($t_{(58)} = .803, p > .05$), parental healthcare satisfaction ($t_{(58)} = -.202, p > .05$), information ($t_{(58)} = -1.690, p > .05$), family participation ($t_{(58)} = .712, p > .05$), communication ($t_{(58)} = 1.024, p > .05$), technical skills ($t_{(58)} = -.458, p > .05$), emotional

requirements ($t_{(58)} = .490, p > .05$) and overall satisfaction ($t_{(58)} = -.454, p > .05$), whereas there was a significant difference in depression ($t_{(58)} = 2.696, p < .01$). As a result, the depression level of the primary school graduated parents (Avg. = 30.93, $S = 12.33$) was obtained higher than of the high school-university graduated (Avg. = 21.84, $S = 13.60$)

Table 4. Differences of depression, hopelessness and parental healthcare satisfaction with respect to ranking of child in family.

	First (n=36)		Last (n=24)		t	sd	p
	Avg.	Std.	Avg.	Std.			
Depression	24.67	12.65	28.21	15.16	-.981	58	.331
Hopelessness	5.83	4.54	8.08	3.67	-2.025	58	.047
Parental Healthcare Satisfaction	68.00	11.62	66.46	10.47	.523	58	.603
Information	13.67	3.56	13.92	2.04	-.311	58	.757
Family Participation	11.50	2.18	11.00	1.77	.935	58	.354
Communication	14.19	2.44	13.96	2.20	.382	58	.704
Technical Skills	11.33	2.15	10.67	2.18	1.170	58	.247
Emotional Requirements	11.14	2.26	10.58	2.30	.927	58	.358
Overall Satisfaction	6.17	2.66	6.33	2.48	-.244	58	.808

The comparison results according to the ranking of the child in family was given in Table 4. There was no significant difference between the parents whose child was the first or the last in depression ($t_{(58)} = -.981, p > .05$), parental healthcare satisfaction ($t_{(58)} = .523, p > .05$), information ($t_{(58)} = -.311, p > .05$), family participation ($t_{(58)} = .935, p > .05$), communication ($t_{(58)} = .382, p > .05$), technical skills ($t_{(58)} = 1.170, p > .05$), emotional requirements ($t_{(58)} = .927, p > .05$) and overall satisfaction ($t_{(58)} = -.244, p > .05$), whereas a significant difference was obtained in hopelessness ($t_{(58)} = -2.025, p < .05$). According to this the hopelessness level of the parents whose child was the last (Avg. = 8.08, $S = 3.67$) was higher than the parents whose child was the first (Avg. = 5.83, $S = 4.54$).

Table 5. Differences of depression, hopelessness and parental healthcare satisfaction with respect to level of support in child care of the other parent.

	Often (n=30)		Always (n=30)		t	sd	p
	Avg.	Std.	Avg.	Std.			
Depression	27.27	13.43	24.90	14.08	.666	58	.508
Hopelessness	6.60	4.75	6.87	3.93	-.237	58	.814
Parental Healthcare Satisfaction	67.50	10.08	67.27	12.23	.081	58	.936
Information	13.90	3.35	13.63	2.72	.339	58	.736
Family Participation	11.50	2.26	11.10	1.79	.761	58	.450

Communication	14.07	2.30	14.13	2.39	-.110	58	.913
Technical Skills	10.80	2.25	11.33	2.09	-.951	58	.345
Emotional Requirements	11.07	2.26	10.77	2.31	.508	58	.613
Overall Satisfaction	6.17	2.38	6.30	2.78	-.200	58	.843

The comparisons of the parents according to their level of support in child care to their partners were given in Table 5. It was found that there was no significant difference between parents who often support his/her partner and the parents who always support his/her partner in child care in depression ($t_{(58)} = .666, p > .05$), hopelessness ($t_{(58)} = -.237, p > .05$), parental healthcare satisfaction ($t_{(58)} = .081, p > .05$), information ($t_{(58)} = .339, p > .05$), family participation ($t_{(58)} = .761, p > .05$), communication ($t_{(58)} = -.110, p > .05$), technical skills ($t_{(58)} = -.951, p > .05$), emotional requirements ($t_{(58)} = .508, p > .05$) and overall satisfaction ($t_{(58)} = -.200, p > .05$).

Table 6. Differences of depression, hopelessness and parental healthcare satisfaction with respect to gender of child.

	Girl (n=26)		Boy (n=34)		t	sd	p
	Avg.	Std.	Avg.	Std.			
Depression	23.27	14.57	28.24	12.79	-1.403	58	.166
Hopelessness	6.85	3.93	6.65	4.66	.175	58	.862
Parental Healthcare Satisfaction	69.42	13.24	65.82	9.06	1.249	58	.217
Information	14.27	3.01	13.38	3.03	1.127	58	.264
Family Participation	11.42	2.06	11.21	2.03	.408	58	.685
Communication	14.35	2.42	13.91	2.27	.714	58	.478
Technical Skills	11.65	2.35	10.62	1.94	1.872	58	.066
Emotional Requirements	11.19	2.67	10.71	1.93	.819	58	.416
Overall Satisfaction	6.54	3.22	6.00	1.95	.803	58	.425

Table 6 gives the comparisons between the parents with respect to their child gender. According to the results there was no significant difference between the girls and boys parents in depression ($t_{(58)} = -1.403, p > .05$), hopelessness ($t_{(58)} = .175, p > .05$), parental healthcare satisfaction ($t_{(58)} = 1.249, p > .05$), information ($t_{(58)} = 1.127, p > .05$), family participation ($t_{(58)} = .408, p > .05$), communication ($t_{(58)} = .714, p > .05$), technical skills ($t_{(58)} = 1.872, p > .05$), emotional requirements ($t_{(58)} = .819, p > .05$) and overall satisfaction ($t_{(58)} = .803, p > .05$).

Table 7. Differences of depression, hopelessness and parental healthcare satisfaction with respect to age group of child.

	Preschool (n=31)		School age and Adolescent (n=29)		t	sd	p
	Avg.	Std.	Avg.	Std.			
Depression	22.10	13.40	30.34	12.90	-2.426	58	.018
Hopelessness	5.19	4.04	8.38	4.07	-3.044	58	.004
Parental Healthcare Satisfaction	66.39	9.96	68.45	12.32	-.715	58	.477
Information	12.94	3.39	14.66	2.33	-2.275	58	.027
Family Participation	11.32	2.10	11.28	1.98	.088	58	.930
Communication	14.03	2.30	14.17	2.39	-.231	58	.818
Technical Skills	11.00	1.95	11.14	2.42	-.244	58	.808
Emotional Requirements	10.90	2.12	10.93	2.46	-.047	58	.963
Overall Satisfaction	6.19	2.26	6.28	2.90	-.123	58	.902

According to the age of child in care the comparison between the parents whose child is in pre-school age and further age was given in Table 7. As a result there was no difference in parental healthcare satisfaction ($t_{(58)} = -.715, p > .05$), family participation ($t_{(58)} = .088, p > .05$), communication ($t_{(58)} = -.231, p > .05$), technical skills ($t_{(58)} = -.244, p > .05$), emotional requirements ($t_{(58)} = -.047, p > .05$) and overall satisfaction ($t_{(58)} = -.123, p > .05$), whereas a significant difference was obtained in depression ($t_{(58)} = -2.426, p < .05$), hopelessness ($t_{(58)} = -3.044, p < .01$) and information ($t_{(58)} = -2.275, p < .05$). It was found that the level of depression and hopelessness (Avg. = 30.34, Std. = 12.90; Avg. = 8.38, Std. = 4.07, respectively) of parents whose child is in school age and adolescent were higher than the parents whose child is in preschool age (Avg. = 22.10, Std. = 13.40; Avg. = 5.19, Std. = 4.04, respectively).

Relationships between Variables

The relation between depression, hopelessness and healthcare satisfaction of parents whose child was diagnosed as cerebral palsy and have taken services in rehabilitation center was investigated. Pearson Correlation coefficient was used to determine whether there was a significant relation between these parameters or not.

Table 8. Relationship between depression, hopelessness and parental healthcare satisfaction.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Depression	1								
2. Hopelessness	.44**	1							
3. Parental Healthcare Satisfaction	-.30*	-.15	1						
4. Information	-.12	-.03	.52**	1					
5. Family Participation	-.24	-.15	.82**	.12	1				
6. Communication	-.16	-.19	.83**	.17	.78**	1			
7. Technical Skills	-.32*	-.23	.85**	.22	.75**	.73**	1		
8. Emotional Requirements	-.20	-.08	.89**	.28*	.78**	.77**	.79**	1	
9. Overall Satisfaction	-.36**	-.05	.81**	.37**	.60**	.56**	.61**	.67**	1

According to the Table 8, a positive significant relationship between depression and hopelessness ($r_{(58)}=.44, p < .01$), and a negative significant relationship between depression and parental healthcare satisfaction ($r_{(58)}=-.30, p < .05$), technical skills ($r_{(58)}=-.32, p < .05$) and overall satisfaction ($r_{(58)}=-.36, p < .01$) was obtained.

Table 9. Relationship between depression, hopelessness, parental healthcare satisfaction, Age, Number of Children, Age of Child, Support Duration from the Existing Rehabilitation Center.

	10.	11.	12.	13.
1. Depression	.17	.30*	.18	.19
2. Hopelessness	.26*	.35**	.22	.16
3. Parental Healthcare Satisfaction	.19	.00	.04	.03
4. Information	.35**	.20	.33**	.36**
5. Family Participation	.00	-.10	-.08	-.02
6. Communication	.04	-.01	-.08	-.06
7. Technical Skills	.06	-.13	-.04	-.07
8. Emotional Requirements	.16	-.05	-.07	-.10
9. Overall Satisfaction	.18	.00	.02	-.06
10. Age	1	.47**	.42**	.40**
11. Number of Children		1	.26*	.19
12. Age of Child			1	.78**
13. Support Duration from the Existing Rehabilitation Center				1

Table 9 shows that there was a positive relationship between age and hopelessness ($(r_{(58)} = .26, p < .05)$) and information satisfaction ($(r_{(58)} = .35, p < .01)$). Moreover, a positive relationship between number of child and depression ($(r_{(58)} = .30, p < .05)$) and hopelessness ($(r_{(58)} = .35, p < .01)$) was observed. One more positive relationship was also found between age of child and information ($(r_{(58)} = .33, p < .01)$). Finally, a positive relationship was obtained between the support duration from the existing rehabilitation center and information ($(r_{(58)} = .36, p < .01)$).

Discussion

It has been noted that parents' satisfaction with information increases as the time to receive support from the existing rehabilitation center increases. Among the studies in literature the findings of Çoban (2007) were parallel to this as an increase was obtained in the score of information satisfaction with the number of coming to the hospital. Furthermore, Çoban (2007) found a significant relationship between the communication dimension and the age of the parent in their research. In this study, a significant relationship was obtained between parents' age and information satisfaction. Çoban (2007) supported that there was no effect of educational status of the parents to the evaluation of health care.

Korkmaz (2017) conducted a study with mothers of children with special needs, he emphasized that the levels of depression increased as a result of the increase in the care burden of the mothers with high number of children. Parallel to this situation, according to this study, as the age of the individual's progresses and the number of children increases, the levels of hopelessness also increase. Aytaç (2017) revealed that the special education process of children of the young fathers had more efficient results than the children of the elderly fathers. According to Arslan (2016), as the fathers age decreased, the time and attention of the children to attend the activities during the education increased, but the same situation was not found in the elderly fathers. With the progression of the age and the increase in the number of children, the division of the interest to the diagnosed child, increases the future concerns of the individuals about their children. According to Avşaroğlu and Gilik (2017), conducted a study with the participation of 351 parents of children with special needs, there was a significant effect of future concern on hopelessness. According to this study, this state of hopelessness due to future anxiety leads to despair of parents and increases their depression.

In this study, a negative significant relationship was observed between parents' depression and parental healthcare satisfaction, and technical skills and overall satisfaction. This situation shows that the satisfaction from the health care services taken by their children affects their mental status and decreases the level of depression and hopelessness they experience.

According to the study conducted by Karadağ (2009), as the social support perceived by mothers of handicapped child was increased, children's concerns about the future were decreased. At this point, the satisfaction of the parents in the health care service increases the perceived social support and decreases the levels of hopelessness and depression. Therefore, considering the fact that increasing the quality of health services will have positive effects not only on the satisfaction levels of individuals but also on their moods, total quality management in health gains importance.

Conclusion

As a result of this study, the depression level of the parents whose child was diagnosed as cerebral palsy and has taken services in rehabilitation center, was not undergo a change with gender

and working status of parent, ranking of the child in the family, the support of parent to his/her partner in care of the child and finally, the gender of child. However, the depression level of parents graduated from primary school was obtained higher than that of parents graduated from high school or university. In addition, the level of depression of parents whose child was in school age or adolescent was higher than that of parents whose child was in preschool age.

Furthermore, the hopelessness level of parents was not undergo a change with gender, working and educational status of parents and the support of parent to his/her partner in childcare. On the other hand, the level of hopelessness of the parents whose child was the last in family was obtained higher than that of parents whose child was the first. The hopelessness level of parents whose child was in school age or adolescent was higher than that of parents whose child was in preschool age.

Finally, the results showed that the level of parents' healthcare satisfaction was not undergo a change with gender, working and educational status of the parents, ranking of the child in family, the support of the parent to his/her partner in childcare, and gender and age of the child. However, the level of information satisfaction of parents whose child was in school age or adolescent was obtained higher than that of parents whose child was in preschool age.

Positive correlation between parents' depression and hopelessness and a significant negative correlation between depression and parental healthcare satisfaction, and technical skills and overall satisfaction were observed. This situation shows that the parents' satisfaction from the health care services taken by their children affects the parents' psychological state. Moreover, the increase in healthcare satisfaction decreases their depression and hopelessness level. In addition to that a positive relationship between age of parent, and hopelessness and information satisfaction, number of child, and depression and hopelessness, age of child and information, duration of support from the existing rehabilitation center and information satisfaction was observed.

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