

ORIGINAL RESEARCH

Health Care Use and Status Among Abused Young People



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Abstract

BACKGROUND Childhood abuse negatively affects young people's health. Little is known about its effect on health care usage patterns or on perception of health status during a life stage when learning to use care independently is a key developmental task.

OBJECTIVES In nonclinical study settings, abuse has been found to be associated with disorganized use of care and perceived poorer health. Our objective was to determine whether abused youth receiving health care had similar outcomes.

METHODS This observational study, conducted between December 5, 2005 and April 13, 2007, screened for childhood abuse in 532 young people seeking services at a primary care clinic. The setting was a New York City young people's free health clinic. Participants were aged 12-24 years, recruited during a visit, mostly female (86%), Latino or black (94%), and currently in school or college (79%). Exclusions included not being fluent in English or having difficulty understanding the study/consent process.

RESULTS Health care use (routine vs urgent care) in the prior 12 months and perceived health status were measured using the Health Service Utilization Scale. Potential demographic covariates were controlled for, as was depression (using the Beck Depression Inventory for Primary Care—Fast Screen). A total of 54% disclosed abuse. Compared with those who were not abused, those reporting sexual abuse had 1.4 times greater odds of choosing both urgent and routine care over routine care only. Those reporting any type of abuse had lower odds of selecting urgent care only over routine care. No association was found between childhood abuse and perceived health status.

CONCLUSIONS In contrast to studies conducted among youth in nonclinic settings, in this study childhood abuse was not associated with health care usage patterns or with poorer perception of health. Further research is needed regarding the impact receiving health care has on perceived health and health care use in abused youth. *Annals of Global Health* 2017;0:000-000

KEY WORDS adolescent; childhood physical abuse; childhood sexual abuse; health care utilization; perceived health; young adult.

INTRODUCTION

In adolescents and young adults a history of childhood physical or sexual abuse has been associated with an increase in health risk behaviors such as

cigarette smoking, alcohol and drug abuse,¹ aggression,² and dating violence.³ Abuse is associated with poorer health outcomes,⁴ including obesity,⁵ poor self-esteem, depression, suicidality, and post-traumatic stress disorder,⁶ along with social withdrawal

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and academic problems, all of which can have a life-long impact.⁷ In female adolescents, abuse is associated with risky sexual behavior, teen pregnancy, and eating disorders.⁸ All told, childhood abuse has a tremendous human cost and a huge financial cost to US society. The estimated annual cost for childhood maltreatment effects, which combines both abuse and neglect, is \$80.3 billion.⁴

The health care setting is recognized as a good venue for identification of victims and for the provision of interventions to help them.^{9,10} So it is pertinent to consider the impact of abuse on young people's use of health services along with their perceptions of their health status. This study aimed to shed light on these issues.

To our knowledge, no studies have examined how a history of childhood abuse influences adolescents' health care usage, although 1 study examined health care usage among victims of childhood abuse and included adolescents and young adults in a largely adult sample. It found that victims used more health care than nonvictims and had a disproportionate rate of emergency room and urgent services compared with nonvictims.¹¹ The only study conducted among young adults (college students) found that victims have higher rates of health care usage than their nonabused counterparts.¹² Only 4 prior studies examined the impact of childhood physical or sexual abuse on perceptions of health among adolescents and young adults, finding a history to be associated with perceived poor health.^{1,11,13,14} In contrast to these aforementioned studies, the present study was conducted in a health care setting.

Together these findings are consistent with studies of care usage and perception of health among adults with a childhood abuse history.¹⁵⁻¹⁹

METHODS

Study Population and Recruitment. An analytic sample of 532 adolescents and young adults aged 12-24 years seeking general health services from December 5, 2005 to April 13, 2007 at a New York City primary care clinic designed specifically for young people was recruited for this study. This study was part of a larger, related study that compared the effectiveness of different modes of administration of screens to identify a history of childhood abuse (referred to hereafter as the disclosure study).

Institutional Review Board approval was obtained from the Icahn School of Medicine at Mount Sinai with a waiver of parental consent granted to allow consent from adolescents younger than age 18

years. A Certificate of Confidentiality was obtained to protect participants' privacy for issues such as substance use. Participants were approached while waiting to see their medical provider, and no formal sampling or selection protocol was used because participants had been already randomly allocated as part of the aforementioned disclosure study. Safety protocols were put in place to ensure an immediate assessment for any participant who disclosed childhood abuse or suicidality. For those younger than 18 years, child protection reporting protocols were followed.

Measures. Using audio computer-assisted self-interviewing, participants who consented completed a demographic questionnaire. The Beck Depression Inventory for Primary Care—Fast Screen²⁰ was administered to assess depression within the past 14 days and to screen for any suicidal ideation; and the Health Service Utilization Scale (HSUS) was used to measure health care usage patterns.²¹

Outcomes. The outcomes of interest for this study included participants' health care usage patterns and perceived health status. Health care usage was specified based on responses to the HSUS item asking about types of health care used in the prior 12 months and was categorized into 3 groups: routine care only, urgent care only, and both routine and urgent care. Routine care included regular checkup or physical examination, sports or camp physical, regular follow-up visit, and office or clinic gynecology visit for a regular appointment, whereas urgent care included urgent visit to a doctor or clinic, emergency room visit for any type of accident or injury or because of sickness or illness, and office/clinic gynecology visit for a sudden or urgent problem. Perceived health status was measured based on the HSUS question "How would you describe your health now?" using a 5-item Likert scale (1, excellent; 2, very good; 3, good; 4, fair; 5, poor). Participants who responded with poor or fair health were grouped and reclassified as poor health.

Predictors. The primary predictor of interest was self-reported retrospective history of childhood physical or sexual abuse that occurred before 17 years of age disclosed during the administration of an assessment for childhood physical or sexual abuse. Two types of assessment were used: an unstructured face-to-face interview and a structured assessment. The structured assessment used the Childhood Maltreatment Interview Schedule—Short Form (CMIS-SF),²² which was modified to better fit the typical vocabulary of the study participants. It was administered via 3 different modes—pencil and paper questionnaire,

face-to-face structured interview, or the audio computer-assisted self-interviewing administered questionnaire. All 3 structured methods of administration used the CMIS-SF.

The CMIS-SF considers physical abuse to be a yes response to any of the following: "Before you were 17 years of age: did a parent or guardian ever do something to you on purpose (for example, hit or punch or cut you, or push you down) that made you bleed or gave you bruises or scratches, or that broke bones or teeth? Did either of your parents or guardians get so mad at you that they hurt you physically? Did either of your parents or guardians use physical punishment for discipline?"

The CMIS-SF defines childhood sexual abuse as a yes response to any of the following questions: "Before you were 17 years of age, did a family member ever kiss you in a sexual way, or touch your body in a sexual way, or make you touch their sexual parts? Did anyone ever use physical force to kiss you in a sexual way, or touch your body in a sexual way, or make you touch their sexual parts? Did anyone five or more years older than you ever kiss you in a sexual way, or touch your body in a sexual way, or make you touch their sexual parts? Did a family member ever have oral, anal or vaginal intercourse with you, or insert a finger or object in your anus or vagina? Did anyone ever use physical force to have oral, anal, or vaginal intercourse with you or to insert a finger or object in your anus or vagina? Did anyone five or more years older than you ever have oral, anal, or vaginal intercourse with you or insert a finger or object in your anus or vagina?"

For the face-to-face unstructured interview, physical abuse was assessed by asking: "How do your parents discipline you? How do they punish you? Do they ever physically hit you?" A positive determination of physical abuse was made if the participant described having been hit, punched, kicked, or otherwise struck or pushed down, cut, bruised, made to bleed, or scratched; having broken bones or broken teeth; or having been hurt physically. The unstructured interview covered the same issues as CMIS-SF but incorporated the possibility of probing as appropriate.

For the face-to-face unstructured interview, sexual abuse was assessed by asking participants, "Has anyone ever touched your body when you did not want them to? Your breasts? Your vagina? Your penis? Your anus? Has anyone made you touch, kiss, masturbate, or perform oral sex on them? Or made you have oral, vaginal or anal sex when you did not want to?" The questions were asked in an

unstructured way as in a clinical interview to allow the opportunity for the interviewer to probe further. A positive determination of sexual abuse was made if the participant described any of the following experiences: having had someone kiss or touch them in a sexual way; masturbate or perform oral, vaginal/penile, or anal sex with them; or having made them do sexual things to the perpetrator when they did not want to.

Participants with a history of abuse were categorized into 4 groups: physical abuse only ($n = 154$, 28.9%), sexual abuse only ($n = 53$, 9.9%), both physical and sexual abuse ($n = 77$, 14.5%), and no abuse ($n = 248$, 46.6%). Given the severity of sexual abuse, we combined the sexual abuse with or without physical abuse as 1 group. Thus, for analytical purposes, physical abuse is referred to as physical abuse and sexual abuse with or without physical abuse is referred to as sexual abuse.

Covariates. Consistent with previous studies,^{1,23-25} a priori sociodemographic characteristics such as age, gender, race, ethnicity, nativity status (immigration status), and school enrollment status were considered as potential confounders. Depression and suicidal ideation were also considered.

Statistical Analysis. Descriptive statistics for sociodemographic and behavioral characteristics were presented by the outcome variables, health care usage, and perceived health status. The categorical variables were presented as frequency and percentages, and the association of covariates with the outcome health care usage (nominal scale) was examined using Pearson χ^2 and perceived health status (ordinal scale) was tested using Cochran-Mantel Haenszel correlation test. Because health care usage was organized into 3 nominal categories (routine care only, urgent care only, and both routine and urgent care), multinomial logistic regression model was fitted to quantify the effects of childhood abuse on the outcome. We considered routine care as a reference outcome category for the multinomial model, thus comparing routine and urgent care usage and urgent care-only usage with routine care-only usage. Potential confounding variables were screened in unadjusted models and, if associated with the outcomes at the 20% level of significance, were included in the multivariable model. The perceived health status variable was of ordinal scale; we fit a cumulative logit model with cut-points at "excellent," "excellent/very good," "excellent to good," versus "poor" status. Proportional odds assumption was examined. All analyses were performed using SAS software Version 9.4 (SAS Institute Inc., Cary, NC).

RESULTS

Distribution of characteristics of the total study population according to health care usage and perceived health are presented in [Tables 1 and 2](#).

Participants were mostly female (86%), Hispanic/Latino or black (94%), living in Harlem (33%), and US born (82%); approximately 80% were enrolled in school. Of those in middle school or high school, the great majority (88%) were at the appropriate grade for their age; with reported average grades of 65 or higher (97.2%). The most common living arrangement was living with a single parent (mostly mothers) and no other adults (35%). More than a quarter (27%) of participants screened positive for depressive symptoms and about 13% reported suicidal ideation within the previous 2 weeks, but none were determined to be suicidal at the time of the visit.

The prevalence of abuse is presented in [Figure 1](#).

More than half (53%) of participants disclosed some type of abuse, with 29% disclosing physical abuse only and 24% disclosing sexual abuse with or without physical abuse. Among participants reporting sexual abuse, the majority (59%) reported a history of both childhood sexual abuse and childhood physical abuse.

No significant association was found between childhood abuse status and health care usage in the previous 12 months. However, participants reporting childhood sexual abuse were more likely to have received both routine and urgent care (51.6% vs 42.0%), less likely to have received routine care only (35.5% vs 43%), and less likely to have received urgent care only (12.9% vs 15%) than those who did not report childhood abuse. The distribution of health care usage was similar with regard to other covariates regardless of the participant characteristics examined, with the exception of depression and family composition. Participants with depression were more

Table 1. Distribution of Adolescent Characteristics of Participants According to Health Care Usage

Demographic Characteristics	Received Both Routine and Urgent Care	Received Routine Care Only	Received Urgent Care Only	P
Abuse status				
No abuse	101 (41.3)	105 (43.0)	38 (15.6)	.1930
Physical abuse	68 (45.0)	69 (45.7)	14 (9.3)	
Sexual abuse with or without physical abuse	66 (50.8)	47 (36.2)	17 (13.1)	
Age				
14 or younger	17 (38.6)	23 (52.3)	4 (9.1)	.5839
15-17	91 (43.8)	90 (43.3)	27 (12.9)	
18 and older	127 (46.5)	108 (39.6)	38 (13.9)	
Gender				
Female	201 (44.5)	192 (42.5)	59 (13.1)	.9071
Male	34 (46.6)	29 (39.7)	10 (13.7)	
Race				
Hispanic/Latino	123 (44.6)	113 (40.9)	40 (14.5)	.1893
Non-Hispanic black	91 (42.3)	99 (46.1)	25 (11.6)	
Non-Hispanic Asian or white	21 (61.8)	9 (26.5)	4 (11.8)	
US born				
Yes	194 (45.1)	174 (40.5)	62 (14.4)	.1054
No	41 (43.2)	47 (49.5)	7 (7.4)	
School enrollment (currently in school)				
Yes	184 (44.1)	178 (42.7)	55 (13.2)	.8376
No	51 (47.2)	43 (39.8)	14 (13.0)	
Education status				
Dropped out or left behind	23 (37.7)	27 (44.6)	11 (18.0)	.6878
Graduated HS or currently in K-12th grade and on track	212 (45.7)	194 (41.8)	58 (12.5)	
Depression				
None	158 (42.9)	166 (45.1)	44 (11.9)	.0395
Any depression	72 (52.2)	45 (32.6)	21 (15.2)	

HS, high school; K, kindergarten.

Table 2. Distribution of Selected Characteristics of Participants According to Perceived Health Status

Demographic Characteristics	Fair/Poor N = 48 (%)	Good N = 158 (%)	Very Good N = 201 (%)	Excellent N = 123 (%)	P
Abuse status					
No abuse	27 (10.9)	62 (25.1)	93 (37.7)	65 (26.3)	.2686
Physical abuse	11 (7.2)	49 (32.0)	61 (39.9)	32 (20.9)	
Sexual abuse with or without Physical abuse	10 (7.7)	47 (36.2)	47 (36.2)	26 (20.0)	
Age					
14 or younger	3 (6.7)	9 (20.0)	14(31.1)	19 (42.2)	.0144
15-17	16 (7.6)	65 (31.0)	81 (38.6)	48 (22.9)	
18 and older	29 (10.6)	84 (30.5)	106 (38.6)	56 (20.4)	
Gender					
Female	45 (9.9)	139 (30.5)	167 (36.6)	105 (23.0)	.1210
Male	3 (4.1)	19 (25.7)	34 (45.9)	18 (24.3)	
Race					
Hispanic/Latino	27 (9.7)	83 (29.9)	99 (35.6)	69 (24.8)	.9423
Non-Hispanic black	19 (8.8)	67 (30.9)	82 (37.8)	49 (22.6)	
Non-Hispanic Asian or white	2 (5.7)	8 (22.9)	20 (57.1)	5 (14.3)	
US born					
No	7 (7.2)	29 (29.9)	39 (40.2)	22 (22.7)	.7142
Yes	41 (9.5)	129 (29.8)	162 (37.4)	101 (23.3)	
School enrollment (currently in school)					
Yes	38 (9.0)	121 (28.7)	163 (38.7)	99 (23.5)	.4756
No	10 (9.2)	37 (33.9)	38 (34.9)	24 (22.0)	
Education status					
Dropped out or left behind	4 (6.6)	25 (41.0)	17 (27.8)	15 (24.5)	.4230
Graduated HS or currently in K-12th grade and on track	44 (9.4)	133 (28.4)	184 (39.2)	108 (23.0)	
Depression					
None	22 (5.9)	95 (25.5)	155 (41.7)	100 (26.9)	<.0001
Any depression	26 (18.7)	56 (40.3)	40 (28.8)	17(12.2)	

HS, high school; K, kindergarten.

likely to use urgent care only (15.2% vs 12.0%; $P < .03$) and less likely to use routine care only (32.6% vs 45.1%; $P < .05$), and those living with a single parent and no other adults were significantly more likely to use urgent care only compared with those in other living situations (17.6% vs 7.3%, 14.7%,

10.0%, or 10.8%, respectively; $P < .01$). The percentage of perceived health status was similar regardless of the characteristics examined, with the exception of age of the participants and depression. Participants who were 18 years or older reported poor or average health (42%) compared with those in the younger age groups <14 (26%) and 15-17 years (38%); depressed participants were more likely to perceive themselves as unhealthy (18.8% vs 6.0%; $P < .01$).

Table 3 shows the adjusted associations between disclosure of childhood abuse and health care usage. The multivariable multinomial logit model found no significant association between childhood abuse and health care usage. However, it is worth noting that the odds were 50% lower for choosing urgent care over routine care if the adolescents reported physical abuse versus those who were not abused.

Those reporting a history of sexual abuse compared with nonabused participants had 1.4 times higher odds of choosing both urgent and routine care over routine care only (odds ratio [OR]: 1.4; 95%

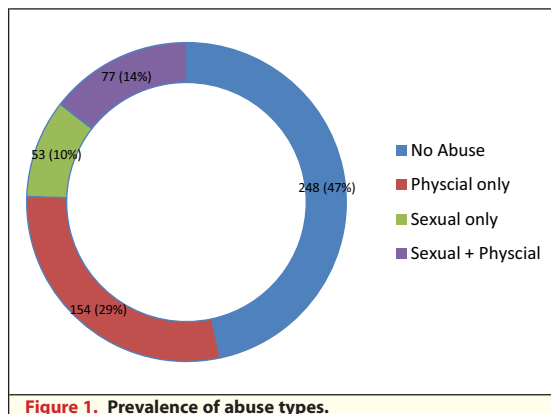


Figure 1. Prevalence of abuse types.

Table 3. Estimated Odds Ratios and 95% Confidence Intervals of Health Care Usage Using Multinomial Regression

Covariates	Both Urgent & Routine Care vs Routine Care		Urgent Care vs Routine Care	
	Odds Ratio (95% CI)	P	Odds Ratio (95% CI)	P
Abuse type				
Nonabused	1.00		1.00	
Physical abuse only	0.97 (0.62, 1.51)	.8954	0.57 (0.28, 1.14)	.1126
Sexual abuse with and without physical abuse	1.36 (0.83, 2.22)	.2199	0.95 (0.47, 1.95)	.8971
Age				
14 or younger	0.64 (0.32, 1.31)	.2232	0.44 (0.14, 1.42)	.1704
15-17	0.88 (0.59, 1.32)	.5408	0.86 (0.47, 1.58)	.6339
18 and older	1.00		1.00	
Gender				
Female	0.77 (0.44, 1.34)	.3643	0.81 (0.36, 1.88)	.6382
Male	1.00		1.00	
Race				
Non-Hispanic black	1.00		1.00	
Hispanic/Latino	1.14 (0.77, 1.70)	.5070	1.42 (0.78, 2.59)	.2515
Non-Hispanic Asian or white	2.74 (1.08, 6.93)	.0336	2.17 (0.56, 8.33)	.2608
Born in US				
No	0.73 (0.45, 1.18)	.1956	0.34 (0.14, 0.85)	.0216
Yes	1.00		1.00	
Depression				
None	1.00		1.00	
Any depression	1.58 (1.01, 2.46)	.0446	1.75 (0.92, 3.30)	.0867

CI, confidence interval.

confidence interval [CI]: 0.8, 2.2). The odds of choosing both routine and urgent care compared with routine care only was almost 3 times higher among the non-Hispanic Asian or white participants compared with non-Hispanic black participants. Also the odds of choosing urgent care only over routine care only were 65% lower among those who were not born in the United States compared with US-born participants. Those with depressive symptoms had a higher risk of choosing both urgent and routine care (OR: 1.6, $P < .04$) or urgent care only (OR: 1.8, $P < .09$) over routine care only.

The odds ratios and confidence intervals of the relationship between the covariates and perceived health status (Table 4) reveal that, other than depression, no other factor was associated with perceived health status. Those reporting physical abuse had 7% lower odds of better health, whereas those reporting sexual abuse had 2% higher odds of better health, but none were statistically significant.

Adolescents 14 years or younger had 2.2 times the odds of better health compared with those 18 or older for all outcome categories—excellent versus very good, good, or poor health; excellent/very good versus good or poor health; and excellent/very good/good versus poor health. Depressed adolescents had 68% lower

Table 4. Estimated Odds Ratios and 95% Confidence Intervals of the Perceived Health Status Using Cumulative Logit Regression

Covariates	Odds Ratio	P
	95% CI	
Abuse type		
Nonabused	1.00	
Physical abuse only	0.93 (0.64, 1.35)	.6833
Sexual abuse with and without physical abuse	1.02 (0.68, 1.54)	.9115
Age		
14 or younger	2.15 (1.17, 3.95)	.0138
15-17	1.19 (0.85, 1.68)	.3171
18 and older	1.00	
Gender		
Female	0.77 (0.49, 1.23)	.2726
Male	1.00	
Race		
Non-Hispanic Black	1.00	
Hispanic/Latino	1.15 (0.82, 1.61)	.4165
Non-Hispanic Asian or white	1.73 (0.86, 3.48)	.1232
US born		
No	1.19 (0.79, 1.81)	.4037
Yes	1.00	
Depression		
None	1.00	
Any depression	0.32 (0.22, 0.46)	<.0001

CI, confidence interval.

odds of better health compared with those with no depression. The proportional odds assumption was reasonable and was not violated ($P = .4956$) for this model.

DISCUSSION

In this study childhood abuse was not associated with perception of health or with health care usage. Both findings are in sharp contrast to the previously cited studies, although none of those studies were conducted in health care settings and none controlled for access to health services. It is noteworthy that those reporting abuse were less likely to perceive their health as poorer compared with nonabused participants. Participants were recruited within a health care setting and were receiving care. Surprisingly, abused participants were less likely to use urgent care versus routine care compared with participants disclosing no childhood abuse. Those reporting sexual abuse with or without physical abuse were slightly less likely to report using urgent care only versus routine care only and were more likely to use both urgent and routine care versus routine care only.

The study setting is a unique health service designed to appeal to young people, where care is free, confidential, comprehensive, and adolescent specific,²⁶ which is a limitation in terms of generalizability to nonclinic populations. Indeed, it is possible that

self-rated health may be regulated by efforts to achieve health-related goals: In one study, actively seeking health care was associated with a positive perception of health compared with those not actively seeking care when studied.²⁷

Because the lack of significant associations in this study might be attributed to chance alone or to the small sample size, further studies need to be conducted assessing these associations in clinical settings with larger sample sizes. Nevertheless, a strength of this study is its focus on questions that have not yet received much attention from researchers.

Recommendations. Adolescents and young adults are at a developmental stage in which they must learn how to independently seek health care and establish patterns of health care use that may last the lifetime. Developing a better understanding of how a history of childhood abuse might influence this developmental task will be helpful in formulating practice and policy regarding childhood abuse identification and appropriate interventions. Clearly, further research is needed. The inconsistency between the findings of this study, with regard to both perception of health and health care usage, and those of other studies underlines the need for further research. If having access to services improves the perception of health among adolescent and young adult abuse victims, ensuring access to care could be a possible intervention.

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