

Post-traumatic stress in former Ugandan child soldiers

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Worldwide, 300 000 children are currently used as child soldiers in armed conflicts. We interviewed 301 former child soldiers who had been abducted by the northern Ugandan rebellion movement Lord's Resistance Army. All the children were abducted at a young age (mean 12.9 years) and for a long time (mean 744 days). Almost all the children experienced several traumatic events (mean six events); 233 (77%) saw someone being killed, and 118 (39%) had to kill someone themselves. 71 children also filled in the impact of event scale--revised to assess their post-trauma stress reactions. 69 (97%) reported post-traumatic stress reactions of clinical importance. The death of a parent, especially of the mother, led to an important increase in score for avoidance symptoms (mother alive 16.4, mother not alive 21.6; $p=0.04$), with a high increase for girls (from 15.1 to 25.8), but almost no change for boys (from 17.7 to 17.4; $p=0.02$). Our findings shed light on the nature of severe trauma experienced by this group of children, and show a high rate of post-traumatic stress reactions.

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The increasingly widespread exploitation of children as soldiers is one of the most vicious characteristics of recent armed conflict. About 300 000 children younger than 18 years are currently serving as soldiers, guerrilla fighters, or in support roles in more than 50 countries around the world.¹

This report focuses on former child soldiers of the northern Ugandan Lord's Resistance Army (LRA). We aimed to look into the nature of trauma experienced by the children during their abduction. Since little scientific research exists with regard to post-traumatic stress disorder (PTSD) in former child soldiers, we also investigate their post-traumatic stress symptoms, with a limited investigation of possible associations between demographic characteristics, experiences during abduction, and post-traumatic stress.

The 16-year-old civil conflict in northern Uganda is an extremely cruel example of using children as soldiers. From the beginning, Joseph Kony's rebellion movement, the LRA, committed serious human-rights abuses against the inhabitants of northern Uganda. Tens of thousands of people have been killed and mutilated, hundreds of thousands displaced, and farming activities and livestock have been totally disrupted. The abduction of children is the main method of recruitment of the LRA and about 90% of recruits are children. An estimated 20 000 children have been abducted; about 8400 of them between June, 2002, and June, 2003.

Since the security situation in northern Uganda has deteriorated substantially since June, 2002, and travelling was almost impossible, the research had to be restricted to former child soldiers living near or in Gulu and Lira town. By an announcement on the radio, the 473 former child soldiers involved in the programme of the organisation Sponsoring Children Uganda were asked to come to the child soldiers' rehabilitation centre, World Vision, in Gulu and to the offices of the Concerned Parents Association in Gulu and Lira. With a semi-structured questionnaire, we interviewed 301 children, all older than 12 years, to obtain basic demographic information and specific knowledge about their experiences during abduction. When necessary, an interpreter was available during the interview.

From the 301 participants, we randomly selected a sample of 75 children, who were asked to complete the impact of event scale-revised (IES-R); 71 children agreed to participate. The IES-R is a self-report scale, parallel to the DSM-IV criteria for PTSD, with a maximum total score of 88; a score of greater than 24 is judged to show clinically significant symptoms.² The scale includes three subscales: intrusion (seven items, maximum score 28), avoidance (eight items, 32) and hyperarousal (seven items, 28).³ The IES-R was translated into Luo and back into English later. Oral consent from the participants was obtained and a psychologist was available to provide support, if necessary.

Descriptive statistics were used to present the characteristics of the whole group, the group who completed the IES-R, and the group who did not. Differences between the last two groups were analysed with χ^2 and Kolmogorov-Smirnov Z tests. Multivariate analysis of variance was used to investigate the association between demographic characteristics, experiences during abduction (sex, mother alive, father alive, and "killed someone"), and the three subscales of the IES-R. Most children had been abducted at a very young age (mean 12.9 years) and for a mean period

of more than 2 years (table 1). Violence was not limited to children: their parents had also been victim of abductions and killings, and 30 (10%) of the interviewed children were orphans. No significant differences in demographic and social variables were found between the children who completed the IES-R and those who did not.

	Total (n=301)	Completed IES-R (n=71)	Did not complete IES-R (n=230)	p
Sex				
Boys	248 (82%)	61 (86%)	187 (81%)	0.37†
Girls	53 (18%)	10 (14%)	43 (19%)	
Age*	18.4 (3.0, 12-28)	18.7 (3.1, 12-28)	18.3 (3.0, 12-28)	0.75‡
Age at abduction*	12.9 (2.8, 1-22)	13.6 (2.6, 9-22)	12.7 (2.9, 1-22)	0.06‡
Period abducted*	744.2 (705.5, 3-2988)	750.2 (704.0, 7-2951)	742.4 (704.8, 3-2988)	0.99‡
Period since return*	1211.8 (779.7, 59-4860)	1109.9 (697.8, 59-3420)	1242.8 (801.9, 72-4860)	0.18‡
Father alive				
Yes	97 (32%)	22 (31%)	75 (33%)	
No	198 (66%)	47 (66%)	151 (66%)	
Unknown	6 (2%)	2 (3%)	4 (2%)	
Reason for death of father	n=198	n=47	n=151	0.41†
Killed	92 (46%)	27 (57%)	65 (43%)	
Disease	42 (21%)	10 (21%)	32 (21%)	
Abducted	4 (2%)	0	4 (2%)	
Other	9 (5%)	3 (6%)	6 (4%)	
Unknown	51 (26%)	7 (15%)	44 (29%)	
Mother alive				
Yes	187 (62%)	43 (61%)	144 (63%)	
No	110 (37%)	26 (37%)	84 (37%)	
Unknown	4 (1%)	2 (3%)	2 (1%)	
Reason for death of mother	n=110	n=26	n=84	0.33†
Killed	35 (32%)	8 (31%)	27 (32%)	
Disease	46 (42%)	13 (50%)	33 (39%)	
Abducted	1 (1%)	1 (4%)	0	
Left	5 (5%)	2 (8%)	3 (4%)	
Unknown	23 (21%)	2 (8%)	21 (25%)	
Location of abduction				
Home	191 (63%)	43 (61%)	148 (64%)	
Along the way§	25 (8%)	6 (8%)	19 (8%)	
School	20 (7%)	6 (8%)	14 (6%)	
Garden	12 (4%)	2 (3%)	10 (4%)	
Other	7 (2%)	2 (3%)	5 (2%)	
Unknown	46 (15%)	12 (17%)	34 (15%)	
Values are numbers (%), unless otherwise indicated. *Data are mean (SD, range). † χ^2 test.				

‡Kolmogorov-Smirnov Z test. §For example, on the way home or to school.

Table 1: Demographic and social variables of former child soldiers abducted by the Lord's Resistance Army

The interviews with the children gave insight into the nature of the experiences they had during their abduction (table 2, panel). On average, children had been exposed to six different traumatic events (median six; range 0-13). 233 children (77%) saw someone being killed during their abduction; 18 (6%) saw their own father, mother, brother, or sister being killed. 118 children (39%) had to kill another person themselves; 7 (2%) killed their own father, brother, or another relative. 184 of the children (61%) lived in Sudan under very difficult conditions; 49 of them (27%) had to drink their own urine. 193 children (64%) were forced to participate in fights, 21 of them (7%) without any military training.

	Number (%) of respondents (n=301)
Had to carry heavy loads	166 (55%)
Was seriously beaten	156 (52%)
Got injured	143 (48%)
Witnessed somebody being killed	233 (77%)
Personally killed another person	118 (39%)
Had to stay in difficult circumstances in Sudan	184 (61%)
Had to drink urine	49 (27%)*
Had to loot properties and burn houses of civilians	189 (63%)
Had to abduct other children	116 (39%)
Was forced into military training	195 (65%)
Had to fight	193 (64%)
Was sexually abused ("given as wife")	21 (35%)†
Gave birth to one or more children in captivity	11 (18%)†
*Percentage of those who stayed in Sudan; none of the children who did not spend time in Sudan reported this experience. †Percentage of girls; boys did not respond to this question.	
Table 2: Type and reported frequencies of traumatic experiences during abduction	

Story of a former Ugandan child soldier

"I was abducted at night from my home on December 26, 1996, by the Lord's Resistance Army. On the way to Sudan, an abducted boy tried to escape. He was recaptured and I had to kill him, by beating him to death with sticks. One day, I was beaten seriously because I dropped a water container during a gunfire. In Sudan, I received military training for 1 month. I learned how to assemble and dismantle a gun. After that, I had to fight both UPDF [Uganda People's Defence Forces] in Uganda and SPLA [Sudan People's Liberation Army] in Sudan. Several times, I went to villages to loot food and abduct other children. One day, I was given to a commander as his wife. I got pregnant and delivered a boy. In a fight with UPDF, I managed to escape, but I had to leave my child in the bush. I don't know what happened to him".

Former Ugandan child soldier; interview in Gulu, Uganda, July 17, 2002.

Results from the IES-R showed very high rates of post-traumatic stress symptoms: 69 (97%) of the 71 children had a clinically significant score. The mean scores on the three subscales were: intrusion 18.2 (median 19; SD 5.8; range 3-28), avoidance 17.8 (18; 6.1; 3-29), and hyperarousal 17.5 (18; 5.6; 4-27); the mean total IES-R score was 53.5 (55; 13.2; 18-81).

The death of the mother led to higher mean avoidance scores (mother alive 16.4, not alive 21.6; $p=0.04$), and the effect differed between boys and girls ($p=0.02$); avoidance scores of girls increased from 15.1 to 25.8, whereas the scores of boys showed almost no change (mother alive

17-7; mother not alive 17-4).

We investigated the experiences and post-traumatic stress reactions of former child soldiers during a conflict. Nearly all the children experienced several severe traumas. Moreover, the post-traumatic stress reactions of these children were severe and widespread: nearly all fell within the clinical range of the IES-R. The current uprising of fighting in northern Uganda might have affected this high proportion of PTSD.

Our findings show that the availability of a parent, and certainly of the mother, could be a protective factor against stress reactions in adverse situations happening to children. Although there was no significant difference between girls and boys in PTSD, there are indications that the death of the mother has more negative consequences for girls than for boys. This finding emphasises the supportive role a parent can play in the recovery of the child.

The age of the child, the period of abduction, and the period between escape and research did not affect PTSD. Even children who escaped quite a long time ago still suffered from post-traumatic stress. Research with children who experienced traumatic events lends support to the finding that post-traumatic stress reactions in children can last for several years.⁴

The number of traumatic experiences and the kind of the trauma experienced seemed to have little effect on the post-trauma reactions. This finding could be ascribed to the fact that the circumstances in which these children had to survive are traumatising in themselves, and it is difficult to distinguish the effect of different types of trauma on post-traumatic stress. Moreover, the effect of a trauma must be linked to the subjective meaning of the events and to the cultural, social, and political context.⁵ Since these former child soldiers are often blamed and stigmatised for the countless atrocities they committed--mostly against their own people--their psychological recovery and reintegration can be seriously complicated.

This study is limited by the reliance on a self-report scale and the small group who filled in the scale. The under-representation of girls in this study leads to a cautious interpretation of sex-related results. Because of the current increase in fighting, no control group could be integrated into the study and we could not address how our findings might be affected by the ongoing war. Information about the pre-war status of the children, and family and socio-demographic factors was unavailable. Finally, we acknowledge the risk of transcultural errors when using psychological measures in other cultural contexts.

Contributors

All authors contributed to the design of the study. I Derluyn and E De Temmerman did the field study in Uganda. G Schuyten and I Derluyn analysed the data. I Derluyn, E De Temmerman, and E Broekaert interpreted the data and, with G Schuyten, wrote the report.

Conflict of interest statement

None declared.

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