In this article, war experiences, psychological symptoms, post traumatic stress disorder (PTSD) symptomatology, and the physical and sexual abuses of formerly abducted girls in Northern Uganda were assessed. In a cross-sectional self-report design, questionnaires were administered to 123 formerly abducted girls. Data originating from records at three rehabilitation centres were analysed. The girls had been exposed to horrific war events, participated in shocking atrocities, were physically and sexually abused, and diagnosed with diseases resulting from their abduction. As a result, many are psychologically distressed. There are child mothers and a few were pregnant at the time of the study. Training in entrepreneurial skills and teaching better coping skills are suggested as activities in psychosocial intervention.

**Key words:** PTSD, psychological states, war, sexual abuse and diseases, girls, Uganda

**Introduction**

Worldwide, there are varying estimates of young peoples’ exposure to war, especially in the adolescent age group. Adolescence is recognised as a particularly stressful period of development in which physical, social, and intellectual transformation, adjustment, and challenges of changing family and peer relationships, all must be coped with simultaneously. Coupled with war, this transition is not only made more difficult, but often associated with numerous mental health, behavioural, and emotional consequences. These include: depression, withdrawal, alienation, post traumatic stress disorder (PTSD), health, and physiological malfunctioning. There was also a general impact on a variety of cognitive frameworks that order their experiences regarding relationships with self, others, and the future (Janoff-Bulman, 1995; Norris, Kaniasty, & Thompson, 1999; Tedeschi, 1999; Kaplan, 2001; Allwood, Bell-Dollan & Husain, 2002; Sedat, Nyamai, Njenga, Vythilingum & Stein, 2004). Civil wars, such as those in Bosnia-Herzegovina, Palestine, Sierra Leone, Cambodia, Kuwait, Southern Sudan, Angola, and the Great Lakes region including Northern Uganda, has resulted in not only the demise of many, but also untold suffering by children and adolescents. Adolescent girls are especially and severely impacted (Human Rights Watch, 1997; Human Rights Watch, 2003). Systematic rape and other forms of sexual abuse of women and girls have been reported in many war zones around the world. In Bosnia Herzegovina, Burundi, Sierra Leone, and Northern Uganda, systematic rape, forced marriages and other forms of sexual abuse are often used as a tool of war. Past studies have indicated that female adolescents are up to six times more likely than male
adolescents to develop PTSD symptomatology. Yet, male adolescents tend to report more exposure to violence than their female counterparts, often due to the sexual nature of the violence (Springer & Padgett, 2000).

Since 1986, Northern Uganda has been engulfed in an extreme and violent conflict between government forces and rebels, resulting into large scale internal displacement, abductions of over 26,000 children, death, destruction of homes, basic infrastructure and services like education and health. In this conflict, adolescent girls have lost their parents and family members. Many were abducted, used as child soldiers, and physically and sexually abused while in rebel captivity (Human Rights Watch, 1997; UNICEF, 1998; Human Rights Watch, 2003; Amoné-P’Olak, 2003; Amnesty International, 2004).

This study reports on formerly abducted girls undergoing rehabilitation at three trauma centres in Northern Uganda. The aim of the study was to: report war experiences the girls survived while in captivity, the psychological states and PTSD symptomatology manifested by the girls, the nature and extent of sexual abuse they survived while in rebel captivity, and any sexually transmitted diseases they presented upon admission to the centres.

Methodology

Participants. One hundred and twenty-three formerly abducted adolescent girls at three rehabilitation centres in Northern Uganda: World Vision Trauma Centre (59, 48%), Gulu Support the Children’s Organisation centre (45, 36.6%) and Kitgum Concerned Women’s Association centre (19, 15.4%) agreed to participate in the study. Age groups were: 12 - 18 (M = 16.22, SD = 2.21, range = 12-18). Most of them reported they were Catholics (84, 68.3%) followed by Anglicans (36, 29.3%). The period they spent in captivity ranged from 6 months to 9 years. Of the total sample, 39 (32%) were child mothers with one or more children. Fifteen lost their children while in captivity and six were pregnant during the time of the study.

Procedures. The centre coordinators briefed the girls about the study and invited interested girls to participate. Information about physical, sexual abuse, and sexually transmitted diseases was obtained from the files of the girls recorded at the centres. The instruments were translated and back-translated from English to Luo, the primary native language of the girls.

Measurements. Individual medical records and files were checked to obtain information on physical and sexual abuse, diagnosis of sexually transmitted diseases, experiences in captivity and physical, as well as emotional, cognitive, and behavioural symptoms of psychological states. The girls’ war experiences were also measured using a War Experiences Checklist (WEC) designed specifically for this study.

PTSD symptomatology. The 22-item Impact of Events Scale – Revised (IES-R) intended to capture the intrusion, hyper-arousal, and avoidance aspects of PTSD, was the instrument used to measure the degree of PTSD symptomatology. A self-made checklist to gather other negative life events before and after abduction was used as a measure to control for their influence on relationships between PTSD symptomatology, psychological states, sexual abuse and sexually transmitted diseases not associated with war experiences.

Demographic characteristics. Demographic characteristics (age, school attendance, religious affiliation, where participant is currently living, whether both parents are living or deceased, length of stay in captivity, time of rescue, etc.) were included in the instruments.

Results

War experiences. The girls in the sample experienced a wide and extreme range of war
Table 1. War Experiences Checklist ($N = 123$)  

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$n$</td>
</tr>
<tr>
<td>1. I narrowly escaped death</td>
<td>122</td>
</tr>
<tr>
<td>2. I was threatened with death if I failed to obey orders</td>
<td>121</td>
</tr>
<tr>
<td>3. I walked long distances without rest</td>
<td>120</td>
</tr>
<tr>
<td>4. I thought I would be killed</td>
<td>120</td>
</tr>
<tr>
<td>5. I witnessed people being abducted</td>
<td>120</td>
</tr>
<tr>
<td>6. I thought I would never see any of my relatives again</td>
<td>118</td>
</tr>
<tr>
<td>7. I witnessed people being flogged or beaten</td>
<td>118</td>
</tr>
<tr>
<td>8. I carried heavy loads over long distances</td>
<td>113</td>
</tr>
<tr>
<td>9. I saw seriously wounded people</td>
<td>112</td>
</tr>
<tr>
<td>10. I saw dead bodies or body parts</td>
<td>110</td>
</tr>
<tr>
<td>11. I was beaten in rebel captivity</td>
<td>109</td>
</tr>
<tr>
<td>12. I was told that my parents were dead</td>
<td>108</td>
</tr>
<tr>
<td>13. I voluntarily escaped from rebel captivity</td>
<td>107</td>
</tr>
<tr>
<td>14. I participated in village raids</td>
<td>98</td>
</tr>
<tr>
<td>15. I heard people shouting or screaming for help</td>
<td>97</td>
</tr>
<tr>
<td>16. I saw people dying of hunger</td>
<td>93</td>
</tr>
<tr>
<td>17. I was sexually abused by rebels</td>
<td>89</td>
</tr>
<tr>
<td>18. I participated in abduction of other people</td>
<td>86</td>
</tr>
<tr>
<td>19. I witnessed people being killed with machetes, pangas, or knives</td>
<td>81</td>
</tr>
<tr>
<td>20. I witnessed an ambush where people were killed</td>
<td>78</td>
</tr>
<tr>
<td>21. I participated in beating and killing captured escapees</td>
<td>67</td>
</tr>
<tr>
<td>22. I was hungry and nearly starved to death</td>
<td>63</td>
</tr>
<tr>
<td>23. I was imprisoned in rebel captivity</td>
<td>55</td>
</tr>
<tr>
<td>24. I witnessed people being mutilated</td>
<td>54</td>
</tr>
<tr>
<td>25. I dropped out of school</td>
<td>47</td>
</tr>
<tr>
<td>26. I lost a family member</td>
<td>46</td>
</tr>
<tr>
<td>27. I survived death after a serious beating</td>
<td>43</td>
</tr>
<tr>
<td>28. I was injured or wounded in battle</td>
<td>39</td>
</tr>
<tr>
<td>29. I participated in battles with government soldiers</td>
<td>36</td>
</tr>
<tr>
<td>30. I was told to lie on dead bodies to give me courage</td>
<td>31</td>
</tr>
<tr>
<td>31. I participated in burning houses with no people inside</td>
<td>25</td>
</tr>
<tr>
<td>32. I participated in killing a person (people) during battle(s) apart from relatives</td>
<td>22</td>
</tr>
<tr>
<td>33. I witnessed the family home being burnt</td>
<td>20</td>
</tr>
<tr>
<td>34. I was arrested from the battlefront</td>
<td>19</td>
</tr>
<tr>
<td>35. I smeared myself with human blood in order to be brave</td>
<td>17</td>
</tr>
<tr>
<td>36. I drank urine instead of water</td>
<td>16</td>
</tr>
<tr>
<td>37. I participated in burning houses with people inside</td>
<td>15</td>
</tr>
<tr>
<td>38. I witnessed people being blown up in a land mine blast</td>
<td>14</td>
</tr>
<tr>
<td>39. I saw a vehicle with passengers blown up in a land mine blast</td>
<td>12</td>
</tr>
<tr>
<td>40. I participated in laying land mines</td>
<td>12</td>
</tr>
<tr>
<td>41. I am the only survivor in my family</td>
<td>10</td>
</tr>
<tr>
<td>42. I participated in killing my own relatives</td>
<td>8</td>
</tr>
<tr>
<td>43. I witnessed a sibling being killed</td>
<td>5</td>
</tr>
<tr>
<td>44. I participated in mutilating body parts of people captured</td>
<td>5</td>
</tr>
<tr>
<td>45. I was sexually abused by fellow abductees</td>
<td>4</td>
</tr>
<tr>
<td>46. I witnessed my parent(s) being killed</td>
<td>2</td>
</tr>
</tbody>
</table>
events while in captivity. Table 1 illustrates the affirmative endorsements of the 46 items on the WEC specifically made for this study, with a mean total score of 23.5 (SD = 6.32, range = 8 - 38). Experiences most often cited by the participants were: ‘narrowly escaping death’, ‘death threats’, ‘long distance treks’, and ‘thinking that they would be killed’, among others. Least cited were: ‘witnessing parent being killed’, ‘sexual abuse by fellow abductees’, ‘mutilating captives’, ‘witnessing the killing of sibling’, ‘taking part in killing relatives’, etc. Some of the girls were forced to participate in gruesome and grisly events while in rebel captivity. About 79.7% (n = 98) participated in village raids, beating or killing captured escapees (often their village acquaintances, relatives or friends) (n = 67, 54.5%), 12.2% (n = 15) were forced to burn houses with people inside, and another 4% (n = 5) reported that they mutilated captives. Over 72.4% (n = 89) were sexually abused; others killed their own relatives or set their own villages on fire. Over 91% saw dead bodies or body parts (n = 112), others saw other captives dying of hunger (n = 93, 75.6%), with 13% (n = 16) reporting that they drank urine to quench their thirst in the wilderness where there was no access to water. Others 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.

PTSD symptomatology. Developed to parallel the Diagnostic Statistical Manual for Mental Disorders fourth edition (DSM-IV) criteria for PTSD, i.e. avoidance, intrusion and arousal. The Impact of Events Scale – Revised (IES-R) is widely used to measure the psychological impact of exposure to traumatic events globally (Weiss & Marmar, 1997). In this sample, the girls’ IES-R scores (avoidance, intrusion, and 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 2. The following scores were found for the IES-R scales: avoidance (M = 19.84, SD = 2.96, range = 0 - 32), intrusion (M = 18.54, SD = 2.06, range = 0 - 28), arousal (M = 18.58, SD = 2.57, range = 0 - 28), total IES-R (M = 56.96, SD = 6.38, range = 0 – 88) and IES - avoidance and intrusion only – (M = 41.07, SD = 4.72, range = 0 – 60). The intrusion and avoidance subscales in the IES-R 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 girl was in the sub clinical level, 1 (0.81%) was in the mild range, 96 (78.05%) were in the moderate range, and 26 (21.14%) were in the severe range. Subsequently, all but one girl had apparently clinically significant PTSD symptoms. This is comparable with studies in Sierra Leone and Rwanda where 99% and 79% respectively of adolescents surveyed after exposure to the war had apparently clinically significant symptoms and reactions (Horowitz, Wilner, & Alvarez, 1979; Jong, Mulhern, & Van der Kam, 2000; Dyregrov, Gupta, Gjestad, & Mukahoheli, 2000). Many of the girls in the sample reported that they often avoided situations or events that reminded them of their experiences. Some typical comments were: ‘I was aware that I still had a lot of feelings about it, but I didn’t deal with them’, ‘I avoided getting upset when I thought about it or was reminded of it’ or, ‘I tried not to think about it’. Most reported arousal symptoms were: ‘reminders of it caused me to have physical responses, such as sweating, breathing problems, nausea, or heart pounding’, ‘I felt irritable and angry’, ‘I felt watchful or, on guard’ or, ‘I had trouble...
concentrating’. Despite efforts to avoid them, intrusive images and thoughts such as: ‘any reminder brought back feelings about it’, ‘I had dreams about it’, or ‘pictures about it popped into my mind’ were reported.

Psychological states. Physical, emotional, cognitive, and behavioural signs and symptoms manifested by the girls that were observed and recorded upon arrival at the centres are listed in Box 1. All the girls showed at least one or more of these signs and/or symptoms. The majority of the girls were malnourished and emaciated with numerous dermatological complaints such as rashes, scars, and wounds. They also had eye problems, muscle aches, sores, and pains. Those who had reached menarche were having irregular menstrual cycles. Some of them who had already reached puberty and had started their menstrual periods did not menstruate, although resident at the centre for some time. They were depressed and expressed fears that they could not have children in the future because of their condition. The common emotional signs were sadness, fears, irritability, and numerous phobias, especially those associated with their experiences while in rebel captivity. A few, in particular the younger girls, were prone to crying. The common cognitive signs included: lack of concentration, confusion, intrusive thoughts, absent-mindedness, and incoherent speech patterns. Bedwetting, nail biting, thumb sucking, sleep disturbances, repetitive play, and failure to comply with rules and regulations were common. Many had nightmares. 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 sexual abuse. Immediately after abduction, the girls were inducted into rebel ranks by beating them between 15 and 100 strokes of the cane depending on the commander of the unit they were abducted into, anointing them with ochre and oil by making a sign of the cross on the forehead, chest, on the back, palm, and on the back of the hand. In some instances, the girls were forced to smear themselves with, or lick, human blood. After initiation the girls considered to be of age, usually thirteen years and above, were allocated (forcefully married) to those seen as trusted and loyal fighters by their commanders as rewards. Those who refuse their ‘husbands’ were beaten and threatened with death until they succumbed. Those who were considered underage were allocated to the wives of rebel commanders to serve as babysitters and domestic servants. With the exception of

<p>| | | |</p>
<table>
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<tbody>
<tr>
<td>Avoidance</td>
<td>19.84</td>
<td>2.96</td>
</tr>
<tr>
<td>Intrusion</td>
<td>18.54</td>
<td>2.06</td>
</tr>
<tr>
<td>Arousal</td>
<td>18.58</td>
<td>2.57</td>
</tr>
<tr>
<td>IES-R total</td>
<td>56.96</td>
<td>6.38</td>
</tr>
<tr>
<td>IES</td>
<td>41.07</td>
<td>4.72</td>
</tr>
</tbody>
</table>

Table 2. Average IES-R and IES mean scores
those who were pregnant or had babies, all girls underwent military training and were often sent to the battlefronts. Both the girls married off forcefully, and those allocated to the rebel commanders’ wives, were mistreated, and usually physically tortured. The physical tortures included: beating with sticks 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 abuse took the forms of beating whenever a child they were babysitting cried, denying them food and water to bathe, scratching them with knives, burning their hands or fingers for minor offences, fetching water with a spoon until a 20 litre jerry can is filled, etc. Box 2 contains some of the excerpts of the stories the girls narrated about how they were forcefully married off, and sexually and physically abused.

The medical records at the centre indicated various sexually-related complaints such as pelvic pains, abdominal pains, abnormal vaginal discharge and diseases such as syphilis, gonorrhoea, genital warts, bacterial vaginosis, vaginal candidiasis, pelvic inflammatory disease, and amenorrhoea among others (Table 3).

**Discussion and Conclusion**

Generally, war experiences are associated with numerous health problems among adolescents. This study set out to assess the number of war experiences, PTSD symptomatology, psychological states, and the nature and the extent of physical and sexual abuse endured by the girls while in captivity, as well as the STDs they presented upon admission to the centres.

*War experiences.* The life in captivity consisted of severe wartime experiences and scenes with very strong mental imprints. This was consistent with previous studies conducted in Bosnia-Herzegovina, Palestine, Sierra Leone, Cambodia, Kuwait, and Rwanda (Al-Eissa, 1995; Goldstein, Wampler & Wise, 1997;...
Box 2  Excerpts from some of the stories of sexual abuse meted out to the girls in rebel captivity

**Grace**, 18 years old, was abducted when she was 13 and remained in captivity for five years. Before abduction, she had started her menarche, but was a virgin. For the past four months at the centre, she has not had her menstrual period, yet is not pregnant. She was diagnosed with gonorrhoea and genital warts upon admission to the centre. She complains of pelvic and abdominal pains and abnormal vaginal discharge. She fears she might not have children in future. Upon reaching rebel camp after her abduction, she was immediately allocated to an old rebel leader with grey hair. She says the man must have been older than her father. He had more than 10 wives and over 20 children. She tried to refuse but was severely beaten and threatened with death before she gave in. Even when she complained to the old man to spare her because sexual intercourse was very painful for her, he did not listen. She had a child with him at 15. Although the old man tried to treat her nicely afterwards, she did not like him. Her other “co-wives” were envious of her and mistreated her severely. Once when the old man was away, she was stabbed with a knife and her food taken away. When the old man returned, the other women falsely accused her of mobilising them to escape. As punishment, she was forced to bite to death another young girl who attempted an escape, but was caught. After two days, the girl she had been forced to bite was still alive, so she was forced to beat her with a huge stick on the head until she died. She was then forced to smear herself with the blood and put a sign of the cross on her forehead. This horrified her. On top of the sordid atrocities she herself was forced to commit, **Grace** also witnessed a number of grisly actions committed by the rebels. A beautiful girl with whom she had been abducted was killed because the rebel commanders fought over her. The senior commander intervened by ordering the girls’ death to avert problems in the rebel ranks that might be caused by the rivalry. One night, she decided to escape with her three year old child and walked for two weeks before reaching the nearest Internally Displaced People’s Camp (IDPC) where she reported to the authorities, and was brought to the centre where she is receiving counselling and treatment for STDs.

**Joyce** is 17 and was abducted at 10. She has 3 children fathered by 2 different rebel commanders. After the father of her first child was killed at the battlefront, she was allocated to another rebel with whom she had her second and third child. She was rescued from a Sick Bay together with her second ‘husband’ who had been wounded in a battle with government troops and whom she was nursing. He later died of his wounds in a government military facility. The father of her second and third child had severely mistreated her and accused her of being a witch, thus bringing bad luck to him and responsible for the death of the father of her first ‘husband’. He beat her several times with wire-locks and a leather belt. Even when he was injured, he would bite her as she nursed him. She has scars all over her body as a result of this abuse. She was forced to murder two village friends who had tried to escape but were caught by cutting them to pieces. Even when he was injured, he would bite her as she nursed him. She has scars all over her body as a result of this abuse. She was forced to murder two village friends who had tried to escape but were caught by cutting them to pieces. With others, **Joyce** was forced to burn the remains, and use the knife used to kill the soldier to cut cabbages and meat that she cooked and ate with the others. The scene comes to her mind constantly and cannot eat cabbages or meat anymore. The mere sight of cabbages and meat makes her throw up. At the centre, she has complained of abnormal vaginal discharge, pelvic and abdominal pain, and was diagnosed with syphilis, genital warts, pelvic inflammatory disease, and genital herpes. **Joyce** is at the centre with three other girls with whom she shared the second man. She is receiving counselling and treatment at the centre, as well as being treated for STDs at the nearby district hospital. Although she is sad, depressed, and has nightmares, she hopes to recover.
Thabet & Vostanis, 1999; Dyregrov, et al., 2000; Jong, et al., 2000; Smith, Perrin, Yule, Hacam & Stuvland, 2002; Thabet, Abed, & Vostanis, 2002; Kline & Mone, 2003). Some of the girls had fewer but more severe war experiences, while others had more traumatic life events as well as 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, and guilt, the girls who were forced to participate in heinous activities, and were physically and sexually abused as well as humiliated might have under-reported their experiences. However, the rapport established by the research assistants could have limited under-reporting.

The girls continue to live in surroundings fraught with wanton violence and amidst a variety of traumatic reminders within 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, social dislocation, lack of trust, dysfunctional families, material deprivations, interruption of education and social networks, added to the uncertainty about when the war will end are all possible sources of new traumas for these girls. These additional factors could further exacerbate the situation, thus making it difficult to come to terms with what happened and delay the healing process.

Physical abuse. The girls were not only subjected to physical abuse by rebels but also by senior rebel commanders’ wives to whom they were allocated as domestic servants. Many of the girls carry large and ugly scars on their bodies, constantly reminding them of the torture they underwent while in rebel captivity. The girls bear scars on their feet, shoulders and heads as a result of walking long distance, carrying heavy loads such as fresh cassava, beans, other food items, as well as guns and ammunition. These are consistent with findings in Rwanda and Sierra Leone after the genocide and civil war, respectively (Jong, et al., 2000; Dyregrov, et al., 2000).

Sexual abuse. After abduction, the girls were simply distributed, or forcibly married off, to

<table>
<thead>
<tr>
<th>Complaint</th>
<th>Frequency (n)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdominal pains</td>
<td>92</td>
<td>74.80</td>
</tr>
<tr>
<td>Pelvic pains</td>
<td>89</td>
<td>72.36</td>
</tr>
<tr>
<td>Vaginal candidiasis</td>
<td>83</td>
<td>67.48</td>
</tr>
<tr>
<td>Gonorrhoea</td>
<td>74</td>
<td>60.16</td>
</tr>
<tr>
<td>Genital warts</td>
<td>67</td>
<td>54.47</td>
</tr>
<tr>
<td>Abnormal vaginal discharge</td>
<td>65</td>
<td>52.85</td>
</tr>
<tr>
<td>Syphilis</td>
<td>64</td>
<td>52.03</td>
</tr>
<tr>
<td>Bacterial vaginosis</td>
<td>51</td>
<td>41.46</td>
</tr>
<tr>
<td>Pelvic inflammatory disease</td>
<td>43</td>
<td>34.96</td>
</tr>
<tr>
<td>Amenorrhoea</td>
<td>42</td>
<td>34.15</td>
</tr>
<tr>
<td>Genital herpes</td>
<td>33</td>
<td>28.83</td>
</tr>
</tbody>
</table>

Table 3: Common sexually-related complaints encountered by formerly abducted girls

Psychological impact of war and sexual abuse on adolescent girls in Northern Uganda

Intervention 2005, Volume 3, Number 1, Page 33 - 45
the rebel fighters judged loyal and daring by
the rebel commanders. A 13 year old was
amongst the girls pregnant at the time of the
study. Targeting young girls is a deliberate
policy of the rebels who believe that young
girls are free of STDs including Human
Immunodeficiency Virus/Acquired Immuno-
deficiency Virus (HIV/AIDS) and so
would not infect them. The rebels also
believed in creating a new generation of the
Acholi ethnic group who would not be not
tainted by the current regime in power. They,
therefore, had a policy of abducting young
girls and deliberately impregnating them to
create a new generation. The rebel leader
and many of his commanders are known to
have 10 wives or more each. Medical records
also indicated they were suffering from con-
ditions such as abdominal and pelvic pains,
and amenorrhoea, all of which may be relat-
ted to sexual abuse, malnutrition, and strenu-
ous physical labour while in rebel captivity.
Amenorrhoea is also psychologically debili-
tating in a culture that treasures children and
stigmatises childlessness. This is consistent
with reports during the war in Kosovo and
Sierra Leone, where sexual violence had also
been used as a weapon of war and conse-
quently lead to unwanted pregnancies and
infection with STDs including HIV/AIDS
(Human Rights Watch, 1997; UNICEF,
1998; Jong, et al., 2000; Ai, Peterson &

**War experiences.** After controlling for other fac-
tors such as age, duration of stay in captivity,
war experiences, and other traumatic life
events, the number of war experiences signif-
ificantly explained between 6 and 13% of the
variance in avoidance, intrusion, arousal, and
IES-R total scale. The majority of the girls
had very high scores on the IES-R scales,
which is often used to delineate PTSD in
Western societies. This is in accordance with
previous studies in Sierra Leone and Rwanda
where adolescents surveyed scored very high
on IES-R subscales and showed clinically sig-
nificant PTSD symptoms and reactions (Jong,
et al., 2000; Dyregrov, et al., 2000). Further
more, the girls reported high avoidance activ-
ities, intrusive thoughts, images, and arousal
symptoms. As in the study in Sierra Leone
and Rwanda, several limitations need to be
acknowledged. Without a thorough and suffi-
cient diagnosis of PTSD, it is not possible to
stipulate that all these meet the criteria for
PTSD. Preferably, measures developed and
authenticated for this particular culture
should have been used, but such measures do
not yet exist in Uganda. However, despite
criticism of using measures developed in the
West and cultural differences in registering
trauma, recent studies show that massive trau-
ma rises above both cultural and social barri-
ers (Bracken, Giller, & Summerfield, 1995;
Dyregrov, Gupta, Gjestad, & Raundalen,
1996; Sack, Seeley, & Clarke, 1997). In sum,
the high scores indicate a high degree of psy-
chological distress. Detailed and specific
results are presented in endnotes (endnote1).

**Limitations of measuring instruments and the study**
The reliability of the subscales in the different
instruments used was low for this sample.
This could have been due to cultural differ-
ences in the interpretation of the different
clusters of items, which could have inadver-
tently affected instrument validity. The
instruments might have been developmentally
appropriate for adolescents in Western
societies but not for those in developing
countries such as Uganda. Alternately, the
revulsion and the sickening level of brutality
and cruelty associated with this war can only
be compared to others with great caution.
The statistical computations can never possi-
ably fully characterise the harrowing conse-
quences of the war on these girls.
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 only after several replications and longitudinal studies with other similar samples and populations. It is also important to realise that the samples comprised predominantly adolescent girls exposed to war situations and that some of the girls 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 adolescents’ self-report questionnaires could have created 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 (Vernberg, La Greca, Silverman & Prinstein, 1996; Huzziff & Ronan, 1999; Ai, et al., 2002). Another weakness of the study could have been individual response styles that might have caused some bias. This would have resulted in over- or under reporting of PTSD symptomatology. In the absence of diagnostic interviews, no strong claims can be implied about causality or course of influence regarding PTSD. Finally, it is important to note that, the data for this study were collected in a war situation from girls not more than six months after their ordeal in rebel captivity had ended. This might have also affected the result in some way. Recommendations for further studies are included in the endnotes (endnote 2).

Implications for psychosocial intervention
As shown by the results and consistent with earlier findings, the psychological scars caused by war experiences, physical and sexual abuse, sexually transmitted diseases coupled with high levels of avoidance, intrusion and arousal may make the girls less prone to process the trauma. This places them at greater risk of psychopathology, poor information processing, substance abuse, gynaecological complaints, low self-esteem, suicidal ideation, stigmatisation, and negative stereotypes from the society, as well as other dehumanising consequences of war and continuous exposure to violence. A psychosocial intervention should therefore recognise the divergent but interrelated needs and cultural context in which the girls are going to be integrated. From the results of this study, the following have been proposed as possible project activities in a psychosocial programme:

• A sense of hope for the future is very crucial to the needs of the girls. Therapies alone will not restore the hope in girls who already see the future as bleak, and the community 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, 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 girls think about it. Psychosocial intervention programmes should be directed not only at changing cognitive strategies that render the girls vulnerable to psychological distress or future psychopathology (such as ‘denial’, ‘rumination’, ‘exaggerating catastrophes’ and ‘blaming others’), but also teaches them cognitive strategies that enhances their psychological well being (such as ‘putting
into perspective’, ‘proactive acceptance’, ‘positive refocusing’, ‘positive reappraisal’ and ‘refocus planning’). 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. 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 girls and their peers, but also for the community (community leaders, parents, care givers, mentors, etc.) where they will eventually be reintegrated. This can be done by strengthening community resources and teaching people 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 large number of survivors involved and lack of trained personnel, group counselling is preferable and probably more culturally acceptable. However, individual counselling can also be adapted to suit the community setting. For example, in the communities where the girls are to be reintegrated, godmothers, religious leaders, and elders can be identified, trained, and supported to counsel the girls.

• Recommendations for gynaecological, counselling services and education are also imperative in these cases. Educational materials such as flyers or leaflets containing important information can be developed and given to the girls. 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 girls are taught how to identify their irrational beliefs and behaviours, question them, and replace them with rational beliefs and behaviours can be very useful in this regard (Ellis, 2003).

• At the rehabilitation centres, traditional dances can also be very helpful in relieving tension and helping to improve, or rejuvenate, the girls’ self-esteem. Story telling as well can be very helpful in encouraging people to talk about their ordeal and can give social workers and counsellors insights into the problems and challenges the girls are facing. In talking about their ordeal, the girls may be encouraged to seek psychological assistance in the future.

• In line with traditional practice and beliefs of the local people, when war events and experiences such as the girls have had take place, certain rituals are performed to cleanse people under the influence of bad ‘spirits’, and to appease the gods. However, this should be performed only when the participants, and their parents or guardians, believe in this practice.

References


Additional results: age, number of war experiences, other traumatic life events, and PTSD symptomatology. Initial Multiple Regression Analyses (MRA) indicated a nonsignificant effect of duration of stay in captivity on all IES-R subscales (avoidance, 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 PTSD
symptomatology, four MRA's were performed in three blocks. Age was entered in the regression analyses as block 1 where it explained almost 4% of the variance for intrusion (F (1, 121) = 4.71; p < .05), 12% of the variance for arousal (F (1, 121) = 15.93; p < .001), and 8% of the variance for IES-R total scale (F (1, 121) = 9.75; p < .01). The analysis of variance (ANOVA) produced a nonsignificant effect of age on avoidance. The results show that age was significantly and positively related to reporting PTSD symptoms of intrusion, 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, 120) = 3.41; p < .05), less than one percent each of the variance for arousal (F (2, 120) = 7.93; p < .01) and IES-R total scale (F (2, 120) = 5.17; p < .01). Like age, the ANOVA yielded a nonsignificant effect of other traumatic life events on avoidance. This means that other traumatic life events were significantly and positively related to intrusion, arousal, and overall score on the IES-R scale. Finally, war experiences were entered in block 3 and 9% of the variance for avoidance (F (3, 119) = 5.18; p < .01), 6% for intrusion (F (3, 119) = 5.11; p < .01), over 12% for arousal (F (3, 119) = 12.34; p < .001) and almost 13% of IES-R total (F (3, 119) = 10.21; p < .001) were attributed to the number of war experiences. The percentage of total explained variance ranged from 11% for the prediction of intrusion, to 24% for the prediction of arousal. The number of war experiences significantly predicted all PTSD symptomatology measures while age was a significant predictor of 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 PTSD symptoms of avoidance, intrusion, and arousal.

2 Recommendations for further studies. This study is a preliminary step in understanding the association between the number of war experiences, PTSD symptomatology and the physical and sexual abuse of formerly abducted girls. 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 a 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 the sexual abuse the girls survived. Also, 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. Finally, the role of pre-war, periwars, and post war factors and their relative roles in predicting PTSD symptomatology, and other mental health issues, should be investigated.