THE IMPACT OF THE LEVEL OF EXPOSURE TO THE JULY WAR ON STUDENTS' AGGRESSION LEVELS AND ACADEMIC ACHIEVEMENT

by

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I want to thank God for all the blessings.

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AN ABSTRACT OF THE THESIS OF

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Wars and their effect on the people who experienced them has long been the subject of extensive research. A bulk of this research has been dedicated to children’s reactions to war, especially after it became established that children’s responses to wars differ from adults, although they can be as severe and long lasting. Lebanon has witnessed many wars and therefore its children have been the subjects of numerous studies focusing on war effects and children. Most recently, Lebanon was the scene of yet another war, the July War, that caused the displacement of millions of people and the destruction of much of the country’s infrastructure.

This study focuses on the July War and its impact on the academic achievement levels and aggression levels of the children in the South, who among the most exposed to this war. While most studies on children and war focus on PTSD, the most common children’s reaction to war, this study chose aggression and academic achievement as they are what usually concerns school teachers the most.

The study took a sample of 380 students in the fourth and fifth grade levels from six different schools in Marjayoun, South of Lebanon. Parents were asked to fill out the Exposure to Events Questionnaire (EEQ) in order to determine the level of the child’s exposure to war. Teachers were asked to fill out a portion of the Child Behaviour Checklist (CBCL) focusing on the child’s aggression level and report cards were obtained from the principals to determine the child’s level of academic achievement.

The results were discussed and analyzed and recommendation for further research was made.
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To My
Niece Isabella
CHAPTER I

INTRODUCTION

This chapter introduces the context and statement of the problem. It also sets the purpose of the study, along with the rationale and significance behind it. Finally, this chapter presents the hypothesis, a brief description of the methodology followed and the list of assumptions and limitations for the research.

Context of the Problem

In his book, “The Clash of Civilizations and the Remaking of World Order”, Samuel Huntington (1996) states that there will always be wars because the world is made up of different cultures that will necessarily clash or conflict. One has to only take a quick glance back in history to see the validity of this statement. History is marked with many wars which have been fought for varied reasons: for religious reasons (as far back as the crusades and the Jihad war), for change of regimes (as in Cuba and Latin America), for the end despotic regimes (as in the second world war against Nazism and Fascism) and for independence from foreign occupation (as in Lebanon and Algeria against France). It seems to be that the only unvarying factor is that war has happened before, is happening now and will continue to happen.

The inevitability of war makes it necessary to study its impact on the people exposed to it so that their situation may be properly assessed and intervention planned to lessen the effects. In fact, a significant body of research has been done on the effect of war on humans, ranging from the effect on their medical health to the effect on their psychological well being. A bulk of this research has been devoted to the effect of war
on children’s mental health (such as the studies done on the British children after World War I or the research done on children after the Spanish war). War is especially devastating for children who are not yet able to comprehend and rationalize the violent situation they are suddenly put in. This topic has captured the attention of mental health professionals and much has been written on the effect of war and political violence on children.

Lebanese children, unfortunately, have witnessed many wars and traumatic events. Lebanon has been the scene of bloody wars beginning with the War of Independence against France and moving on to the fifteen years (on and off) Lebanon Wars. The length of that war and its sporadic nature was the focus of researchers’ interest and was the subject of studies concerning its impact on the children going through it such as the studies done by Macksoud and Lawrence (1996) and Zahr (1996) about the Lebanon Wars, the studies done by IDRAAC on the Grapes of Wrath (2002)....

Recently a new generation of Lebanese children has been exposed to violent events in their country, beginning with the Hariri assassination and continuing through to the July 2006 war. The war that started in July 13, 2006 and lasted for 34 days has caused severe material damage to Lebanon and was unique in forcing the displacement of close to a million Lebanese from the south and Dahiyeh to other relatively safer areas.

Children looking forward to enjoy their summer vacation were instead thrust into a war situation where changes were forced upon them and where nothing appeared to be certain. This probably has affected their psychological well being. However, since the July war is a relatively new war, there are, until now, not enough research publications concerning the effects of this war on children. This study looked at
children’s reactions to this war by studying the differences in the academic performance and aggressive behaviour between those children exposed to the war and those who were less exposed.

Purpose of the Study

The purpose of this study was to determine the differences in the academic achievement and the aggression levels of elementary students in the south of Lebanon based on the level of exposure to the events of the July war in Lebanon. While children in war might exhibit a variety of emotional and behavioural problems ranging from Post Traumatic Stress Disorder to withdrawal (Zahr, 1994), this study focused on only two elements: comparisons of academic achievement and aggression levels. While all negative symptoms of violent trauma are disruptive to a child’s healthy development and require intervention, it is typically the two aforementioned symptoms that have the largest impact on a classroom setting and therefore of particular interest to those in the teaching profession. It is imperative that teachers be aware of what they might expect from their students in those two areas so that they might be ready to intervene. It was expected that those with higher levels of exposure to the war situation, will have a higher level of aggression and a lower level of academic achievement than those in the group with less exposure to the war situation. It was also expected that the academic achievement of the whole sample would be lower in 2007 than it was in 2006.

Rationale

During the course of collecting research for this study, no peer reviewed articles that were published in journals and dealing with the effects of the July war in Lebanon on children were found. While a substantial bulk of studies has been done on
the effects of various wars on children, such as the study done on British children after World War II (Zivic, 1993) or that done on Palestinian children (Thabet, Karim & Vostanis, 2006) or even those studies focusing on Lebanese civil war and children (Macksoud & Aber, 1996), there has been only two studies, up until this point in time, that have focused on the aforementioned July war. The first study was done by Institute for the Development of Applied Clinical Research (IDRAAC) on the children of Southern Dahiyeh and the villages in the South of Lebanon (2006), and the second was conducted by Lebanese Association for Educational Studies (LAES) and covered all of Lebanon. According to the LAES’s study proposal “there is little accurate information regarding the psychological and health related conditions of children, teenagers and youngsters who suffered the July war and its concomitant carnage, destruction and displacement” (2006). This study therefore added to the research previously and currently being done.

Furthermore, the two aforementioned studies that tackled the July war’s effect on children took place a couple of months after the war. Long term effects of the July war have not been studied, to date. This research was conducted two years after the war, and therefore provided us with a look at the long term effect of this war on aggression levels and academic achievement. A study that followed orphans of the Grapes of Wrath operation in Lebanon through a four year period, from 1997 to 2000, showed that while PTSD levels were going down steadily, the level of behavioural problems or aggressive behaviour remained high, although fluctuating, throughout the four year period of the study: starting of at ten percent of the orphans, it went down to four percent the following year only to go up to seventeen percent after that and in the final year of the study it was ten percent which was the most significant effect of war at that time in the study, higher than Post Traumatic Stress Disorder or Separation Anxiety
Disorder (Cordahi et al., 2002).

Among the most common and significant reactions of children’s exposure to war is PTSD or a manifestation of some of its symptoms, such as withdrawal, anxiety or change in sleeping patterns, in varying degrees of intensity (Shaw, 2003). Most studies done on children in war situations discuss and focus on PTSD or similar reactions to war. While the effect of wars on aggression levels have sometimes been mentioned as parts of other studies (Joshi & O’Donnell, 2003; Allwood, Dolan & Husain, 2002) there has been little research focusing on this aspect alone. The case is similar when it comes to studies done about academic achievement: few studies focus on this topic alone. As these two areas are of particular concern to almost all school teachers, this study focused on extending the research done on children in war zones by studying the implications of their situation on their aggression levels and academic achievement.

Concerning the July war, there have been no studies tackling aggression and academic achievement alone so this study sheds more light on wars’ effect on those two variables in a Lebanese context.

Significance of the Study

The prospective benefits expected as an outcome of this study are as follows:

At the theoretical level, this study contributed to the existing and ongoing research on the effects of war on children. It was among the first studies to address the July war, a relatively new war and almost unique war in its extensive media coverage, actively followed by children. It also provided a possible new direction to studies on children going through war, that of its effect on academic achievement and aggression levels. In fact, in their study, Joshi and O’ Donnell (2003) stated that there is need for further research in the area of war and its impact on children’s learning. This study could
be a step in that direction.

Also at the theoretical level, this study provided teachers and counsellors with knowledge on what to expect from students exposed to war. According to the book “In War Time: The State of Children In Lebanon” (Bryce, 1986), it is necessary to assess and identify the impact of war on children in order to plan for proper intervention. The book studied the physical, psychological, emotional and economical state of children in Lebanon during the war, and ended with recommendations for interventions that can be carried out by various practitioners. Thus, it is important for teachers to be armed with this knowledge so that they may increase their awareness and be able to identify those children whose change in aggression levels or grades could be contributed to their high exposure to violent trauma. They can then be able refer them to counsellors or intervene themselves.

At the practical level, this study probably helped teachers be able to deal more effectively with those students in their classroom who exhibit higher levels of aggression or lower academic performance following a war situation by raising their awareness of what problems to potentially expect from such students. In the book “In Wartime”, Bryce (1986) suggests that teachers be trained to motivate potentially unmotivated students (after a war situation) because the earlier they are diagnosed, the earlier they can overcome their difficulties and go on to have healthy childhoods. This study allows teachers to familiarize themselves with what to possibly expect of their students.

This study can also help school counsellors on a practical level, by raising their awareness of these two possible side effects of war exposure (aggression and academic achievement). Awareness is the first step towards change.
Academic Achievement and Aggression

Research Questions

Will children with a higher exposure to the July war have higher aggression levels than their peers who were less exposed to the war?

Will children with a higher exposure to the July war have lower academic achievement levels than their peers who were less exposed to the war?

Will children have a drop in their academic achievement post-war as compared to their academic achievement pre-war, by school and grade level?

Methodology

Setting

The setting for this study was in schools in the south of Lebanon, more specifically in the Marjeyoun casa. This region, and the ones surrounding it, received heavy shelling during the war. A convenience sample of six schools from the region was chosen to represent the various sects and socio-economical statuses found in area.

Sample

The sample consisted of all grades four & five students of the above schools. The average age was between 9 and 11. Previous studies have shown that it is the upper level elementary students that are most susceptible to the effects of the war as they are of the age when they are still developing psychologically and cognitively. They have also begun to actively formulate their adaptive mechanisms for coping stressors (Shaw, 2003). Therefore, at this stage in life, a war experience would be critical and maybe far ranging in influencing the coping mechanisms they might adapt (Shaw, 2003).

The sample size, which includes all students of grade levels four and five, was approximately 380 students (n=380). Based on the parents’ reply to the exposure to the
events questionnaire, children were placed into two sub groups according to their level of exposure to the war situation. The first subgroup included those students who had been highly exposed to the war, while the other sub group included those who had lower levels of exposure to the war. For the purposes of this study, high exposure was determined as exposure to both a large number and a high intensity of events on the Exposure to Events Questionnaire created by the researcher. The questionnaires were scored by the researcher (based on the number and intensity of events reported) and a total score S was obtained. High exposure was defined as obtaining a total score S within the upper 30% on the questionnaire, while low exposure was defined as obtaining a total score S in the lower 30% on the questionnaire.

**Instruments**

*Exposure to Events Questionnaire (EEQ)*

This questionnaire, prepared by the researcher, was used to collect data on what the child has been exposed to in the July war and to what degree. To avoid any confusion or misunderstanding that may arise from language barriers, the questionnaire was written and used in the Arabic language. Included in the questionnaire were such items as exposure to air raids, loss of family members, property damage...

*Child Behaviour Checklist (CBCL)*

The second instrument which was used to assess aggression levels is the Child Behavior Checklist (CBCL) which is an “informant completed instrument that assesses child and adolescent psychopathology” (Gallo et al., 2007). Developed in 1983 by Achenbach and Edelbrock, the checklist has been revised several times with the last version having DSM-oriented subscales. It has been translated into over seventy languages, some of which are: Spanish, Arabic, Chinese, German, French, and Estonian(Gallo et al., 2007)…. For the purpose of this study, the Arabic version of the...
CBCL was used, a copy of which is included in the Appendix.

The CBCL exists in several versions which are: the parent version with a focus on the child’s behaviour at home, the teacher version with a focus on the child’s classroom behaviour, the Youth Self Report Form for adolescents and above and a Direct Observation scale (Reynolds & Kamphaus, 1990). For the purpose of this study, the Arabic teacher version (TRF) of the CBCL was used.

Design and Procedure

The researcher first met with the school principals to explain about the study and gain their approval to conduct it and then, upon the principals’ approval, met with the teachers to explain the study and ask for their cooperation in filling out the CBCL.

The researcher sent copies of the exposure to events questionnaire home with the children so that their parents can fill it out. The researcher also asked the principals to allow her access to the students’ report cards so that academic achievement of the semester preceding the war to the one after it may be compared.

Data Analysis

A T test was used to analyze the differences in means in academic achievement of the whole group between 2006 and 2007.

To study the differences in academic achievement between the higher exposure group and the lower exposure group in 2007, means and standard deviations was reported for both groups for both years (2006 & 2007) and the differences will be investigated using ANCOVA where the covariant is the students’ results pre-war.

To study differences in aggressive behaviour in the higher exposure groups and the lower exposure groups, T Test was used on 2007 means.
Limitations

This study did not access all regions of the south and confined itself to the Marjeyoun casa area due to practical constraints. Therefore, findings might not lend themselves to be generalized.

It is uncertain whether the change in academic achievement is due to the effects of the war on the students or some other factors like different teaching styles or more difficult material.

This study has not controlled for the confounding variables of childhood psychiatric conditions such as ADHD (Attention Deficiency Hyperactivity Disorder), depression, conduct disorder, nor for psychosocial variables such as home stressors (parental abuse, parental economic problems...) which can negatively impact the child’s aggressive behaviour and academic achievement. Further research is needed in these two areas.

Assumptions

We assumed that the teachers filling out the CBCL know the students well enough be accurate in their replies.

We assumed that parents filling out the Exposure to Events Questionnaire still remember what specific events their children were exposed to a year and a half after the war.

We assumed that the parents filling out the Exposure to Events Questionnaire were with their child the whole time and are aware of all the events their child was exposed to during the war.
CHAPTER II

REVIEW OF THE RELEVANT LITERATURE

This chapter provides a review of the relevant and related literature. It begins with a brief overview of the July war and then moves on to highlight the most common reactions to war focusing on aggression and academic achievement, the two concerns of this research. It also includes a discussion, based on relevant studies, of the factors influencing children’s reactions to war such as age, sex and level of exposure. It concludes with a section describing the two studies done on the Lebanese July War: The Institute for Development, Research, Advocacy, and Applied Care, IDRAAC’s study in South Lebanon and the study being done by the Lebanese Association for Educational Studies (LAES) in all Lebanon.

Overview of the July War

Early childhood education experts agree that children need a safe and supportive environment where they can play and develop in a healthy manner. A war robs children from that environment and thrusts them into one of chaos and uncertainty, often leading to a sense of helplessness.

Facts and Figures Related to the War

Lebanon witnessed such a war again recently on July 13, 2006. That war lasted for thirty four days and had a devastating effect on all aspects of life in Lebanon: All over Lebanon, seventy eight bridges and six hundred thirty kilometres of road were destroyed, making transportation in Lebanon next to impossible. 15,000 private homes or apartments were destroyed leaving thousands of children with no homes. 1,287 lives
were lost and around 1,100 people were wounded. It was estimated that one third of those losses and injuries were children under twelve (Humanitarian Action Report, UNICEF, 2007).

This was also the first war in Lebanon that caused the displacement of close to a million people from the South and Dahiyeh areas. Those people were welcomed into public schools, public gardens (under the heat of a July sun), parking lots of shopping malls and other large gathering spots. In these places, families lived in crowded conditions with close to thirty people living in one room.

Even those who were not displaced or living in areas of direct shelling still suffered from the indirect consequences of war. Sounds of air raids could be heard all over Lebanon as planes hovered over the country. Because of the siege, food and fuel became scarce and people, living under the tension and fear that those commodities might run out, would wait in long lines to try and stock up on both.

Children’s Common Psychological Reactions to War Related Stressors

Any educator would agree that such conditions are not conducive to healthy child development. While the displaced children were entertained by volunteers, one has to wonder if that is enough and think about the psychological and emotional impact on them and on those who were not able to leave the attacked areas. If the environment was unsafe and unpredictable, how might that effect a child who has not yet developed the awareness to make sense of such an environment?

Post Traumatic Stress Disorder (PTSD)

Currently, PTSD is the most commonly cited effect of war on children. Early on, according to an article by Kees and Becker (2002) entitled “In the Face of Tragedy: Placing Children’s Reactions to Trauma in a New Context”, children’s reactions to
stress were thought to be mild and fleeting, primarily because the data was obtained exclusively from parents, and parents tend to downplay their children’s reactions. However, in the past 20 years, with the heightened and dedicated research being done, children’s reactions to trauma have been noted to be unique and sometimes long-lasting; this has led to child PTSD entering the DSM III in 1987 as one of the disorders that can affect children (Kees and Becker, 2002).

The article entitled “Children Exposed to War/ Terrorism” by Shaw (2004) most clearly describes PTSD symptoms, as related to terrorism specifically as follows: an unusually heightened anxiety, not being able to think about anything other than the attack or trying not to think about it all, trouble sleeping, uncertainty, and an inability to enjoy life. It is when these usually common anxiety reactions to traumatic event occur in an intensity that interferes in daily life and is long lasting, and then we can refer to them as child PTSD (Auger, Seymour & Roberts, 2004).

PTSD may take a long time to manifest itself and symptoms may show up long after the trauma is over, making monitoring children even after the trauma very important (Zivic, 1993). In fact, Macksoud and Aber (1996) found out that 43% of Lebanese children showed PTSD symptoms up to ten years after exposure to war related trauma.

Aggression and Other Behavioural Problems

In a study comparing the effect of the Lebanese civil war (1975-1991) between those children who were directly exposed to it and those who were in safer areas of Lebanon at that time, Zahr found out that those children who had been exposed to intense shelling two years ago had significantly higher behavioral problems than those children who lived in safe war free areas of Lebanon, as reported by their parents (Zahr, 1996).
One of the behavioral problems associated with war effects is increased aggression. Here, identifying with aggressors may be a contributing factor (Joshi & O’Donnell, 2003). A study done by Allwood, Dolan & Husain (2002) on children in Bosnia reported that direct exposure to violent events (as opposed to non violent war events), such as witnessing killings or sniper attacks, led to a rise in teacher reported aggressive behavior and classroom delinquency.

**Delays in Academic Achievement**

During the Lebanese civil, it was observed that students were exhibiting an increase in academic problems, possibly due to the fact that teachers felt that they had very little time to get personally involved with the students (Bryce, 1986). One of the symptoms of trauma exposure, according to Gurwitch, Kees & Becker (2002), is a difficulty in attention and concentration leading to drop in study habits and attention to new material. Also, the possible lack of sleep and decrease in appetite sometimes caused by a trauma can understandably lead to changes in academic achievement (Gurwitch, Kees & Becker, 2002). Still, while academic underachievement has been noted as one outcome of witnessing trauma, further research is still needed in this area (Joshi & O’Donnell, 2003).

**Other Effects of War on Children**

Children who passed through a war tend to face varied emotional difficulties. These emotional difficulties include depression, social withdrawal and “atypical attachment patterns” (Joshi & O’Donnell, 2003). Among elementary age school children, the following changes in behavior can be observed in the first few months following a war event: change in appetite, difficulty in concentration, loss of interest in school and psychosomatic complaints (Zivcic, 1993).
Factors Influencing Children’s Response to War

All studies have shown that children react differently to war based on which age group they fall into. As for gender, different studies have different views as to whether children’s reactions to war differ according to their sex or whether it has no effect on their responses. This section will present the literature concerning these issues.

Age

Children’s reactions to trauma vary with their age, as they develop at all levels and become more aware. Joshi and O’Donnell (2003), in a research article, gave a brief description of expected children’s reactions to trauma, based on their age: Children in the preschool years are still in the egocentric stage and therefore tend to think of war as their fault which can lead to fanciful thinking like “if I am a good girl, then maybe this will stop”. Common reactions to trauma from children of this age are sleep difficulties and nightmares combined with clinging behavior.

School age children have become less egocentric and can sense parental stress. This is why it is important for parents at this age to be honest with their children about the situation while reassuring them that they are in control and have a plan to keep the family safe. Reactions typical of this age include loss of interest in activities and a fixation on retelling events from the trauma.

Teen age children can think abstractly but are likely to keep their feelings inside and to withdraw from the family. It is at this stage that a need for action oriented response arises making it important to channel the children in the right direction (Joshi & O’Donnell 2003).

Shaw (2003) has noted that older children tend to be more psychologically vulnerable that younger ones to war effects. Younger children, according to Shaw’s report (2003), tend to derive their reactions from their parents’ reactions, developing
stress reactions only if their parents show them any stress. This is because they are still psychologically incapable of judging the situation for themselves.

On the other hand, Fayyad (2003) discusses a research by Schwarzwald and colleagues (1994) which shows that reductions in stress reactions from 22.1% to a baseline of 12.0% was higher among older children, making younger children the ones with higher levels of stress reactions as time passes by.

In alignment with this report Allwood, Dolan, & Husain’s (2002) study on the effect of direct versus indirect exposure to the war on school age Bosnian children states that older children were more likely than younger children to be directly exposed to the war and to have had family members killed during the war. However, according to the study, older children reported less stress symptoms on the stress self reports; the study attributed this to either a high level of denial in older children or levels of high distress in younger children despite their lower levels of exposure. Macksoud & Aber (1996) attributed this fact of older children’s adaptation to the war to their increase in “capacity to engage in more planful and prosocial behavior as they make the transition from formal to concrete operational intelligence”.

As discussed above, while most research states that older children, for various reasons, tend to be more impacted by war, some studies have found out that, in the long run, it is the younger children that are more effected. In both cases, according to research, children do tend to react differently to war based on their age.

Sex

The literature is undecided on whether wars have different effects on boys than they do on girls. Different studies have come up with different findings. A study done by Macksoud and Aber (1996) on Lebanese children during the civil war found out that boys tend to be more exposed than girls to traumatic events. According to the study, this
could be due to the nature of the Lebanese or Arab culture that gives boys more freedom to explore than girls. In parallel to this study, a study done on Palestinian children in the Gaza strip showed that boys displayed higher hyperactivity levels than girls as a result of living in a trauma filled war zone (Thabet, Karim & Vostanis, 2006). However, another study done by Gurwitch, Kees and Becker (2002) stated that girls, in general, are more susceptible to PTSD and other emotional responses to acts of terror. Shaw’s study (2003) is consistent with this study claiming that boys tend to exhibit more disruptive and aggressive behavior in reactions to a war situation than girls would. However, Shaw continues, girls tend to show anxiety and mood change symptoms more than boys.

In the study done on a representative sample of 691 Lebanese school children in the Greater Beirut area during the civil war, it was shown that boys were more aggressive and disruptive than girls (Bryce, 1986). However, the anxiety level for this sample did not differ according to sex or age. Also, the study done on Bosnian children did not find any difference in the level of exposure to the war between the sexes, and in between their stress reactions to it (Allwood, Dolan & Husain, 2002). The study done on Palestinian children in Gaza also shows no gender difference in the level of exposure to traumatic events in the children (Thabet, Karim & Vostanis, 2006).

Types and Levels of Exposure in Relation to Effect

Not all exposures to war events are of the same intensity. Research has shown that a child exposed to the sounds of air raids will probably react differently to the war than a child who saw a family member getting killed in front of him. Varying war events lead to varying reactions in children. Also, indirect exposure, through the media, has been shown to lead to negative war reactions in children. This section provides a
deeper look into the types and levels of exposure and the effects they might produce in children.

Direct Exposure and Nature of Exposure

A study done by Lina Zahr (1996) compared two groups of Lebanese preschool children: one group that was exposed to heavy shelling two years ago, and another group that was living in a safe area at that time and therefore not exposed to the shelling. The first group showed a significant increase in behavior problems two years after the shelling. The study concluded that direct exposure to trauma increases the risk of behavior problems as perceived by the parents.

However, an interesting study done by Macksoud and Aber (1996) on Lebanese children who had lived their entire life in the civil war showed that it is not simply being exposed to war trauma but the nature of traumas witnessed that will ultimately trigger negative effect. Children who were actively involved either by being kidnapped, separated from their parents or been forced to carry arms showed strong traumatic reactions to the events. Another group of children heavily influenced by wars are those who suffered personal loss like the death of loved ones or the loss of a home. Children who witnessed the violence from a distance or were indirectly involved revealed less traumatic reactions than the aforementioned groups of children.

Saab (1991) states that it is difficult to study the impact of one war trauma due to the cumulative nature of war, which must be taken into consideration. In the study, Saab (1991) found out that a Lebanese child in the civil war was most typically exposed to shelling, displacement, extreme poverty and witnessing violent acts, as opposed to children in the war in Uganda where children are forced to carry arms and become direct targets of violence. Indeed, in this study, Lebanese children were mainly exposed to witnessing violent acts and had been displaced, as opposed to carrying guns and
being involved in the fights. The resulting effects of such exposure would surely be different than being part of the war.

Allwood, Dolan and Husain (2002), in one of the few studies to observe children while the war was still going on, took a different aspect at exposure by comparing the effect of nonviolent versus violent trauma on Bosnian school children. The study found out that both kinds of traumas lead to negative effects on children, but the nature of these effects differs according to the trauma. Those children who were exposed to violent trauma such as witnessing killings or being in a threatening situation were significantly related to teacher reported classroom delinquency and aggressive behavior. On the other hand, exposure to non-violent trauma such as having no food or being exposed to the cold was significantly related to anxiety and withdrawal symptoms. The reasons for that, given by the authors, is that it is very difficult to shield children from the war over an extended period and also deprivation and displacement in a context of war are dramatically different than when it is outside of war, due to the stress levels that war adds, and the usual lack of support at such a point.

*Indirect or Media Exposure*

In a research on children in Gaza, Thabet, Abed and Vostanis (2002) discovered that children who were not living in the areas of shelling, who were therefore not exposed to the war, had consistently higher rates of anxiety disorders and symptoms than those who were living in the heavily shelled areas. The study attributed that to anticipatory anxiety, where children worried about and anticipated horrific events due to hearing adult reactions or through the media (Thabet, Abed and Vostanis, 2002).

Research agrees that the more media the child is exposed to, the more likely they will be displaying symptoms of anxiety related to traumatic events (Aber et al.,
2004; Jaycox et al., 2004). One study by Reynolds (2003) scrutinized the newspapers for 10 days post 9/11 to see what kind of news children were being exposed to and found out that there were many graphic images of the burning buildings and people jumping out of their windows. Reynolds found out that there was high correlation between children viewing these images and children experiencing heightened anxiety.

In agreement with the above study is a study done on Croatian elementary school age children which showed that even children who were indirectly exposed to the war by listening to accounts about it or through watching it on television still manifested symptoms like less positive mood and some anxiety (Zivcic, 1993).

Media exposure is especially dangerous to young children whose minds are still developing and believe that the war and traumatic events are happening all over again every time they see it on TV (Gurwitch, Kees & Becker, 2002). This article goes on to suggest that parents should limit what their children view on TV, and, should they happen to watch coverage of the war, parents should sit with them and discuss what they have seen together.

Further support and evidence is given in an article by Fayyad (2003) that states television exposure of violent war events, even during peacetime, may overwhelm children’s emotional resources and can result in PTSD or other anxiety disorders. Fayyad suggests that child psychiatrists and psychologists can network with media outlets as an intervention step after a war. He also emphasizes the importance of parents monitoring their children’s exposure to war events on TV (Fayyad, 2003).

Mediating Factors Influencing Level of Effect

While age, gender and level of exposure do indeed affect how children respond to war, there are some factors and conditions that can lessen or increase the severity of
their reactions to the traumatic event.

It has been shown that a supportive home environment, where the mother is able to cope with her stress and is satisfied with her family’s functioning, may help reduce behavioral problems in children caused by war traumas. It is therefore imperative to counsel parents on the importance of being affectionate and supportive of their child in order to decrease the negative effect of the war on him/her (Zahr, 1996).

Zivcic (1996) also stresses the importance of having a trusted adult with the child during a war trauma. According to the study, the adult should not be too wrapped up with his/her own stress and give attention to the child, otherwise the child would not want to “bother the adult” and would be therefore left alone to cope with his feelings. The adult should exert a sense of confidence and demonstrate an ability to cope with the war trauma in order to help the child cope with his own feelings (Zivcic, 1993).

One explanation for the importance of a trusted adult coping well with the war is that children learn by modeling and will attempt to model their reactions according to the adults they respect, making a proper adult response very important (Gurwitch, Kees & Becker, 2002).

Another way in which to minimize the compounded effects of war on children is to attempt to reduce exposure by perhaps limiting the child’s graphic contact to the war through restricting television and newspaper access or by providing comfort from fears brought up by the war (such as fears of starvation and freezing) (Allwood, Dolan & Husain, 2002).

One reason that a child might be more vulnerable than others to the war effects is because of a personal history of stressful events (like this being not the first trauma they have witnessed) or having poor coping skills, “such as denial, passivity or avoidance” (Gurwitch, Kees & Becker, 2002). Special care must be shown to children
in this category, both during the traumatic event and after it, to make sure that they are coping in a healthy manner (Gurwitch, Kees & Becker, 2002).

In IDRAAC’s study on children exposed to the Grapes of Wrath operation (Israeli attack on South of Lebanon in 1996) they could clearly tell, although they did not measure it formally, that the effect of the community support received by the people of the South who were regarded as heroes, did a lot to boost the morale of the children exposed to the events. They recommend further research in the area of community support and PTSD (Fayyad, 2003).

Recent Lebanese Studies on the Effects of War on Children

Even after the end of the fifteen year long Lebanon Wars, Lebanese children did not know much peace as some areas of Lebanon continued to be plagued with armed conflict. While most studies done on Lebanon focused on the fifteen year Lebanon Wars, a few examined the effects of the more recent conflicts on Lebanese children. This section will give an overview of those studies, two carried out by IDRAAC and one by LAES.

*Operation Grapes of Wrath*

Operation Grapes of Wrath was one such conflict where the Israelis attacked the South of Lebanon in the year 1996. This operation, which lasted fifteen days, resulted in hundreds of deaths, thousands of injuries, heavy loss of property and mass displacement. Three weeks after the cease fire, IDRAAC researched the effect of that operation on the PTSD levels of 386 six to nineteen year old children exposed it. The sample of children was randomly selected from 25 schools representing the region. The first step was to assess the level of exposure to the war using the War Events Questionnaire developed by Karam et al in the year 1999. 18.9% of the children
reported damage of their home while 15.8% reported damage of a close person’s home. Injury of close people was reported by 7.8% of the children (Fayyad, 2003).

The second step was to administer sections from the Diagnostic Interview for Children and Adolescents- Revised (DICA-R) to both parents and children and adolescents in order to assess PTSD, SAD, Major Depressive Disorder and overanxious disorder. The prevalence of PTSD was 24.1%. Moreover, children who witnessed the war events had higher levels of PTSD than those who did not witness the event or were just informed about it (Fayyad, 2003).

IDRAAC followed up this study by studying a sub sample of those children (n=143) one year later and giving them the same test, the DICA-R. They found out that PTSD levels had dropped spontaneously to 1.2%. When dividing PTSD into symptoms, however, they found out that a significant number still suffered from PTSD symptoms while others had developed new PTSD symptoms. This was attributed to the severity of the exposure or maintained by family factors such as family stress (Fayyad, 2003).

Finally, a subset of IDRAAC’s study carried out an intervention program on children orphaned by this operation. They were evaluated one year after the trauma and then on a yearly basis for three years. In the first year of evaluation, PTSD levels in orphans were significantly higher than in the non orphans. While PTSD levels decreased in the next four years, 1.6% of the orphans still had PTSD levels at the end of this period (Cordahi, 2003).

IDRAAC’s Study on the July War, 2006

More recently, after the July War, IDRAAC conducted another study on the children of the South, Nabatiyeh and South Beirut (Dahiye). They started their study by having a series of focus groups with mothers and children in that area so that they can identify what they perceive to be the major stressors of war. Also, they contacted
experts in the field and asked them for what they thought were the most common effects of war. They then took a representative sample of 971 students, aged three to eighteen. They divided them into three groups: from three to seven, from 8 to 11, and from 12 to 18 (IDRAAC, 2007). The first group, due to the difficulty from gathering information from children that young, was represented only by their teachers (three or four teachers were chosen from each participating school).

The adolescents group (12-18), numbering 709 students (the adolescent group was intended to constitute 75% of the total sample of the study), was given three questionnaires to fill: the first one was a psychosocial stressors’ questionnaire created by IDRAAC and based upon “initial IDRAAC ideas, contribution of mothers (whom IDRAAC was working with on another project related to women experiencing psychosocial stressors), children 7-11 years, children 12-15 years, older youth and opinion of national and international experts and opinion leaders as well as the international scientific literature” (IDRAAC, 2007). The other two questionnaires, assessing mental health, were the Strength and Difficulties Questionnaire (SDQ) and the Impact of Event Scale (IES). Also, one teacher from each randomly selected class filled a teacher’s questionnaire which was developed by IDRAAC based on the schools’ principals’ input concerning the problems they were encountering with the children post war and the students’ questionnaires.

The first questionnaire given to the students, the one used to assess the level of exposure, yielded the following results: 74% of the students reported seeing a lot of violence on television, 67% reported witnessing explosions, 43% felt that they were exposed to extreme danger and 76.3% were displaced from their homes. Psychologically, the majority of the students had mild difficulties (such as fighting or worrying or being alone) on the SDQ with females having more difficulties than males.
On the IES, 31.2% of the children reported increased irritability while 28% were trying not to remember war events. Teachers reported lack of motivation on the students’ part as their main concern (45%) with more frequent academic delays (32.1%) and hyperactivity (32.3%) as significant concerns (IDRAAC, 2007).

In the second group, numbering 87, children aged 8 to 11 had focus groups where they discussed the war. This was done to avoid the difficulties that arise with self reports and the written language that are quite common at this age. The focus group mainly consisted of six open ended questions where children’s verbal answers were coded based on a pre-prepared coding sheet which included a list of most possible and common responses. Additionally, teachers of the selected classes filled a questionnaire on what they perceived to be the psychosocial needs of the children and the types of difficulties they encountered in the classroom with them, whether behavioral or emotional. Concerning the level of exposure part, many reported witnessing property damage (42 out of 140 reports) and explosions. Psychologically, there were 91 spontaneous reports out of 246 commonly reported symptoms related to PTSD followed by 71 reports of depressive symptoms. 27% of the teachers reported problems with hyperactivity and misconduct following the war. Teachers also reported problems with aggression and a drop in academic achievement (IDRAAC, 2007).

Because it is difficult for children of the third group, aged three to seven, to self report on their war experiences, focus groups were conducted with three to four teachers in each of three participating schools. No solid measures exist for that group. Teachers’ most frequent spontaneous responses were about their problems with increased aggressive play, hyperactivity and discipline problems (IDRAAC, 2007).

IDRAAC ended their study with a series of recommendation on the academic, psychological and family level. Such recommendation include focusing on schools to
strengthen students’ academic achievement, provide them with more after school leisure activities (badly needed for the children in the south) and training teachers on how to spot and intervene with children effected by the war. Other recommendations include raising awareness of mental health problems nation wide, controlling for negative images in the media, setting guidelines and procedures for appropriate displacement settings… (IDRAAC, 2007).

*LAES’s Study on the July War*

Another study researching the effects of the July war was carried out by the LAES. According to their study proposal: “The aim of the study is to screen a large sample of Lebanese children and adolescents to determine the nature of their experiences during the ILW06 (Israel-Lebanon War, 2006), and to assess their current levels of psychological and health related distress”.

The study was a mass scale one, covering children aged 3 to 18 years in all areas of Lebanon. The sample was divided into groups and different self reports were given to the children. Also questionnaires were sent to the parents of the children and early adolescents.

Research on Lebanon’s July war shows that the war did indeed impact children all over Lebanon, and especially those who were directly exposed to it. However, it has now been two years since the end of the July war, and, while there are many articles discussing its effect on children and focusing on what the various NGOs have done to relieve the children from war stress, only the two afore mentioned scholarly research studies have been conducted on this particular war (from the Lebanese side). In addition, data for these two studies was collected shortly after the war. Further research is needed on this war.
Summary and Conclusion

In conclusion, the literature points out that child stress reactions are often the byproducts of war events. Those reactions can vary by the nature and severity of the trauma, the age, sex and personality of the child or by the support the child gets. The fact that such reactions might be expected makes it necessary for anyone working with children to be familiar with them and to have some idea on how to deal with a child facing them so that he/she can overcome the traumatic experience.
CHAPTER III

METHODOLOGY

This chapter describes the sample and gives a summary of the instruments used to measure aggression levels: the CBCL. It then moves on to describe the Exposure to Events Questionnaire used to measure exposure to the war events. Finally, it also includes an account of the variables of the study, a detailed description of the procedure followed and finally, a quick overview of the data collected.

The Sample

The sample for this study was taken from schools in South Lebanon, more specifically in the Marjeyoun casa. This area, along with the neighbouring towns, was a subject of intense shelling during the war. Close to a million people living there were forced to abandon their homes and find refuge in safer areas (LebanonUnderSeige website). Those who stayed behind were subjected to heavy shelling which often lead to the destruction of their homes and personal property and loss of life.

It can safely be assumed that the inhabitants of this area endured some of the heaviest effects of the war and this is the reason that this study focused on the children in the south. Not all schools in the south were sampled due to practicality and time constraint issues: It is estimated that the number of schools in the South of Lebanon is over three hundred. To include elementary students from all those schools would be beyond the scope of this study. Since all regions further south suffered almost equally in the war, it is acceptable to choose a specific region. For the purposes of this study, the Marjeyoun/Hasbaya casa was selected due to the fact that it has a large number of schools which include students from all the different sects and socioeconomic levels of
the South.

Again, there is a large number of schools in that area, therefore a sample of schools was selected so that all sects and socioeconomic levels of the area were included in a manageable number of schools.

The following schools were included in the study:

- **Marjeyoun National College**: a non sectarian non profit school located in Jdeidat Marjeyoun catering to students from thirty one villages in the Marjeyoun Caaza. The school has around 610 students and has English as its main language of instruction. There are seventy one students in the fourth and fifth grade levels. The students and teachers in this school received no counselling or mental support after the war.

- **Nuns of the Two Sacred Hearts**: Another multi confessional school located in the Marjeyoun area and serving students from around seventeen neighbouring villages. There are 109 students in the fourth and fifth grade levels in this school and French is their main language of instruction. The students and teachers in this school received psychological support after the war in the form of workshops, held during the first weeks of school, to help them deal with the emotions and issues that the war might have aroused. At the date of data collection, the students were still being offered afterschool, and some in-school, activities to help them deal with post war issues.

- **St George Elementary School**: Located in Kulayaa, and run by Maronite nuns, the school body is mainly Christian with a minority of Muslim students. It has around sixty students in the fourth and fifth grade levels.

- **Issa Ibn Mariam**: Part of the Mabarat schools and located in Dibbine, this school has an almost exclusive Shiites student body. Children from fourteen neighbouring villages come to this school. There are 151 students in the fourth and fifth grade levels in this school. The school campus was bombed and completely destroyed
during the July war, forcing the school to relocate to an unused, and much smaller, public school campus in Khiam. The students in this school underwent an intensive one week workshop to help them deal with their post war stress and also to help them adjust to the idea that their school campus was destroyed and they had to move to a smaller, less equipped one.

- **Al Irfan School**: Located in Hasbaya caters to mainly Druze students. It has almost ninety students in the fourth and fifth grade levels.

- **The Greek Orthodox School of Marjeyoun**: A small school located in Marjeyoun, it caters to mainly Christian Orthodox students and has thirty two students in the fourth and fifth grade levels. The school has a counsellor and an occupational therapist on call to help deal with any psychological problems that the students might have. However, no workshops for post war support were carried out in this school.

**Students Included in Study**

The sample consisted of all grades four & five students of the above schools. The average age was between 9 and 11. The sample was set to be approximately 450 students and the questionnaires were distributed to that number. However, since some parents refused to participate and some teachers did not have the time to fill the questionnaires up (due several reasons, such as date of distribution of questionnaires being in the mid-term period of students and also to the events of May 2008 which left schools pressured to finish the curriculum in less time), the sample size was finally 380 students (n=380).

**Instruments**

For the purposes of this study, two instruments were used. One was developed by the researcher and used to measure the extent of the children’s exposure to war. The other questionnaire is a previously established one and used to measure the degree of
aggression in the children.

The CBCL

A look at the CBCL’s content and history was given in an earlier chapter. In this section, the structure of the CBCL will be discussed along with a look at its reliability and validity.

Structure of the CBCL

According to Reynolds & Kamphaus (1990), data obtained from the CBCL falls under “two broad bond factors, Externalizing and Internalizing. Under each are several narrow band syndromes for each age and sex group. In general, internalizing syndromes pertain to problems within an individual such as anxiety and depression whereas externalizing factors syndromes consist of acting out behaviour such as hyperactivity and aggression”. In this study, only the questions pertaining to the externalizing factors and more specifically to the ones addressing aggression were used, as this is one of the two foci of the study.

Established Validity of the CBCL

Construct validity for the CBCL was tested in a study done to check the claim that factor structures were different in African American and white children in the checklist. That claim was shown to be untrue and the study was in support of the construct validity of CBCL (Latkovich, 1996).

Several studies have supported the validity of the CBCL (Reynolds & Kamphaus, 1990). For example, the teacher version was able to discriminate between clinical and non-clinical cases, as well as between regular education students and special education students. There is also a very high correlation between the teacher version of the CBCL and the children’s observed behaviour, putting to rest any concerns of the CBCL being biased because of teacher’s perceptions (Reynolds &
Established Reliability of the CBCL

The CBCL Teacher Form has adequate reliability with a Pearson correlation for 1-week test-retest reliabilities ranging from 0.86 for Adaptive Behaviour to 0.93 for School Performance and 0.65 for Aggression (Reynolds & Kamphaus, 1990).

According to Achenbach & Ralcorp (2001), “Individual item intraclass correlations (ICC) of greater than 0.90 were obtained "between item scores obtained from mothers filling out the CBCL at 1-week intervals, mothers and fathers filling out the CBCL on their clinically-referred children, and three different interviewers obtaining CBCLs from parents of demographically matched triads of children. Stability of ICCs over a three month period was 0.84 for behavior problems and 0.97 for social competencies.

Established Reliability and Validity for the Aggression Subscale of The CBCL

Since only items pertaining to the aggression subscale of the CBCL will be used in this study, it is worthwhile to note the validity and reliability of this subscale as it directly related to the study and its validation.

The CBCL TRF has a Cronbach’s alpha of 0.95 and a test retest reliability of 0.88 on the aggression subscale (Achenbach & Ralcorp, 2001).

In terms of aggressive behaviour, there is a correlation of 0.81 between the Oppositional subscale of the Conner’s Rating Scale and the aggression subscale of the TRF CBCL and a correlation of 0.85 between the Behaviour Assessment System for Children and the TRF CBCL aggression subscale (Achenbach & Ralcorp, 2001).

Exposure to Events Questionnaire (EEQ)
This section will give an overview on the second instrument used in the study, the EEQ, and the means of scoring it. This instrument was developed by the researcher.

Rationale behind Creating a New Instrument

There are many existing questionnaires to assess the degree of exposure to war situations. However some are too specific such as Harvard Trauma Questionnaire for Bosnia-Herzegovina while others are too general such as the impact of events questionnaire created for any war event. It is for this reason that one was created for this study to assess incidents and events specific to the July War. To avoid any confusion or misunderstanding that may arise from language barriers, the questionnaire was written and used in the Arabic language.

Items, Scoring and Reliability of the EEQ

The EEQ is divided into six main headings which are:

- exposure to bombs (divided into two sub headings: visual and auditory)
- witnessing an attack
- death or injury
- property loss or damages
- displacement
- end of war events.

Under each heading, there are several items, with varying degrees of severity (ranging from 1-4 depending on the heading, with 1 being of mild severity and 4 of a significant severity) as agreed upon by the researcher and judgment reviews of four experts in the field: two educational psychologists, a child psychiatrist and a pediatrician. Reliability of the EEQ has been tested and it has a Cronbach’s alpha of 0.7.

In total, the EEQ contains twenty items. Each item was rated on a three point scale depending on the frequency in which it might have occurred: rarely, sometimes or
often. Each item and heading on the questionnaire was given a value or weight, based on its intensity and severity.

The score on an item was calculated multiplying the severity level (1-4) by the frequency level (1-3). In this way, a total score $S$ was obtained for each item and then the total score for all items was calculated. Based on this total score, students were placed into either the high exposure subgroup (those whose scores are in the upper 30%) or in the low exposure subgroup (those whose scores are in the lower 30%).

**Piloting of the EEQ**

The Exposure to Events Questionnaire, (Appendix) was piloted on parents in Beirut, the principals of the schools included in the study (most of whom are parents) and random parents in the Marjeyoun area before it was sent out as part of the study. It was generally agreed upon that the EEQ is clear and easy to completer; requiring little time to fill and therefore causing limited inconvenience. However, it was mentioned that the EEQ does not have the frequency ‘never’ which is applicable to some questions like witnessing deaths or death of family members.

**Variables**

This study lends itself to being a descriptive one with an IPSO-facto design, looking at the academic achievement and aggression levels of students in the aftermath of a war event.

The independent variable in this study is the students’ exposure to the July war. Exposure was measured as either high or low based on the total score $S$ on the Exposure to Events Questionnaire filled out by the parents.

There are two dependent variables for this study. The first is academic achievement as measured by the end of year final cumulative average for both the
fourth and fifth grades at the final and midterm of 2007, as compared to those at the end of 2006.

The second dependent variable is the aggressive behaviour levels as measured by the Child Behaviour Checklist CBCL filled out by the teachers of the child.

Procedure

*Preliminary Contacts and Sample*

The researcher contacted the principals of the six schools and requested a meeting with them. The purpose of the study and the rationale behind it was then discussed with each principal and permission was requested to use all the students in the fourth and fifth grade levels in the study. All principals welcomed the idea and agreed to allow access to the students’ report cards as well. The principals then gave the researcher the number of students in each grade level. A second meeting was arranged during which the main teachers of the fourth and fifth grade levels attended and the checklists to be used were distributed and discussed.

*Collection of Report Cards*

The class lists of all sections of grades four and five were selected. Report cards for the academic years 2005/2006 (the year preceding the war) and 2006/2007 (the year following the war) for all students currently in the fourth and fifth grade levels were collected from the school principals.

After checking the class lists and grades, some students were found to be new (not part of the school in the year prior to the war) and therefore had no report cards from the school at that time.

*Administration of the CBCL*

During the second meeting, the researcher gave copies of the CBCL to the
principals for their approval. Then, the researcher sat with the teachers and gave them a brief overview of the study and its potential benefits directly related to them in the teaching field.

The CBCL was then introduced and the researcher requested the teachers’ cooperation in filling it out. The researcher read each item and explained it to the teachers if needed. The teachers commented on the ease of use of the checklist, and the overall clarity of the items. The researcher then gave the teachers a time frame of two weeks to complete the checklist for all their students. It was agreed that teachers can divide the checklists among them as long as each teacher filling it out had contact with the students at least one period (fifty minutes) daily and therefore knows them well.

Administration of the EEQ

After discussing it with the principals, the researcher asked the teachers to send copies of the Exposure to Events questionnaire home with the children so that their parents can fill it out (this questionnaire was also in Arabic). A letter from the principals accompanied the questionnaire in support of the study and also to inform parents that no financial support is to be expected from the completion of the questionnaire.

The researcher asked for the principals’ and teachers’ cooperation in making sure that, as much as possible, all parents fill out the forms and return them to school. When a student came to school without the checklist, the teachers reminded him/her to ask his parents to fill it out as soon as possible. Also another copy of the form was sent as a reminder to those parents who did not return it the first time. If, after that, they still did not participate, then their child’s CBCL was omitted from the study and the child was not counted as part of the sample.

Data Analysis

A T test was used to analyze the mean differences in academic achievement for
the whole group between 2006 and 2007.

To study the differences in academic achievement between the higher exposure group and the lower exposure group in 2007, means and standard deviations were reported for both groups for both years (2006 & 2007) and the differences were investigated using ANCOVA with the pre-war grades as a covariant.

To study differences in aggressive behaviour between the higher exposure groups and the lower exposure groups, T Test was used on 2007 means.
CHAPTER IV

RESULTS

This chapter presents the results of the hypothesis tested. All hypothesis were tested at p<0.05 level of significance.

Sociodemographical and Exposure Results

There were 52% males and 48% females in the study sample distributed homogeneously among five southern schools (Table 1). Among those children, 49% were in the 4th grade and 51% in the 5th grade (Table 1). Table 2 reports descriptive for the various categories of exposure, according to the Exposure to Events Questionnaire.

Table 1

Sociodemographical characteristics of children in the study sample*

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>N</th>
<th>(%)</th>
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<tr>
<td><strong>Sex</strong></td>
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</tr>
<tr>
<td><strong>School Name</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nuns of the Two Sacred Hearts</td>
<td>106</td>
<td>28</td>
</tr>
<tr>
<td>St George Elementary School</td>
<td>87</td>
<td>23</td>
</tr>
<tr>
<td>Marjeyoun National College</td>
<td>71</td>
<td>19</td>
</tr>
<tr>
<td>Issa Ibn Mariam</td>
<td>69</td>
<td>18</td>
</tr>
<tr>
<td>Al Irfan school</td>
<td>50</td>
<td>13</td>
</tr>
<tr>
<td><strong>Student Grade</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4th grade</td>
<td>186</td>
<td>49</td>
</tr>
<tr>
<td>5th grade</td>
<td>197</td>
<td>51</td>
</tr>
<tr>
<td><strong>Exposure to the July war</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low exposure</td>
<td>118</td>
<td>31</td>
</tr>
<tr>
<td>High exposure</td>
<td>115</td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td>233</td>
<td></td>
</tr>
</tbody>
</table>

* N=383
Table 2

Exposure level to the July war of children in the study sample

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean (SD)</th>
<th>Scoring Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposure to war total score</td>
<td>383</td>
<td>0</td>
<td>115</td>
<td>55(20)</td>
<td>[0-135]</td>
</tr>
<tr>
<td>Exposure to war score by item</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exposure to raid</td>
<td>372</td>
<td>0</td>
<td>27</td>
<td>18 (5)</td>
<td>[0-27]</td>
</tr>
<tr>
<td>Witnessing an injury</td>
<td>372</td>
<td>0</td>
<td>18</td>
<td>6 (5)</td>
<td>[0-18]</td>
</tr>
<tr>
<td>Death &amp; injury</td>
<td>372</td>
<td>0</td>
<td>36</td>
<td>8 (7)</td>
<td>[0-36]</td>
</tr>
<tr>
<td>Destruction &amp; damages</td>
<td>372</td>
<td>0</td>
<td>10</td>
<td>5 (2)</td>
<td>[0-10]</td>
</tr>
<tr>
<td>Displacement</td>
<td>372</td>
<td>0</td>
<td>40</td>
<td>15 (8)</td>
<td>[0-40]</td>
</tr>
<tr>
<td>End of the war</td>
<td>372</td>
<td>0</td>
<td>4</td>
<td>4 (0.9)</td>
<td>[0-4]</td>
</tr>
</tbody>
</table>

Aggression Level Results

Table 3 represents average aggression levels of the whole sample by gender, grade level and level of exposure (high versus low). T tests investigating differences revealed significant differences in three values by level of exposure, in favor of high exposure.

Results revealed that children who had higher exposure to the war had significantly higher aggression score (4.4 versus 3.0 p=0.015) (Table 3). This result supports the hypothesis that there will be a significant difference in aggression level between children who were highly exposed to the war and those who weren’t.

Table 3 also reports children’s characteristics as distributed by their aggression level. It indicates that boys in the sample were found to have higher scores on the CBCL than girls and those younger children also had higher scores on the CBCL than their older peers.
Table 3

Average aggression levels by level of exposure

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Mean (SD)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Exposure to war score</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low exposure</td>
<td>3.0 (4.2)</td>
<td>0.015</td>
</tr>
<tr>
<td>High exposure</td>
<td>4.4 (4.5)</td>
<td></td>
</tr>
</tbody>
</table>

Academic Achievement Results

Results of the T-tests indicate that there was a significant difference between the mean of academic achievement of the whole sample in 2007 as compared to the whole sample in 2006 (t=14.25, p<0.001). Table 4 depicts the average academic achievement for the whole sample before and after the war.

Through analysis of covariance, it was found that there is no significant difference between the academic achievement level of those in the high exposure group and those in the lower exposure group. Table 5 represents the mean scores and standard deviations in 2006 and 2007, while table 6 gives a breakdown of means and standard deviations in 2006 and 2007 by school. Table 7 indicates the results of the analysis of covariance of academic achievement between children with low exposure to the war and those with high exposure to the war with the covariant being the children’s 2006, prewar results.
Table 4

*T test results for the academic achievement of the whole sample before and after the war*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean (SD)</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average grade before</td>
<td>15.29 (2.17)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>the war</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average grade after</td>
<td>14.64 (2.37)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>the war</td>
<td></td>
<td></td>
<td>14.25</td>
</tr>
</tbody>
</table>

* Significance at the level of p<0.001

Table 5

*Mean scores and standard deviation of 2007 children average scores*

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>N</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scores in 2006</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low exposure to war</td>
<td>15.4696</td>
<td>100</td>
<td>2.26831</td>
</tr>
<tr>
<td>High exposure to war</td>
<td>14.9212</td>
<td>89</td>
<td>2.05866</td>
</tr>
<tr>
<td><strong>Scores in 2007</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low exposure to war</td>
<td>14.9180</td>
<td>99</td>
<td>2.58123</td>
</tr>
<tr>
<td>High exposure to war</td>
<td>14.1826</td>
<td>88</td>
<td>2.21043</td>
</tr>
</tbody>
</table>

Table 6

*Means and standard deviations of grades for 2007 by school*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean (SD)</th>
<th>T</th>
<th>Df</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Marjeyoun National college</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average of grade before the</td>
<td>53</td>
<td>14.0 (0.8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>war</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average of grade after the</td>
<td>53</td>
<td>13.7 (1.1)</td>
<td>5.176</td>
<td>52</td>
</tr>
<tr>
<td>war</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference (after- before)</td>
<td>53</td>
<td>0.3 (0.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>**Nuns of the two sacred</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>hearts**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average of grade before the</td>
<td>95</td>
<td>15.8 (2.3)</td>
<td>9.59</td>
<td>94</td>
</tr>
<tr>
<td>war</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average of grade after the</td>
<td>95</td>
<td>15.2 (2.6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>war</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference (after- before)</td>
<td>95</td>
<td>0.6 (0.7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source</td>
<td>SS</td>
<td>df</td>
<td>MS</td>
<td>F</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>------</td>
<td>----</td>
<td>------</td>
<td>-------</td>
</tr>
<tr>
<td>Exposure to war</td>
<td>1.834</td>
<td>1</td>
<td>1.834</td>
<td>3.247</td>
</tr>
<tr>
<td>Error</td>
<td>103.945</td>
<td>184</td>
<td>.565</td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER V

DISCUSSION

The purpose of this study was to investigate whether the children with high exposure to a war event, such as the July war, would have a higher aggression level and a lower academic achievement level than those children with lower exposure to the same event. Another purpose was to investigate whether post war academic achievement results were significantly different from the pre war ones for the whole sample. Tools used to test this hypothesis were the Exposure to Events Questionnaire, the CBCL for aggression, and the final term grades for the academic years 05-06 and 06-07 for academic achievement.

The results of the hypothesis testing done in Chapter IV showed that there was indeed significant difference between the aggression levels of those children who were highly exposed to the war and those who were not. Similarly, the results in Chapter IV, indicate that there was a significant difference in the academic achievement of the whole sample’s academic achievement after the war, as compared to their achievement before it. However, results in Chapter IV report that there was no significant difference in the academic achievement between those in the high exposure group and those in the lower exposure group.

This chapter discusses, explains and provides implications of the aforementioned results. It also provides recommendations for further research.

Aggression Level Results

It was initially hypothesized that there would be a significant difference in the
aggression levels between children who had a high exposure to the war and those who had a low exposure to it. The results reported in Chapter 4 support this hypothesis. These results are also supported by studies on the effect of war and aggression levels.

**War and Aggression Levels**

The results of this study indicate that a higher exposure to the July war is indeed related to higher levels of aggression among upper elementary age school children in the South of Lebanon.

These results are consistent with other studies that have researched the links between war situations and aggression levels among children. One such study was carried out by Allwood, Bell-Dolan and Husain (2002) on children during the war in Sarajevo and reports that witnessing killings was related to teacher-reported aggressive and delinquent behavior. Zahr’s study (1996) of two groups of Lebanese children during the Lebanese civil war, one group in a heavily exposed area and the other group in an area that was not exposed to the war at the time, also indicated that those children who had witnessed heavy shelling two years previously reported more behavior and aggression problems as compared to the children who lived in a war free zone. Finally, Thabet, Karim & Vostanis’s study (2006) is also in line with this study’s results indicating that higher levels of exposure to war, in Palestinian children in the Gaza Strip, were linked with more severe emotional and behavioral symptoms.

Joshi & O’Donnell’s report (2003) on the consequences of children’s exposure to terrorism credited this rise in aggression after a war event to the idea that children who were exposed to the violence of war and have seen adults behaving aggressively, come to see aggression as normal, especially when such aggression is socially accepted or leads to a desired outcome. This results in an increase in the rate of children’s aggression.
This idea is supported by Bandura’s Social Learning theory’s view on aggression. Bandura believes that children learn aggression by observing aggressive people and modeling their behavior after them. This is illustrated in Bandura’s classic Booboo doll experiment in which a group of children observed adults playing aggressively with the Booboo doll and receiving no negative consequences while another group of children observed adults playing non-aggressively with the doll. The children were then left alone to play with the Booboo dolls. Those who had observed the adults playing roughly with the doll made more aggressive responses than those who had observed the nonaggressive adults (Gage & Berliner, 1998).

Bandura’s experiment could explain the results of the present study, as those children who were highly exposed to the violence in the South of Lebanon might have come to believe that aggression is the only means to resolve a conflict. Also, those children who had observed all the aggressive behavior of the war could have started modeling their behavior after the adults they observed. After the war, in a personal communication with the teachers of the children in the sample, they reported that young children’s dramatic play became more aggressive as they imitated the fighters they saw on the street and the sounds of bombs they heard.

Zivcic’s study (1993) gives another possible reason for the higher aggression levels of the more exposed group which is that children begin to develop their self concept at the elementary school age. A war event, at that time of development, causes severe stress to that child, accompanied by a feeling of helplessness detrimental to his self concept development. This feeling is intensified if the adults around the child cannot lessen her fears or protect her (due to their own fears and concerns typical of a war situation) and can lead to the child either withdrawing into himself or lashing out in aggression (Zivcic, 1993). Children in this study may have felt that helpless in the face
of the war situation and their parents’ inability to protect them from it causing them to act more aggressively.

A final idea on why war events are related to higher levels of aggression is presented by Lewis (1992) who states that in already vulnerable and impulsive children, war events often create violent individuals. This is because a war event desensitizes those children to their own and others’ pain, and reduces their ability to emphasize with others, making it easier for them to inflict pain in the future (Lewis, 1992). The children in the present study have had their share of violent events and perhaps they have become desensitized to aggression, and do not realize how aggressive their play and actions have become.

*Long Term Effect of War on Aggression Levels*

This study has revealed that although two years had passed since the July War, there was still a significant difference in the aggression levels of those who were highly exposed to the war and those who had lower levels of exposure. This long term effect of war on aggression levels is supported by several studies.

Several studies have shown that some of the effects of war on children are of a long term nature, although their severity decreases with time. A study done by Cordahi *et al.* (2002) on Lebanese children orphaned by the Operation Grapes of Wrath showed that the aggression level of the children remained relatively high for four years after the war, decreasing from the initial 10.3% to 10% when it was last tested (four years after the first time it was tested initially).

Another study by Thabet, Abed & Vostanis (2002) indicated that during the aftermath of the war, and even though they received no intervention, children’s reactions from the war had decreased by up to 10% at a one year follow-up, but they were still considered significant.
Many studies have discussed the importance of family support, and other mediating effects in decreasing the severity of the symptoms brought on by war situation. Zahr’s study (1996) states that, through correlative analysis, it was shown that a supportive home environment can play a role in decreasing the traumatic impact of war on children and suggests that parents be counseled on ways to be affectionate and open with their children as a means of lessening the impact of war trauma. Shaw’s report (2003) discusses studies that have shown that a high degree of social, community and family support offer a protective factor in children’s healing at times of war. Fayyad (2003) spoke of the clearly perceived, although not tested, effect of community support on the morale of the children exposed to Operation Gapes of Wrath.

In this study, many NGOs and schools carried out therapeutic activities aimed at helping children deal with their emotions in the aftermath of the war. Perhaps such activities and support had a role in decreasing the level of aggression among the children exposed to the July War, although the difference in aggression levels of the children in the high exposure as compared to that of the low exposure group was still significant.

In conclusion, the results of this study on aggression are generally consistent with the previous research in this field. While time does decrease the effect of war, some of the effects still remain even after the passage of time.

Academic Achievement Results

There were two hypothesis related to academic achievement and exposure to war. The first initial hypothesis was that children with higher exposure to the July war would have a lower level of academic achievement than those with a lower level of exposure to the July War. The results in Chapter IV did not support this hypothesis and
this will be explained in the discussion. The second initial hypothesis was that the entire sample’s achievement level would be post-war (2007), than it was pre-war (2006). The results in Chapter IV confirm this hypothesis. A breakdown of the whole sample by school also shows that the children’s average grades in each school included the study dropped after the war.

A study done on Iraqi children in Mosul placed learning disorders in the top ten disorders effecting children exposed to the war in that area (Jawadi & Abdul-Rahman, 2007). Joshi & O’Donnell’s report (2003) shows that some of the school age children’s reactions to war stressors include school related issues such as inability to concentrate and refusal to attend to school. Both such symptoms would lead to the low level of academic achievement for the whole sample as reported in this study. The same report discusses studies which have shown that war is related to cognitive and academic impairment among children and youth.

A study done by Barath (2002) on Albanian children’s well being after the war in Kosovo surveyed school teachers, parents and children (using survey questionnaires) to get their perceptions on the children’s psychosocial needs after the war. One school teacher interviewed in the study attributed the children’s distraction from and decrease in school performance to the “great fears” they had, fears such as horrible memories of acts of violence and the presence of land mines in the area they lived in. This could also be a reason that the sample in the present study had a decrease in academic achievement after the war, as the concern and danger represented by landmines is still an issue in the South of Lebanon today Gurwitch, Kees & Becker’s review article (2002) gives another reason for low academic achievement after a war situation which is that children tend to become restless and hyperactive after a war event causing them to sleep less and have poor nutrition which in turn creates a viscous circle as children who are not well rested
will not be able to focus in school and their academic achievement results will suffer.

Although the results for the whole sample show a drop in academic achievement after the war, the results for those who were highly exposed to the war do not significantly differ from those who had lower exposure to war. This could be explained by the idea that the entire sample in the study is exposed to the post war conditions of the school they are in, and not just the ones who had high exposure to the war. After the war, children most likely received emotional and social support from the schools they were in as, as was reported to the researcher through personal conversations with some teachers, there was a conscious effort to attempt to help the children regain a sense of stability and trust after their traumatic experiences. As was discussed in the previous section on aggression, social support can play a great mediating role in decreasing the impact of war on children. Since all children would have received the same support from their schools, this could explain the result of no significant difference in academic achievement levels between the high and low exposure groups.

In conclusion, while there are a few studies that discuss academic achievement in relation to war, those found have been consistent with this study in indicating that war exposure is indeed related to lower levels of academic achievement, although, in this study, there was no significant difference based on the level of exposure to the war.

Implications

The main implication of this study indicates that aggressive behavior and changes in academic achievement can be expected after a war and that people dealing with children should be on the lookout for such symptoms. Macksoud and Aber (1996) suggest that children exposed to death and/or direct violence in a war situation should
be targeted for therapy and be encouraged to work on planful behavioral skills. One of the recommendation in Karam et Al’s research report (2008), and based on the findings of their study on the children of the South in 1996, is for intervention to take place a couple of months after the war and to also target externalizing and impulse control disorders (not just PTSD).

It would be recommended for teachers to receive training in how to observe children and what to look for in the aftermath of a war event.

Recommendations

This study revealed promising results pertaining to the relation between war and academic achievement and aggression. However, continued research is needed in this area especially researches focusing on Lebanon and the July War.

- Further research is needed on the effect of war and traumatic events on the academic achievement of school age children.

- Further research is needed on the effects of the July War on the children of Lebanon in all areas of development. While there is a significant body of research dealing with the civil war in Lebanon, the July War is different in that it caused the highest rate of displacement in Lebanon and it’s the first exposure to war among young children in Lebanon.

- Further research is needed on the long term effects of war on aggression levels and academic achievement in children. While the long term effects of war on PTSD have been significantly studied, such research is needed in terms of academic achievement and aggression.
APPENDIX I

CHILD BEHAVIOR CHECKLIST (TRF)
APPENDIX II

EXPOSURE TO EVENTS QUESTIONNAIRE

Note concerning the weights in the Exposure to Events Checklist

The checklist is divided into six groups or headings pertaining to the different events, in general, that a child may have witnessed during the war. Each group received a weight. (Italicized next to the Roman numeral)

Each heading or group has specific items under it and each specific item has also received a weight. (Italicized next to each item)

Finally, the frequency in which the event occurred (rarely, sometimes and often) also received a weight. (in bold next to the frequency)

The three weights are multiplied to obtain the final score for each item that the parent might select (written in blue on the checklist grid)

Scores will all be added together to get the final score concerning the level of exposure to the events of the July war.

The upper thirty percent scores will be considered as high exposure to the events of the war, while the lower thirty percent scores will indicate a low exposure to the war.
استفتاء عن مدى التعرض لأحداث تموز

I. سماع القصف

<table>
<thead>
<tr>
<th>سماع</th>
<th>نادراً</th>
<th>أحياناً</th>
<th>غالباً</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

II. المشاهدة

<table>
<thead>
<tr>
<th>المشاهدة</th>
<th>نادراً</th>
<th>أحياناً</th>
<th>غالباً</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. على التلفزيون خلال الحرب</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2. عن بعد</td>
<td>6</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>3. التعرض للقصف</td>
<td>9</td>
<td>6</td>
<td>3</td>
</tr>
</tbody>
</table>

III. إصابة وفاة

<table>
<thead>
<tr>
<th>إصابة وفاة</th>
<th>نادراً</th>
<th>أحياناً</th>
<th>غالباً</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. إصابة أحد الأشخاص المقربين من العائلة بإصابات طفيفة</td>
<td>6</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>2. إصابة أحد الأشخاص المقربين من العائلة بإصابات خطيرة</td>
<td>12</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>3. وفاة أحد الأشخاص المقربين من العائلة</td>
<td>18</td>
<td>12</td>
<td>6</td>
</tr>
</tbody>
</table>
### IV. تدمير وأضرار

<table>
<thead>
<tr>
<th></th>
<th>أصيب منزلي بدمير جزئي</th>
<th>ينعم</th>
<th>لا</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>أصيب منزلي بدمير كلي</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>تعرضت لخسارة أملاك خاصة (سيارة - بستان - حيوان)</td>
<td>ينعم</td>
<td>لا</td>
</tr>
</tbody>
</table>

### V. فترة التهجير

<table>
<thead>
<tr>
<th></th>
<th>نادرًا</th>
<th>غالباً</th>
<th>أحياناً</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>تضايق طفلي من اكتظاظ مراكز المهجرين</th>
<th>ينعم</th>
<th>لا</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>تعريض طفلي للعنف الجسدي أثناء التهجير</td>
<td>ينعم</td>
<td>لا</td>
</tr>
<tr>
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### VI. انتهاء الحرب

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REFERENCES


