The impact of war experiences and physical abuse on formerly abducted boys in northern Uganda

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ABSTRACT
Objective: In this article, war experiences and the impact of physical abuse on formerly abducted boys in Northern Uganda are assessed. **Method:** In a cross-sectional self-report design, Impact of Events Scale – Revised (IES-R), War Experiences Checklist questionnaires were administered to 216 formerly abducted boys between August and November 2004 and data from records at three rehabilitation centres were retrospectively assessed and analysed. **Results:** The boys were exposed to war events, participated in atrocities, were physically abused, and manifested many signs and symptoms of post traumatic stress. Consequently, many were psychologically distressed at the time of the study. **Conclusions:** The psychosocial intervention activities proposed include teaching better coping skills, entrepreneurial skills training, and provision of micro credit facilities.

Keywords: PTS, War, Physical abuse, Psychosocial intervention, Uganda

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Introduction

Globally, there are differences in estimates of consequences of exposure to war situations in young people, especially the adolescent group. Civil wars such as those in Bosnia-Herzegovina, Palestine, Sierra Leone, Cambodia, Sri Lanka, Kuwait, Southern Sudan, Angola, and the Great Lakes region, including Northern Uganda, has resulted not only in the demise of many but untold suffering to children and adolescents. Adolescent boys have particularly been targeted for abduction into rebel forces to provide fighters.[1-6] Physical and psychological changes, and the changing family and peer relations are usually associated with the adolescence stage of development. War makes these changes and transition into adulthood even more difficult. Many studies have reported that physical, behavioural, cognitive, and emotional sequelae such as depression, withdrawal, alienation, posttraumatic stress (PTS), health and physiological malfunctioning are associated with war in adolescents.[7-11]

Since 1986, Northern Uganda has been engulfed in an atrocious war characterized by extreme brutality, abductions, encampment and general loss of human dignity. As a result, about 1.6 million people, most of whom are women, children, and adolescents, are internally displaced. Of the 20,000 adolescents estimated to have been abducted and forced to participate in the war as rebel fighters, sex slaves or porters, 75% are boys.[12] In captivity, the adolescents live in constant terror of sudden attacks from government soldiers, abuse by rebel commanders, threat of death, diseases, and hunger. The adolescents are forced to participate in grisly atrocities against each other and against their communities.[12,13] Some of the adolescents who were abducted by rebels have escaped from rebel captivity or were rescued during battles and are being rehabilitated in centres across Northern Uganda: Gulu Save the Children's Organisation (GUSCO), World Vision Children of War Rehabilitation Centre (WVC), Kitgum Concerned Women's Association (KICWA), Sr. Rachelle Rehabilitation Centre, Concerned Parents' Association (CPA) centres. After rehabilitation, the adolescents are reunited with their parents or close relatives and are reintegrated back into the community.

This study reports on formerly abducted boys undergoing rehabilitation at three trauma centres in Northern Uganda. Many of the boys have lost their parents and family members and were used as child soldiers besides being physically abused while in rebel captivity.[1,2,3,4,12,14] The number of war

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events the boys experienced while in captivity, the post traumatic stress (PTS) related symptomatology manifested by the boys, the nature and extent of physical abuse they endured while in rebel captivity and possible programmes for psychosocial intervention are also reported in this article.

Method

Participants

In a cross-sectional self-report design, questionnaires were administered to 216 formerly abducted boys at three rehabilitation centres in Northern Uganda: World Vision Centre (n=104; 48.1%), Gulu Support the Children's Organisation centre (n=79; 36.7%) and Kitgum Concerned Women's Association centre (n=33; 15.2%). The adolescents were aged 12 – 18 (M = 16.22, SD = 2.21, range = 12-18), among whom there were Catholics (n=146; 67.6%), Anglicans (n=65; 30%) and others (2.4%). The period they spent in captivity ranged from 6 months to 9 years.

Procedures

The centre coordinators briefed the boys about the study and invited those interested to participate. Information about physical abuse and injuries were obtained from the files of the boys kept at the centres. The physical and emotional states of the boys were assessed retrospectively upon admission to the centre. The instruments were all translated and back-translated from English to Luo, the native language of the participants. Data for this study was collected between August and November 2004 from the rehabilitation centres.

Measurements

Medical records and files were checked to obtain information on physical abuse, injuries, and experiences in captivity as well as physical, emotional, cognitive, and behavioural signs and symptoms of psychological states. War experiences were measured using a War Experiences Checklist (WEC) designed specifically for this study. All the records and files were assessed retrospectively. The 22-item Impact of Events Scale – Revised (IES-R) intended to capture the intrusion, hyper-arousal, and avoidance aspects of post traumatic stress disorder was used to measure the degree of PTS symptomatology.[15] In order to interpret the scores in relation to clinical statusls, scores based on the original Impact of Events Scale (IES) were also used.[16] A self-made checklist was used to retrospectively gather other negative life events before and after abduction as a measure to control for their influence on the relationship between PTS symptomatology, psychological sates, and physical abuse and injuries not associated with the number of war experiences.

Demographic characteristics

Demographic characteristics (age, school attendance, religious affiliation, where participant is currently living, school attendance, whether both parents are living or not, length of stay in captivity, time of rescue, etc.) were included in the instruments.

Results

War experiences

The boys in the sample experienced a wide range of war events while in captivity. Table I illustrates the affirmative endorsements to the 46 items on the WEC specifically designed for this study with a mean total score of 25.4 (SD = 5.7, range = 10 - 39). Experiences highly endorsed by the participants were: 'narrowly escaping death', 'death threats', 'long distance treks', 'thinking that they would be killed', etc. Least endorsed were: 'witnessing parent being killed' and 'mutilating captives', 'witnessing the killing of sibling', 'taking part in killing own relatives', etc. Many of the boys were forced to participate in activities while in rebel captivity.

Table I. War Experiences Checklist (N = 216)

	YES	
	n	%
1. I narrowly escaped death	215	99.5
2. I was threatened with death if I failed to obey orders	215	99.5
3. I walked long distances without rest	214	99.1
4. I thought I would be killed	214	99.1
5. I witnessed people being abducted	213	98.6
6. I thought I would never see any of my relatives again	213	98.6
7. I witnessed people being flogged or beaten	212	98.1
8. I carried heavy loads over long distances	210	97.2
9. I saw seriously wounded people	209	96.8
10. I saw dead bodies or body parts	206	95.4
11. I was beaten up in rebel captivity	202	93.5
12. I was told that my parents were already dead	201	93.1
13. I voluntarily escaped from rebel captivity	187	86.6
14. I participated in village raids	185	85.6
15. I heard people shouting or screaming for help	184	85.1
16. I saw people dying of hunger	182	84.3
17. I was sexually abused by rebels	175	81
18. I participated in abduction of other people	167	77.3
19. I witnessed people being killed with machetes, pangas, or knives	159	73.6
20. I witnessed an ambush where people were killed	148	68.5
21. I participated in beating and killing captured escapees	145	67.1
22. I was so hungry I nearly starved to death	130	60.2
23. I was imprisoned in rebel captivity	108	50
24. I witnessed people being mutilated	96	44.4
25. I dropped out of school	83	38.4
26. I lost a family member	78	36.1
27. I survived death after a serious beating	74	34.3
28. I was injured or wounded in battle	56	25.9
29. I participated in battles with government soldiers	51	23.6
30. I was told to lie on dead bodies to give me courage	45	20.8
31. I participated in burning houses without people inside	45	20.8
32. I participated in killing a person (people) during battle(s) apart from relatives	41	19
33. I witnessed the family home being burnt	40	18.5
34. I was arrested from the battlefront	38	17.6
35. I smeared myself with human blood in order to be brave	36	16.7
36. I drank urine instead of water	33	15.3
37. I participated in burning houses with people inside	31	14.4
38. I witnessed people being blown up in a land mine blast	27	12.5
39. I saw a vehicle with passengers blown up in a land mine blast	16	7.4
40. I participated in laying land mines	15	6.9
41. I am the only survivor in the family	13	6
42. I participated in killing my own relatives	12	5.6
43. I witnessed a sibling being killed	11	5.1
44. I participated in mutilating body parts of people captured	11	5.1
45. I was sexually abused by fellow abductees	11	5.1
46. I witnessed my parent being killed	6	2.8

About 85.6% (n = 185) participated in village raids, beating or killing captured escapees (n = 145; 67.1%), often their village mates, relatives or friends and 20.8% (n = 45) burnt houses with people inside and another 5.1% (n = 11) reported that they mutilated captives. Over 5% (n = 11) were sexually abused, and others killed their own relatives or set their own villages on fire. Another 95% saw dead bodies or body parts (n = 206), others saw fellow captives dying of hunger (n = 182; 84.3%), with 15.3% (n = 33), and some reported that they drank urine to quench their thirst where there was no access to water. Some of the boys were forced to lie on dead bodies, carry dismembered body parts, smear themselves with blood, or sleep near dead bodies, practices believed to imbue courage in them and make them hard hearted (a form of combat hardening). Of the total sample, 31.9% (n=69) were physically injured with various forms of physical disability.

PTS symptomatology

Developed to parallel all the Diagnostic Statistical Manual for Mental Disorders fourth edition (DSM-IV) criteria for post traumatic stress disorder (PTSD), i.e. avoidance, intrusion and hyper-arousal, the Impact of Events Scale – Revised (IES-R) is widely used to measure the psychological impact of exposure to traumatic events the world over. 15 In this sample, the boys' IES-R scores (avoidance, intrusion, and hyper-arousal) and the original Impact of Events Scale (IES) – the edition before IES-R - consisting of avoidance and intrusion items only are presented in Table II. The following scores were found for the IES-R scales: avoidance (M = 19.87, SD = 3.19, range = 0 – 32), intrusion (M = 18.54, SD = 2.25, range = 0 – 28), hyper-arousal (M = 18.55, SD = 2.63, range = 0 – 28), total IES-R (M = 56.96, SD = 6.91, range = 0 – 88) and IES (avoidance and intrusion only) – (M = 38.42, SD = 4.76, range = 0 – 60). To be able to interpret the scores according to the clinical levels, the IES scoring ("Not at all" = 0; "Rarely" = 1; "Sometimes" = 3; "Often" = 5) on avoidance and intrusion were used instead of the IES-R scoring on avoidance and intrusion subscales ("Not at all" = 0; "A little bit" = 1; "Moderately" = 2; "Quite a bit" = 3; "Extremely" = 4) which was considered more representative and realistic. The intrusion and avoidance subscales in the IES can be categorised into four clinical levels according to the degree of symptoms and reactions: scores 0 – 8: = sub clinical range; 9 – 25: = mild range; 26 – 43: = moderate range; and 44+: = severe range. In this sample, no boy was in the sub clinical level, 3.3 % (n=7) were in the mild range, 89.8% (n=194) were in the moderate range, and 6.9% (n=15) were in the severe range.[16] Subsequently, all but five boys in the sample had apparently clinically significant PTS symptoms. This is comparable with studies previously conducted in Northern Uganda, Sierra Leone and Rwanda where 97%, 99% and 79% respectively of adolescents surveyed after exposure to war had apparently clinically significant symptoms and reactions.[5,17,18]

Table II. IES-R and IES: mean scores

	Mean	*SD*	*Range*
Avoidance	19.87	3.19	0 – 32
Intrusion	18.54	2.25	0 – 28
Hyper-arousal	18.55	2.63	0 – 28
IES-R total	56.96	6.91	0 - 88
IES	38.42	4.76	0 - 60

Many of the boys in the sample reported that they often tried to stay away from situations or events that reminded them of their experiences such as: 'I was aware that I still had a lot of feelings about it, but I didn't deal with them', 'I avoided letting myself get upset when I thought about it or was reminded of it' and 'I tried not to think about it' to mention but a few. Most reported hyper-arousal symptoms were: 'Reminders of it caused me to have physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart', 'I felt irritable and angry', 'I felt watchful or on guard' and 'I had trouble concentrating'. Despite efforts to keep them off their minds, intrusive images and thoughts such as: 'Any reminder brought back feelings about it', 'I had dreams about it' and 'Pictures about it popped into my mind' were reported by the boys.

Age, number of war experiences, other traumatic life events, and PTS symptomatology

Initial Multiple Regression Analyses (MRA) indicated a non significant effect of duration of stay in captivity on all IES-R subscales (avoidance, hyper-arousal and intrusion) and it was subsequently removed from the MRA model. To investigate the relationship between age, number of war experiences, and other traumatic life events on PTS symptomatology, four MRA's were performed in three blocks. Age was entered in the regression analyses as block 1 where it explained close to 4% of the variance for intrusion ($F (1, 215) = 4.71$; $p < .05$), 12% of the variance for hyper-arousal ($F (1, 215) = 15.93$; $p < .001$), and 8% of the variance for IES-R total scale ($F (1, 215) = 9.75$; $p < .01$). The ANOVA produced a non significant effect of age on avoidance. The results showed that age was significantly and positively related to reporting PTS symptoms of intrusion, hyper-arousal, and overall score on the IES-R. In block 2, other traumatic life events were entered helping to explain about 2% of the variance for intrusion ($F (2, 214) = 3.41$; $p < .05$), less than one percent each of the variance for hyper-arousal ($F (2, 214) = 7.93$; $p < .01$) and IES-R total scale ($F (2, 214) = 5.17$; $p < .01$). Like age, the ANOVA yielded a non significant effect of other traumatic life events on avoidance. This means that other traumatic life events were significantly positively related to intrusion, hyper-arousal, and overall score on the IES-R scale. Finally, war experiences were entered in block 3, thus explaining 9% of the variance for avoidance ($F (3, 213) = 5.18$; $p < .01$), 6% for intrusion ($F (3, 213) = 5.11$; $p < .01$), over 12% for hyper-arousal ($F (3, 213) = 12.34$; $p < .001$) and nearly 13 % of IES-R total ($F (3, 213) = 10.21$; $p < .001$). The percentage of total explained variance ranged from 11% for the prediction of intrusion to 24% for the prediction of hyper-arousal. The number of war experiences significantly predicted all the PTS symptomatology measures while age was a significant predictor of hyper-arousal and IES-R total. Other traumatic life events significantly predicted only the intrusion subscale. The results show that the number of war experiences was significantly and positively related to reporting more PTS symptoms of avoidance, intrusion, and hyper-arousal.

Psychological states

Physical, emotional, cognitive, and behavioural signs and symptoms manifested by the boys that were observed and recorded upon arrival at the centres are listed in Table III. All the boys showed at least one or more of these signs and symptoms. The majority of the boys were malnourished, emaciated with numerous dermatological complaints such as rashes, scars, and wounds. They also had eye problems, muscle aches, sores and generalised body pains. The common emotional signs were sadness, fears, irritability and numerous phobias, especially those associated with their experiences while in rebel captivity. A few, especially the younger ones, were prone to crying. The common cognitive signs included: lack of concentration, confusion, intrusive thoughts, absent-mindedness and incoherent speech patterns. Bedwetting, nail biting and thumb sucking, sleep disturbances, repetitive play and failure to comply with rules and regulations were also common. Many had nightmares and a few were withdrawn and engaged in reckless and self-destructive activities. Others were suspicious and found it difficult to stay in one place for a long time.

Nature and extent of physical abuse

Immediately after abduction, the boys were inducted into rebel ranks by beating them between 50 and 100 strokes of the cane depending on the commander of the unit they were abducted into. They were anointed with ochre and oil by making a sign of the cross on their foreheads, chests, on the backs, palms, and on the back of their hands. In some instances, the boys were made to smear themselves with or lick human blood. After this ritual of initiation, they were given basic military training and sent to battlefronts or to raid villages for food items. During battles the new recruits often formed a human shield to protect the commanders from the fire of government forces. The majority perished in this way whilst others sustained debilitating injuries that left them maimed. The physical tortures included: beating with sticks and wires several times a day, slapping with machetes, tying them and dragging them on the ground, hard labour: digging from dawn to dusk, and carrying heavy loads. The majority of the boys had large scars on their shoulders, heads, and arms reportedly as a consequence of carrying heavy ammunitions, foodstuffs, sick and wounded commanders over very long distances.

Discussion

Generally, war experiences are associated with numerous health problems among adolescents. This study set out to assess the number of war experiences, PTS symptomatology, psychological states, and the nature and the extent of physical abuse endured by the boys while in captivity and the injuries they had sustained in captivity and suggest possible programmes for psychosocial intervention.

War experiences

The life in captivity consisted of severe wartime experiences and scenes with very strong mental images in accord with previous studies conducted in Bosnia-Herzegovina, Palestine, Sierra Leone, Cambodia, Kuwait, Rwanda, and Sri Lanka.[1-6,17-24] In a study with formerly abducted children in Northern Uganda, it was indicated that up to 97% showed PTSD related reactions of clinical significance.[6] Some of the boys had fewer but severe war experiences while others had more traumatic life events besides war experiences. The limitation here is that the number of experiences depended on self-reports. In a climate of war resonant with fear of retribution, shame or guilt, and the heinous activities they were forced to participate in besides the abuse and humiliation, the boys might have under reported their experiences. However, the rapport established by the research assistants could have limited underreporting.

The boys continue to live in surroundings fraught with wanton violence and amidst a variety of traumatic reminders of communities traumatised by the same war. The 'unspeakable viciousness' by the rebels has created anxiety, fear and despair in the population. Loss, grief, antipathy, hatred, vendettas, societal dislocation, lack of trust, dysfunctional families, material deprivations, interruption of schooling and social networks and the uncertainty about when the war will end are possible sources of new traumas for them. These additive factors may further exacerbate the situation, thus making it difficult to come to terms with what happened and delaying the healing process.

Table III Summary of Signs and Symptoms from records and observations at the centres

PHYSICAL SIGNS	*EMOTIONAL SIGNS*	*COGNITIVE SIGNS*	*BEHAVIOURAL SIGNS*
• Malnourished and emaciated • Dry lips • Poor hygiene: • Chest infections and bad coughs • Fevers • Dermatological complaints: rashes, scars, wounds, etc. • Ear, nose and throat problems • Excessive sweating • Muscular Pain • Twitching eyes • General fatigue	• Sadness • Anxiety • Fears and worries • Stress • Depression • Irritability • Bitterness • Disillusionment • Hopelessness • Crying, screaming and groaning • Phobias related to experiences in rebel captivity	• Intrusive thoughts • Confusion • Lack of concentration • Absentmindedness • Incoherent speech pattern	• Crying • Nightmares and other Sleep disturbances • Lack of body care • Day dreaming • Thumb sucking • Enuresis • Biting • Difficulty complying with rules at the centre • Repetitive play • Extreme suspicion • Reckless and sometimes self-destructive activities. • Loss of interest in play/games. • Social withdrawal. • Difficulty staying in one place for long.

Physical abuse

The boys were not only subjected to physical abuse by rebels but also by fellow abductees. The senior rebel commanders allegedly deliberately set the boys against each other to create an atmosphere of extreme suspicion and mistrust to keep them in the rebel ranks. Many of the boys bear large scars on their bodies, constantly reminding them of the torture they underwent while in rebel captivity. The boys bear scars on their feet, shoulders and heads as a result of walking long distances, carrying heavy loads such as, the wounded or sick commanders, big guns and ammunitions and food items. These are consistent with findings in Rwanda and Sierra Leone after the genocide and civil war respectively.[3,4,6,17,18] Although reported by only 5% (n=11) of the boys, sexual abuse could have happened to other boys as well. Societal attitudes and the sexist and traditional beliefs that men, even as children, are invulnerable to sexual victimization often leave boys confused, ashamed, guilty, humiliated, and in denial of sexual abuse.

PTS symptomatology

After controlling for other factors such as age, duration of stay in captivity, war experiences, and other traumatic life events, the number of war experiences significantly explained between 6 and 13% of the variance in avoidance, intrusion, hyper-arousal, and IES-R total scale. The majority of the boys had very high scores on the IES-R scales often associated with PTSD in many western societies. This is consistent with previous studies in Northern Uganda, Sierra Leone and Rwanda where the adolescents surveyed scored very high on IES-R subscales and showed clinically significant PTSD symptoms and reactions.[6,17,18] Furthermore, the boys reported high avoidance activities, intrusive thoughts and images besides hyper-arousal symptoms. Like in the Sierra Leone and Rwanda study, several limitations need to be considered. Without a thorough and sufficient diagnosis of PTSD, it is not possible to specify that all the clinically significant cases meet the criteria for PTSD. Preferably, measures developed and authenticated for this particular culture could have been used. However, such measures are not available in many African countries including Uganda. Despite criticism of using measures developed in the West and cultural differences in registering trauma, recent studies show that massive trauma transcends cultural and social barriers.[25,26,27] In sum, the high scores indicate a high degree of psychological distress.

Limitations

The reliabilities for the subscales in the different instruments used were low for this sample. This could have been due to cultural dissimilarity in the interpretation of the different clusters of items, which could have unintentionally affected instrument validity. The instruments might have been developmentally suitable for adolescents in Western societies but not for those in developing countries such as Uganda. However, recent research on mental health consequences of war in Africa show that Western conceptualisation of PTSD might have validity in Africans and survivors manifesting PTSD symtomatology.[9] Alternately, the shocking brutality and cruelty associated with this war can only be compared to others with great caution and statistical computations can never possibly fully characterise the harrowing consequences of the war on the boys.

Considering the limitations of the cross sectional survey design and the implications for the validity and reliability of the study, the results of this study will need to be interpreted with caution. Generalizing the findings beyond the sample would be possible after several replications and longitudinal studies with other similar samples and populations. It is also important to realise that the samples comprised predominantly adolescent boys exposed to war situations and that some of the boys in this sample were not only victims of violence but also perpetrators or both. Therefore, the results can only be generalised beyond this sample with caution. Relationships obtained in this study could have been influenced by a convergence of factors such as personality differences or situational demands, problems the adolescents were facing before the study, the conditions, treatments and programmes at the centres, and cultural differences in coping.

Relying mainly on the boys' self-report questionnaires could have posed another limitation on the study. Although other studies have supported the use of self-report questionnaires with children, others have criticised it for overestimating psychological distress.[28-30] Another weakness of the study could have been individual response styles that might have caused some bias. This could have resulted in over- or underreporting of PTS symptoms. In the absence of diagnostic interviews, no strong claims can be made about causality or course of influence regarding PTS symptomatology. Finally, it is important to note that the data for this study were also collected in a war situation from boys not more than six months after their ordeal in rebel captivity. This might have led to under reporting due to fear as the war was still going on.

Implications for psychosocial intervention

As shown in the results and consistent with earlier findings, the psychological distress associated with the war experiences, physical abuse, the high levels of avoidance, intrusion and hyper-arousal may make the boys less prone to process the trauma. This places them at greater risk of psychopathology, poor information processing, substance abuse, low self-esteem, suicidal ideation, stigmatisation and negative stereotypes from the society, other dehumanising consequences of war and exposure to violence. A psychosocial intervention should therefore recognise the divergent but interrelated needs and cultural context in which the boys are going to be integrated. From the results of this study, the following have been proposed as possible programme activities in a psychosocial intervention in relatively more secure parts of Northern Uganda where the boys can be reintegrated:

- Very crucial to the needs of the boys is what the future holds for them. Therapies alone will not restore any hope in the boys who already see the future as bleak and hopeless and the communities to which they are to be reintegrated awash with poverty. Many of them would like to go back to school or train in technical or entrepreneurial skills to give them a means of livelihood. Therefore, entrepreneurial training and micro credit facilities should form part of the psychosocial programme.
- The experiences of war events cannot be changed. However, what can be changed is how the boys think

about it. Cognitive processes might help in the management or regulation of emotions or feelings, and self-control in the face of emotionally arousing or life threatening events. Psychosocial intervention programmes should be directed not only at changing cognitive strategies that render the boys vulnerable to psychological distress or future psychopathology (such as 'denial', 'rumination', 'exaggerating catastrophies' and 'blaming others'), but also teaches them cognitive strategies that enhance their psychological well being (such as 'putting into perspective', 'proactive acceptance', 'positive refocusing', 'positive reappraisal', and 'refocus on planning'). Cognitive processes might help in the management or regulation of emotionally arousing or life threatening events. However, attention to cognitive therapeutic needs must be complemented by equal attention to emotional and developmental needs.

- Drama, games and sport can be helpful in teaching people who have had adverse life events how to relate with one another, play by the rules, improve self-esteem and morale, restore the severed bonds between individuals, build trust and gain confidence in themselves again.
- Psycho education is helpful not only for the boys and their peers but also for the community (community leaders, parents, care givers, mentors, etc.) in which they will eventually be reintegrated. This can be done by strengthening community resources and teaching people on ways of coping with trauma, stress management, conflict resolution and management and where to go for help or advice in case of problems. This can be developed and promoted via radio broadcasts in close collaboration with community support on the ground.
- Because of the big number of survivors involved and lack of trained personnel, group counselling is more preferable and probably readily culturally acceptable. However, individual counselling can also be adapted to suit the community setting. For example, in the communities where the boys are to be reintegrated, godmothers, religious leaders and elders can be identified, trained and supported to counsel the boys.
- Other studies in similar situations have indicated that traumatic experiences may lead to risks of retraumatisation such as survivors engaging in substance abuse, poor information processing, poor self-protective behaviours, and domestic violence. Techniques that teach competence in coping and dealing with trauma, problem solving, anger management, communication of feelings, planning for the future and other social skills should be integrated in the treatment plans for psychosocial rehabilitation. Rational Emotive Behaviour Therapy, where the boys are taught how to identify their irrational beliefs and behaviours, question them, and replace them with rational ones can be very useful in this regard.[31]
- At the rehabilitation centres, traditional dances can be very helpful in relieving tensions and helping to improve or rejuvenate the boys' self-esteem. Story telling can also be very helpful in encouraging people to talk about their ordeal and can make social workers and counsellors gain insight into the problems and challenges the boys are facing. In talking about their ordeal, the boys may be encouraged to seek psychological assistance in future.
- In line with traditional practice and beliefs of the local people, when war events and experiences such as the boys have had take place, certain rituals are performed to cleanse people involved of bad "spirits" and to appease the gods. However, this should be carried out only when the participants and their parents or guardians believe in the practice. Traditional practices have been carried out in several theatres of war such as in Mozambique, Angola, and Sri Lanka, with some degree of success.[32-34]

Conclusion

This study is a preliminary step in understanding the association between the number of war experiences and PTS symptomatology, mental states, and the physical abuse of the formerly abducted boys. Longitudinal studies are vital to accurately reflect the long-term effects of war trauma and to appreciate the whole course of traumatic reactions and coping within the cultural and traditional context. More studies are required to delineate developmental, cognitive and cultural factors, which mediate in response to subsequent effects of trauma and physical abuse the boys were subjected to. In addition, the extent to which additive factors influence coping will also need to be explored in addition to how massive trauma exposure is mediated by additive factors or vice versa. Lastly, the role of pre-war, peri-war, and post war factors and their relative roles in predicting PTS symptomatology and other mental health issues should be investigated.

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