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To cite this article: Zeynep Sofuoğlu, Görkem Sariyer, Fulya Aydin, Sinem Cankarde, & Birsu Kandemirci (2016) Child Abuse and Neglect Among Children Who Drop Out of School: A Study in Izmir, Turkey, *Social Work in Public Health*, 31:6, 589-598, DOI: [10.1080/19371918.2016.1160343](https://doi.org/10.1080/19371918.2016.1160343)

To link to this article: <https://doi.org/10.1080/19371918.2016.1160343>



Published online: 22 Jun 2016.



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## Child Abuse and Neglect Among Children Who Drop Out of School: A Study in Izmir, Turkey

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### ABSTRACT

Child abuse and neglect (CAN), and dropping out of school have long been recognized as pervasive social problems globally, and Turkey is no exception. This study aims to explore the prevalence and incidence of CAN in children who drop out of school of Turkey, using the ISPCAN Child Abuse Screening Tool, Children's Version, which is an appropriate tool for multinational comparisons. Data from a convenience sample of children who drop out of school age 11, 13, and 16 from Izmir were collected either by interviews or by self-completion. The results show that, compared to children who do not drop out of school, children who drop out of school have higher rates of psychological and physical abuse and neglect within the family. This study not only highlights the need for preventive laws for CAN and dropping out of school, but also points to direction for future research.

### KEYWORDS

Child abuse; child neglect; dropouts; Turkey

### Introduction

Child abuse and neglect (CAN) is a major public health problem worldwide. Although the true extent remains unknown, it is a major cause of physical and mental health problems in childhood and throughout life. It is reported that CAN is the second leading cause of death of children in United States (Johnson, 2002). According to the World Health Organization (WHO; 2006), it has been estimated that one million children are annually subjected to some type of abuse within their families (Butchart, Phinney, Mian, & Fürniss, 2006). However, for middle- or low-income countries, estimating the frequency of CAN is more difficult compared to high-income countries because of variation in a number of factors: definitions, the type of abuse being studied, the comprehensiveness and quality of official statistics, and the higher number of unreported cases (Fergusson, Horwood, & Boden, 2011).

The prevalence and incidence of CAN have been frequently estimated using retrospective self-report or proxy-reporting questionnaires (Chen & Astor, 2011; Finkelhor, Ormrod, Turner, & Hamby, 2005; Tonmry, Draca, Crain, & MacMillan, 2011). However, to develop definitions that are accepted internationally and make cross-country comparisons, a well-designed, cross-cultural, multidimensional, psychometrically sound tool is needed (Chang, Lin, Chang, Tsai, & Feng, 2013). For this reason, using a Delphi study of 40 experts from 31 countries (Runyan et al., 2009; Zolotor et al., 2009), the International Society for the Prevention of Child Abuse and Neglect (ISPCAN) developed the ISPCAN Child Abuse Screening Tool (ICAST), which is a population-based survey tool with a comprehensive coverage of childhood victimization types across cultures.

After the development of this tool, researchers from a wide range of countries converted ICAST to their native languages to report on CAN prevalences, based on a common definition, that can be used in multinational comparisons (Akco et al., 2013; Al Eissa & Almunef, 2010; Annerback, Sahlqvist, Svedin,

Wingren, & Gustafsson, 2012; Charak & Koot, 2014; Yanghee & Sangwon, 2011). These studies show that CAN is widespread and causes significant health care problems worldwide.

It is well known that dropping out of school is another major problem that affects children's health conditions and life status. Studies on the effects of compulsory schooling laws show that high school graduates report better overall health and well-being (Orepoulos, 2007), whereas lower levels of education have been linked to poor health in prior studies (Lantz et al., 1998, Vaughn, Salas-Wright, & Maynard, 2014). Results of dropping out of school are reported in literature as including reduced life chances, such as greater employment instability (Day & Newburger, 2002), greater disease risk (Muenning, Fiscella, Tancredi, & Franks, 2010), and poorer eating habits (James, Nelson, Ralph, & Leather, 1997). To do best of our knowledge, though health and life status of children who drop out of school have been studied in literature, the prevalence of CAN has been neglected. Comparing the CAN prevalence between groups of children who drop out of school and children who do not drop out of school may shed additional light on the factors contributing to dropping out and provide avenues for prevention and intervention.

### **Focus of the current study**

The main focus of this study is to reveal the prevalence and incidence of CAN in children who drop out of school. Because the relationship between high rates of children who drop out of school, CAN, and health problems has been clearly described in the literature investigating the CAN frequencies of children who drop out of school seems vitally important for public health studies. A great many issues will need to be explored, such as the links between CAN, education, and health, the future health conditions and life status of children who are abused and neglected who drop out of school in comparison with children who do not drop out of school. Showing the higher CAN frequencies for children who drop out of school is the starting point for the wider investigation of these issues in future.

### **Materials and method**

Balkan Epidemiological Study of Child Abuse and Neglect (BECAN) was established to prevent child abuse and neglect through the development of systematic research, promoting collaborations among public and private institutions, and increasing public awareness. Nine Balkan states—Greece, Turkey, Bosnia-Herzegovina, Albania, Bulgaria, Romania, Macedonia, Croatia, and Serbia—contributed to the BECAN study, funded under the European Union seventh framework program. The proposed work, representing the Turkish contribution to BECAN, considers the frequencies and prevalences of psychological and physical negative childhood experiences and neglect throughout life, especially for children who drop out of school.

### **Sample**

Due to the unreliability of official statistics, unreported cases, and legal restrictions it is difficult to accurately estimate the number of children who drop out of school in many countries, including Turkey. For this reason, convenience sampling is used in this study for selecting respondents. A major event for street children was organized to identify children who dropped out of school ages 11 and 13. We also visited Public Training Centers (PTC), which provide work and study opportunities for children who drop out of school age 14 and older to reach children who drop out of school age 16. Although the respondents of this study are from a specific part of Turkey, that is, Izmir, the sample in fact can be considered fairly representative of the whole country because the group members are from different regions, that is, 36.65% are from eastern regions, 30.55% from western regions, and remaining 32.80% from central regions. The total consisted of 271 children who drop out of school: 10 (3.70%) age 11, 20 (7.38%) age 13, and the remaining 241 (88.92%) are age 16. The high percentage for the age 16 group is explained by the fact that high school education is not compulsory in Turkey.

## Data collection tool

The ISPCAN developed a shared set of definitions and research tools to study violence against children by setting benchmarks for multinational comparison, which is labeled as ISPCAN Child abuse Screening Tool Children's Version (ICAST-C; Zolotor et al., 2009). In the context of this study, ICAST-C was used as a data collection tool, and survey questions were translated into Turkish using scale retranslation, and adapted to the Turkish sample. The instrument included 38 questions in total, consisting of 19 on psychological abuse, 16 on physical abuse, and three on neglect; questions related with sexual abuse were excluded due to legal issues.

## Data collection

The legal requirement for 8 years of education in Turkey made it extremely difficult to reach children ages 11 and 13 (fifth and seventh graders) who had dropped out of school. Therefore, to collect data from these age groups, a major event was organized for street children in a municipality building, during which face-to-face interviews were carried out. To identify participants aged 16 who have dropped out of high school, we followed a different process, visiting PTCs, which operate under the Ministry of National Education, Department of Apprenticeship and Non-Formal Education. These centers provide work and study opportunities for children who have dropped out of high school. In this regard, a total of four PTCs, one open high school, and one consulting center were visited for data collection. In the PTCs, self-completion surveys were distributed in the hairdressing, accounting, and computer departments to children who have dropped out of school who were willing to participate.

## Results

### Demographic information

In total 271 children who dropped out of school participated in this study. The age and gender distribution of participants is given in Table 1. Approximately one half were female ( $n = 128$ , 47.23%). The age 11 and 13 groups were a small proportion of the sample ( $n = 30$ , 11.08%) compared to age 16 group ( $n = 241$ , 88.92%) because, unlike primary school, high school attendance was not obligatory in Turkish Education System at the time of the research. In the age 16 group, there were slightly more boys ( $n = 126$ , 52.28%) than girls ( $n = 115$ , 47.72%).

The number of years of school failed are presented in Table 2. It was reported that approximately one half of the students who dropped out of school had never failed a year at school ( $n = 129$ , 48.68%). The number of possible failed years ranged between 1 to 4 years. The highest ratios were 1 and 2 years of failure with percentages of 48.52 and 47.80, respectively.

Table 3 represents the marital status of the parents of children who have dropped out of school. Most dropouts reported having married parents ( $n = 205$ , 77.07%), followed by divorced or separated parents ( $n = 40$ , 15.04%).

Educational status of participants' parents is shown in Table 4. The greatest proportion completed only primary school level (41.48%, 32.80%); very few have a first or higher university degree (4.82%, 8.00%).

Table 1. Age and Gender Distributions of Dropouts.

n	Girl		Gender			Total		
	% - within Gender	% - within Age	Boy		N	% - within Gender	% - within Age	
			n	% - within Age				
7	5.47	70.00	3	2.10	30.00	10	3.70	100.00
6	4.69	30.00	14	9.80	70.00	20	7.38	100.00
115	89.84	47.72	126	88.10	52.28	241	88.92	100.00
128	100.00	47.23	143	100.00	52.77	271	100.00	100.00

Table 2. Number of Years of School Failed/Missed of Dropouts.

Have you ever failed/missed a year at school?	<i>n</i>	%
No	129	48.68
Yes	136	51.32
Total	265	100.00
Missing	6	2.21
(If yes) Number of failed years		
1	66	48.52
2	65	47.80
3	4	2.94
4	1	0.74
Total	136	100.00
Missing	0	0.00

Table 3. Marital Status of Parents.

	<i>n</i>	%
Married	205	77.07
Divorced/seperated	40	15.04
Never married	3	1.13
One parent is not living anymore	14	5.26
Both parents are not living anymore	0	0.00
Don't want to answer	4	1.50
Total	266	100.00
Missing	5	1.85

### *Reports from children who drop out of school regarding psychological abuse*

Psychological abuse related questions are given in Appendix 1.A. The numbers for each psychological abuse-related item is listed in Table 5.1. The prevalence and incidence rates of psychological abuse items are presented in Table 5.2.

Tables 5.1 and 5.2 combined show that parents in most families shouted, yelled, or screamed at their children (42.86%) and also frequently insulted them (42.75%).

### *Reports from children who drop out of school regarding physical abuse*

Physical abuse related questions are given in Appendix 1.B. Tables 6.1 and 6.2 show the physical abuse related results, presented as in the previous section.

Children who dropped out of school reported physical abuse from parents, most commonly by twisting ears (40.38%), slapping (40.15%), and pinching to cause pain (36.74%).

Table 4. Educational Status of Parents.

	Mother		Father	
	<i>n</i>	%	<i>n</i>	%
Hasn't gone to school	28	10.37	8	3.20
Some grades of primary school	18	6.67	15	6.00
Primary school	112	41.48	82	32.80
Middle school	42	15.55	55	22.00
High school	52	19.26	59	23.60
Vocational/technical school	0	0.00	3	1.20
University	13	4.82	19	7.60
Post-graduate studies	0	0.00	1	0.40
Don't know	5	1.85	8	3.20
Total	270	100.00	250	100.00
Missing	1	0.37	21	7.75

Table 5.1. Total Participant Numbers and Their Breakdowns for Psychological Abuse–Related Items.

	Yes (either in the past year or before)								Don't Want to Answer	Total	Missing
	Never	Before Last 12 Months	1–2 Times a Year	3–5 Times a Year	6–12 Times a Year	13–50 Times a Year	> 50 times	Missing			
A1	138	16	24	20	11	10	19	14	14	266	5
A2	142	22	18	27	8	17	13	10	12	269	2
A3	139	22	20	19	9	12	14	12	18	265	6
A4	142	11	24	23	10	17	15	12	11	265	6
A5	136	15	26	19	10	13	11	11	11	252	19
A6	169	15	25	14	2	9	16	7	11	268	3
A7	181	9	20	15	4	12	13	8	8	270	1
A8	156	23	23	14	7	7	16	7	15	268	3
A9	180	17	21	10	2	8	10	7	12	267	4
A10	186	6	11	19	6	5	15	8	11	267	4
A11	213	7	10	7	7	5	7	4	10	270	1
A12	219	13	10	5	1	4	5	5	6	268	3
A13	228	9	12	5	1	2	4	4	6	271	0
A14	212	10	5	6	1	4	1	9	7	255	16
A15	231	4	8	7	2	1	5	5	7	270	1
A16	247	4	2	0	0	0	2	2	12	269	2
A17	253	0	4	0	0	0	1	2	9	269	2
A18	242	3	4	1	2	1	1	7	5	266	5
A19	219	7	11	6	1	6	2	8	5	265	6

Note. Questions A1–A19 are explained in Appendix 1.A.

### Reports from children who drop out of school regarding neglect

Appendix 1.C. consists of three neglect-related questions. Tables 7.1 and 7.2 respectively show the numbers of for each neglect-related item, and the prevalence and incidence rates of these items.

Based on the results of these tables, most children who dropped out of school reported feeling unimportant (41.42%).

### Prevalence and incidence rates of psychological, physical abuse and neglect

Table 8 represents the prevalence and incidence rates of psychological abuse, physical abuse, and neglect. Table 8 shows that 79.78% were psychologically abused, 64.60% were physically abused, and 52.17% were neglected.

Table 5.2. Prevalence and Incidence Rates for each Psychological Abuse–Related Item.

	Prevalence		Incidence	
	<i>n</i>	%	<i>n</i>	%
A1	114	42.86	84	31.58
A2	115	42.75	83	30.86
A3	108	40.75	74	27.92
A4	112	42.26	89	33.58
A5	105	41.67	79	31.35
A6	88	32.84	66	24.63
A7	81	30.00	64	23.70
A8	97	36.19	67	25.00
A9	75	28.09	51	19.10
A10	70	26.22	56	20.97
A11	47	17.41	36	13.33
A12	43	16.04	25	9.33
A13	37	13.65	24	8.86
A14	36	14.12	17	6.67
A15	32	11.85	23	8.52
A16	10	3.72	4	1.49
A17	7	2.60	5	1.86
A18	19	7.14	9	3.38
A19	41	15.47	26	9.81

Note. Questions A1–A19 are explained in Appendix 1.A.

Table 6.1. Total Participant Numbers and Their Breakdowns for Physical Abuse–Related Items.

	Yes (either in the past year or before)							Missing	Don't Want to Answer	Total	Missing
	Never	Before last 12 Months	1–2 Times a Year	3–5 Times a Year	6–12 Times a Year	13–50 Times a Year	> 50 Times				
B1	197	12	13	7	2	4	8	11	10	264	7
B2	195	15	16	8	3	7	6	8	8	266	5
B3	149	30	29	21	2	11	5	8	9	264	7
B4	159	19	19	19	6	9	5	13	12	261	10
B5	228	0	0	3	1	3	6	11	9	261	10
B6	214	9	8	8	2	6	3	8	6	264	7
B7	220	3	9	6	2	7	3	8	7	265	6
B8	198	18	10	8	3	7	4	6	12	266	5
B9	242	0	5	0	3	1	2	7	6	266	5
B10	255	0	1	1	1	0	0	3	5	266	5
B11	218	4	6	2	0	4	1	9	5	249	8
B12	255	0	0	1	1	0	1	7	5	270	1
B13	147	46	23	14	3	7	5	9	11	265	6
B14	173	24	23	7	4	6	5	12	8	262	9
B15	158	28	23	14	6	8	10	8	9	264	7
B16	237	0	0	2	2	4	0	10	8	263	8

Note. Questions B1–B16 are explained in Appendix 1.B.

Table 6.2. Prevalence and Incidence Rates for each Item of Physical Abuse–Related Questions.

	Prevalence		Incidence	
	<i>n</i>	%	<i>n</i>	%
B1	57	21.59	34	12.88
B2	63	23.68	40	15.04
B3	106	40.15	68	25.76
B4	90	34.48	58	22.22
B5	24	9.20	13	4.98
B6	44	16.67	27	10.23
B7	38	14.34	27	10.19
B8	56	21.05	32	12.03
B9	18	6.77	11	4.14
B10	6	2.26	3	1.13
B11	26	10.44	13	5.22
B12	10	3.70	3	1.11
B13	107	40.38	52	19.62
B14	81	30.92	45	17.18
B15	97	36.74	61	23.11
B16	18	6.84	8	3.04

Note. Questions B1–B16 are explained in Appendix 1.B.

Table 7.1. Total Participant Numbers and Their Breakdowns for Neglect–Related Items.

	Yes (either in the past year or before)							Missing	Don't Want to Answer	Total	Missing
	Never	Before Last 12 Months	1–2 Times a Year	3–5 Times a Year	6–12 Times a Year	13–50 Times a Year	> 50 Times				
C1	158	13	20	22	5	11	23	3	13	268	3
C2	144	11	18	28	8	20	23	3	13	268	3
C3	158	13	20	23	9	14	19	2	11	269	2

Note. Questions C1–C3 are explained in Appendix 1.C.

Table 7.2. Prevalence and Incidence Rates for Each Item of Neglect-Related Questions.

	Prevalence		Incidence	
	<i>n</i>	%	<i>n</i>	%
C1	97	36.19	81	30.22
C2	111	41.42	97	36.19
C3	100	37.17	85	31.60

Note. Questions C1–C3 are explained in Appendix 1.C.

Table 8. Prevalence and Incidence Rates of Child Abuse and Neglect.

	Psychological Abuse (%)	Physical Abuse (%)	Neglect (%)
Prevalence	79.78	64.60	52.17
Incidence	68.75	52.15	45.28
Do not want to answer	0.30	0.60	1.20
Do not want to answer or never	4.00	4.50	3.00
Never	20.45	30.60	45.70

## Discussion

Child abuse and neglect is one of the most common but generally overlooked phenomena affecting children around the world. Although ignored in many developing countries, awareness has been rising in Turkey in recent decades, and research efforts have begun (i.e., Goregen & Tufekci, 2011; Karadag, Sonmez, & Dereobali, 2015; Koc, Halicioglu, & Aksit, 2014; Oral et al., 2001; Ozbaran et al., 2009).

Descriptive analysis was applied to the results of this study; therefore, discussion points aim to provide a general profile of the findings rather than making specific inferences. The findings will be illuminating for the design of further research in terms of risk factors for children, and the violence exposure experiences of children who drop out of school.

The findings first showed that children who drop out of school have a high school failure rate profile that varies between 1 to 4 years (Table 2). The literature points to a number of causes: poorer levels of mental health (Levin, 1972; Rumberger, 1987), and physical health (Rumberger, 1987), and lower levels of academic skills (Alexander, Natriello, & Pallas, 1985, McDill, Natriello, & Pallas, 1985). The results also showed that the parents inflicting the abuse are generally married (Table 3), and the great majority have an education level below university level (Table 4). This accords with the recent study by Oncu, Kurt, Esenay, and Ozer (2012), in which working children with problems at school were also reported to have higher rates of parents who were married but had lower levels of education.

Tables 5.1 and 5.2 showed that shouting, yelling, and screaming is the most common psychological abusive behavior, as mentioned in Koc et al. (2012). Twisting ears, slapping, and pinching are reported as the most common forms of physical abuse by parents (Tables 6.1 and 6.2), and making them feel unimportant is the most common neglect behavior (Tables 7.1 and 7.2) as mentioned in Sofuoglu et al. (2014).

The CAN prevalence and incidence frequencies of children who have dropped out of school are represented in Table 8. These frequencies are lower when compared to those for children who did not drop out of school published by Sofuoglu et al. (2014). The cited research is an epidemiological study of the negative experiences of 11-, 13-, and 16-year-old Turkish students in education. It shows that the frequency of psychological and physical abuse and neglect throughout life (prevalence) was 70.50%, 58.30%, and 42.60% for the respective age groups, whereas the frequencies over the previous year (incidence) were, respectively, 62.70%, 46.05%, and 37.50%. This indicates that diagnosis of psychiatric problems or mental retardation may result from abuse and these cases should therefore be recorded as CAN cases. This may apply to cases in which children have school attendance problems, lower academic achievement levels, or a tendency to run away from home.



This finding that children who drop out are those exposed to high levels of physical and emotional abuse at home is also supported by other field research (Aras, Gunay, Ozan, & Orcin, 2007; Bayar & Sayil, 2005; Kaplan et al., 2003). In addition, it is important to understand reasons for dropping out of school, as these are likely to relate to abuse; cases in which children are forced to abandon education to work to support the family income can be considered a form of educational neglect and economic abuse (Meder, 2008).

## Limitations

Although the study sample is nationally representative, there are some limitations that should be considered. First, convenience sampling was necessary for data collection because obtaining information about children who drop out of school, that is, the size of whole population, their names, their families, and contact information, was the greatest challenge of the study. The second limitation of this study is its descriptive design. For further studies, risk factors related to students' likelihood of dropping out, being abused, and neglected can be added as variables. Finally, due to legal limitations, it was not possible to include the sexual abuse items, but this area is another important direction for further research.

## Conclusions

This study shows that children are frequently abused and neglected, but children who drop out of school in Turkey are affected by higher-than-normal frequencies. Because official and unofficial statistics report high dropout rates, and child abuse and neglect negatively affects not only children's mental and physical health, but also public health, we need to increase awareness of the significant health-care problems this situation brings. Based on the descriptive analysis of this study, we emphasize that preventive and detective considerations need to be taken for child abuse and neglect at individual, family, and population levels, and much more greater efforts are needed to reintegrate children who drop out of school into society.

## Acknowledgments

This article does not contain any studies with animals performed by any of the authors. Informed consent was obtained from all individual participants included in the study. No conflict of interest was declared by the authors.

## Funding

This study secured financing from the Balkan Epidemiological Study of Child Abuse and Neglect (BECAN) EU 7<sup>th</sup> FW GA NO: 223478.

## References

- Akco, S., Dagli, T., Inanici, M. A., Kaynak, H., Oral, R., Sahin, F., . . . Ulukol, B. (2013). Child abuse and neglect in Turkey: professional, governmental and non-governmental achievements in improving the national child protection system. *Pediatrics and International Child Health*, 33(4), 301–309.
- Al Eissa, M., & Almuneef, M. (2010). Child abuse and neglect in Saudi Arabia: Journey of recognition to implementation of national prevention strategies. *Child Abuse and Neglect*, 34, 28–33.
- Alexander, K., Natriello, G., & Pallas, A. (1985). For whom the scholl bell tolls: The impact of dropping out on cognitive performance. *American Sociological Review*, 50, 409–420.
- Aras, S., Gunay, T., Ozan, S., & Orcin, E. (2007). Risky behaviors among high school students in Izmir. *Anatolian Journal of Psychiatry*, 8(3), 186–196.
- Annerback, E. M., Sahlqvist, L., Svedin, C. G., Wingren, G., & Gustafsson, P. A. (2012). Child physical abuse and concurrence of other types of child abuse in Sweden: Associations with health and risk behaviors. *Child Abuse and Neglect*, 36, 585–595.

- Bayar, N., & Sayil, M. (2005). Brief-report: Risk taking behaviors in a non-western urban adolescent sample. *Journal of Adolescence*, 28, 671–676.
- Butchart, A., Phinney, A., Mian, M., & Fürniss, T. (2006). *Preventing child maltreatment: A guide to taking action and generating evidence*. World Health Organization and International Society for Prevention of Child Abuse and Neglect. Retrieved from [http://whqlibdoc.who.int/publications/2006/9241594365\\_eng.pdf](http://whqlibdoc.who.int/publications/2006/9241594365_eng.pdf)
- Chang, H.-Y., Lin, C.-L., Chang, Y.-T., Tsai, M.-C., & Feng, J.-Y. (2013). Psychometric testing of the Chinese version of ISPCAN Child Abuse Screening Tools Children's Home Version (ICAST-CH-C). *Children and Youth Services Review*, 35, 2135–2139.
- Charak, R., & Koot, H. M. (2014). Abuse and neglect in adolescents of Jammu, India: The roel of gender, family structure, and parental education. *Journal of Anxiety Disorders*, 28, 590–598.
- Chen, J. K., & Astor, R. A. (2011). Students' personal traits, violence exposure, family factors, school dynamics, and the perpetration of violence in Taiwanese elementary schools. *Health Education Research*, 26(1), 150–166.
- Day, J. C., & Newburger, E. C. (2002). *The big payoff: Educational attainment and synthetic estimates of worklife earnings* (Current Population Reports No. P23-210). Washington, DC: U.S. Census Bureau.
- Fergusson, D. M., Horwood, L. J., & Boden, J. M. (2011). Structural equation modeling of repeated retrospective reports of childhood maltreatment. *International Journal of Methods in Psychiatric Research*, 20(2), 93–104.
- Finkelhor, D., Ormrod, R., Turner, H., & Hamby, S. L. (2005). The victimization of children and youth: A comprehensive, national survey. *Child Maltreatment*, 10(1), 5–25.
- Goregen, Z. H., & Tufekci, F. G. (2011). Child abuse and neglect among health workers: A study in Erzurum, Turkey. *Healthmed*, 5(4), 766–773.
- James, W. P., Nelson, M., Ralph, A., & Leather, S. (1997). Socioeconomic determinants of health: the contribution of nutrition to inequalities in health. *British Medical Journal*, 314, 1545–1549.
- Johnson, C. F. (2002). Child maltreatment 2002: Recognition, reporting and risk. *Pediatrics International*, 44, 554–560.
- Kaplan, C. P., Zabkiewicz, D., McPhee, S. J., Nguyen, T., Gregorich, S. E., Disogra, C., ... Jenkins, C. (2003). Health-compromising behaviors among Vietnamese adolescents: The role of education and extracurricular activities. *Journal of Adolescents Health*, 32, 374–383.
- Karadag, S. C., Sonmez, S., & Dereobali, N. (2015). An investigation of preschool teachers' recognition of possible child abuse and neglect in Izmir, Turkey. *Journal of Interpersonal Violence*, 30(5), 873–891.
- Koc, F., Aksit, S., Tomba, A., Aydin, C., Koturoglu, G., Cetin, S. K., ... Solak, U. (2012). Demographic and clinical features of child abuse and neglect cases: one year experience of the Hospital-Based Child Protection Team of Ege University, Izmir. *Turkish Archives of Pediatrics*, 47, 119–124.
- Koc, F., Halicioğlu, O., & Aksit, S. (2014). Which findings may suggest physical abuse? *Journal of Pediatric Research*, 1(1), 1–5.
- Lantz, P. M., House, J. S., Lepkowski, J. M., Williams, D. R., Mero, R. P., & Chen, J. (1998). Socioeconomic factors, health behaviours, and mortality results from a nationally representative prospective study of US adults. *Journal of the American Medical Association*, 279, 1703–1708.
- Levin, H. (1972). *The costs to the nation of inadequate education* (Report prepared for Select Committee on Equal Educational Opportunity of the United States Senate, 92nd Cong). Washington, DC: U.S. Government Printing Office.
- McDill, E., Natriello, G., & Pallas, A. (1985). Raising standards and retraining students: The impact of the reform recommendations on potential dropouts. *Review of Educational Research*, 55, 415–433.
- Meder, M. (2008). The social-cultural and economical specification investigation of the street children: Example of Sakarya Street in Ankara. *Turkiyat Researches*, 8, 203–218.
- Muenning, P., Fiscella, K., Tancredi, D., & Franks, P. (2010). The relative health burden of selected social and behavioral risk factors in the United States: Implications for policy. *American Journal of Public Health*, 100(9), 1758–1764.
- Oncu, E., Kurt, A. O., Esenay, F. I., & Ozer, F. (2012). Abuse of working children within the family. *Turkish Journal of Public Health*, 10(3), 128–140.
- Oral, R., Can, D., Kaplan, S., Polat, S., Ates, N., & Cetin, G. (2001). Child abuse in Turkey: An experience in overcoming denial and a description of 50 cases. *Child Abuse and Neglect*, 25(2), 279–290.
- Oreopoulos, P. (2007). Do dropouts drop out too soon? Wealth, health, and happiness from compulsory schooling. *Journal of Public Economics*, 91, 2213–2229.
- Ozbaran, B., Eremis, S., Bukusoglu, N., Bildik, T., Tamar, M., Ercan, E. S., ... Cetin, S. K. (2009). Social and emotional outcomes of child sexual abuse: A clinical sample in Turkey. *Journal of Interpersonal Violence*, 24(9), 1478–1493.
- Rumberger, R. (1987). High school dropouts: A review of issues and evidence. *Review of Educational Research*, 57, 101–121.
- Runyan, D. K., Dunne, M. P., Zolotor, A. J., Madrid, B., Jain, D., Gerbaka, B., ... Youssef, R. M. (2009). The development and piloting of the ISPCAN Child Abuse Screening Tool-Parent version (ICAST-P). *Child Abuse and Neglect*, 33(11), 826–832.
- Sofuoglu, Z., Oral, R., Aydin, F., Cankardes, S., Kandemirci, B., Koc, F., ... Askit, S. (2014). Epidemiological study of negative childhood experiences in three provinces of Turkey. *Turkish Archives of Pediatrics*, 49, 47–56.
- Tommry, L., Draca, J., Crain, J., & MacMillan, H. L. (2011). Measurement of Emotional/psychological maltreatment: A review. *Child Abuse and Neglect*, 35(10), 767–782.

- Vaughn, M. G., Salas-Wright, C. P., & Maynard, B. R. (2014). Dropping out of school and chronic disease in the United States. *Journal of Public Health, 22*, 265–270.
- World Health Organization. (2006). *Preventing child maltreatment: A guide to taking action and generating evidence*. Geneva, Switzerland: Author.
- Yanghee, L., & Sangwon, K. (2011). Childhood maltreatment in South Korea: Retrospective study. *Child Abuse and Neglect, 35*, 1037–1044.
- Zolotor, A. J., Runyan, D. K., Dunne, M. P., Jain, D., Peturs, H. R., Ramirez, C., . . . Isaeva, O. (2009). ISPCAN Child Abuse Screening Tool Children's version (ICAST-C): Instrument development and multi-national pilot testing. *Child Abuse and Neglect, 33*, 833–841.

## Appendix

### Questions from the Survey.

Appendix 1.A	Appendix 1.B	Appendix 1.C
Questions regarding psychological abuse	Questions regarding physical abuse	Questions regarding neglect
A1. Shouted, yelled, or screamed at you loudly or aggressively?	B1. Pushed you or kicked you?	C1. Felt that you were not cared for?
A2. Insulted you as dumb, lazy, etc.	B2. Grabbed you by your clothes or shake you?	C2. Felt that you were not important?
A3. Cursed you?	B3. Slapped you?	C3. Felt that there was no one to help you, encourage you, care for you in times of need?
A4. Ignored you?	B4. Hit you on head or back of the neck with the back of the hand?	
A5. Blamed you for his/her bad mood?	B5. Spanked you on the bottom with the back of the hand?	
A6. Read your diary, your SMS, or e-mail without your permission?	B6. Hit you on the buttocks with a stick, whisk, belt etc.?	
A7. Went through your bag, drawers, pockets etc. without your permission?	B7. Hit you elsewhere (not on the buttocks) with a stick, whisk, belt etc.?	
A8. Compared you to other children in a humiliating way	B8. Hit you repeatedly with an object or with a fist?	
A9. Shamed or embarrassed you intentionally in front of other people?	B9. Choked or smothered you?	
A10. Said that they wished you were dead or had never been born?	B10. Intentionally burned or scalded you?	
A11. Threatened to leave or abandon you?	B11. Used very hot pepper to abuse you?	
A12. Threatened to throw you out of house or send you away?	B12. Tied you up or tied you to something?	
A13. Locked you out of the home?	B13. Twisted your ear to cause pain?	
A14. Threatened to invoke ghosts, or evil spirits, or harmful people?	B14. Pulled your hair?	
A15. Threatened to hurt or kill you?	B15. Pinched you to cause pain?	
A16. Did not give you enough to eat and/or drink?	B16. Forced you to remaining a position holding heavy load, or forced you to do physical exercise as punishment?	
A17. Made you wear clothes that were dirty, torn, or inappropriate in order to punish you?		
A18. Locked you in a confined space or in a dark room?		
A19. Threatened you with a knife or gun?		