Comparing the quality of life for boarders and day students at the regional boarding schools in Giresun–Turkey*

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Abstract

Objective: Regional boarding schools have been established to provide primary education in the sparsely populated areas in Turkey. Boarders and day–students study together in these schools. This study was carried out to compare the quality of life of boarders and day–students the regional boarding schools. **Methods:** A total of 1126 students, 634 boarders and 492 day–students, at the 4th–8th grades of nine boarding schools in Giresun province of Turkey participated in this study. A socio–demographic questionnaire and a Pediatric Quality of Life Inventory were filled by the students. The Chi square test, unpaired t test, generalized linear model (GLM), and Pearson simple correlation were used for the statistical analyses. **Results:** It was found that the life quality scores of the boarders were lower than those of the day– students for all dimensions of the Pediatric Quality of Life inventory ($p<0.05$). Life quality scores of the female students were found to be lower than those of the males ($p<0.05$). There were positive correlations between the age and life quality scores of the boarders. **Conclusions:** The Life quality scores of the boarders were lower than that of the day–students. Life quality scores of the girl boarders were much lower. More attention should be given to the living conditions of the boarders in order to improve their life quality levels.

Key Words: Student, life style, quality of life

Giresun İlinde Yatılı Bölge Okullarında Okuyan Yatılı ve Gündüzlü Öğrencilerin Yaşam Kalitelerinin Karşılaştırılması*

Özet

Amaç: Türkiye'de nüfusun dağınık olduğu bölgelerde, temel eğitimi sağlamak amacıyla yatılı ilköğretim bölge okulları açılmıştır. Bu okullarda yatılı ve gündüzlü öğrenciler birlikte okumaktadır. Bu araştırma yatılı bölge okullarında yatılı ve gündüzlü olarak okuyan öğrencilerin yaşam kalitesi düzeylerini karşılaştırmak amacıyla yapılmıştır. **Yöntem:** Giresun ilindeki dokuz yatılı bölge okulunun 4–8. sınıflarında okuyan, 634'ü yatılı, 492'si gündüzlü olmak üzere toplam 1126 öğrenci araştırma kapsamına alındı. Öğrenciler tarafından, sosyo-demografik anket ve Pediatrik Yaşam Kalitesi Ölçeği doldurduldu. Verilerin istatistiksel analizinde ki kare testi, unpaired t testi, genel lineer model (GLM) ve Pearson simple korelasyon analizi kullanıldı. **Bulgular:** Yatılı öğrencilerde, Pediatrik Yaşam Kalitesi Ölçeği'nin bütün boyutlarında ortalama puanlar gündüzlü öğrencilerden daha düşük bulundu ($p<0.05$). Her iki grupta, kız öğrencilerin yaşam kalitesi puanları erkek öğrencilerden daha düşük bulundu ($p<0.05$). Yatılı öğrencilerde, yaş ile yaşam kalitesi puanları arasında pozitif yönde ilişkiler bulundu.

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Sonuç: Yatılı öğrencilerin yaşam kalitesi puanları gündüzlü öğrencilerden düşüktür. Yatılı kız öğrencilerin yaşam kalitesi puanları daha da düşüktür. Yatılı öğrencilerin yaşam kalitesi düzeyini yükseltmek için, yaşam koşullarının iyileştirilmesi yönünde çaba harcanmalıdır.

Anahtar Kelimeler: Öğrenciler, yaşam biçimi, yaşam kalitesi

Introduction

Children need attentive care, support, protection, and guidance until they reach physical, psychological and social maturity. These needs are normally met by families, but in some cases, they are partially or completely met by institutions.

Schools are responsible not only for the academic development of the students but also for their social and personal development, in short, their development as a whole.[1] Primary school age is a very important period during which individual's self confidence, the quality of child's social relationships, future plans, and attitudes towards the society are developed. During this period, individuals are equipped with the necessary information and skills to sustain their lives better and to live in harmony with the other members of society.

Primary education for eight years is compulsory in Turkey. In sparsely populated areas, regional boarding schools have been established to provide an opportunity for primary education to children.[2] Boarders and day–students are educated and trained together at these schools. In the 2008–2009 academic year there were a total of 592 regional boarding schools in Turkey and more than 260,000 students were studying in these schools. Approximately 150,000 of these students were boarders and the others were day–students.[3]

Quality of life is considered as the general and continuous well–being and its assessment generally concentrates on positive experiences that create happiness, enjoyment, and satisfaction as well as on negative experiences and emotions that express the opposite. In the assessment of the quality of life, experiences in areas such as family, school, work, etc. which are important in the individual's life are taken into consideration.[4]

There are various scales that have been developed to assess health related quality of life in children and adolescents. One of these scales, the Pediatric Quality of Life Inventory, has been developed by Varni et al.[5]

As primary school children spend a considerable part of their lives at schools, there is a close relationship between the quality of life of the students and their lives at schools. As the boarders generally belong to families at comparatively lower socio-economic levels and lack the support of their families, it is expected that their quality of life level is lower than that of the day–students. However, due to the fact that some of these boarders come from families in extremely poor conditions, it is also possible that they perceive the conditions at the boarding schools as far better than the actual state in their homes.

This study compared the quality of life of boarders and day–students who study at the regional boarding schools.

Materials and Methods

This study was conducted on 4th to 8th grades in nine boarding schools located in Giresun province which is in the northern part of Turkey. The study was approved by the Ethics Committee of Erciyes University Medical Faculty and administrative permission was received from the governorship of Giresun province.

The standard deviation of the life quality scores of the students was assumed to be around 15 points[6] and it was assumed that the quality of life scores of boarders

and day–students may differ by 3 points. Taking α= 0.05, β= 0.20, the sample size was calculated as 393 for each grade. At least 400 students from both groups were planned for inclusion in the study.

In the 2008–2009 school year, it was determined that there were a total of 2075 students registered as 4th to 8th grades, that 1267 of them were boarders and 808 of them were day–students, and that these students were educated in 97 classrooms. It was calculated that there were an average of 23 students in each classroom among whom there were 14 boarders and 9 day-students. One classroom for each of the 4th to 8th grades of each school was taken as our sample. Where there was more than one classroom for a grade, one classroom was selected randomly. In this way a total of 45 classrooms were selected. It was determined that there was a total of 1280 students in the classrooms chosen as the sample, 712 boarders and 568 day–students.

Instruments

Socio-demographic questionnaire:

The questionnaire, which was developed by the researchers, includes 49 questions related to the socio-demographic characteristics, the health status, personal hygiene, sleeping habits, social relationships and nutritional status of the students. The nutritional status of the students will be assessed in another article.

The Pediatric quality of life inventory (PedsQL):

This has been developed by Varni and collegues[5] to assess the health related quality of life of children and adolescents between the ages of 2-18. The inventory comprises a total of 23 questions on the physical, emotional, mental and social well–being of children and adolescents. There are different versions of PedQL for children ages 2–4, 5–7, 8–12, and 13–18 years. There are minor differences between these versions. There is only parent proxy report of PedQL for the children ages 2–4 years, but PedsQL for the children ages 5–7 and 8–12 years and for the adolescent ages 13–18 years has two parallel forms, a child self–report and a parent proxy–report.

Turkish versions of the Pediatric Quality of Life Inventory for the children and adolescents ages 8–12 and 13–18 years have been validated by Çakın Memik and colleagues.[6,7]

PedsQL has four dimensions including physical health, emotional functioning, social functioning, and school functioning. Questions regarding emotional functioning, social functioning, and school functioning were evaluated together and a psycho–social health summary score was calculated.[5]

The physical function score was accepted as a physical health summary score as well. Moreover, by considering the answers to all questions, a total quality of life score was calculated. Dimension scores and summary scores were evaluated as a score in a 0–100 scale. Higher scores for all dimensions indicate a better quality of life.

In this study, only the child self–report was used due to the difficulty of accessing the parents of the boarders.

Data collection

The researchers visited the classrooms, informed the students about the study and obtained their verbal consents. No student refused to participate in the study. Socio–demographic questionnaire and the appropriate form of PedQL according to their ages were given to the students. Socio–demographic questionnaire and PedQL were filled by the students under the supervision of the researchers. A total of 1264 students were accessed. Yet, 138 questionnaires were excluded due to inadequate data. Hence, data regarding 1126 students, 634 being boarders and 492 being day-students, was evaluated.

Data analysis

Dimension scores and summary scores were calculated as a score in a 0–100 scale.

The economic status of the families was evaluated at three levels as high, medium and low according to the reports of the students.

The SPSS 15 statistical package program was utilized during the data analysis. The Chi square test was used for the analysis of categorical data. The Kolmogorov–Smirnov test was used to test fitness to normal distribution of the numerical data and these were reported as mean and standard deviation. Student's t test and covariance analysis were used in the analysis of the numerical data. During the covariance analysis, the age and gender of the students and the socio–economic levels were taken as covariates. In order to assess the relationship between the variables, Pearson simple correlation analysis was used. In all of the statistical analyses, p-values less than 0.05 were accepted as statistically significant.

Results

A total of 1126 students participated in the study. Of the study group, 56.3% were boarders and 43.7% were day-students. Various socio-demographic characteristics of the students in the study group are shown in Table 1.

Table 1. Some socio–demographic characteristics of the study groups

Characteristics	**Groups**	**Boarders** (n=634)		**Day–Students** (n=492)		**p**
		n	%	n	%	
Gender	Male	313	49.4	248	50.4	0.730
	Female	321	50.6	244	49.6	
School grades	4	100	15.8	100	20.3	<0.001
	5	102	16.1	100	20.3	
	6	140	22.1	100	20.3	
	7	112	17.7	100	20.3	
	8	180	28.4	92	18.7	
Age (year) (mean±SD)		12.5±1.5		12.2±1.5		<0.001
Economic level of the family	High	260	41.0	263	53.5	<0.001
	Medium	310	48.9	202	41.1	
	Low	64	10.1	27	5.5	
Family size (mean±SD)		6.3±2.2		5.7±1.6		<0.001

As seen in Table 1, there are some differences in the socio-demographic characteristics of the boarders and day–students in the study group. The mean age of

boarders is 0.3 year older than that of day–students ($p<0.001$). Also there are significant differences between boarders and day–students in terms of the number of siblings, family size, and the educational level of the parents ($p<0.001$).

The comparisons of the boarders and day–students in the study group with respect to the quality of life scores are shown in Table 2.

Table 2. Comparison of life quality scores of the boarders and day–students.

Dimensions of Life Quality	**Study Groups**		**p***
	Boarders (n=634) (mean±SD)	Day–Students (n=492) (mean±SD)	
Physical health	71.4 ± 18.3	75.0 ± 16.4	0.001
Emotional functioning	68.6 ± 21.5	73.4 ± 20.1	0.001
Social functioning	77.1 ± 20.7	81.8 ± 18.5	<0.001
School functioning	67.3 ± 18.8	70.4 ± 19.0	0.037
Psycho–social health	71.1 ± 16.5	75.2 ± 15.4	<0.001
Total life quality	71.2 ± 15.8	75.1 ± 14.5	<0.001

*: p values from GLM (age and gender of the student and economic level of the family were taken as covariates)

As observed in Table 2, the mean scores for all dimensions of life quality of the boarders are significantly lower than for the day–students. The differences between the mean scores of the boarders and day–students are about 3–4 points.

The comparisons of the life quality scores of the boarders and day–students with respect to gender are given in Table 3.

As shown in Table 3, for both boarders and day–students, there is no significant difference between the male and female students with respect to social functioning and school functioning scores. On the other hand, with respect to the total quality of life score along with the physical health and psycho–social health summary scores, the mean scores of the female students are significantly lower than for the male students.

The mean of the total quality of life scores of the female boarders is about 4 points lower for the male boarders and female day–students.

The correlations between age and quality of life scores of the boarders and day–students are presented in Table 4.

As seen in Table 4, positive correlations were found between the age and some quality of life scores such as physical health, social functioning and psycho–social health. However, no significant correlation was found between the age and quality of life scores of day–students, except for the school functioning score. There is a negative correlation between the age and the school functioning score.

Table 3. Comparison of life quality scores of male and female students in the study groups.

Groups	Dimensions of Life Quality	Gender		p
		Male (Mean ± SD)	Female (Mean ± SD)	
Boarders	n	313	321	
	Physical health	73.8±18.4	69.0±17.9	0.001
	Emotional functioning	73.3±19.8	64.4±22.3	<0.001
	Social functioning	77.0±20.9	77.2±20.6	0.942
	School functioning	68.2±18.7	66.4±18.9	0.230
	Psycho–social health	72.8±16.1	69.3±16.7	0.007
	Total life quality	73.2±15.6	69.2±15.7	0.002
Day–students	n	248	244	
	Physical health	77.7±16.5	72.2±15.8	<0.001
	Emotional functioning	76.8±19.1	69.9±20.7	<0.001
	Social functioning	81.7±18.6	82.0±18.6	0.870
	School functioning	71.0±19.9	69.9±17.9	0.501
	Psycho–social health	76.4±16.0	73.9±14.7	0.063
	Total life quality	76.9±15.0	73.3±13.7	0.006

Table 4. Simple correlation coefficients between age and quality of life scores for the boarders and day–students.

Independent variable: Age

Dependent variables	Study Groups			
	Boarders		Day–Students	
	r	p	r	p
Physical health	0.157	<0.001	0.037	0.417
Emotional functioning	0.023	0.555	0.022	0.628
Social functioning	0.214	<0.001	0.078	0.085
School functioning	0.038	0.342	–0.163	<0.001
Psycho–social health	0.114	0.004	–0.025	0.562
Total life quality	0.141	<0.001	–0.004	0.933

Discussion

It has been shown that the boarders differ significantly from the day–students with respect to age, number of siblings, family size, and educational levels of the parents. These results show that the boarders come from families at a lower socio–economic level.

The physical and social conditions of the school, in which children spend considerable time, are very important for the life quality of all the students. Since boarders spend all of their time at the schools, the conditions of the schools are more important for the boarders. In a study on school effectiveness, it has been reported that if the negativity and situations leading to stress at the school are eliminated, the life quality levels of the students and teachers increase.[8]

The means of all dimension scores and summary scores for the boarders were found to be significantly lower than those for the day–students. Physical health denotes children's ability to carry out the daily activities which are appropriate for their age. Within this score are properties such as looking after one's self, ability to move, physical activity, carrying out activities in accordance with one's role and spending leisure time.[9] The fact that boarders generally come from families with lower socio–economic levels may lead to their being physically inferior to their peers. On the other hand, these students' absence from their families for a long time may result in their being negatively affected psychologically and they may perceive their states as being worse than their actual states.

The means for emotional health, social function, and school function scores of the boarders were also found to be significantly lower compared to those of the day–students. The difference between the emotional health scores of the boarders and day–students is higher than for the other dimensions. This situation shows that the emotional functioning is the mostly affected dimension for the boarders. The emotional functioning reflects the emotional characteristics of the children such as fright, sorrow, anger, and anxiety. In addition to boarders' coming from poorer families and more negative environments, their being away from their families for long durations may lead to their getting lower quality of life scores. The boarders, more negative emotional conditions may lead to them perceiving the questions on the other aspects more negatively. As a result, the psycho–social health summary score, which is the sum of the scores of emotional functioning, social functioning, and school functioning of the boarders is also found to be significantly lower than that of the day–students.

As a result of the fact that physical health and psycho–social health summary scores of the boarders are significantly lower than for the day–students, their mean scores for total quality of life are significantly lower than for the day–students. In a study conducted by Carbone et al.[10] in Australia on a 6–17 age group, it was found that the quality of life scores of children and adolescents living with their families were higher than for those living apart from their families. The results of our study are similar to this study.

In a study performed by Cummings et al.[11], where factors related to the emotional and physical health of native American adolescents were investigated, the protective factors regarding the emotional health were determined as 30% and having family care was found to be a protective factor with a rate of 15% for both genders. In a prospective study conducted by Davidson et al.[12], the quality of life for children, who had been taken under institutional care and were not taken under institutional care although they should have been, was investigated at the beginning of the study and after six months later. It was reported that the quality of life of the children who had lived in hard conditions and were taken under institutional care was improved compared to those who were not

taken under institutional care. This situation shows that in some cases, institutions of high quality can increase the quality of life. In a study performed by Üstüner et al.[13], conducted on children 6–17 years of age, the prevalence rate of problem behaviors was 9.7% for children living with their families, 12.9% for children living with a foster family and 43.5% for children under institutional care.

As seen in Table 3, for both boarders and day–students, the quality of life scores of the female students were found to be generally lower than for the male students. In various studies, the quality of life scores of the female students have been found to be lower than for the male students.[14,15] This may be due to girls' perceiving their quality of life worse than the real state as a result of the differences in the approach of the society and the families to girls and boys.

As shown in Table 4 for day–students, a negative correlation was found between the age and the school function score and no relationship was found for the other dimensions. However, considering the boarders, there were positive correlations between the age and the quality of life scores, except for the social functioning and school functioning. This condition shows that as the age of the boarders increases, they get used to their situation and accommodate with the conditions. Thereby, as the age increases, the difference between the quality of life scores of the boarders and the day-students may decrease.

This investigation has some limitations. The study was performed in one province of Turkey and the results may not be generalized to the Turkish population.

In conclusion, life quality scores of the boarders were lower than for the day–students for all dimensions. This situation may be due to the fact that physical and psycho–social conditions in the boarding–schools are unfavorable. Measures should be taken to improve the quality of life of the boarders and future studies should be conducted on this topic.

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References

1. Marks GN. Attitudes to School Life; Their Influences and Their Effects on Achievement and Leaving School. The Australian Council for Educational Research Ltd, Australia 1998; pp 1–28.

2. Turkish Ministry of Education General Directorate of Primary Education. Yatılı İlköğretim Bölge Okulları Yönetici Kılavuzu. Ankara 2008; s 8. (in Turkish)

3. Website of Turkish Ministry of Education http://sgb.meb.gov.tr/istatistik/meb_istatistikleri_orgun_egitim_2008_2009.pdf. (access date: 07.01.2011).

4. Eser E. [Theoretical foundations of health–related quality of life and its measurement]. Sağlıkta Birikim Dergisi 2003;1(2):1–5. (in Turkish)

5. Varni JW. The PedsQL 4.0: Measurement model for the pediatric quality of life inventory version 4.0. Quality of Life News Letters 2001;23.

6. Çakın Memik N, Ağaoğlu B, Coşkun A, Karakaya I. [The validity and reliability of Pediatric Quality of Life Inventory in 8–12 year old Turkish children]. Çocuk ve Gençlik Ruh Sağlığı Dergisi 2008;15(2):87–98. (in Turkish)

7. Çakın Memik N, Ağaoğlu B, Coşkun A, Üneri ÖŞ, Karakaya I. The validity and reliability of the Turkish Pediatric Quality of Life Inventory for children 13–18 years old. Turk Psikiyatr Derg 2007;18(4):353–363.

8. Leonard C, Bourke S, Schofield N. Affecting the affective; affective outcomes in the context of school effectiveness, school improvement and quality schools. Issues in Educational Research 2004;14(1):1–28.

9. Igoe JB. School nursing, Nurs Clin North Am 1994;29(3):443–458.

10. Carbone JA, Sawyer MG, Searle AK, Robinson PJ. The health–related quality of life of children and adolescents in home–based foster care. Qual Life Res 2007;16(7):1157–1166.

11. Cummins JR, Ireland M, Resnick MD, Blum RW. Correlates of physical and emotional health among Native American adolescents. J Adolesc Health 1999;24(1):38-44.

12. Davidson–Arad B, Englechin–Segal D, Wozner Y. Short term follow up of children at risk: Comparison of the quality of life children removed from home and children remaining at home. Child Abuse Negl. 2003;27(7):733–750.

13. Üstüner S, Erol N. Şimşek Z. [Emotional and behavioral problems among children in foster family care system]. Çocuk ve Gençlik Ruh Sağlığı Dergisi 2005;12(3):130–140. (in Turkish)

14. Al-Akour NA, Khader YS, Khassawneh MY, Bawadi H. Health-related quality of life of adolescents with overweight or obesity in the north of Jordan. Child Care Health Dev. 2011 May 27. doi: 10.1111/j.1365-2214.2011.01248.x.

15. Eser E, Yüksel H, Baydur H, et al. [The psychometric properties of the new Turkish generic health-related quality of life questionnaire for children (Kid-KINDL)]. Turk Psikiyatr Derg 2008;19(4):409–417. (in Turkish)