

ORIGINAL ARTICLE

Open Access

# Awareness of different forms of child abuse among Beni Suef University students: descriptive survey



Nermeen N. Welson<sup>1\*</sup> and Yasmen A. Mohamed<sup>2</sup>

## Abstract

**Background:** Child abuse is a worldwide phenomenon that can cause intense long-term aftereffects.

**Aim:** To evaluate the awareness of Beni Suef University students about different forms of child abuse as well as the size, causes, and complications of this problem in our society and determine the prevalence of physical child abuse.

**Methods:** The study included 1688 students from health science and non-health science colleges of Beni Suef University, Egypt. The study participants were asked to answer a questionnaire of two parts. The first part included questions about demographic data and personal experience of child abuse, and the second part included questions about opinions of participants on child abuse to assess their awareness and if there was any difference in the level of awareness between students of health science colleges and those of non-health science colleges.

**Results:** Health science college students were more life satisfied and felt more loved. Only 28.91% of the included students were not exposed to child abuse, while 12.59% of them suffered from wounds or fractures as a result of the abuse they were exposed to. About one third of the students thought that the commonest form of child abuse is verbal punishment such as threatening or humiliation and that the age at the greatest risk for abuse was the primary school age. About 68.36% of students thought that sexual abuse is a huge problem in our society. Only 21.56% of students disapproved child corporal punishment. More than half of the students stated that the most dangerous complication of child abuse is psychological problems such as depression. Most of the included students would talk to the child's parents and advise them if they saw a case of abuse, while the least would call the police. Only half of the students disapproved female genital mutilation (FGM). The strongest predictive factors for FGM approval were rural residence and male sex. Students mainly thought that FGM is a social habit that is carried out for ethical causes. About half of the students approved legal punishment by the court for FGM performers.

**Conclusion:** A significant proportion of the students experienced physical child abuse which left no injuries in most cases; males and first academic year students show more exposure to abuse. Moreover, most of the students think that child corporal punishment can be allowed although about half of them think that the most dangerous aftereffect of child abuse is psychological problems. Lack of reporting the exposure to child abuse is explained by the largest percentage of students to be due to lack of awareness. Rural resident males show more approval of female genital mutilation. A significant lack of awareness about FGM complications is observed in both groups (the health science and non-health science college groups) and the opinions of both groups are very close.

**Keywords:** Child abuse, Negligence, Prevalence, Questionnaire, Female genital mutilation

\* Correspondence: [nermeennmr@yahoo.com](mailto:nermeennmr@yahoo.com)

<sup>1</sup>Forensic Medicine and Clinical Toxicology Department, Faculty of Medicine, Beni Suef University, Beni Suef, Egypt

Full list of author information is available at the end of the article

## Key points

1. About two thirds of the students are exposed to physical child abuse. Males and first academic year students are more exposed to corporal punishment.
2. Child abuse is not related to parents' education, residence, faculty, or family condition and this finding can indicate that child abuse is still a common phenomenon in the society.
3. There is obvious cultural and social acceptance of physical punishment as a method of behaving children as about three fourths of the students accepted it.
4. Most of the students will talk to the parents if they suspect a case of child abuse and they perceive that there is a lack of awareness in the society.
5. Only half of the students (mainly females) disapprove FGM and most of them see that it is a social custom held for ethical causes (for fear of misconduct).
6. The most important predictive factors for FGM approval are the rural residence and the male sex.

## Background

Child abuse is a worldwide problem explained by the WHO as "any physical or emotional ill-treatment, sexual abuse, neglect, or other exploitation the child is exposed to by a responsible guardian, causing direct or indirect harm to his life, health, or development." Thus, there are four main types of child maltreatment and abuse: physical abuse, sexual abuse, psychological abuse, and neglect (WHO 1999).

Physical child abuse includes corporal punishment as slapping children with the hand or hitting them with implements including stick, belt, shoe, etc. Other examples of physical abuse are biting, pinching, pulling hair, uncomfortable positioning, burning, and forced ingestion. This violence may cause many physical and psychological effects such as re-victimization, homelessness, personality disorders, depression, anxiety, aggression, post-traumatic stress disorder, suicidal attempts, eating disorders, and substance abuse (Kelly-Irving et al. 2013). In addition, child abuse can cause serious and potentially fatal complications such as shaken baby syndrome which results in intracranial hemorrhage, increased intracranial pressure, neurological damage, spinal cord injury, rib fractures, or visceral injury (Morad et al. 2010). Severe injuries cause complications including death where the most common causes of death are reported to be head and abdominal injuries. Child abuse occurs in many parts of the world. The World Health Organization (WHO) indicated that there were 57,000 deaths caused by child abuse in 2000 globally (Alexander et al. 2001).

Sexual abuse includes a child's involvement in a sexual act for physical or financial gain, such as child genital exposure, viewing or sexual contact with a child, and child pornography. Psychological abuse is the most common and challenging type of child abuse. It includes screaming, stigmatization, threatening, coarse attitude, inattention, humiliation, excessive criticism, destruction of personal belongings, and inappropriate or excessive demands (Theoklitou et al. 2012).

There are six sub-types of child neglect:

1. Supervisory neglect: absence of adult supervision capable of causing physical harm, sexual harassment, or criminal conduct
2. Physical neglect: inability to provide basic physical needs such as a peaceful and tidy house
3. Health neglect: insufficient care of child health
4. Emotional neglect: lack of caring and support
5. Academic neglect: lack of school system participation
6. Abandonment: leaving a child alone without an adult supervision for a long time. Neglected children can find future difficulties in trusting people or forming relationships due to the pre-experienced lack of attachment (Golden and Prather 2009).

Female genital mutilation (FGM) includes any injury or cutting off female genital organs for non-therapeutic purposes. It is performed in the Middle East, some African countries, and parts of Asia. The most vulnerable age groups to FGM are infancy and childhood till the age of puberty. There are four types of FGM; the most common type practiced in Egypt is type 1, also known as clitoridectomy, which includes partial or total excision of the clitoris or the prepuce (Rasheed et al. 2011). Type 3, known as infibulation, is the most radical type of FGM, and it is commonly practiced in northeast Africa, especially Somalia and Djibouti. Studies showed that FGM is more prevalent in rural areas due to lack of knowledge and low socioeconomic status but it is less common among educated and wealthier families. Moreover, some people suggest that FGM is performed because of religious causes; however, this belief is doubtful and cannot be proven (Cappa et al. 2013).

FGM not only has no known useful healthy effects but also has severe and long-term complications including recurrent infections, chronic pain, and cyst formation as well as psychological and sexual problems. It also affects pregnancy (Reisel and Creighton 2015).

The child law was ratified by Egyptian authority in 1996 and amendments were made in 2008. This law includes the rights of children in medical care, education, and social utilities. Furthermore, the practice of FGM

has been criminalized since a 12-year old girl died during FGM by a physician in an illegal clinic in 2007 (Michael 2007).

According to a US survey study in 1995, the physical child abuse rate was 49/1000 (Straus and Gelles 1998). In another Korean study, 45% of parents reported using corporal punishment of their children and two thirds of them admitted whipping their children (Hahm and Guterman 2001).

Moreover, an Egyptian survey showed that 63% of children were exposed to physical abuse and 26% of those abused children had severe injuries as fractures and permanent disabilities (Youssef et al. 1998). Another Saudi Arabian study carried out on 186 abused children showed that the victims were mainly males from large-sized families and with illiterate parents (Elsaied and Alsehly 2017).

The current study aims to evaluate the awareness of Beni Suf University students about different forms of child abuse as well as the size, causes, and complications of this problem in our society and determine the prevalence of physical child abuse.

## Materials and methods

### Study design

The present study was conducted in April, June, and July 2018 among Beni Suf University students of the academic year 2017/ 2018 which started in September 2017 and ended in July 2018. The study was approved by the institutional research ethical committee. One college was covered per day. We visited the students in their lecture rooms in between the academic sessions to assess the largest possible number of students without disruption of their lectures. The aim and methods of the study were explained to the students; then, the questionnaires were distributed. The students were asked to write their college and grade then answer the multiple-choice questions without sharing the answers or looking at neighboring questionnaires. The students were confirmed that their answers would be used only for health science research and no names were required. The questionnaires were answered within 30 min then collected.

### Sampling design

In Egypt, there are two main groups of colleges which are different in the field of study: health science colleges and non-health science colleges. The health science colleges (specialized in health care) involve students who are specialized in biology and human health studies since high school such as the Faculty of Sciences, Faculty of Medicine, Faculty of Dentistry, Faculty of Veterinary Medicine, and Faculty of Physical Therapy, while non-health science colleges (not specialized in health care) involve students who are specialized in arts, economic,

and social studies with less knowledge about biology or human health such as the Faculty of Commerce, Faculty of Arts, Faculty of Education, and Faculty of Law. The Beni Suf Governorate lies in Upper Egypt where social attitudes are more conservative. The university students are mainly the natives of the region. Beni Suf University has 35 main colleges and institutes with a population size of about 67,000 students. The largest four health science colleges and the largest four non-health science colleges were chosen. Two thousand students were planned to join this study. Informed consent was obtained and the students who desired to join the study filled the questionnaire. Partially filled questionnaires were included in the study but blank returned questionnaires were excluded so the final number of participants was 1688 students; the response rate about 84%.

### Questionnaire

The investigators were guided by the survey of North Dakota State University (Rathge et al. 2005) to choose socially and culturally accepted questions for the used questionnaire. The questionnaire was prepared in Arabic and English, examined by 3 experts, and tested on 15 students who were not included in the study for modifications and validation. It was classified into two main parts; the first part included questions about demographic data and personal experience such as faculty, grade, sex, residence, family data (father's education, mother's education, and condition of the family such as presence of both parents, death of one or both parents, or divorce) and domestic abuse personal experience (domestic life satisfaction, feeling of parents' love and support, previous exposure to physical abuse by one or both parents, and if this physical abuse resulted in bruises or fractures). The question about exposure to physical abuse and if it caused bruises or fractures was used to evaluate how serious the corporal punishment was. Moreover, the question about domestic life satisfaction was used to know how the students evaluate their life as a whole rather than situational feeling.

The second part of the questionnaire included questions about the students' opinions and personal visions and consisted of other four categories of questions. The first category was about the problem risk factors and possible causes. Asked questions were about the commonest form of child abuse, approval of mother's work before her children's enrollment in school, the father's role in raising children in comparison with the mother's role, the age group at the greatest risk for exposure to physical abuse, child labor, and the suitable age group that children become dependent and their mother can leave them alone at home without adult supervision for a few hours.

The second category of questions evaluated the awareness of students about the child sexual abuse problem.

Asked questions were about the size of the problem in our society, the age at the greatest risk for sexual abuse, who the abuser can be, and the importance of sexual education for school students. The last question choices were important since primary school stage, important since preparatory or secondary school stage (the children in their early life are not supposed to learn about sexual issues because of social conservatism), not important and only awareness campaigns against sexual harassment are needed, and not important at all.

The third category of questions was about the complications of child abuse in general and what to do if you suspect abuse. The questions included were if corporal punishment can be allowed in raising children, the most dangerous child abuse complication on the long run, what to do if you suspect abuse, and why there is a lack of reporting of this problem. The proposed complications were depression and other psychiatric problems, personality changes as riot or violence, education problems, and drug addiction. The proposed answers for the question of lack of reporting the problem were society's lack of information about how to report, lack of awareness about the problem's severity, lack of physical evidence to prove the assault, and no desire to interfere in others' affairs.

The last category of questions was for female genital mutilation (FGM) which is popular in our society and also known as female circumcision. The questions included were approval of FGM, its origin, aim, and effect on women's health, approval of legal punishment by the court for FGM performers, and its long-run effect on family life and pregnancy. The proposed causes of FGM origin in Egypt included religious commitment and social custom. The proposed answers for why FGM supporters perform it (FGM aims) included ethical reasons (for fear of misconduct), personal hygiene or cleanliness, and early puberty or maturation of the girl (Additional file 1).

Choosing more than one answer or no answer and writing another answer that was not included in the defined choices were considered to be missing data.

## Results

This study included a total number of 1688 students from health science and non-health science colleges. Included health science colleges were the Faculty of Medicine, Faculty of Sciences, Faculty of Veterinary Medicine, and Faculty of Physiotherapy and the included non-health science colleges were the Faculty of Commerce, Faculty of Arts, Faculty of Education, and Faculty of Law. The students from non-health science colleges represented 56.2% of the study population, while those from health science colleges represented 43.8%. The study included 60.3% females and 37.7% males. Missing data were 2%.

Distribution of included students according to faculty, academic year, sex, and residence were summarized in (Table 1).

### Family data

The level of father's education for the students of health science colleges was university education in 66.22%, secondary school (high school) education in 22.7%, and elementary education (primary and preparatory schools) in 6.22%. There was a percentage of 4.86% representing missing data or not included choices in the questionnaire, mainly as an uneducated parent. Regarding non-health science college students, the percentages were 44.09% for secondary school education, 25.53% for university education, 22.57% for elementary education, and 7.81% for missing or other not appointed choices as uneducated parents. The difference between both groups in the father's level of education was statistically significant. The level of mother's education for health science college students was university education in 59.46%, secondary school education in 22.34%, elementary school education in 12.7%, and missing data or other not included choices in 5.41%. For non-health science college students, the percentages were 37.34% for secondary school education, 33.97% for elementary school education, 16.03% for university education, and 12.66%

**Table 1** Demographic characteristics of the study included students

	No.	Percent
Faculty		
Health science colleges	740	43.8
Non-health science colleges	948	56.2
Academic year		
First year	562	33.29
Second year	350	20.73
Third year	452	26.78
Fourth year	228	13.51
Fifth year*	42	2.49
Sixth year**	14	0.83
Missing data	40	2.37
Sex		
Male	636	37.7
Female	1018	60.3
Missing data	34	2
Residence		
Village	878	52
City	718	42.5
Missing data	92	5.5

\*Fifth year is present only in health science colleges

\*\*Sixth year is present only in the Faculty of Medicine



missing or other answers including uneducated parents and this difference was also statistically significant. The difference in family conditions between the two groups of students was not statistically significant (Table 2).

#### **Personal experience**

The students of health science colleges were more life satisfied and felt more loved than those of non-health science colleges. Two thirds of the students previously experienced physical child abuse; 12.5% of them had serious abuse that resulted in bruises, fractures, or wounds. No significant difference between the two groups was revealed regarding personal experience of physical child abuse (Table 2).

After the exclusion of missing data, exposure to physical child abuse was defined as frequent (always and often possibilities) and infrequent (rare and never possibilities). Exposure to child abuse was significantly associated with both sexes and the academic year where males and first academic year students were more exposed to physical child abuse. But it was not related to faculty, residence, parents' education level, or family condition (Table 3).

The beliefs and opinions of students regarding child abuse were collected in the other four categories (Table 4).

#### **Risk factors and possible causes**

The commonest form of child abuse according to the students' opinions was threatening (37.68%), followed by negligence (28.67%), then beating (25.83%), and finally sexual abuse (6.52%) with missing data of 1.3%. Generally and even with enough family income, most of the students approved the idea of mothers having jobs outside home before their children reach the age of school enrollment, while 27.61% disapproved this idea.

Regarding the father's role in rearing children, about half of the students perceived that it is equal to the mother's role, 26.78% said that it is less important, 21.33% said that it is more important than the mother's role, 2.25% said that fathers have no role at all, and there were 0.47% missing data. The age at the greatest risk for abuse was proposed to be the age of primary school (from 6 to 11 years) by most of the students (66.47%) and the least exposed age was proposed to be the age of joining college ( $\approx$  17 years) by 0.47% of the students.

The most suitable age in which children become independent and their mothers can leave them unattended alone at home for a few hours was proposed to be 7–9 years by 29.29% of the students, while a close percentage of students (29.17%) suggested that age to be 10–12 years. Child labor was completely disapproved by 65.4% of students, while it was approved by a considerable percentage (25%) if it is greatly needed and there was a

statistically significant difference between the two groups of students. This may reflect other social problems as poverty or education dropout where the children can be the main source of family sustenance.

The statistically significant differences in opinions between the two groups of colleges was found in the points of early mother's work, father's role in rearing children, child labor, and age of leaving children alone unattended at home for a few hours.

#### **Child sexual abuse**

A statistically significant difference was revealed between both groups of students regarding their view of sexual abuse. Most of the students perceived that it is a widespread issue in the society, 27.84% said that it is a small-sized problem, 3.32% said that it is not a problem in the society at all, and there were 0.47% missing data or the students did not know.

The age at the greatest risk for sexual abuse was proposed to be the primary school age (6–11 years) by 32.23% of students, while the least age was suggested to be < 4 years by 9.48% of students and there was also a statistically significant difference between the two groups regarding this.

Half of the students thought that sexual abusers are mainly strangers, 29.03% suggested that they are friends, and 17.42% suggested that they are family members. Regarding sexual education, 41.71% of the students saw that it is important only in the stage of preparatory or secondary school age, one third of the students thought that it is important from the primary school stage, 24.53% said it is not important and only awareness campaigns or general lectures are enough, and 2.37% chose that sexual education is not important at all. There was a statistically significant difference in opinions between the two groups.

#### **Child abuse complications and control**

Most of the students thought that mild corporal punishment can be allowed in children raising but only in big or repeated mistakes or with failure of other punishment methods (allowed within limits), 21.56% said that it cannot be allowed at all, while 3.67% said that it can be completely allowed.

Regarding the most dangerous complication that can be caused by child abuse, the probabilities were 54.03% for psychological problems (e.g., depression), 33.77% for personality changes (e.g., riot or violence), 5.21% for education problems, and 4.86% for drug addiction. There were 2.13% missing data, do not know, or more than one choice.

Regarding the action taken if the participant suspects abuse, most of the students chose to talk with the

**Table 2** Distribution of included students according to family data and personal experience

	Health science colleges		Non-health science colleges		Total	
	No.	%	No.	%	No.	%
Family data						
Father education						
Elementary education	46	6.22	214	22.57	260	15.4
Secondary school	168	22.7	418	44.09	586	34.72
University education	490	66.22	242	25.53	732	43.36
Others or missing data	36	4.86	74	7.81	110	6.52
$\chi^2 = 291$	P < 0.01					
Mother education						
Elementary education	94	12.7	322	33.97	416	24.46
Secondary school	166	22.34	354	37.34	520	30.81
University education	440	59.46	152	16.03	592	35.07
Others or missing data	40	5.41	120	12.66	160	9.48
$\chi^2 = 350$	P < 0.01					
Family condition						
Both parents	594	80.27	784	82.7	1378	81.64
Death	102	13.78	124	13.08	226	13.39
Divorce	28	3.78	28	2.95	56	3.32
Missing data	16	2.16	12	1.27	28	1.66
$\chi^2 = 3.33$	P = 0.34					
Child abuse personal experience						
Life satisfaction						
Satisfied	303	81.89	644	67.93	1250	74.05
Not satisfied	63	17.03	292	30.8	418	24.76
Missing data	4	1.08	12	1.27	20	1.18
$\chi^2 = 42.9$	P < 0.01					
Feeling loved						
Enough	574	77.57	672	70.89	1246	73.82
Not enough	122	16.49	226	23.84	348	20.62
Never been	38	5.14	38	4.01	76	4.5
Missing data	6	0.81	12	1.27	18	1.07
$\chi^2 = 15.39$	P < 0.01					
Previously abused						
Always	40	5.41	42	4.43	82	4.86
Often	178	24.05	260	27.43	438	25.95
Rare	314	42.43	356	37.55	670	39.69
Never	202	27.3	286	30.17	488	28.91
Missing data	6	0.81	4	0.42	10	0.59
$\chi^2 = 7.37$	P = 0.117					
Serious abuse						
Yes	94	12.7	118	12.45	212	12.59
No	638	86.22	826	87.13	1464	86.73
Missing data	8	1.08	4	0.42	12	0.71
$\chi^2 = 2.6$	P = 0.27					

**Table 3** Relation between exposure to physical child abuse and other studied data

	Frequent exposure*	Infrequent or non-exposure**	Total	X <sup>2</sup>	P
Faculty					
Health science	218 (29.7%)	516 (70.3%)	734 (43.74%)	1	0.3
Non-health science	302 (32%)	642 (68%)	944 (56.26%)		
Year					
1	206 (37.18%)	348 (62.82%)	554 (33%)	25	< 0.001
2	118 (34%)	230 (66%)	348 (21.2%)		
3	106 (23.45%)	346 (76.55%)	452 (27%)		
4	64 (28%)	164 (71.93%)	228 (13%)		
5	10 (23.8%)	32 (76.2%)	42 (2.5%)		
6	4 (28.57%)	10 (71.43%)	14 (0.8%)		
Missing data	12 (30%)	28 (70%)	40 (2.4%)		
Sex					
Male	242 (38.29%)	390 (61.71%)	632 (37.66%)	32	< 0.001
Female	262 (25.89%)	750 (74.11%)	1012 (60.31%)		
Missing data	16 (47.06%)	18 (52.94%)	34 (2.3%)		
Family condition					
Both	434 (31.5%)	942 (68.5%)	1376 (82%)	2	0.5
Death	64 (%)	162 (%)	226 (13.5%)		
Divorce	18 (%)	38 (%)	56 (93.3%)		
Missing data	4 (%)	16 (%)	20 (1.2%)		
Father education					
Precollege education	247 (52.69%)	572 (49.40%)	846 (50.42%)	1.59	0.452
College education	216 (41.54%)	512 (44.21%)	728 (43.38%)		
Missed data (including illiterate)	30 (5.77%)	74 (6.39%)	104 (6.20%)		
Mother education					
Precollege education	284 (54.62%)	652 (56.30%)	936 (55.78%)	3.53	0.181
College education	178 (34.23%)	410 (35.41%)	588 (35.04%)		
Missed data (including illiterate)	58 (11.15%)	96 (8.29%)	154 (9.18%)		
Residence					
City	228 (31.9%)	486 (68.1%)	714 (42.5%)	1.8	0.4
Village	260 (25.89%)	614 (74.11%)	874 (52.1%)		
Missed data	32 (%)	58 (%)	90 (5.4%)		

\*Frequent exposure = always and often possibilities

\*\*Infrequent exposure = rare and never possibilities

parents, 8.65% chose to do nothing, and 7.7% chose to call the police.

Causes for lack of reporting abuse were proposed to be as follows: 42.18% of the students thought that the reason is lack of awareness, 31.64% saw that it is not appropriate to interfere in others' personal affairs, 17.65% chose lack of information about how to report abuse and about the concerned authority, and 6.16% chose lack of physical evidence to prove the abuse. There were 2.37% missing data. A significant difference in opinions between the two groups was found in all the four points; approval of corporal punishment, the most dangerous complication

caused by child abuse, what to do if you suspect abuse, and the reason for lack of reporting abuse.

**FGM**

In the health science colleges group, 57.57% of the students disapproved FGM, 30.54% chose do not know, and 11.89% approved it. The opinions in non-health science colleges showed a slight difference in which 51.27% disapproved FGM, 31.01% do not know, and 17.3% approved it. There were 0.42% missing data. The difference between the two groups regarding this point was statistically significant.

**Table 4** Students' opinions and attitudes

	Health science colleges		Non-health science colleges		Total	
	No.	%	No.	%	No.	%
Possible causes and risk factors						
Commonest form						
Negligence	188	25.41	296	31.22	484	28.67
Beating	190	25.68	246	25.95	436	25.83
Threat	300	40.54	336	35.44	636	37.68
Sexual abuse	52	7.03	58	6.12	110	6.52
Missing data	10	1.35	12	1.27	22	1.3
$\chi^2 = 8.33$	P = 0.08					
Early mother work						
Approve	564	76.22	640	67.51	1204	71.33
Disapprove	170	22.97	296	31.22	466	27.61
Missing data	6	0.81	12	1.27	18	1.07
$\chi^2 = 15.47$	P < 0.01					
Father role						
More	122	16.49	238	25.11	360	21.33
Equal	438	59.19	392	41.35	830	49.17
Less	168	22.7	284	29.96	452	26.78
No role	10	1.35	28	2.95	38	2.25
Missing data	2	0.27	6	0.63	8	0.47
$\chi^2 = 55.43$	P < 0.01					
Age at high risk						
< 4 years	84	11.35	114	12.03	198	11.73
Primary school	484	65.41	638	67.30	1122	66.47
Prep school	142	19.19	146	15.40	288	17.06
Secondary school	16	2.16	34	3.59	50	2.96
University ( $\geq$ 17 years)	2	0.27	6	0.63	8	0.47
Missing data	12	1.62	10	1.05	22	1.3
$\chi^2 = 8.90$	P = 0.11					
Child labor						
Approve	28	3.78	72	7.59	100	5.92
If greatly necessitated	150	20.27	272	28.69	422	25
Totally disapprove	534	72.16	570	60.13	1104	65.4
Missing data	28	3.78	34	3.59	62	3.67
$\chi^2 = 31.23$	P < 0.01					
Leaving kids unattended at home						
Possible if < 6 years	40	5.43	66	6.99	106	6.31
7–9 years	204	27.72	288	30.51	492	29.29
10–12 years	232	31.52	258	27.33	490	29.17
13–15 years	122	16.58	122	12.92	244	14.52
16–18 years	138	18.75	210	22.25	348	20.71
Missing data	4	0.54	4	0.42	8	0.47
$\chi^2 = 11.42$	P < 0.05					



**Table 4** Students' opinions and attitudes (Continued)

	Health science colleges		Non-health science colleges		Total	
	No.	%	No.	%	No.	%
Student's awareness about the problem of child sexual abuse						
Problem size						
Not a problem	32	4.32	24	2.53	56	3.32
Small problem	320	43.24	150	15.82	470	27.84
Large problem	382	51.62	772	81.43	1154	68.36
Missing data	6	0.81	2	0.21	8	0.47
$\chi^2 = 173$	P < 0.01					
Age at the greatest risk						
< 4 years	80	10.81	80	8.44	160	9.48
Primary school	280	37.84	264	27.85	544	32.23
Prep school	158	21.35	160	16.88	318	18.84
Secondary school	138	18.65	238	25.11	376	22.27
University	66	8.92	168	17.72	234	13.86
Missing data	18	2.43	38	4.01	56	3.32
$\chi^2 = 53.87$	P < 0.01					
Sexual abusers						
Family	118	15.95	176	18.57	294	17.42
Friends	214	28.92	276	29.11	490	29.03
Strangers	382	51.62	464	48.95	846	50.12
Missing data	26	3.51	32	3.38	58	3.44
$\chi^2 = 2.26$	P = 0.52					
Sexual education						
Primary stage	176	23.78	338	35.62	514	30.45
Prep or secondary	380	51.35	324	34.18	704	41.71
Only campaigns	166	22.43	248	26.16	414	24.53
Not important at all	12	1.62	28	2.95	40	2.37
Missing data	6	0.81	10	1.05	16	0.95
$\chi^2 = 54.35$	P < 0.01					
Students awareness about abuse complications and control						
Corporal punishment						
Completely allowed	36	4.86	26	2.74	62	3.67
Allowed within limits	558	75.41	700	73.84	1258	74.53
Not allowed at all	144	19.46	220	23.21	364	21.56
Missing data	2	0.27	2	0.21	4	0.24
$\chi^2 = 8$	P < 0.05					
The most dangerous complication						
Psychological problems	402	54.32	510	53.80	912	54.03
Personality changes	248	33.51	322	33.97	570	33.77
Study stumbling	42	5.68	46	4.85	88	5.21
Drugs addiction	26	3.51	56	5.91	82	4.86
Missing data	22	2.97	14	1.48	36	2.13
$\chi^2 = 9.85$	P < 0.05					

**Table 4** Students' opinions and attitudes (Continued)

	Health science colleges		Non-health science colleges		Total	
	No.	%	No.	%	No.	%
If you suspect abuse						
Police calling	66	8.92	64	6.75	130	7.7
Talk with parents	584	78.92	822	86.71	1406	83.29
Do nothing	84	11.35	62	6.54	146	8.65
Missing data	6	0.81	0	0	6	0.35
$\chi^2 = 24.37$	P < 0.01					
Reporting lack						
Lack of information	122	16.49	176	18.57	298	17.65
Lack of awareness	264	35.68	448	47.26	712	42.18
Lack of physical evidence	50	6.76	54	5.70	104	6.16
Noninterference in others affairs	284	38.38	250	26.37	534	31.64
Missing data	20	2.70	20	2.11	40	2.37
$\chi^2 = 34.55$	P < 0.01					
Students' opinions about FGM						
Approval of FGM						
Approve	88	11.89	164	17.30	252	14.93
Disapprove	426	57.57	486	51.27	912	54.03
Do not know	226	30.54	294	31.01	520	30.81
Missing data	0	0	4	0.42	4	0.24
$\chi^2 = 14.35$	P < 0.01					
Origin						
Religious cause	144	19.46	178	18.78	322	19.08
Social custom	578	78.11	760	80.17	1338	79.27
Do not know	18	2.43	10	1.05	28	1.66
$\chi^2 = 5.08$ P = 0.08						
Aim						
Ethical	478	64.59	456	48.10	934	55.33
Hygiene	158	21.35	322	33.97	480	28.44
Early puberty	56	7.57	134	14.14	190	11.26
Do not know	48	6.49	36	3.80	84	4.98
$\chi^2 = 65.65$	P < 0.01					
FGM risks						
Highly dangerous	220	29.73	388	40.93	608	36.02
Moderately dangerous	292	39.46	276	29.11	568	33.65
Low dangerous	124	16.76	132	13.92	256	15.16
Non dangerous	52	7.03	128	13.50	180	10.66
Do not know	52	7.03	24	2.53	76	4.5
$\chi^2 = 64.88$	P < 0.01					
Legal punishment						
Approve	402	54.32	512	54.01	914	54.15
Disapprove	312	42.16	428	45.15	740	43.84
Do not know	26	3.51	8	0.84	34	2.01
$\chi^2 = 15.56$	P < 0.01					

**Table 4** Students' opinions and attitudes (Continued)

	Health science colleges		Non-health science colleges		Total	
	No.	%	No.	%	No.	%
Pregnancy affection						
Yes	190	25.68	254	26.79	444	26.3
No	180	24.32	270	28.48	450	26.66
Maybe	350	47.30	418	44.09	768	45.5
Missing data	20	2.7	6	0.63	26	1.54
$\chi^2 = 15.39$	P < 0.05					

Regarding the origin of FGM and why it is commonly practiced, most of the students thought it is a social custom and only 19% said that it has religious causes. More than half of the students perceived that FGM is carried out for ethical causes (traditional for fear of misconduct), 28% said that it is done for self-hygiene and cleanliness, 11% thought that it is done for early puberty which is a common but incorrect perception in the society, and about 5% had no idea. Most of the students saw that FGM is dangerous to women's life, but only one quarter of them thought that FGM can negatively affect female fertility. More than half of the students approved the legal punishment of FGM performers by the court. The difference in beliefs and opinions between the two groups was also significant regarding FGM's aim, risks, effect on pregnancy, and legal punishment (Table 4).

Moreover, Chi square analysis showed that FGM approval was related to non-health science colleges, male sex, rural residence, and low parents' level of education. Approval was not related to the academic year or exposure to abuse (Table 5).

Simple logistic regression analysis revealed the following predictive factors for FGM approval: non-health science colleges (OR = 1.56, 95% CI = 1.05–2.31), male sex (OR = 2.08, 95% CI = 1.41–3.06), rural residence (OR = 3.2, 95% CI = 2.03–5.04), fathers' elementary level of education (OR = 2.2, 95% CI = 1.31–3.68), and mothers' elementary (OR = 3.22, 95% CI = 1.89–5.47) and high levels of education (OR = 2.07, 95% CI = 1.21–3.54) (Table 6).

Further analysis using multiple (Table 6) and multiple stepwise (Table 7) logistic regression indicated that the strongest predictive factors for FGM approval are rural residence (AOR = 4.07, 95% CI = 2.4–6.9) and combined the male sex (AOR = 2.14, 95% CI = 1.36–3.37) and rural residence (AOR = 4.49, 95% CI = 2.63–7.67).

## Discussion

In the past, children were considered to be the possession of their parents who were able to treat them as they wanted. There are incidents of various types of child abuse and infanticide in early history where children

could be killed sold into slavery or abandoned. Today, violence against children is fairly common in different countries (Ten Bensele et al. 1997). Yet, there is debate over the exact features of maltreatment due to many different definitions of child abuse. But in fact, individual mores and cultural variations form how each person realize child abuse. Because of social refusal, maltreatment acts are concealed from public judgment and the actual prevalence of child abuse stays mainly unknown. Traditional attitudes which are ordinary for one culture can seem abusive to others unfamiliar with these cultural behaviors, such as African traditions involving marriages, gender inequity, and education may seem hurtful to Westerners. Also, isolation of the children to sleep in a separate darkroom is considered a harsh behavior by non-Western cultures.

Our study showed that health science college students were more life satisfied and felt loved more than non-health science college students despite near percentages of both groups in experiencing child abuse and exposure to injuries. Health science colleges are more desired by society and accept the students with higher grades so this success can be the cause of more life satisfaction in this group of students. Males and first academic year students were more exposed to physical child abuse. But physical abuse was not related to faculty, residence, parents' education level, or family condition indicating that physical punishment is commonly practiced and socially accepted. Aberle et al. (2007) in their study on first and fourth grade high school students in Slavonski Brod, Croatia, stated that the fourth grade students were unsatisfied and felt unloved more than those of first grade, about 80% of the students were abused and physical abuse was more significantly common in first grade students also. A US study performed on 1000 adults of both men and women showed that about one third of the females were exposed to child abuse and a higher percentage of about 40% was in males. Physical abuse was reported by 19% and sexual abuse by 5% (Scher et al. 2004). Another study in Thailand performed on elementary school pupils showed that 95% of sixth-grade pupils experienced emotional abuse and 77% experienced

**Table 5** Relation between female genital mutilation approval and various qualitative data (Chi square test)

	FGM		Total	P value
	Do not know or disapprove	Approve		
Type of college				
Health science colleges	652 (88.1%)	88 (11.9%)	740	0.027
Non-health science	780 (82.6%)	164 (17.4%)	944	
Academic year				
1	476 (85.3%)	82 (14.7%)	558	0.633
2	294 (84%)	56 (16%)	350	
3	374 (82.7%)	78 (17.3%)	452	
4	202 (88.6%)	26 (11.4%)	228	
5	36 (85.7%)	6 (14.3%)	42	
6	14 (100%)	0 (0%)	14	
Sex				
Male	502 (79.2%)	132 (20.8%)	634	< 0.001
Female	902 (88.8%)	114 (11.2%)	1016	
Residence				
Rural	696 (79.3%)	182 (20.7%)	878	< 0.001
Urban	660 (92.4%)	54 (7.6%)	714	
Father education				
Elementary school	200 (76.9%)	60 (23.1%)	260	0.010
High school	494 (84.6%)	90 (15.4%)	584	
College	644 (88%)	88 (12%)	732	
Mother education				
Elementary school	324 (77.9%)	92 (22.1%)	416	< 0.001
High school	438 (84.6%)	80 (15.4%)	518	
College	544 (91.9%)	48 (8.1%)	592	
Abuse exposure				
Infrequent	990 (85.8%)	164 (14.2%)	1154	0.310
Frequent	432 (83.1%)	88 (16.9%)	520	

physical punishment (Isaranurug et al. 2002). Male children are more active and thus can be more exposed to corporal punishment.

In our study, the commonest types of child abuse was thought to be verbal or emotional abuse followed by negligence then physical abuse and finally sexual abuse. The age at the greatest risk for abuse was proposed to be that of primary school. This period in children’s life is full of naughtiness and misbehavior but unfortunately, it also has a great effect on child personality and shaping. It is stated by the US Department of Health and Human Services that there were 12.3/1000 children exposed to child abuse for the year 2000. The main

forms of abuse were neglect (60%), physical punishment (20%), sexual harassment (10%), and psychological abuse (7%). The age at the greatest risk for abuse was up to 3 years old, girls were more exposed than boys, and the abusers were mainly parents in about 80% (Leicht and Madigan 2004). The age at the greatest risk for abuse was stated by Stanić (2006) to be 4–8 years. Most parents would use verbal punishment as yelling or threatening their children before physical punishment, so this form of abuse can be more common. Also, the age of 4 years can be the most exposed to abuse as the children at this age start to understand others and express themselves.

**Table 6** Logistic regression analysis of predictive factors for FGM approval

	OR	95% CI	P value
Simple logistic regression analysis			
Type of college			
Health science colleges	Ref.		
Non-health science	1.56	1.05–2.31	0.028
Sex			
Female	Ref.		
Male	2.08	1.41–3.06	< 0.001
Residence			
Urban	Ref.		< 0.001
Rural	3.2	2.03–5.04	
Father education			
College	Ref.		
High school	1.33	0.85–2.09	0.208
Elementary school	2.2	1.31–3.68	0.003
Mother education			
College	Ref.		
High school	2.07	1.21–3.54	0.008
Elementary school	3.22	1.89–5.47	< 0.001
Multiple logistic regression analysis			
Type of college			
Health science colleges	Ref.		
Non-health science	1.28	0.75–2.17	0.362
Sex			
Female	Ref.		
Male	2.44	1.52–3.9	< 0.001
Residence			
Urban	Ref.		
Rural	3.45	1.9–6.24	< 0.001
Father education			
College	Ref.		
High school	0.65	0.35–1.2	0.167
Elementary school	0.85	0.38–1.9	0.688
Mother education			
College	Ref.		
High school	2.07	1.01–4.23	0.047
Elementary school	2.17	0.92–5.13	0.076

Most of the students in this study approved the idea of mothers having jobs outside home before their children reach the age of school enrollment and about half of them saw that the father’s role in rearing children is equal to the mother’s. Moreover, two thirds of the students stated that the most suitable age that children become dependent and their mothers can leave them

**Table 7** Multiple stepwise logistic regression analysis of predictive factors for FGM approval

Model		AOR	95% CI	P value
1	Residence			
	Urban	Ref.		
	Rural	4.07	2.4–6.9	< 0.001
	Sex			
2	Female	Ref.		
	Male	2.14	1.36–3.37	< 0.001
	Residence			
	Urban	Ref.		
	Rural	4.49	2.63–7.67	< 0.001

unattended at home for a few hours is 7–15 years and about 65% completely disapproved child labor.

In accordance with our results, Rathge et al. (2005) stated that about half the respondents saw that child abuse is a moderate problem. The ages of 0–4 and 5–8 were equally exposed to physical child abuse (35.8 and 36.6%). 57.1% of participating households chose the age of 12–14 years that the mother can leave her children alone at home. Family awareness of sound methods for adjusting the children’s behavior seems to vary among different populations, cultures, and socioeconomic levels. But early years of the child’s life have shown to be the most vulnerable age.

In this study, about 68% of the students stated that sexual abuse is a widespread phenomenon in the society. About one third of them saw that the age at the greatest risk for sexual abuse was also proposed to be the primary school age and about half of them saw that the abusers are mainly strangers. Sexual education was thought to be important in the prep or secondary school age in 42% of the students while one third of the students supported its importance earlier in the primary school age. In another study, Whealin (2016) stated that about 20% of women and 10% of men were previously exposed to sexual abuse during their childhood and that the abuser was a minor in one third of the cases. The abusers were family members (30%), friends and acquaintances (60%), and strangers (only 10%).

The fact that sexual abusers are mainly family or friends who are, in most cases, familiar to the child should be explained to the society as a large percentage of students in our study did not expect such probability.

In our study, most of the students approved child corporal punishment despite that half of them stated the most dangerous child abuse complication to be psychological problems (e.g. depression). Most of the students (42.18%) thought that the reason for lack of reporting the abuse is lack of awareness. Moreover, most of them would advise the child’s parents if they suspect a case of

abuse while the least percentage would call the police. In agreement with these results, Rathge et al. (2005) also found that a percentage of 74.6% disapproved child corporal punishment and that the majority of the participants perceived violence to be the most dangerous child abuse complication followed by depression. Two thirds of the participants would call the police for a case of child abuse and only one fifth of them would advise the parents. 62.7% said that the lack of information about how to report abuse and follow up the situation causes people to hesitate to report.

There is an obvious cultural difference in attitudes toward children raising and parenting. Shanalingigwa (2009) in their study showed that African parents viewed sexual abuse, illicit drugs and alcohol abuse, and health neglect more severe than did the US parents but they showed less perception of corporal punishment as physical abuse. Most African and Asian parents thought that corporal punishment is the most effective way to ensure children's obedience starting from the age of 4–5 years and physical punishment is not banned in most of the schools. But Western parents showed less tolerance for physical abuse. American schools also have precise policies against sexual abuse and bullying and are concerned in teaching children to recognize unsuitable behaviors. There were common agreements between cultures of the West and Africa. Both of them ranked sexual abuse to be the most serious type of abuse and evaluated housing, educational, and clothing neglect to be the least serious types.

Regarding FGM, the Egyptian Health Issues Survey (2015) indicated that 87% of Egyptian women were subjected to FGM. However, the rate of practice among younger women declined. Our study showed that only half of the students disapproved FGM and one third of them had no idea. The strongest predictive factors for FGM approval were rural residence and male sex. More than half of them approved legal punishment of FGM performers by the court and this percentage can reflect the real disapproval as the percent of students who could not completely disapprove FGM and chose to have no idea is high (one third). FGM approval is still high and this supports the fact that FGM is commonly practiced in Egypt.

About 10% of the students stated that FGM is not dangerous to women's life and about half of them did not know that FGM could affect female fertility. Despite the statistically significant difference between the health science colleges and the non-health science colleges groups, the percentages were close indicating a lack of awareness even in the biology study-specialized group (health science colleges group).

More than three fourths of the students saw it is a social custom (not religious) and more than half of them

saw it is performed for ethical causes. So we can conclude that education and awareness campaigns can greatly help to diminish this injurious habit.

But Mohammed et al. (2016) in their work on an Egyptian village showed that FGM was more supported by females despite that females had a better level of knowledge about FGM health risks. This difference may be because females in rural areas are more influenced by the traditions that encourage gender inequity between men and women. But in their study, males were more encouraging the opinion that husbands prefer their wives to be performed FGM. This supports our vision about the importance of men's contribution to FGM prevention.

There are some other African studies about FGM. A Nigerian study by Ezenyeaku et al. (2011) showed that 42.1% of women had FGM and only 14.3% approved FGM for their daughters. FGM aimed to prevent promiscuity in 38.3%, about one quarter of them chose culture, another one quarter chose no reason, and other causes were hygiene, religion, and aid future childbirth. The commonest injurious aftereffects were proposed to be sexual problems, psychological problems as feeling incompleteness, and obstetric problems. 4.8% of women indicated that FGM is safe. Only 63.7% of them approved the legal prevention of FGM.

Moreover, Abubakar et al. (2004), in another Nigerian study, stated that 25.7% of the participants indicated sexual problems as the commonest FGM complications and 8.6% of them indicated obstetric problems.

The geographic distribution of FGM among different societies in Africa indicates that FGM is a social custom with no religious causes as it is practiced in different countries and tribes with different religious beliefs sharing the same habit.

## Conclusion

A significant proportion of the students experienced previous physical child abuse which left no injuries in most cases (more in males and first grade students). Also, most of the students propose that child corporal punishment can be allowed despite that about half of them see that the most dangerous aftereffect of child abuse was psychological problems. Deficient reporting of this problem is mainly explained to be due to a lack of awareness. A significant lack of awareness about FGM complications is observed in both groups (health science and non-health science colleges) and the opinions are very close. It is obvious that FGM is more approved and supported by rural men particularly.

## Study limitations

Firstly, data are self-reported so socially desirable answers may be given as it is obvious in answering the



question about domestic life satisfaction. Secondly, the study focuses on physical child abuse exposure and stresses on left injuries to evaluate its seriousness but a sensitive issue like sexual abuse is not assessed as these questions can be unpleasant and not socially accepted by the students. Moreover, prevalence of neglect and psychological abuse are not assessed. Despite being more common than physical abuse, these forms of abuse have no obvious culturally accepted definitions and are difficult to assess their seriousness. Thirdly, despite a high response rate, there were some objections to the questionnaire. Mainly, it was long and some answers were not included in the appointed choices (as the non-education choice in the questions of father and mother education). Longitudinal studies should be performed to assess the causality between child abuse exposure and health risk behaviors as an outcome.

### Recommendations

Awareness campaigns against child abuse and female genital mutilation should be held for children, parents, and university students who are the parents of the early future. There is an obvious problem of lack of awareness especially in rural resident students. Men should be included and targeted for more serious outreach. Pre-marriage parents' education classes and home visitations to provide social and educational support can also prevent child abuse.

### Supplementary information

**Supplementary information** accompanies this paper at <https://doi.org/10.1186/s41935-019-0174-y>.

**Additional file 1.** The questionnaire about child abuse.

### Abbreviation

FGM: Female genital mutilation

### Acknowledgements

The authors would like to thank Professor Dr. Sherien Ghaleb, Faculty of Medicine, Cairo University, for her valuable support and comments during editing this study.

### Authors' contributions

All authors contributed in data collection, data analysis, and manuscript writing. All authors read and approved the final manuscript.

### Funding

No funding sources.

### Availability of data and materials

All data have been presented in the manuscript and there are no additional data.

### Ethics approval and consent to participate

Informed consent was obtained as used data were completely anonymized and students who approved participating in the study answered the questionnaire.

This study was approved by the institutional ethics committee (Faculty of Medicine, Beni Suef University).

### Consent for publication

Not applicable as no participants were involved.

### Competing interests

The authors declare that they have no competing interests.

### Author details

<sup>1</sup>Forensic Medicine and Clinical Toxicology Department, Faculty of Medicine, Beni Suef University, Beni Suef, Egypt. <sup>2</sup>Pediatric Medicine Department, Faculty of Medicine, Beni Suef University, Beni Suef, Egypt.

Received: 20 March 2019 Accepted: 2 December 2019

Published online: 23 December 2019

### References

- Aberle N, Ratković-Blažević V, Mitrović-Dittrich D, Cocha R, Stoić A, Bubić J, Boranić M (2007) Emotional and physical abuse in family: survey among high school adolescents. *Croat Med J* 48:240–248
- Abubakar I, Ilyasu Z, Kabir M, Uzoho CC, Abdulkadir MB (2004) Niger knowledge, attitude and practice of female genital cutting among antenatal patients in Aminu Kano teaching hospital, Kano. *J Med* 13(3):254–258
- Alexander RC, Levitt CJ, Smith WL (2001) Abusive head trauma. In: Reece RM, Ludwig S (eds) *Child abuse: medical diagnosis and management*, 2nd edn. Lippincott Williams & Wilkins, Philadelphia, pp 47–80
- Cappa C et al (2013) Female genital mutilation/cutting: a statistical overview and exploration of the dynamics of change. United Nations Children's Fund, New York, pp 30–48
- Egyptian Health Issues Survey (2015) Ministry of Health and Population [Egypt], El-Zanaty and Associates [Egypt], and ICF International. Ministry of Health and Population and ICF International, Cairo and Rockville <https://dhsprogram.com/publications/publication-FR313-DHS-Final-Reports.cfm>. Accessed 3 Nov 2016
- Elsaid HF, Alsehly AA (2017) A study of child physical abuse. *Egypt J Psychiatry* 38:120–126
- Ezenyeaku CC, Okeke TC, Chigbu CO, Ikeako LC (2011) Survey of women's opinions on Female Genital Mutilation (FGM) in Southeast Nigeria: study of patients attending antenatal clinic. *Ann Med Health Sci Res* 1(1):15–20
- Golden JA, Prather W (2009) A behavioral perspective of childhood trauma and attachment issues: toward alternative treatment approaches for children with a history of abuse. *Int J Behav Consult Ther* 5:56–74
- Hahm H, Guterman N (2001) The emerging problem of physical child abuse in South Korea. *Child Maltreat* 6:169–179
- Isaranurug S, Chansatiporn N, Auewattana P, Wongarsa C (2002) Violence against children by parents. *J Med Assoc Thai* 85:875–880
- Kelly-Irving M, Lepage B, Dedieu D, Bartley M, Blane D, Grosclaude P et al (2013) Adverse childhood experiences and premature all-cause mortality. *Eur J Epidemiol* 28:721–734
- Leicht T, Madigan H (2004) Child maltreatment: summary of key findings. *Child Welfare Information Gateway* <http://www.childwelfare.gov/pubs/factsheets/canstats.cfm>. Accessed 16 Nov 2006
- Michael M (2007) Egypt officials ban female circumcision. The Associated Press. Available from: <http://www.phys.org/news102393179>. Accessed 13 July 2016
- Mohammed ES, Seedhom AE, Mahfouz EM (2016) Female genital mutilation: current awareness, beliefs and future intention in rural Egypt. *Reprod Health* 15(1):175. <https://doi.org/10.1186/s12978-018-0625-1>
- Morad Y, Wygnansky-Jaffe T, Levin AV (2010) Retinal haemorrhage in abusive head trauma. *Clin Exp Ophthalmol* 38(5):514–520
- Rasheed SM, Abd-Allah AH, Yousef FM (2011) Female genital mutilation in Upper Egypt in the new millennium. *Int J Gynaecol Obstet* 114(1):47–50
- Rathge R, Nikle J, Danielson R, Schwarzwalter K (2005) North Dakota Statewide Child Abuse and Neglect Study: Survey Results. North Dakota State Data Center <http://www.ndsu.edu/sdc/publications.htm>
- Reisel D, Creighton SM (2015) Long term health consequences of female genital mutilation (FGM). *Maturitas* 80(1):48–51
- Scher CD, Forde DR, McQuaid JR, Stein MB (2004) Prevalence and demographic correlates of childhood maltreatment in an adult community sample. *Child Abuse Negl* 28:167–180
- Shanalingigwa, Oswald Abel (2009). Understanding social and cultural differences in perceiving child maltreatment. Retrieved from the University of Minnesota Digital Conservancy <http://hdl.handle.net/11299/54824>

- Stanić I. (2006). Violence and child abuse [in Croatian], Narodni zdravstveni list, Available at: <http://www.zzjzpgz.hr/nzl/5/zlostavljanje.htm>
- Straus MA, Gelles RJ (1998) Identification of child maltreatment with the parent-child conflict tactics scales: development and psychometric data for a national sample of American parents. *Child Abuse Negl* 22:249–270
- Ten Bensele RW, Rheinberger MM, Radbill SX (1997) Children in a world of violence the roots of child maltreatment. In: Helfer ME, Kempe RS, Krugman RD (eds) *The battered child*. University of Chicago Press, Chicago
- Theoklitou D, Kabitsis N, Kabitsi A (2012) Physical and emotional abuse of primary school children by teachers. *Child Abuse Negl* 36(1):64–70
- Whealin J (2016) Child sexual abuse. National Center for Post Traumatic Stress Disorder, US Department of Veterans Affairs
- WHO (1999) Report of the consultation on child abuse prevention, world health organization, Geneva, pp 13–16 (document WHO/HSC/PVI/99.1)
- Youssef RM, Attia MS, Kamel MI (1998) Children experiencing violence: parental use of corporal punishment. *Child Abuse Negl* 22:959–973

### Publisher's Note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

**Submit your manuscript to a SpringerOpen<sup>®</sup> journal and benefit from:**

- ▶ Convenient online submission
- ▶ Rigorous peer review
- ▶ Open access: articles freely available online
- ▶ High visibility within the field
- ▶ Retaining the copyright to your article

---

Submit your next manuscript at ▶ [springeropen.com](https://www.springeropen.com)

---