

A Study on the Correlation between Employment Status and Quality of Life in Secondary School Children

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ABSTRACT This descriptive study aimed to investigate the correlation between employment status and quality of life in secondary school children. The study sample included 450 students aged between 13-15 years, attending secondary schools in Fethiye, Mugla. The Sociodemographic Data Form and Pediatric Quality of Life Inventory Adolescent Form were used for data collection. The study results indicated that students who were not employed had higher levels of academic success. Employed students had lower scores of psychosocial health and school functionality subdimensions in comparison to those who were not employed, which was found to be statistically significant. As regards to durations of employment, there was also a statistically significant difference between physical health, psychosocial health, social functionality, school functionality scores and total score averages. It was found out the students with lower income levels had lower levels of quality of life.

INTRODUCTION

Child labor is defined as paid or unpaid work by children working in factories, workshops, establishments, farms, mines, and in the service sector such as domestic work (Shrivastava and Kumar 2015). Child labor is an important global issue associated with inadequate educational opportunities, parental ignorance, poverty, ineffective child labor laws, gender inequality, and a range of health risks (Roggero et al. 2007; Shrivastava and Kumar 2015). Moreover, child labor has a substantial degree of importance in the countries' development index and progress initiatives (Landmann and Frolich 2015). The International Labor Organization (ILO) defines "child workers" as children under 15 years old and "young workers" as young people aged between 15-25 years who work to contribute to family budget or to earn their own money. It is now estimated that there are approximately 168 million child workers around the world and more than half of them work under poor and risky conditions. The rise in child labor was curbed in Turkey through the implementations of international programs

between 1994 and 2006. Among them are the international programs on the "Elimination of Child Labor" and the national program "Support for the Schooling of the girls". Yet, the increasing number of Syrian refugees in Turkey also raised the risk of child labor. While those refugees outside of the camps need to earn money for their basic living expenses, most of them have not even received their legal work permits, which eventually calls for an urgent response to the Syrian child labor issue (Turkey Country Study 2015). According to the 2012 research results of the Turkish Statistics Institution, 2.6 percent of children between 6 and 14 years and 15.6 percent of adolescents between 15 and 17 years of age are employed in an economic activity. Out of the total number of child and adolescent workers, 44.7 percent are employed in agriculture. Turkey is currently going through a transition from rural population to urban population and from agricultural economy to an industrial one. Increasing intense migration to big cities, along with insufficient social support networks and adaptation problems to urban life, has brought about a significant rise in the number of children working on the streets or in marginal sectors in order to support their families. Child workers are most commonly employed in seasonal farmwork, industrial work, and street work. Most of the children employed with their families in farms are considered as non-remunerated workers and therefore the social and educational aspects of child labor are neglected (Buonomo 2011; Putnick and Bornstein 2015).

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The World Health Organization (WHO) defined health in 1948 as “not only absence of illnesses or disabilities, but also a state of physical, mental, and social wellbeing”. Work life influences children’s physical, psychological, and social development. Regardless of their work fields or work styles, children are exposed to common risk and dangers at work. A study analyzing the effects of employment on children’s health in 59 developing countries reported that child labor was correlated with adolescent mortality, nutrition levels, and infectious diseases (Roggero et al. 2007). It has often been noted that child workers experienced problems about their height and weight (Etiler et al. 2011). Those working in farms more frequently experienced musculoskeletal system problems (Das et al. 2013), whereas those in industrial areas are exposed to chemical substances (Tanburlini et al. 2002; Sevinc et al. 2004; Tiwari and Saha 2014). Children are also influenced psychologically since their psychosocial defense systems are still immature (Thabet et al. 2010; Kondylis and Manacorda 2012; Martin 2013; Tiwari and Saha 2014). It was demonstrated that child workers had problems of self-esteem (Benvegnu et al. 2005; Razi et al. 2009), and increased levels of depression and anxiety (Tokuc et al. 2009). It was also reported that academic success dramatically decreased in child workers with longer periods of employment (Holgado et al. 2014; Le and Homel 2015).

Along with the recent popularity of health promotion approaches, quality of life has become one of the principal targets of medical services (Kocoglu and Akin 2009). Quality of life (QOL) of children is equally influenced by age, educational status of family members, schooling, and economical status. QOL is defined as “a person’s self-perception within a set of cultural values with regard to their own concerns, expectations, and purposes”. The evaluation of QOL is based on objective (conditions of life) and subjective (personal satisfaction) domains. Health related QOL, on the other hand, deals with the influences of physical and mental disorders on QOL (Cakin Memik et al. 2008). Children’s QOL is potentially affected by decrease in school performance, dissatisfaction in making use of free time, health risks, stress, socioeconomical variables, and various inequalities (Kocoglu and Akin 2009; Dundar et al. 2008). Working at early ages certainly results in damages or obstacles in physical, men-

tal, educational, social, emotional, and cultural developments of children and consequently influences children’s QOL (Gulbucuk 2012; Tiwari and Saha 2014).

Objectives

For working children who were marginalized by their socioeconomic, cultural, and demographic status, the assessment of Health-related Quality of Life (HRQOL) can awaken society and health-care providers on the children’s unique needs. This study aims to investigate the correlation between employment status and quality of life in secondary school children in Fethiye, Mugla. In accordance with this objective, the study intended to answer the following questions:

- ◆ Is there a difference between the groups (working and not working students) in their health related quality of life scores?
- ◆ What factors affect the health related quality of life of children?
- ◆ Is there a difference between the groups (working and not working students) in their academic performances?

METHODOLOGY

Setting and Sample

This descriptive study was carried out between November 2012 and January 2013 and consisted of 6.580 secondary school students in Fethiye. Sample size was calculated with the sample formula for finite populations (0.05 sampling error) and it was found that minimum 400 students should constitute the sample. In order to strengthen the study and reduce the potential losses (for example, incomplete questionnaire), the sample size was kept as 450. For a homogeneous participation, the ideal number of students from each school was determined through stratified random sampling. In total, the data was collected from 450 students aged between 13 and 15. The participation criteria for the students were being a secondary school student and willingness to take part in the study.

Data Collection

The data was collected by the researchers between November and December in the academic year of 2012-2013. The participants were

contacted directly in their classroom. Detailed information was given to the students about the research and their verbal consent was obtained. The questionnaires were distributed to students in their classroom. It took approximately 15 to 20 minutes to fill out a survey in a single session. After the students had filled out the questionnaires in the classroom, the questionnaires were collected by researchers.

Data Collection Tools

The data was collected using a Sociodemographic Data Form and Pediatric Quality of Life Inventory Adolescent Form (13-18 years old). The Sociodemographic Data Form was developed by researchers to inquire age, gender, parents' educational status, occupation, economical status, employment status, work shifts, workplaces, and academic success of the children in the study.

The Pediatric Quality of Life Inventory Adolescent Form - PedsQL 4.0- (13-18 years old) was developed by Varni et al. (1999) in order to measure health related quality of life of children and adolescents. The reliability and validity of the Turkish version of the form was tested by Cakin Memik et al. (2007) and the Cronbach alpha coefficient was found to be 0.93. The inventory particularly focuses on physical health, emotional functionality, and social functionality as described by WHO. The inventory is scored in three subscales, which are inventory total scores, physical health total scores, and psychosocial health total scores that present the sum of emotional, social, and school functionality item scores. The inventory is a 23-item Likert scale, each of which is scored between 0 and 100. The answers are scored as follows: Never-100 points, Seldom-75 points, Sometimes-50 points, Often-25 points, and Always-0 points. The higher the total scores are the better health related quality of life is perceived.

Data Evaluation

The study data was evaluated using SPSS 15.0. Number and percentage distributions of the sociodemographic characteristics and employment status of the students were compiled. As the Kolmogorov-Smirnov test, which aimed to find out whether the data is pertinent to normal distribution or not, appeared to be considerable,

it was determined that the data does not demonstrate a normal distribution ($p=0.000$). When variables were not normally distributed, non-parametrical tests such as the Mann-Whitney U Test was used for binary comparisons and Kruskal-Wallis Variance Analysis was used for multiple comparisons. When the difference was found significant in Kruskal Wallis Variance Analysis, the Bonferroni Corrected Mann Whitney U Test was conducted to clarify which groups might have produced this difference.

Ethical Consideration

Before undertaking the study, permission in writing was sought from the Scientific Board of Ethics in X University and secondary school managements. The students were asked to grant oral consent to participate in the study. Students' names were not revealed.

RESULTS

Sociodemographic Characteristics of Students and Families

It was determined that 51.1 percent of the students in the study were girls and the average age was 13.33 ± 0.5 . Most of their mothers (63.3%) were primary school graduates and thirty-six percent of them were housewives. On the other hand, fifty-four percent of the fathers graduated from primary school and 41.4 percent of them were farmers. Most of the families (78.2%) were nuclear families and had moderate perceived levels of income (66.9%). Fifty percent of the participants stated that their school success was good, 28.2 percent of them thought that their school success was very good, 19.6 percent of the students thought it was not bad, and 2.2 percent of them agreed that their success at school was bad.

Employment Status and Quality of Life

The study results indicated that 50.7 percent of the students were employed. 39.5 percent of them were working one or two days a week and 19.7 percent of the students were working only on holidays. It was further reported that eighteen percent of the students worked for a couple of weeks, 11.4 percent of them worked for a couple of months and all weekends.

The students were asked whether they were paid for their work and they stated that 48.7 percent of them were paid, 28.5 percent of the participants were sometimes paid, and 22.8 percent of them were never paid. 59.6 percent of the students were working in farms (commonly in greenhouses), 21.5 percent of them were working in a family business or domestic work and 18.9 percent of them were working in several other fields (industry, tourism). It was further reported that 75.4 percent of the working students were working voluntarily, 12.7 percent of them were partly voluntary, and 11.8 percent of the participants were forced to work by their families. The students were asked whether their employment affected their success at school and a majority of them disagreed (78.7% said no, 12.6% said partly, and 8.7% said yes).

An analysis of the quality of life of the participants demonstrated that the physical health

subscale score was 84.14 ± 13.51 , psychosocial health subscale score was 82.83 ± 13.40 , and quality of life scale total score was 83.28 ± 1.23 . It was found that working students had lower levels of psychosocial health ($p=.003$), social health ($p=.012$), quality of life scores ($p=.021$) and school functionality ($p=.002$) in comparison to those who did not work, marking a statistically significant result. Average mean scores of emotional functionality ($p=.180$) and physical health ($p=.974$) subscales indicated no difference in relation to employment status (Table 1).

Nevertheless, the study results indicated a statistically significant difference between physical health ($p=.010$), psychosocial health ($p=.017$), social functionality ($p=.040$), school functionality ($p=.007$) scores and total score averages ($p=.010$) with regard to in relation to durations of employment (Table 2). The cause of this difference was analyzed with the Bonferroni-Correct-

Table 1: Comparison of the quality of life scale mean scores of students regarding their employment status

Sub-scales	Employment status	n	Mean rank	U	p
Emotional Functionality Score	Yes	228	217.46	23474.000	.180
	No	222	233.76		
Social Functionality Score	Yes	228	210.86	21971.000	.012
	No	222	240.53		
School Functionality Score	Yes	228	203.30	20246.500	.000
	No	222	248.30		
Physical Health Subscale Score	Yes	228	225.30	25263.500	.974
	No	222	225.70		
Psychosocial Health Subscale Score	Yes	228	207.62	21231.500	.003
	No	222	243.86		
Quality Of Life Scale Total Score	Yes	228	211.53	22122.500	.021
	No	222	239.85		

Table 2: Comparison of the quality of life scale mean scores of students regarding durations of employment

Durations of employment	Physical health subscale score	Psychosocial health subscale score	Quality of life scale total score	Social functionality score	Emotional functionality score	School functionality score
	Mean rank	Mean rank	Mean rank	Mean rank	Mean rank	Mean rank
One or two days / week (n= 90)	118.18	126.43	125.31	126.57	119.63	126.22
A couple of weeks(n= 41)	114.98	99.15	104.56	92.80	118.89	90.89
A couple of months (n= 26)	127.50	134.42	133.35	121.63	126.35	139.96
Every holidays(n= 45)	123.16	108.27	111.86	115.77	111.29	100.97
Every Weekend (n= 26)	73.02	88.29	78.50	97.60	83.52	109.13
	$\chi^2=12.454$ p=.014	$\chi^2= 2.905$ p=.017	$\chi^2=1.128$ p= .010	$\chi^2= 1.417$ p= .041	$\chi^2= 5.799$ p= .112	$\chi^2=10.554$ p= .007

ed Mann Whitney U Test. Additionally, there was a statistically significant difference between students who were working one or two days a week and those working every weekend in regard to “physical health” (p=.001), “social functionality” (p=.004), “school functionality” (p=.003) and “psychosocial health” (p=.001) subdimensions and quality of life scale total average scores. On the other hand, students working on weekends had lower levels of physical health, psychosocial health, social and school functionality subdimensions and quality of life scale total average scores in comparison to those working one or two days a week. However, no statistically significant difference was reported between physical health (KW=.869, p=.648), emotional health (KW=.357, p=.692), social functionality (KW=.245, p=.783), school functionality (KW=.827, p=.438), psychosocial health (KW=.426, p=.654) subdimensions and quality of life total score averages (KW=.302, p=.740) in relation to workplaces.

The study results also suggested that there was no statistically significant difference between quality of life subscales and quality of life total score averages (p=.010) in terms of parents’ educational status. Furthermore, a statistically significant difference was found between physical health (p=.009), social functionality (p=.017), school functionality (p=.028) and psychosocial health (p=.016) subscales and quality of life total score averages (p=.005) in relation to perceived family income (Table 3). The results of Bonferoni-Corrected Mann Whitney U Test also confirmed that the difference stemmed from students with lower levels of income whose quality of life scores were already found to be comparatively

lower. The employment status of children was compared with their success at school and it was reported that 47.4 percent of the children who were employed had good grades in comparison to 52.6 percent of those who were not. This difference was found to be statistically significant (p<.050, X²= 6.71) (Table 4).

Table 4: Success level of the students according to the status of employment

Success level at school	The status of employment					
	Yes		No		Total	
	n	%	n	%	n	%
Good	167	47.4	185	52.6	352	100.0
Bad	61	62.2	37	37.8	98	100.0

$\chi^2= 6.719$ p= 0.006 (df=1)
The percentage of rows.

DISCUSSION

Child labor is a common phenomenon in developing countries and it is a complicated global issue (Ponczek and Souza 2012; Martin 2013). According to estimations, there are 246 million child laborers all around the world, ninety percent of whom are in developing countries and seventy percent of all child labor are engaged in agriculture (Martin 2013). The results of the present study indicated that half of the participant students were employed and half of them were working in farms. Working in agriculture is a common type of child labor in Turkey. According to the Child Workers Survey (2012), employment rate was 5.9 percent for children aged between 6-17 years. The rate of child employment

Table 3: Comparison of the quality of life scale mean scores of students regarding perceived family income

Perceived Family Income	Physical health subscale score	Psycho-social health subscale score	Quality of life scale total score	Social functionality score	Emotional functionality score	School functionality score
	Mean rank	Meanrank	Mean rank	Meanrank	Meanrank	Meanrank
Low (n= 88)	188.64	191.20	186.95	195.90	207.87	193.37
Moderate (n= 301)	236.59	236.34	238.07	236.93	231.49	235.21
High (n= 61)	223.94	221.49	219.07	211.82	221.40	223.96
	$\chi^2=9.346$ p=.009	$\chi^2= 8.289$ p=.016	$\chi^2=10.706$ p= .005	$\chi^2= 8.124$ p= .017	$\chi^2= .309$ p= .235	$\chi^2=7.146$ p= .028

was 2.6 percent in 6-14 years old group and 15.6 percent in 15-17 years old group. It was also noted that 44.7 percent of child workers were employed in farms. In another study, it was reported that this rate was sixty-nine percent in Turkey and it was mainly composed of girls. 400,000 of the workers were under bad conditions and 84.7 percent of them attended school (Pirinc et al. 2014). However, the rate of child workers in Vietnam was considered to be twenty-two percent (Le and Hommel 2014). On the other hand, it is considered that the number of child workers is underestimated since majority of child workers are not regularly registered and many children work in farms, mostly in their family businesses. Those children, to their disadvantage, are expected to help to their parents at work and home after school. This situation does not allow them to save enough time for rest or extra study. Child employment varies according to the characteristics of the region and leading areas of employment (Child Workers Survey 2012). In present study, the rate of child workers employed in farms or greenhouses was found to be higher, due to intensive farming activities in the region and because of the fact that agriculture is perceived as a family business.

It was also found out that most children in the study were paid workers. Omokhodion et al. (2006) in Nigeria, and Tabassum and Baig (2002) in Pakistan conducted similar studies and reached similar conclusions. Low per capita income is the main reason for child labor in low-income countries (Omokhodion et al. 2006; Tabassum and Baig 2002). Curiously enough, most children in the study stated that they were working voluntarily. In contrast, seventy-nine percent of children did not want to work in a study conducted in Pakistan (Tabassum et al. 2002). In a similar study carried out in Nigeria, it was reported that children liked to concentrate on their studies in full terms (Omokhodion et al. 2006). Generally, families decide how long their children will spend time at school and work and what they do in their spare time. It is very often that children work at home and in their family businesses (Portner 2016). In Tanzania, it is reported that most of the children work in the farms of their families unwillingly and without payment (Kondylis and Manacorda 2012). As the children participated in this study did not miss any classes while working part time, they were considered as volunteers. It was also found that child work-

ers had lower social, psychosocial health, school functionality subscores and total quality of life scores (Table 1). It was additionally noted that students who work every weekend had lower physical health, psychosocial health, social subdimension and quality of life scores in comparison to those who work once or twice a week. It was further noted that quality of life of the students did not differ with regard to their work style or workplace. Kilanovski (2009) reported that there was no difference in quality of life between children working in carnivals and immigrant children working in farms. In a relevant study it was found that work related variables influenced the quality of life. Being discontent with the workplace was also reported as a factor influencing physical functionality and school functionality of children. Emotional wellbeing, physical functionality, school functionality, and total quality of life were suggested to be adversely influenced by the lack of schooling opportunities (Dundar et al. 2008; Tiwari and Saha 2014). Ponczek and Souza (2012) remark that the family size has a considerable effect on child labor and school performance and life quality of child laborers coming from extended families are negatively influenced. In several other studies conducted with child workers, it was claimed that long hours of work brought about mental health problems (Benvegnu et al. 2005; Razi et al. 2009; Tokuc et al. 2009) and led to various other health problems and has a negative effect on the development of children (Kondylis and Manacorda 2012). Studies in India demonstrate that child workers polishing gems often encounter injury, respiration and digestion problems as well as muscular pain (Tiwari and Saha 2014). Moreover, it is observed that girls mostly work in domestic chores and agriculture and they are under the risk of sexual abuse. Their lives offer less opportunity in terms of education and quality of life (Hussain 2015).

Child workers cannot find time to take care of themselves due to long hours of work, and fatigue, which eventually result in poor quality of life. The working children in the present study were attending their school. The children spend most of their time at school during weekdays and work on weekends, and therefore cannot spare time for their homework, leisure activities, and rest, which in turn, negatively affects their physical, social, and psychological health as well as their quality of life.

The study results also suggested that quality of life of the participants differed in relation to the perceived economical status of their families while educational status of their parents did not have any influence on quality of life (Table 3). Dundar et al. (2008) reported that quality of life was influenced by lack of social security, insufficient family income, alcohol use, domestic violence, job dissatisfaction and father's lack of education. As at tested in the literature, children work for a variety of reasons. The most important is poverty. Children usually work to ensure the survival of their family and themselves and pay for school expenses (Humphries 2013; Martin 2013; Tiwari and Saha 2014; Putnick and Bornstein 2015; Shrivastava and Kumar 2015; Hussain 2015). Literature on child labor confirms that economic shocks are an important determinant of child labor for low-income households. A study undertaken in Pakistan reveals that there was a decrease in child labor when families are insured against economic crisis (Landmann and Frolich 2015). Socioeconomic problems lead to inadequate practice of healthy behaviors and low levels of health promotion and quality of life.

Child labor adversely affects child's health as well as hindering schooling and overall academic performances of children (Kondylis and Manacorda 2012; Le and Hommel 2014; Putnick and Bornstein 2015; Portner 2016). When children are at work, they are deprived of the time at school, which they spend with their friends (Edmonds and Pavcnik 2005; Putnick and Bornstein 2015). Despite the fact that a large number of children workers are also reported to be attending to school, they are unable to perform their best at school (Edmonds and Pavcnik 2005). Kondylis and Manacorda's (2012) study in Tanzania indicates that children mostly work in rural areas and other places distant to their schools and therefore they are prone to dropout of school. Comparing children's employment status with their school success, the present study reveals that 47.4 percent of child workers had good grades at school while 52.6 percent of children who did not work were successful at school, which demonstrated a significant difference (Table 4). Although some studies stated that the work did not influence children's success at school (Sabia 2009), the results of similar studies pointed out that employment caused a decrease in study time and leisure, and led to fatigue, which consequently caused them to fail at school (Le

and Hommel 2014; Landmann and Frolich 2015; Portner 2016). It has also been reported that success at school was determined by duration of work, type of work, distribution of the work throughout the day and the week, and attendance at school (Holdago et al. 2014). Academic success in the present study was subjectively evaluated with self-reports of students, instead of a statistical analysis of exam grades of students.

Generalizing conclusions from this study is constrained by a number of limitations. The study participants were both attending school and working. It is recommended to conduct further studies with a larger sample so as to analyze quality of life of children who can not attend their school in comparison to those who can. Another limitation of the study was the relatively limited sample group, which also reduced the generalizability of the results. The academic success was assessed with self-reports of the students and it is recommended to rely on objective sources to analyze their success at school.

CONCLUSION

The results of the study detected that there was a positive significant correlation between employment and the psychosocial health, school functionality subdimensions of quality of life. The results also illustrated that there was a statistically significant difference in total physical health, psychosocial health, social functionality, school functionality subdimension scores and total scores according to employment durations. It was additionally concluded that students with lower income levels had lower levels of quality of life. Work life, working hours, and economical status of life were found to influence children's quality of life.

RECOMMENDATIONS

There are a number of legislative regulations, program and projects around the world to prevent child labor, which has recently become an agenda setting issue. Documentation and intervention of child labor have become even more challenging because of the inefficient legislative regulations to control household labor. In light of the study results, it is strongly suggested that for a better biopsychosocial health and education children are to be guided by various agents such as parents, health professionals, experts in

social service education and law as well as nurses with an interdisciplinary approach. In this manner, the protection of children's rights is ensured and their security, health and wellbeing are maintained.

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