

Child behavior and psychological comorbidities in relation to different forms of child abuse among working children

Amani S. Ahmed^a, Rania A. Hamed^b, Shaimaa Y. Abd Elaziz^b, Naglaa F. Agba^c

^aDepartment of Community, Environmental and Occupational Medicine, Faculty of Medicine, Zagazig University, Zagazig, ^bPsychiatry, ^cPediatrics and Neonatology, Faculty of Medicine (for Girls), Al-Azhar University, Cairo, Egypt

Correspondence to Amani S. Ahmed, MD, Department of Community, Environmental and Occupational Medicine, Faculty of Medicine, Zagazig University, Postal code: 44519, Zagazig, Egypt. Tel: 20 106 464 5885; e-mail: dr_amanishawki@yahoo.com, asabdella@zu.edu.eg

Received: 10 January 2022

Revised: 5 February 2022

Accepted: 2 May 2022

Published: 16 December 2022

Egyptian Journal of Psychiatry 2022, 43:125–133

Background

Childhood labor exposes children to the risk of violence and abuse that may adversely affect their psychological well-being.

Aim

To explore psychological comorbidities and their relation to different forms of abuse among labored children and identify risk factors for exposure to abuse in working children.

Patients and methods

This cross-sectional study included 158 male working children aged 12–17 years. Sociodemographic data, education level, and type of work were collected. The type of abuse was categorized into physical, emotional, and sexual abuse using the International Child Abuse Screening Tool (children's version institution questionnaire). Social competence and behavioral problem assessment was done using the Child Behavior Checklist (the youth self-report). Regression analysis to determine predictors of abuse among working children was done.

Results

About 59.5% of included children were exposed to at least one type of child abuse last year, 75% reported exposure during work time. The commonest form was psychological, followed by physical abuse, and last, sexual abuse. Social competence was impaired in abused children, regardless of the type of abuse. Behavioral problems were significantly higher in children exposed to physical and sexual abuse. Younger age (odds ratio 4.09; 95% confidence interval 1.03:16.18) and working in small industrial shops (odds ratio 3.28; 95% confidence interval 1.40:7.71) were risk factors for abuse exposure in working children.

Conclusion

Working children at higher risk for child abuse adversely affect their social competence and increase their behavioral problems.

Keywords:

abuse, psychological comorbidities, social competence, working children

Egypt J Psychiatr 43:125–133
© 2022 Egyptian Journal of Psychiatry
1110-1105

Introduction

Child labor is a worldwide issue, especially in developing countries. Children usually start working at a young age and under unsuitable conditions without any safety or insurance. Child labor exposes children to physical and psychological hazards that may threaten their lives (Santana *et al.*, 2019). It is one of the child's rights to be protected from violence and abuse. Identification of maltreatment practice and exploring its adverse impact on growing children is an area of great interest (Kassouf, 2019).

Despite several reports regarding exposure to abuse among labored children, there are no accurate statistics to determine the actual rate and burden of exposure to abuse among worker children in Egypt (Ibrahim *et al.*, 2019). Psychological disorders represent a long-term sequel of exposure to abuse that is usually missed or underestimated. Exposure to child abuse has been

identified as a risk factor for aggression and conduct disorders (McGee *et al.*, 2019).

Adolescence is a critical period in a child's mental and psychological development. Adverse experiences in early life increase the risk for behavioral disorders later on. Maltreatment at this age has a long-term impact that extends into adult life, which affects not only the patient but also their families and community (Larsen and Luna, 2018).

Egypt is one of the largest populations in African countries. Based on the 2014 Egypt Demographic and Health Survey, 7% of children aged 5–17 years

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

old, about 1.6 million children, were engaged in child labor. Despite the increasing global concern about child abuse among working children, this problem has received little attention in Egypt. There is limited data regarding child-abuse prevalence and risk factors for child labor in Egypt (Khatab *et al.*, 2019).

The current study aimed to explore child behavior and psychological comorbidities and their relation to different forms of abuse among labored children, and identify risk factors for exposure to abuse in working children.

Patients and methods

Study population

This cross-sectional study was conducted on working children in Cairo City. Data were collected from June to September summer of 2020.

Sample size and sampling technique

The study was conveyed in five areas in Cairo City, which were chosen by simple random-sampling techniques, as shown in Fig. 1. The total number of study participants who accepted to participate in the study was 158 working children. Two hundred fifteen working children were invited to participate in the

study from the selected five areas, while 158 of them accepted to participate, with a response rate of 73.49%.

Inclusion criteria

All working children in the selected five areas aged less than 18 years old who consented to participate in this study were included.

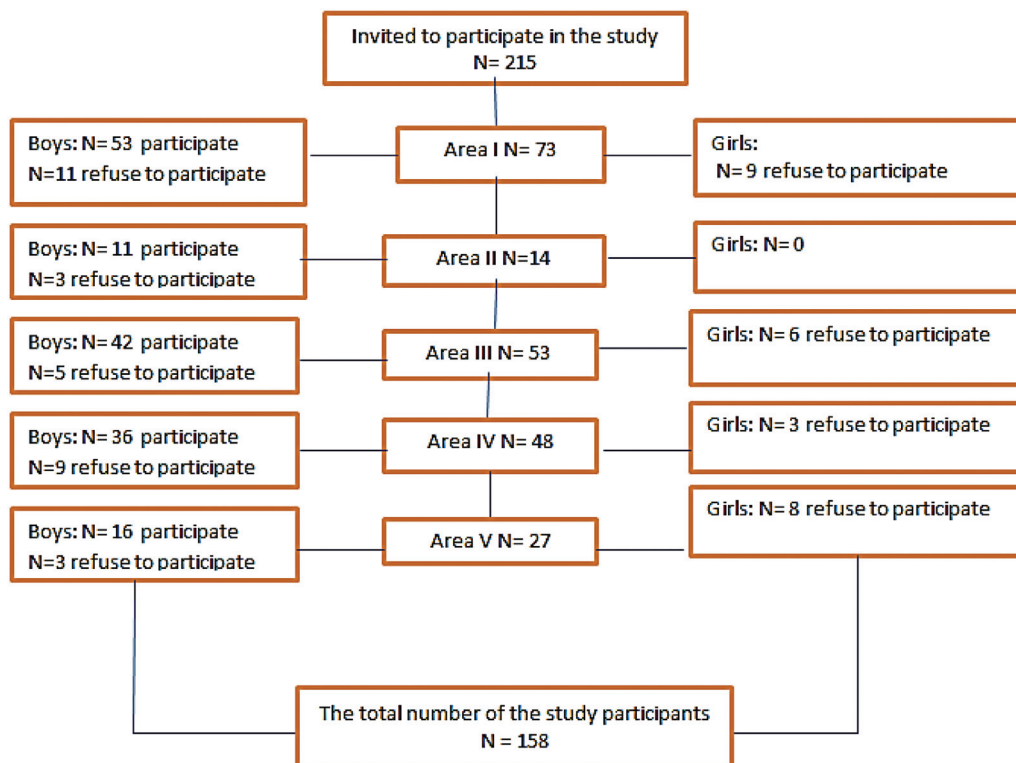
A pilot study was done on 15 working male children from the selected areas in April 2020 to test the response to different items of the questionnaires and to test the questionnaire with the most appropriate terms. The reliability coefficients for all questionnaires were suitable for scientific purposes (Cronbach’s alpha ranged from 0.78 to 0.86). All working children of the pilot study were excluded from the results of the study.

Study procedures

All working children who participated in the study were subjected to the following:

- (1) A questionnaire regarding sociodemographic and work characteristics: age, sex, child’s order in the family, family number, child’s education level, living arrangement, father’s and mother’s education level, and type of work of working children.

Figure 1



The flowchart of study participants.

- (2) The International Child Abuse Screening Tool Children's Version (ICAST-C) institution questionnaire (Zolotor *et al.*, 2009): the ICAST-C Institution has 44 items developed to identify the different types of child victimization at work. Eighteen items for physical victimization, 15 items for psychological victimization, and 11 items for sexual victimization.
- (3) The Child Behavior Checklist for Youth Self-Report (CBCLY-SR) (Achenbach and Rescorla, 2001): youth self-report form was used, a validated questionnaire that assesses social competence, emotional and behavioral problems, as well as somatic functioning. It consists of two main domains; social competence and problem checklist.

The social-competence domain covers three areas: physical activities (spending time on sports, hobbies or games, and performance compared with same-age peers), social relations (relationships with close friends and family members, how independent they are when playing or working alone), and self-reported academic performance. Each item is calculated as 0 (not true), 1 (somewhat or sometimes true), or 2 (very true or often true). *T* scores are categorized for social competence as: the normal *T* score range is above 35, the borderline clinical range is 31–35, and the clinical range is less than 31.

Problem checklist comprises eight syndrome scales: anxious/depressed, withdrawn/depressed, somatic complaints, social problems, thought problems, attention problems, rule-breaking behavior, and aggressive behavior. *T* scores are categorized for syndromes as follows: the normal *T* score range for all syndromes is less than 65, the borderline clinical range is 65–69, and the clinical range is above 69. While for total behavior problems, the normal *T* score range is less than 60, the borderline clinical range is 60–63, and the clinical range is above 63.

Statistical analysis

Data were entered and statistically analyzed using the Statistical Package for the Social Sciences (SPSS, Armonk, NY: IBM Corp), version 21.0. Qualitative data were presented in the form of frequency and percentage, and the χ^2 test or Fisher's exact test (as appropriate) was used for comparison between groups. Quantitative data were presented in the form of measures of central tendency (arithmetic mean) and measures of dispersion (SD). A *t* test was applied for comparing the two means. *T* scores are presented for all subscales and syndromes of the Child Behavior

Checklist for Youth Self-Report (CBCLY-SR). *T* scores of the data were calculated by converting the raw data of subscales and syndromes to *z* score, then the *z* score was converted to *T* scores having a mean=50 and SD=10. Regression analysis was used for detecting the predictor variables. The difference was considered statistically significant when the *P* value was less than 0.05.

Results

Table 1 reveals that all the included participants were males, their ages ranged from 12 to 17 years. About 49.4% of the studied group works in small industrial shops, whereas 21.5 and 29.1% were working as shop

Table 1 Sociodemographic and work characteristics of the studied working children

Characteristics	<i>n</i> (%)
Age (year)	
12–14	31 (19.6)
>14–16	36 (22.8)
>16–18	91 (57.6)
Child's order in the family	
1st child	9 (5.7)
2nd child	40 (25.3)
≥3rd child	109 (69)
Children's number in the family	
One	0
Two	10 (6.3)
Three	29 (18.4)
≥Four	119 (75.3)
Education level of child	
No schooling	9 (5.7)
Primary school	40 (25.3)
Preparatory school	85 (53.2)
Secondary school	25 (15.8)
Living arrangement	
Lives with both parents	98 (62)
Lives with mother only	48 (30.4)
Lives with father only	7 (4.4)
Lives with relatives	5 (3.2)
Father's education level	
No schooling	50 (31.64)
Primary school	59 (37.34)
Preparatory school	15 (9.5)
Secondary school	28 (17.72)
Graduate and above	6 (3.8)
Mother's education level	
No schooling	91 (57.6)
Primary school	30 (19)
Preparatory school	4 (2.5)
Secondary school	32 (20.3)
Graduate and above	1 (0.6)
Type of work	
Shop seller	34 (21.5)
Street vendors	46 (29.1)
Work in small industrial shops	78 (49.4)

sellers and street vendors. About 62% of them live with both parents. Children in the family were four and more in nearly 78%. Regarding the education level of the child, 53.2% were in preparatory education. The majority of mothers of participants had no formal education (57.6%), whereas fathers were educated up to the primary level (37.3%); 3.8% of fathers and 0.6% of mothers had a completed graduation degree.

Figure 2 indicates that among our studied children, 59.5% were exposed to at least one type of child abuse last year, 76.5% reported exposure to abuse during work. The commonest form was psychological abuse, physical abuse, and sexual abuse. All abused children were exposed to psychological abuse. In addition to psychological abuse, 39.9 were also exposed to physical abuse, and 5.1% were exposed to sexual abuse, while 19% were only exposed to psychological abuse.

Table 2 reveals that the younger age of children, lower level of children’s education, and work in small industrial shops were significantly associated with greater exposure to child abuse.

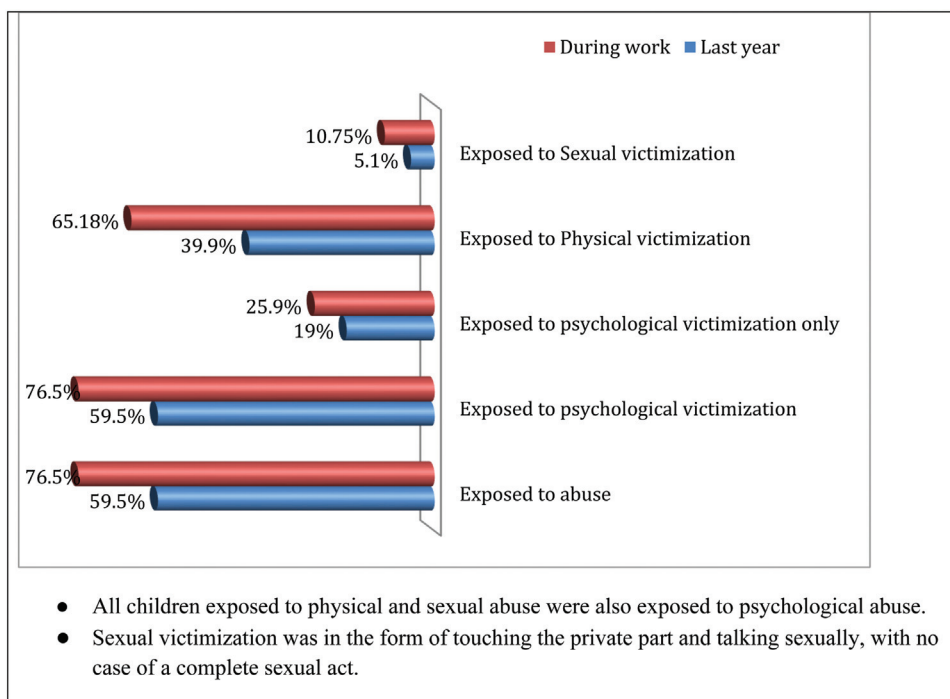
Table 3, a comparison of social competence with abuse, shows statistical significance impairment of activities, social relations, and total social competence in children

exposed to abuse. In contrast, no significant difference was detected in school performance between both groups. Furthermore, a comparison between both groups regarding behavioral problems showed a significant increase in anxiety/depression, social problems, attention problems, and rule-breaking behavior in children exposed to abuse than those who were not exposed to abuse. There was no statistically significant difference between abused and nonabused groups regarding withdrawal, somatic complaints, thought problems, and aggressive behavior.

Table 4 demonstrates that exposure to psychological, physical, or sexual abuse is associated with impaired social competence related to physical activities and social relations, but no difference in school performance. However, exposure to physical and sexual abuse but not psychological abuse was associated with significant anxiety, social, attention, and rule-breaking behavior problems.

Table 5, multivariate logistic regression analysis revealed that younger age (odds ratio 4.09; 95% confidence interval 1.03:16.18) and work in small industrial shops (odds ratio 3.28; 95% confidence interval 1.40:7.71) were risk factors for abuse exposure in working children.

Figure 2



Prevalence of different types of abuse among the studied group in the last year and during work life. All children exposed to physical and sexual abuse were also exposed to psychological abuse. Sexual victimization was in the form of touching the private part and talking sexually, with no case of a complete sexual act.

Table 2 Association between sociodemographic and work characteristics and exposure to abuse among working children

	Children not exposed to abuse (N=64) [n (%)]	Children exposed to abuse (N=94) [n (%)]	χ^2	P
Age (years)				
12–14 (N=31)	4 (6.2)	27 (28.7)	22.500	<0.001*
>14–16 (N=36)	9 (14.1)	27 (28.7)		
>16–18 (N=91)	51 (79.7)	40 (42.6)		
Child's order in the family				
1st child (N=59)	26 (40.7)	33 (35.2)	2.940	0.400
2nd child (N=41)	12 (18.7)	29 (30.8)		
3rd child (N=32)	14 (21.9)	18 (19.1)		
≥4th child (N=26)	12 (18.7)	14 (14.9)		
Children's number in family				
Two (N=10)	3 (4.7)	7 (7.4)	2.380	0.490
Three (N=29)	10 (15.6)	19 (20.2)		
Four (N=75)	35 (54.7)	40 (42.6)		
≥Five (N=44)	16 (25)	28 (29.8)		
Education level of child				
No schooling (N=9)	1 (1.6)	8 (8.5)	9.305	0.025*
Primary school (N=40)	11 (17.2)	29 (30.8)		
Preparatory school (N=84)	38 (59.4)	46 (48.9)		
Secondary school (N=25)	14 (21.8)	11 (11.7)		
Living arrangement				
With both parents (N=98)	39 (60.9)	59 (62.8)	3.68	0.29
With mother only (N=48)	19 (29.7)	29 (30.8)		
With father only (N=7)	5 (7.8)	2 (2.1)		
With relatives (N=5)	1 (1.6)	4 (4.3)		
Type of work				
Shop seller (N=34)	20 (31.2)	14 (14.9)	19.46	<0.001*
Street workers (N=46)	26 (40.7)	20 (21.3)		
Work in small industrial shops (N=78)	18 (28.1)	60 (63.8)		

*Significant

Discussion

Working children represent a high-risk population for child abuse (Dhakal *et al.*, 2019). Several children and family characteristics are associated with an increased risk of exposure to child abuse. Poverty (Bhat and Rather, 2009; Kotb *et al.*, 2011) and illiteracy (Shikdar *et al.*, 2013) represent the most notable reasons for child labor worldwide. Among our studied children, poor education, family size, and the order of children were the predominant sociodemographic characteristics associated with child labor. Egyptian working children are involved in different types of work that vary according to residency (Shoman *et al.*, 2015). As the current study was conducted in Cairo, child labor was limited to small industrial shops (49.4%), street workers (29.1%), or working as shop sellers (21.5%).

Children are considered more vulnerable to abuse than adults because they are more obedient and easier to control. There are comprehensive controversial reports regarding the frequency and type of abuse among

worker children that greatly reflect variation in the nature, place of work, lack of family support, and community protection. Among our studied working children, 59.5% were exposed to abuse last year; most reported exposure during work. The most familiar form of abuse was psychological abuse, physical abuse, and sexual abuse. Öncü *et al.* (2013) demonstrated that 62.5% of Turkish working children suffered from abuse at their workplaces (21.8% reported physical abuse, 53.6% reported emotional abuse, and 25.2% reported sexual abuse). Celik and Baybuga (2009) demonstrated that 50% of street-working children were exposed to verbal and physical abuse, while 65% were exposed to sexual abuse. This higher rate of sexual abuse is related to the inclusion of street-working children who were mostly homeless. Mohammed *et al.* (2014) reported that 18% of working Egyptian children had been exposed to physical abuse, while 28% were exposed to verbal abuse. The lower rate of child abuse in the previous study may be explained as all the included children have worked in specific places and were living with their families or relatives.

Table 3 According to the Child Behavioral Checklist, social competence and behavioral problems in relation to abuse exposure among working children

	Children not exposed to abuse (N=64) [n (%)]	Children exposed to abuse (N=94) [n (%)]	χ^2	P value
Social competence assessment				
Impaired physical activities				
Nonclinical	40 (62.5)	13 (13.8)	43.72	<0.001*
Borderline	23 (35.9)	62 (66.0)		
Clinical	1 (1.6)	19 (20.2)		
Impaired social relations				
Nonclinical	41 (64.1)	22 (23.4)	26.5	<0.001*
Borderline	21 (32.8)	62 (66.0)		
Clinical	2 (3.1)	10 (10.6)		
School performance				
Nonclinical	0	0	1.85	0.24
Borderline	6 (9.4)	16 (17.0)		
Clinical	58 (90.6)	78 (83.0)		
Total social competence				
Nonclinical	53 (82.8)	41 (43.6)	24.63	<0.001*
Borderline	10 (15.6)	43 (45.7)		
Clinical	1 (1.6)	10 (10.6)		
Emotional/behavioral problem assessment				
Anxious/depressed				
Nonclinical	46 (71.9)	35 (37.2)	18.72	<0.001*
Borderline	11 (17.2)	30 (31.9)		
Clinical	7 (10.9)	29 (30.9)		
Withdrawn/depressed				
Nonclinical	43 (67.2)	63 (67.0)	0.96	0.61
Borderline	6 (9.4)	13 (13.8)		
Clinical	15 (23.4)	18 (19.1)		
Somatic complaints				
Nonclinical	24 (37.5)	29 (30.9)	2.36	0.3
Borderline	17 (26.6)	36 (38.3)		
Clinical	23 (35.9)	29 (30.9)		
Social problems				
Nonclinical	52 (81.3)	56 (59.6)	8.347	0.015*
Borderline	6 (9.4)	17 (18.1)		
Clinical	6 (9.4)	21 (22.3)		
Thought problems				
Nonclinical	34 (53.1)	45 (47.9)	0.85	0.65
Borderline	13 (20.3)	25 (26.6)		
Clinic	17 (26.6)	24 (25.5)		
Attention problems				
Nonclinical	42 (65.6)	22 (23.4)	28.9	<0.001*
Borderline	14 (21.9)	37 (39.4)		
Clinical	8 (12.5)	35 (37.2)		
Rule-breaking behavior				
Nonclinical	56 (87.5)	60 (63.8)	11.56	0.003*
Borderline	2 (3.1)	15 (16.0)		
Clinical	6 (9.4)	19 (20.2)		
Aggressive behavior				
Nonclinical	36 (56.3)	52 (55.3)	0.40	0.81
Borderline	18 (28.1)	30 (31.9)		
Clinical	10 (15.6)	12 (12.8)		
Total behavior problems				
Nonclinical	47 (73.4)	35 (37.2)	20.48	<0.001*
Borderline	10 (15.6)	28 (29.8)		
Clinical	7 (10.90)	31 (33.0)		

*Significant.

Table 4 Social competence and behavioral problems with different types of abuse among working children according to Child Behavioral Checklist

	Psychological abuse (mean±SD)			Physical abuse (mean±SD)			Sexual abuse (mean±SD)		
	No	Yes	<i>P</i> value	No	Yes	<i>P</i> value	No	Yes	<i>P</i> value
Social competence									
Physical activities	36.2±2.9	33.6±3.6	0.001*	35.3±3.4	32.3±2.6	<0.001*	34.4±3.13	28.0±3.92	0.002*
Social relations	36.1±2.1	34.4±2.6	0.004*	35.5±2.4	33.3±2.5	<0.001*	34.9±2.37	29.37±3.5	0.003*
School performance	25.4±2.8	26.2±3.3	0.270	25.7±3.02	26.1±3.5	0.510	25.8±3.2	25.5±2.56	0.730
Total social competence	43.2±2.9	40.6±3.6	0.001*	42.3±3.4	39.3±2.6	<0.001*	41.4±3.1	35.0±3.92	0.002*
Emotional/behavioral problems									
Anxious/depressed	61.2±6.4	63.8±8.2	0.1	62.1±7.1	67.8±6.3	<0.001*	63.8±7.1	74.2±5.6	0.001*
Withdrawal/depressed	61.6±8.9	62.6±8.9	0.6	61.9±8.8	60.7±8.1	0.9	61.2±8.6	66±6.9	0.120
Somatic complaints	66.5±7.7	65.6±8.34	0.58	66.2±7.9	66.26±7.71	0.90	66.3±7.8	64.1±8.3	0.420
Social problems	59.2±6.5	61.9±8.46	0.09	60.1±7.2	65.3±5.6	<0.001*	61.7±6.9	71.1±5.2	0.001*
Thought problems	64.4±7.2	63.7±7.5	0.66	64.2±7.3	65.2±7.1	0.38	64.5±7.1	66.6±10.2	0.581
Attention problems	63.2±6.3	65.5±7.8	0.12	63.9±6.9	69.3±5.7	<0.001*	65.6±6.7	75.1±5.2	<0.001*
Rule-breaking behavior	58.1±6.4	60.3±7.5	0.15	58.8±6.8	63.7±5.6	<0.001*	60.4±6.6	68.6±4.3	0.001*
Aggressive behavior	62.9±7.4	63.5±7.3	0.7	63.1±7.4	63.7±5.7	0.58	63.36±6.7	63.7±7.1	0.871
Total behavior problems	56.2±6.3	58.6±8.1	0.11	57.02±7.1	62.3±5.8	<0.001*	58.6±6.7	69±5.7	0.001*

*Significant.

Table 5 Multivariate logistic regression analysis for sociodemographic and work characteristic risk factors of abuse exposure among working children

	<i>B</i>	SE	Wald	<i>P</i> value	Odds ratio	95% CI for odds ratio	
						Lower	Upper
Education level of child							
No schooling (<i>N</i> =9)	0.862	1.244	.480	0.489	2.368	0.207	27.141
Primary school (<i>N</i> =40)	0.739	0.665	1.233	0.267	2.094	0.568	7.716
Preparatory school (<i>N</i> =84)	0.256	0.509	0.253	0.615	1.292	0.476	3.503
Secondary school (<i>N</i> =25)	<i>r</i>						
Age group (years)							
12–14 (<i>N</i> =31)	1.411	0.701	4.051	0.044*	4.098	1.038	16.187
>14–16 (<i>N</i> =36)	0.828	0.487	2.884	0.089	2.288	0.880	5.945
>16–18 (<i>N</i> =91)	<i>r</i>						
Type of work							
Work in small industrial shops (<i>N</i> =78)	1.191	0.435	7.484	0.006*	3.289	1.402	7.718
Shop seller (<i>N</i> =34)	0.078	0.516	0.023	0.879	1.082	0.394	2.973
Street vendors (<i>N</i> =46)	<i>r</i>						

The dependent variable: exposure to abuse among working children.

r=reference category.

*Significant.

Our study revealed that the younger age of children, lower level of children's education, and work in small industrial shops were significantly associated with greater exposure to child abuse. Similar findings were reported by Khatab *et al.* (2019) that children aged 11–15 are more at risk of abuse than those aged over 15 years. In Bangladesh, Hadi (2000) reported that physical abuse was more prevalent among younger children, while other forms of abuse were more prevalent among older children. Multivariate analysis suggested that the uneducated children were more likely to be abused than others when age and sex confounders were eliminated. Poreddi *et al.* (2016)

reported that the risk for abuse is negatively correlated with the child's age.

Manual working in small industries with no protective measures besides lack of insurance exposes children to significant physical hazards. Furthermore, psychological abuse was reported as a tool to force children to continue working under hazardous conditions, accept the low financial outcome, and deny exposure to any trauma during work. The small body built by children and their limited capacity to resist physical violence makes them victims of physical and sexual abuse. Lack of

sufficient education makes those children less aware of their rights, unable to call for 'society's help, and more efficiently to be controlled (Betcherman *et al.*, 2004). The type of child labor is the most critical determinant of the incidence of work-related hazards (Ismayilova and Karimli, 2020).

Among our studied worker children, exposure to abuse adversely impairs social competence and increases the frequency of behavioral problems, including anxiety, depression, attention, and rule-breaking behavior problems.

Numerous studies have associated childhood abuse with a variety of adverse effects, such as mood and anxiety disorders (Gilbert *et al.*, 2009; Kessler *et al.*, 2010), suicidal behaviors (Dube *et al.*, 2001; Molnar *et al.*, 2001), rule-breaking, and substance use (Torchalla *et al.*, 2012; Vachon *et al.*, 2015).

In particular, childhood abuse has consistently been linked to depressive disorders in adulthood in retrospective studies (Hovens *et al.*, 2010; Braithwaite *et al.*, 2017) and prospective studies (Widom *et al.*, 2007).

The present study revealed no statistically significant difference between abused and nonabused groups regarding withdrawal, somatic complaints, thought problems, and aggressive behavior. At the same time, some studies have reported an association between a history of physical abuse and multiple outcomes. These studies reported externalizing difficulties, including conduct problems, impulsivity, anger, aggression, disruptive and delinquent behaviors, and some violent offenses committed (Petrenko *et al.*, 2012; Van der Put *et al.*, 2015). The difference between the results of these researches and ours is that we investigated child behavior and psychological comorbidities with abuse among working children. In contrast, other researchers investigate this problem among school children.

Conclusion

Working children at higher risk for child abuse adversely affect their social competence and increase their behavioral problems. Raising the community's awareness about this problem and legislation should be implemented to protect them from abuse and its negative consequences.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

References

- Achenbach TM, Rescorla LA (2001). Manual for the ASEBA school-age forms & profiles: an integrated system of multi-informant assessment Burlington, VT: University of Vermont. Research Center for Children, Youth, & Families; 2001, 1617.
- Betcherman G, Fares J, Luinstra A, Prouty R (2004). Child labor, education, and children's rights. World Bank Social Protection Discussion Paper Series 1:412.
- Bhat BA, Rather TA (2009). Child labour in the handicrafts home industry in Kashmir: a sociological study. *Int NGO J* 4:391–400.
- Braithwaite EC, O'Connor RM, Degli-Esposti M, Luke N, Bowes L (2017). Modifiable predictors of depression following childhood maltreatment: a systematic review and meta-analysis. *Transl Psychiatry* 7:e1162.
- Celik SS, Baybuga MS (2009). Verbal, physical, and sexual abuse among children working on the street. *Austr J Adv Nurs* 26:14–22.
- Dhakal S, Niraula S, Sharma NP, Sthapit S, Bennett E, Vaswani A, *et al.* (2019). History of abuse and neglect and their associations with mental health in rescued child labourers in Nepal. *Austr New Zeal J Psychiatry* 53:1199–1207.
- Dube SR, Anda RF, Felitti VJ, Chapman DP, Williamson DF, Giles WH (2001). Childhood abuse, household dysfunction, and the risk of attempted suicide throughout the life span: findings from the Adverse Childhood Experiences Study. *JAMA* 286:3089–3096.
- Gilbert R, Widom CS, Browne K, Fergusson D, Webb E, Janson S (2009). Burden and consequences of child maltreatment in high-income countries. *Lancet* 373:68–81.
- Hadi A (2000). Child abuse among working children in rural Bangladesh: prevalence and determinants. *Public Health* 114:380–384.
- Hovens JG, Wiersma JE, Giltay EJ, Van Oppen P, Spinhoven P, Penninx BW, Zitman FG (2010). Childhood life events and childhood trauma in adult patients with depressive, anxiety, and comorbid disorders vs. controls. *Acta Psychiatrica Scandinavica* 122:66–74.
- Ibrahim A, Abdalla SM, Jafer M, Abdelgadir J, De Vries N (2019). Child labor and health: a systematic literature review of the impacts of child labor on child's health in low-and middle-income countries. *J Public Health (Bangkok)* 41:18–26.
- Ismayilova L, Karimli L (2020). Harsh parenting and violence against children: a trial with ultrapoor families in Francophone West Africa. *J Clin Child Adolesc Psychol* 49:18–35.
- Kassouf AL (2019). Child labour and children's right to a better life. *Lancet Child Adolesc Health* 3:845–847.
- Kessler RC, McLaughlin KA, Green JG, Gruber MJ, Sampson NA, Zaslavsky AM, *et al.* (2010). Childhood adversities and adult psychopathology in the WHO World Mental Health Surveys. *Br J Psychiatry* 197:378–385.
- Khatib K, Raheem MA, Sartorius B, Ismail M (2019). Prevalence and risk factors for child labour and violence against children in Egypt using Bayesian geospatial modelling with multiple imputation. *PLoS One* 14:e0212715.
- Kotb SA, Mohamed AG, Abdel Khalek EM, Yones DA (2011). Agricultural labor among school children in rural Assiut, Egypt. *Life Sci J* 8:423–439.
- Larsen B, Luna B (2018). Adolescence as a neurobiological critical period for the development of higher-order cognition. *Neurosci Biobehav Rev* 94:179–195.
- McGee Z, Alexander C, Cunningham K, Hamilton C, James C (2019). Assessing the linkage between exposure to violence and victimization, coping, and adjustment among urban youth: findings from a research study on adolescents. *Children* 6:36.
- Mohammed ES, Ewis AA, Mahfouz EM (2014). Child labor in a rural Egyptian community: an epidemiological study. *Int J Public Health* 59:637–644.
- Molnar BE, Berkman LF, Buka SL (2001). Psychopathology, childhood sexual abuse and other childhood adversities: relative links to subsequent suicidal behaviour in the US. *Psychol Med* 31:965–977.
- Öncü E, Kurt AÖ, Esenay FI, Özer F (2013). Abuse of working children and influencing factors, Turkey. *Child Abuse Negl* 37:283–291.
- Petrenko CL, Friend A, Garrido EF, Taussig HN, Culhane SE (2012). Does subtype matter? Assessing the effects of maltreatment on functioning in preadolescent youth in out-of-home care. *Child Abuse Negl* 36:633–644.

- Poreddi V, Pashapu DR, Kathyayani BV, Gandhi S, El-Arousy W, Math SB (2016). Nursing students' knowledge of child abuse and neglect in India. *Br J Nurs* 25:264–268.
- Santana VS, Kiss L, Andermann A (2019). The scientific knowledge on child labor in Latin America. *Cad Saúde Pú* 35:e00105119.
- Shikdar MK, Biswas AK, Tanvir S, Tabassum T (2013). Mitigating problems of destitute children; dropping out from school and involving in under aged labour. *Re J Soc Sci* 2:33–41.
- Shoman AE, Mostafa NS, Musslem AA (2015). Nutritional status and parasitic infestation among working children in a village in Egypt: a comparative study. *J Egypt Public Health Assoc* 90:80–84.
- Torchalla I, Strehlau V, Li K, Schuetz C, Krausz M (2012). The association between childhood maltreatment subtypes and current suicide risk among homeless men and women. *Child Maltreat* 17:132–143.
- Vachon DD, Krueger RF, Rogosch FA, Cicchetti D (2015). Assessment of the harmful psychiatric and behavioral effects of different forms of child maltreatment. *JAMA Psychiatry* 72:1135–1142.
- Van der Put CE, Lanctôt N, De Ruiter C, Van Vugt E (2015). Child maltreatment among boy and girl probationers: does type of maltreatment make a difference in offending behavior and psychosocial problems?. *Child Abuse Negl* 46:142–151.
- Widom CS, DuMont K, Czaja SJ (2007). A prospective investigation of major depressive disorder and comorbidity in abused and neglected children grown up. *Arch Gen Psychiatry* 64:49–56.
- Zolotor AJ, Runyan DK, Dunne MP, Jain D, Péturs HR, Ramirez C, *et al.* (2009). ISPCAN Child Abuse Screening Tool Children's Version (ICAST-C): instrument development and multi-national pilot testing. *Child Abuse Negl* 33:833–841.