THE GRAPES OF WRATH CHAPTER
PHASE I

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I N D E X

I N T R O D U C T I O N

The Lebanon wars have taken a major tall on the Lebanese for the past three decades. While most of the foci have been extinguished , a major chapter is still bleeding heavily: the South of Lebanon and it has been so since 1948 with a well established occupation since 1978.

In 1993, the Lebanese residing in the South were displaced once more from their homes that came under shelling for seven consecutive days and when that wave was over, residents went back to what remained of their residences, spurred by the Lebanese officials who succeeded in reversing the massive exodus from the South to the capital Beirut ; this didn't mean however that the Southerners went back to live in safer conditions : the might of the sword was the name of the game and on the 11th of April 1996 , a key player in the Lebanon wars, Israel, unleashed its military machine once more with tanks, ships, and planes spreading death and destruction on the South and west Bekaa.

UNICEF (Lebanon) called on IDRAC because of previous coordinated work on the "Helping the Young Traumatized Child" manual by the UNICEF regional office (Jordan) and because IDRAC'S members had worked heavily on the effects of war on mental health (6, 7, 8, 9, 10, 13). UNICEF wanted to help urgently the children and adolescents in the South and West Bekaa who have been exposed to these severe traumatic events. Several intensive meetings between UNICEF and IDRAC were held while the Grapes of wrath were still underway to prepare for the immediate plan of action. Internal consultations within the IDRAC group and international consultations with major researchers and leaders in the field led us to a strategy that will be exposed later in its details in this report. This will be followed by the initial results of this study.

P U R P O S E O F P R E S E N T S T U D Y

I- Assessment of Psychiatric Casualties

This is done on a group of 45000 children and adolescents statistically represented by 402 of them, selected using a stratified random sample to ensure best representativity, with age ranging from 6 to 17 years. This will be called the pure assessment group (PA).

II- Treatment of Most Exposed Groups

This is done on a subgroup of about 2500 children and adolescents in the same age range as the pure assessment group (PA). A subgroup (100 of them) selected randomly were pretested. The 2500 children whom we treated came from six schools in areas considered by the Lebanese Ministry of Education to be the most heavily exposed to war events during the Grapes of wrath operation. This will be called the therapy - assessment group (TA).

III- Validation of the Treatment Method

This will be the main focus of phase II of this study.

M E T H O D O L O G Y

I-SAMPLE SELECTION

For the selection of the pure assessment (PA) and the combined treatment-assessment (TA) samples, schools are taken as the sampling unit because of the availability of complete, accurate, and up-to date sampling frames (i.e. list of all schools in the areas to be studied whose source is the ministry of education). Public and private schools were included in the sampling of the PA subjects; however, only public schools of the six villages selected for the TA sampling are included because cooperation for two full weeks is required from their teachers which cannot be attained from private schools especially with the time limitations that we faced. In fact, the Grapes of wrath chapter of the Lebanon wars was over militarily on the end of April 1996 and the school year was scheduled to end by the 14th of June 1996. Thus, we had a total of six weeks to do the whole field work, including the therapeutic intervention on the subsample of the targeted schools. The stratification variables used in the selection of the PA sample are the following:

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A-REGION

The region is an important stratification variable in order to have the appropriate representativity of the two Southern Mohafazat and the west Bekaa. Each region was represented according to the size of the student population included.

B-SIZE OF THE SCHOOL

From the sampling frame provided by the Lebanese ministry of education, schools were divided into 3 categories.

1) those with less than 100 students

2) those with 100 to 500 students

3) and those with more than 500 students.

The size of the school is important since it gives an idea about the pool from which students are coming. For ex., a school with more than 500 students is a school that attracts children not only from the village where it is built but from many villages surrounding it. Each of these categories was represented adequately in our sample.

C-EDUCATIONAL LEVEL

The population of students from which our sample is drawn is in favor of the primary level with a ratio of 2:1 (primary to intermediate). Thus, a representative sample was selected in a way to have the same ratio. Secondary classes are not included in the sample because they would have a higher age compared to the age range that we are interested in.

Using these stratification variables , a total of 25 schools were selected from which 402 students are drawn for the pure assessment (PA) group. An equal number of students is randomly selected from each school. For the second purpose of this study; i.e., the treatment of most exposed groups (TA), two public schools from villages identified by the Lebanese Ministry of Education as the most heavily bombarded, were

selected from each region of study (Mohafazat Al-Janoub, Mohafazat Al-Nabatieh, West Bekaa). All students of the six schools (N=2500) were exposed to the psychiatric treatment; however, only 100 students randomly selected from these schools were interviewed and thus pre-tested in order to be able to evaluate the efficacy of the treatment method in a later phase.

II-INSTRUMENTS

Three instruments were used in this study and these are: the Diagnostic Interview for Children and Adolescents (DICA), the War Event Questionnaire (WEQ) , and the therapeutic daily report .

The DICA is a structured interview that our group translated into arabic after receiving the agreement of its authors at Washington University in the United States. It is designed to be administered by lay interviewers i.e, non-mental health workers and it is specially used in large epidemiologic studies. The sections of the DICA that are translated are the ones concerning the disorders that we are interested in assessing and these are: Depression, Separation anxiety, Overanxious disorder, and Post-traumatic stress disorder. The focus is on these disorders because they are known to be the most common disorders encountered after trauma. A section about the basic demographic characteristics and another dealing with psychosocial stressors are also translated. There are three versions of the DICA : one for the child, one for the adolescent, and one for the parent. An interview with one of the parents of the child, preferably the mother, is necessary in such type of studies in order to assess the reliability of the child's answers. The three versions of the DICA do not differ except in the simplicity of the questions to be administered to children and in very few questions between the child and the adolescent versions concerning weight loss or gain and any change in grades in the depression section.

The WEQ is an instrument constructed by our group used to assess the individual level of exposure to war events. This questionnaire was pilot-tested and it is used in our Lebanon wars studies and mental health since 1989.

The therapeutic daily report is provided to the appointed teachers of each school who received the training for the therapy. This report is a detailed description of the day by day intervention done by the teachers. It includes information about the date of the intervention, its duration, the number of students exposed to the intervention, and the content of the intervention: issues raised by the teacher, responses and level of cooperation and sharing by the students, behavior of the students observed during the intervention, and finally the teacher's reflections and suggestions regarding the treatment program.

III-TRAINING

The Interviewers administering the questionnaire are health workers from the schools selected for study. 21 health workers received an intensive training on the DICA for four consecutive days by five clinical psychologists. The coding of the questionnaire, the names of the students to be interviewed in each school and the substitutes for possibly absent students were detailed to the health workers by an epidemiologist. All the trainers were members of IDRAC.

The interviewers were familiarized with the disorders to be assessed and their risk factors. The training included also a role - playing: they were divided into groups of 2, one playing the role of the interviewer and the other the interviewee and vice-versa. This role - playing was done after the explanation of each section of the interview and re-training was done depending on the observed mistakes; this process was repeated to the satisfaction of the trainer.

Full time teachers from the six schools of the combined Therapy-Assessment group conducted the treatment of the students of these schools after receiving an intensive training from a psychiatrist and 3 clinical psychologists for one whole day exposing them to the goals of the treatment, introducing them to the concepts and entities of psychiatric disorders frequently encountered among children and adolescents after trauma and to the specificities

of these disorders for the different ages, and then exposing in details the methodology and the steps to follow during the treatment they were about to deliver. A total of 68 teachers received the training.

The treatment model that we adopted was inspired from the work of Pynoos and Nader in this domain (14) however, this model of prevention and treatment was adapted to the specific context and goals of this study.

The goals that we hoped to achieve from this treatment are the following:

1- Minimizing the impact of traumatic events on children and adolescents.

2- Addressing the specific features of Depression, anxiety disorders (PTSD, OAD, SA), and bereavement reactions.

3- Working on natural and expected aftermath symptoms rather than on "Caseness" that requires more professional treatment.

4- Facilitating the "return" to normal life.

5- Limit the escalation of symptoms towards a more exacerbated and severe disorder.

To achieve these goals, teachers were asked to spend 30 minutes daily with their students up to the end of the academic year (12 days) according to the following schedule:

Symptoms of PTSD	on the 1st, 2nd, 7th, 8th days
Depression and Bereavement reactions	on the 3rd, 4th, 9th, 10th days
Overanxious disorder and Separation anxiety	on the 5th, 6th, 11th, 12th days

The teachers role can be summarized by the following:

1- Allow the students to express their feelings.

2- Achieve Cognitive restructuring related to specific items.

3- Acknowledge the extent of student's disturbances and the extent to which they interferes with different areas of their life.

4- Encourage the students towards a class cohesion in order to solve a particular problem and facilitate the process of learning.

5- Let the students be aware that the teacher can be a helper.

The following will be a detailed description of the processes used for each theme to achieve the desired goals.

Theme I: **PTSD**

***Goal*:** To minimize the feelings of fear and its continuous interference with one's usual activities and tasks**.**

Through:

***Procedure 1*:**

Correcting the wrong assumptions, the wrong information,. and the common misconceptions that are age related; this is called cognitive restructuring.

Techniques used:

"Do you think that the event will reoccur?"

"How do you know that it will occur again?"

"What is the best way to gather data?"

"What scares you the most?"

"How does it feel to be afraid? when are you afraid? who is also afraid?"

"What does it mean to feel guilty?"

"Could we avoid the event?"

Procedure 2:

Allowing the exchange of the common fears that are related to personal safety and developing in the students the coping behavior that will contain these fears.

Techniques used:

"What are the things that you were able to do before the events and now you stopped doing?"

Use of dreams, drawings, role play, writings.

"Draw, or write about a dream that upsets you a lot, what does it remind you of? All dreams are accepted, there are no correct or wrong dreams".

"Are there any sounds that upset you? sounds that are present in class, a loud voice for example or something else...?"

"Who is afraid to sleep alone at night? Why? What can we do about it?"

Encourage the children who are not afraid to offer and propose solutions.

"Who want to role-play a fearful event?"

Procedure 3:

Acknowledging the common cues of traumatic events and decreasing any exacerbated reaction towards a recurrent fearful experience.

Techniques used:

"What do you remember from the last traumatic events?"

"What are the things that when you see remind you of the war again?"

- Be aware of the ironic remarks or the laughter of some students and encourage the involvement of most students.
- Pay attention to the students who are slow in giving their answers and who don't participate with their surrounding: feeling as if they don't belong, feeling strange compared to others and towards others.
- Put them in front of the class.
- Ask them direct questions, let them erase the board, distribute the notebook, read loudly...
- Encourage if low concentration and low energy and motivation are present: do not scorn them.
- Say that the images that come to the mind are expected because the trauma were terrible, violent, and hard on them and let them talk about the traumatic events until the traumatic impact decreases.

- Write all the "fears" on the board and select which one are still present: Adult people are afraid also of many things.

It is only during the war that we should extremely protect ourselves from real danger...

Goal: To normalize the recovery process: back to normal life:

Through:

Procedure 1: Discussing the existing varieties among different people.

Techniques used:

"If I am angry at my friend and his way of looking at things is different than mine, how can I proceed without using violence?"

-"Israel is our enemy, how can we fight it?"

We can "fight" with several effective ways and not only with violence: study more, be competitive, business, agriculture, sports, inventions, and weapons...

Procedure 2:

Making it clear that there is a limited time for the impulsive or primary reactions to specific traumatic events and this time course varies according to personal experience.

Techniques used:

"May be some of you have felt strong emotions like nightmares, fear, need to sleep near parent. When I will talk about these, please let me know about them... All these emotions are normal, don't be ashamed, don't think or assume that you are weak."

Procedure 3:

Facilitating the help seeking behavior from the teacher or friend (peers in the same class).

Techniques used:

- Create cohesion in the class and alternatives

"I'm not a victim, I have choices"

"Celebrate a birthday in the class"

"Structure the class, distribute roles"

"Use yourself as an example or other famous persons who lived difficulties and how they overcome them by finding solutions: ex: Political Leaders, Red Cross helpers, etc...

Theme II: Depression and bereavement reactions:

Goal: To give concrete and symbolic examples of the concept of death:

Through:

Procedure 1:

Discussing the concept of death according to age and emphasize the physical reality of death through drawings, stories, etc...

Techniques used:

"What will happen after death?

Use of religious concepts, drawings, writings...

Procedure 2:

Talking to the children about sadness or anger resulting from a violent death in traumatic situations, and about the death of a close person and their griefing process.

Procedure 3:

Propose and encourage the children to use constructive and positive ways of remembering death.

Techniques used:

"When somebody dies, he goes to Heaven or El Jannah, he doesn't become ugly, he stays the way he was. "

"Draw the person who got injured or disfigured in a way that he is restored and well “fixed”"

"We can learn a lot from the good things this person had done when still alive."

These techniques help to restructure the distorted thinking about death, usually common in children such as: the dead becomes a ghost or he will manifest himself in the night and steal the child.

Procedure 4:

Share with the students their feelings of injustice concerning unexpected death.

Techniques used:

"Don't think that death is a punishment, it is not . We always feel that death is unfair"

Themes III & IV: Generalized Anxiety and Separation Anxiety.

Goal: Normalize and legitimize the anxiety feelings in children and adolescents **Through**:

Procedure 1:

Asking and making sure if any of these students have had these feelings of anxiety

Techniques used:

For separation anxiety: “Has the child been separated from his parents during the war?"

Or consider any other type of anxiety just by listening to the data given by the students.

Procedure 2:

Letting the students share their feelings with their peers in the class and with the teacher; the feelings are here focused on anxiety matters.

Techniques used:

- Classroom diary

- Use drawings and put them on the board. Let it be a process of thinking with several steps and solutions offered and initiated by the students as a result of their collaborative work.

Hint: Divide the class in groups of 5 to 10 and work through these techniques:

Example:

Ideas, or images of fear	---> What do you see?
	---> What scares you?
Solutions	--->What are the solutions?

"Do you worry about your brother, sister, parents, do you worry about yourself?

"Why?" "What is going to happen? "

Work through the Technique of Suppression rather than insight:

"What is the evidence that war will start again? "

"How many times did you worry and nothing happened?"

Procedure 3:

Discussing the moments of reunion.

Techniques used:

"How do you feel when you are with your parents?"

Happy, Sad, Worried, Shy, Bored, or Guilty.

Procedure 4:

Acknowledging the situations that trigger severe and common feelings of anxiety among children.

Techniques used:

" What do you feel if somebody decided to travel?"

" What do you feel if somebody went to school?"

"What do you feel if father works far away from the village?"

"What do you feel if somebody gets sick?"

"What do you feel if mother went to the city away from the village?"

Happy, Sad, Worried, Shy, Bored, Guilty.

Procedure 5:

Help the children to find out ways to express their own fears and their preoccupation with their parents.

Techniques used:

"Ask your parents how do they solve their problems? "

Homework:

Ask your mother or your father how they used to do when they were your age? Bring back the answers with you as well as the solutions.

-You can let the students play the role of their fathers or mothers and answer the above question and compare it to their own answers.

Teachers were instructed to be always present in class before the students, to speak clear and loud, to intervene promptly and shortly in case of any incident that occurs in class, and to be assertive and at the same time close to the students.

After having exposed the procedure and the methodology of the treatment, we asked the teachers to talk about their own fears, worries, resistance and problems that resulted from their own exposure to war: we helped the teachers themselves ventilate and discuss their own difficulties. We thought that this approach will give us and the teachers the chance to be aware of possible pitfalls that might affect the quality of the treatment; this would enhance too the "readiness" of the teachers to lead and conduct the treatment. Being

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now more alert to their own difficulties and the extent to which these can alter their capacity to provide the necessary management and help for the students, they might be

more in control of their task. The teacher is asked to fill in the therapeutic daily report following each session documenting the session in details, his observation, what has been said by the students and the strategy of his treatment. The Therapeutic daily report is structured in concordance with the themes that were introduced above.

IV-DATA COLLECTION

Data collection started on the 29th of May 1996 and extended to the 10th of June 1996 following a daily preset schedule assigning the schools and the number of students to be interviewed that was distributed to the interviewers in each region. The interviews with the therapy assessment group (TA) was conducted first (May 29-June 3).and before the start of the treatment, and thus it is a pre-intervention test or a pre-test. This is done so that we will be able in a later phase to compare this pre-test to a post-therapy test (or post-test) to examine the effects of the therapy. Interviews were conducted in strict privacy: the student is alone with the interviewer, in a separate room of the school. No parents or teachers are allowed to stay or interrupt the interview. A consent form is signed by the parents before the interview. It is worth noting here that no refusals were encountered; however, some parents were complaining about the length of the interview that took at first about two hours but in later stages of the field work, took less than one hour. Parents who didn't show up at school after receiving a formal letter from the school director inviting them to participate in the study , were followed up to their own homes and interviewed there. The cooperation of school directors is ensured after meeting with them for a whole day to explain the purpose of the study and the role they will play in the organization of the interviews.

The interviews were collected daily by the supervisors that were selected during the training sessions who in turn handed them in to the IDRAC researchers who edited each interview at the Department of Psychiatry and Psychology at St. George Hospital in Beirut. A list of the interviews conducted by each interviewer in each region was required in order to compare the number of interviews conducted with those handed in to prevent the loss of any interview. The editing procedure started directly on the first night of data collection and went in parallel to the data collection in order to send the interviews (including corrections) back to the field to be corrected.

The therapy of the students of the Six Schools was supervised by the clinical psychologists who were responsible for the training of the teachers. Each psychologist was the supervisor of the therapy in two schools of the same region. Three visits for each school, one every fourth day, were scheduled where the treatment sessions were discussed with the teachers and the therapeutic daily reports were reviewed thoroughly.

R E S U L T S

I-CHARACTERISTICS OF THE STUDY SAMPLE

The pure assessment sample (PA) consisted of 402 subjects. 50.5% of the sample are males. The mean age of the subjects is 11.3 years.

For the therapy-assessment sample (TA), 116 subjects rather than 100 are included in the analysis since one school of the PA selected at random happened to be one of the therapy schools. Thus, the students of this school are part of the TA since the intervention covers all students in the school and not only the ones in the pretested sample and this is why it was appropriate to include them in the TA sample for later follow-up (phase II). 52.6% of the TA sample are males. Students of this sample are slightly older than those of the PA sample with a mean age of 11.8 years.

II-DEPRESSION

In the general population (in various international studies) , the prevalence rate of depression is reported to be 1 - 2% among children and higher among adolescents ranging from 5 to 10% (3, 12).

1- Pure Assessment Group

The overall prevalence of current depression (present at interview time and lasted for at least two weeks) in the PA sample (children and adolescents combined) is 12.4%. The most prevalent symptoms currently manifested by children and adolescents are difficulty in sleeping (47.5%), being slow and difficulty in concentrating (43.8%), and suicidal thoughts (34.1%). The one-month prevalence of depression in this sample is 3.2%, the six-month prevalence and the one-year prevalence are null whereas the more than one year prevalence is 0.2%. These figures cannot be highly reliable since they are quite retrospective in nature.

a) Age

The prevalence of Depression among children and adolescents at the time of interview and having lasted for at least two weeks is 10.1% and 18.3% respectively. These rates are clearly far above what should normally exist. The difference in the prevalence of current depression between children and adolescents is statistically significant with p = 0.025. To differentiate further between children and adolescents, age was divided into three

categories: 6 - 9 years, 10 - 12 years, and 13+ years. The prevalence rate of depression in these categories is 6.7% , 12.9%, and 16.9% respectively and the difference is statistically significant (p = 0.047).

b) Gender

10.8% of males in this sample are depressed vs 14.1% of females (p = 0.326).

2- Combined Therapy-Assessment Group

In the TA sample, 13.8% suffered from current depression. Here also, difficulty in sleeping is the most prevalent symptom suffered by 50.9% of children and adolescents, followed by being slow among 48.3% and difficulty in concentrating in 45.7% of these traumatized children. 40.5% of children and adolescents have thought about death or about committing suicide. 1.7% of them were depressed during the last month but none reported to have been depressed during the preceding six-months or one year of the interview. However, 1.7% stated to have had a depressive episode more than one year before the interview.

a) Age

10.8% of children are depressed vs 17.6% of adolescents. This difference between children and adolescents did not reach statistical significance (p = 0.286) possibly because

of the small sample size (N = 116) compared to the PA sample. In the three age groups considered (6-9, 10-12, and 13+) the rates of depression are 4.3%, 14.3%, and 17.6% respectively.

b) Gender

Females in this sample are more likely to suffer from depression than males (16.4% vs 11.5% respectively) however, the result is not statistically significant (possibly for the same reason as above).

Depression and all other disorders studied here are defined according to DSM III-R criteria (see appendix).

III-SEPARATION ANXIETY

The prevalence of SA among a normal population of children is known to vary from 3.5% to 5.4% as reported by Costello in 1989 (2). However, in a population affected by a traumatic event such as the earthquake in Armenia in 1988, 49% of a sample of 218 school-age children in the closest region to the epicenter were clinically diagnosed to have SA (4).

1- Pure Assessment Group

The lifetime prevalence of separation anxiety disorder (SA) among the pure assessment sample is found to be 19.2% and 78.9% of children and adolescents suffer from at least one symptom of SA. However, SA starting from the Grapes of Wrath (i.e, the one-month prevalence) is found to occur among 15.7% of this group.

a) Age

No statistically significant difference was found in the rates of SA between children and adolescents of this group. The same was found for age although children in the 10-12 age group had the highest prevalence of SA.

b) Gender

Females of the pure assessment group were more likely to suffer from separation anxiety when compared to males; however , this difference did not reach statistical significance.

2) Combined Therapy Assessment Group

30.2% of this group have ever suffered from this disorder at the time of the interview, 73.3% have suffered from at least one symptom of SA, and 25.0% was the one-month prevalence of SA resulting from war.

a) Age

The same results as the ones for the pure assessment group are found here. However, among this group, children in the youngest age group i.e, the 6-9 years category had the highest prevalence of SA as compared to the other age groups.

b) Gender

Among this group of children, males were more likely to suffer from SA than females which is the reverse in the pure assessment group, but the result is not statistically significant.

The rates of SAD in our study are much higher than those that would occur in the general population of children. However, the prevalence of SA in the supposedly most exposed areas to the Grapes of Wrath, i.e. the therapy-assessment areas , approximated that of Armenia. Baseline rates (i.e, before the war) for separation anxiety or any other disorder that we are studying here among children are not available in order to be able to assess the real impact of the "Grapes of Wrath" chapter , yet these rates of SA can be approximated by subtracting the lifetime prevalence from the one-month prevalence. This shows that the baseline rate of SAD among children in the south and West Bekaa before the

Grapes of Wrath ranged from 3.5% to 5.2% which is equal to that of a normal population and showing that this chapter in the series of the Lebanon wars chapters had clearly detrimental effects on the mental health of children.

IV-OVERANXIOUS DISORDER

In a study conducted among 150 adolescents in the U.S.A. (14 to 16 years old) using the DICA , 7.3% met the DSM-IIIR criteria for overanxious disorder (11). So, this is the prevalence rate of overanxious disorder that would be expected among this group under ordinary circumstances.

1- Pure Assessment Group

18.7% of the students in this group suffered from "probable" overanxious disorder (OAD), "probable" because one of the DSM III-R criteria of OAD requires it to occur not exclusively during the course of a pervasive developmental Disorder, Schizophrenia, or any other psychotic disorder; this criteria cannot be accounted for subtracting by the DICA. So, when referring to OAD in this report, we mean probable OAD. At least one of the Symptoms of OAD was present among 69.7% of the Children and adolescents of this group. These rates are the lifetime rates. Current rates cannot be assessed here since the DICA asks only about the lifetime occurrence of this disorder.

a) Age

Children and adolescents in this group differed in the occurrence of OAD with adolescents showing higher prevalence (15.3% and 27.0% respectively; p = 0.007).

For age , 7.6% of children aged 6 - 9 years suffer from OAD; 23.1% in the age group 10 - 12 years, and 27.0% in the 13+ age group (p = 0.001). So the 13+ age group have the higher rate of OAD which is in line with the above rate among adolescents.

b) Gender

Males are more likely to suffer from OAD than females but the difference is not statistically significant (20.7% vs 16.6% respectively; p = 0.291).

2- Combined Therapy-Assessment Group

The lifetime prevalence of probable overanxious disorder in this group is 18.1% while 62.1% of them suffered from at least one symptom of this disorder.

a) Age

No statistically significant difference was found in the rate of OAD between children and adolescents or between the different age groups. However, children in the 13+ age group (or adolescents) had the highest rate.

b) Gender

Males show higher rates of overanxious disorder than females (19.7% vs 16.4% respectively) but the difference did not reach statistical significance.

V-POST-TRAUMATIC STRESS DISORDER

Community-based studies reveal a lifetime prevalence of PTSD ranging from 1% to 14%, with the variability related to the different methods of ascertaining and the population sampled. Studies of at-risk individuals (i.e. criminal evidence, volcanic, eruptions, combat,...) have yielded rates ranging from 3% to 58% (1). In a study conducted among 384 adolescents participating in an ongoing longitudinal study, 6.3% of them were found to fulfill the DSM.IIIR criteria for PTSD (5).

A study conducted among 840 Lebanese children aged 9 to 13 years revealed that 32.5% of these children suffered from PTSD and it was found that the level of PTSD is similar regardless of the rate of traumatization whether it is direct through observation or indirect (15).

1- Pure Assessment Group

17.9% of the 402 subjects of the PA group fulfilled the DSM III-R criteria for PTSD and 9.5% of this sample suffer from the strict definition of PTSD, i.e. they had the symptoms but the duration of the disturbance that should be at least one month according to DSM III-R criteria, is 1 - 2 weeks at the time of the interview and thus it may continue to develop into PTSD or it may stop.

a) Age

The prevalence of PTSD is found to increase with age with children in the 13+ age group showing the highest rate as compared to the other age groups; however, this trend did not reach statistical significance. The same was found when comparing children and adolescents.

b) Gender

Males and females in this group were almost equally affected by this disorder (17.2% vs 18.6%; p=0.724).

2- Combined Therapy-Assessment Group

These rate of PTSD in this group is 18.1% whereas 8.6% were still suffering from the symptoms of PTSD for a duration of 2 weeks at the time of the interview.

a) Age

No statistically significant difference in the prevalence of PTSD is found between children and adolescents or between the different age groups in this sample. However, the 10-12 age group showed the highest prevalence of PTSD compared to other age groups.

b) Gender

Females in this group are more likely than males to suffer from PTSD but the difference is not statistically significant (20.0 vs 16.4% respectively; p =0.614).

The above were the prevalence rates of each disorder separately. However, from comorbidity studies, it is well known that most of these disorders could coexist and thus one subject with PTSD for example can have depression and anxiety disorders occurring at the same time. Thus we can have a cluster of disorders among few subjects of the study sample. However, the results of our study have shown that there are 215 (of the overall 502 subjects assessed; 42.8%) cases suffering from at least one psychiatric disorder and thus requiring clinical treatment. 160 subjects of them were part of the PA group (39.8%) and the other 55 were in the TA group (47.4%) . Respectively, in the PA and the TA groups, 18.4% and 25.0% suffered from only one disorder; 15.4% and 12.9% had 2 disorders; and 6.0% vs 9.5% were identified as having 3 or 4 disorders at the same time.

MENTAL HEALTH DISORDERS AND SPECIFIC WAR EXPOSURE

It is often assumed in the literature that subjects exposed to the same war and especially subjects living within the same geographical area are equally exposed to the events of these wars. The fact however is that this is not true as evidenced from previous work done by IDRAC on adults. To assess the varying levels of individual exposure to the different war events, the war event questionnaire (WEQ) was constructed by our group and passed to the parents of children and adolescents of both the pure assessment and the therapy assessment groups. These comprise specific questions about war events such as house damage and physical injury that might have occurred to their child or to someone very close to their child. Since the simple occurrence of any of these war events, is not enough to identify its severity , "Witnessing" of the event by the child is quite an important variable and the parents were asked whether their child had just learned about that war event, witnessed it from far, witnessed it and was close to it or finally witnessed it and was very close to it. Additionally, parents were asked to specify the extent of the damage: minimal, partial or total in the case of house damage and superficial, moderate, serious or fatal in the case of physical injuries.

A score was assigned for each event taking into consideration the event in its details, the victim (the child\adolescent or a close person), and the degree of witnessing of the event. The parts of the WEQ that were passed and the scoring of the events can be found in

Appendix IV. Thus each child or adolescent has a score called the war score. A child with a war score of 1000 for example has a higher degree of exposure to the events of the specific chapter of that war than another with a war score of 200. The inter-rater reliability of the WEQ has been studied previously by IDRAC and has proven to be good in the two above categories (house damage and physical injuries).

The average war score for the pure assessment group was found to be 280.3 whereas the therapy assessment group had a much higher war score of 1375.9 and the difference is highly significant (p=0.000). This proves that the villages that were identified by the Ministry of Education as the most heavily bombarded and from which schools were selected and the sample for the therapy assessment group was drawn were truly more exposed than other regions of the South and the West Bekaa from which the pure assessment groups were drawn.

In this study, it was found more convenient to use the log function of the war score since the distribution of this variable was a skewed one which means that many of the statistical tests that are applicable under the assumption of a normal distribution could be used best by using log functions, getting the war score distribution to become an almost normal bell shaped curve. Another reason for the practical use of the log function of the war score is to deal with smaller numbers.

When using the log function, the therapy assessment group was still found to be more exposed to war compared to the pure assessment group (3.37 vs 1.68 respectively; p=0.000). The analysis that we conducted on the log war score studying its association with the different parameters will be presented for the pure assessment and the therapy assessment groups separately.

I- PURE ASSESSMENT GROUP

1- Gender

No statistically significant difference was found in the average log war score between males and females (1.58 vs 179 respectively; p=0.474). So males and females in the pure assessment group were equally exposed to the events of the Grapes of Wrath.

2- Age

The average log war score was found to have a tendency to increase with age. The three age categories 6-9, 10-12, and 13+ had the following log war scores respectively; 1.28, 1.63, and 2.09 (p= 0.069).

3- Psychiatric Disorders

A- Depression

Within the Pure Assessment group (PA), the children and adolescents that were diagnosed to currently suffer from depression (as defined by DSM-III-R Criteria) were found to have been more exposed to the events of this chapter of the Lebanon wars than

those who were not depressed. The average log war score for those depressed is 2.74 and 1.54 for non depressed subjects. This difference is highly significant (p=0.005). So, the occurrence of current depression among these children is highly correlated to the war events of the Grapes of Wrath depicted by the WEQ.

B- Separation Anxiety

No statistically significant difference in the average log war score and thus in the exposure to war events could be demonstrated between children and adolescents who were currently suffering from separation anxiety disorder and those who were free of this disorder (1.78 vs 1.25 respectively; p=0.148)

C- Overanxious Disorder

As with separation anxiety, no association was found between current overanxious disorder and log war score or exposure to war events. An average log war score of 1.93 was found for affected children and 1.61 for those who are not affected with this disorder (p= 0.345). It is important to keep in mind that as pointed in page 33 when talking about overanxious disorder, we mean "probable" overanxious disorder, because the DICA does not allow us to account for the DSM-III R criteria of OAD to occur not exclusively during the course of disorders like depression.

D- <u>Post traumatic stress disorder</u>

PTSD children and adolescents were found to have what looks like a slightly higher log war score than those who don't have this disorder (1.96 vs 1.62 respectively). However, this difference did not approach statistical significance (p=0.357).

II- THERAPY ASSESSMENT GROUP

1- Gender

Males and females were not found to be different with respect to their average log war score and thus to their exposure to the events of this war. Males had an average log war score of 3.37 whereas females log war score was 3.38 (p= 0.981). This finding is similar to that for the pure assessment group.

2- Age

The three different age groups were similar with respect to their average log war score where it was 2.87 for the 6-9 age group, 3.62 for the 10-12 category, and 3.40 for those aged 13 and above (p=0.724).

3- Psychiatric Disorders

A- Depression

The association between depression and log war score or exposure to war events that was found in the pure assessment group was not found in the therapy assessment group. Depressed and non depressed children and adolescents didn't have statistically significant difference in their log war scores (2.43 vs 3.53, p= 0.252).

B- Separation Anxiety

Similar to depression, Separation anxiety in this group was not found to be associated with exposure to war. The average log war scores for those currently suffering from separation anxiety and those free of the disorder were 3.13 and 3.48 respectively (p= 0.633).

C- Overanxious Disorder

Children and Adolescents suffering from current probable overanxious disorder have a higher average log war score than those not affected (3.75 vs 3.25 respectively). However, this difference between the two groups did not reach statistical significance (p=0.511).

D- Post traumatic stress disorder

Children and adolescents with post traumatic stress disorder were found to be more exposed to the events of this war (house damage and physical injury) than those with no PTSD since they had a higher average log war score (4.40 vs 3.15 respectively) but again the difference did not reach statistical significance (p= 0.145).

The same analysis was done but now by subdividing the war score into its components i.e. the house damage score and the physical injury score.

House Damage Score

The therapy assessment group is found to have had more partial or complete destruction of their personal property (or that of closely related persons) than the pure assessment group. The average log function of the house damage score for the therapy assessment and pure assessment groups was 1.28 and 0.30 respectively. This difference is highly statistically significant (p=0.000). For the therapy assessment group, no statistically significant difference was found in the average log of the house damage score between males and females, between the different age groups, and between children and adolescents currently affected and those not affected by the different psychiatric disorders except for post traumatic stress disorder where a marginally significant difference between affected and non affected was found (3.30 vs 2.08 respectively, p= 0.069).

For the pure assessment group, however, exposure as estimated by the log function of the house damage was found to be different only between depressed and non depressed children and adolescents (1.94 vs 1.19; p= 0.038).

Physical injury score

Again, the therapy assessment group reports more physical injuries than the pure assessment group (1.93 vs 0.59 respectively; p= 0.000).

The average log of the physical injury score does not vary between males and females in both groups and it varies with age only for the pure assessment group where it is found that physical injuries increase with age (p= 0.036).

For the different psychiatric disorders in the therapy assessment group, no difference was found between affected subjects and those not affected with respect to their exposure to this kind of damage. However, for the pure assessment group, PTSD, depression, and probable overanxious disorder currently suffered by children and adolescents were found to be associated with the log of the physical injury score. In all of these disorders (except for separation anxiety), affected children have a higher physical injury score.

Fatalities have the highest war score of all war events included in the war score of the WEQ and they are well known to be associated with psychiatric disorders like depression. So, the association between depression and higher war score could be due to its association with death rather than the exposure to the other physical injuries in the series of war events. The same analysis on physical injury scores was conducted but now excluding

fatalities and the same results were obtained in the two groups. This means that the association we found between depression and exposure to physical injury is not due to the fatalities that are obviously included in the section of physical injuries of the WEQ.

DISPLACEMENT

Displacement is the most frequent event resulting from the Grapes of Wrath where 71% of all children and adolescents of the pure assessment and therapy assessment groups have changed the place of their residence during this chapter of the wars, although only 16.3% of parents have described their child's place of residence as exposed continuously or most of the time to the shelling during this chapter. 57.2% said they had been exposed only during the heavy shelling and 26.5% reported that the area of their residence had been totally quiet and peaceful. So, displacement seems to be the immediate and first reaction of people in the South and West Bekaa to the initiation of the Israeli bombardment. This is expected because of several factors: lack of appropriate shelters, previous experience with the very high intensity of such Israeli operations, loss of property or physical injury ... Displacement per se is supposed to be a preventive action, however, changing residence by the specific population under study does not mean necessarily that this was towards a safer area since the targets in such short and intense wars, are not as predictable as in larger protracted wars; the predictability of a "safer" shelter was very hard because of the unusual nature of the Grapes of Wrath. On the other hand displacement to areas totally unexposed such as Beirut does not mean indeed a lack of exposure to the events of this war: people have left behind them their houses, other properties and their sources of living and not infrequently members of their family.

I- Pure Assessment Group

69.9% of children and adolescents in this group (PA) have changed their residence during this chapter of the wars. These were found to have a higher war score (average log) as compared to the ones who didn't move out (1.86 vs 1.28 respectively; p=0.060). No statistically significant difference was found in the average log of the house damage score (1.41 vs 0.97 respectively; p= 0.88) and the average log of the physical injury score (0.69 vs 0.35 respectively; p= 0.131) between those who moved out and those who didn't.

1- Gender

Males and females in the PA group were equally likely to have changed their residence during the last war (70.9% vs 68.9% respectively; p= 0.673).

2- Age

Adolescent (i.e. in the 13+ age group) were most likely to have changed their residence during the Grapes of Wrath followed by children aged 6 to 9 years and then by children in the 10 to 12 age group (77.9%, 68.9%, and 63.2% respectively; p= 0.032).

3- Depression

Depression was not found to be related to the change in place of residence i.e. those who moved out and those who didn't were equally likely to be affected by depression (12.6% vs 11.2%; p= 0.703).

4- Separation Anxiety

Children and adolescents who didn't change their place of residence during the Grapes of Wrath were more likely to be affected by separation anxiety than those who moved out (27.6% vs 14.8% respectively). This difference is highly statistically significant (p= 0.003).

5- Overanxious Disorder

Probable overanxious disorder was more likely to occur to children and adolescents who didn't move out of their homes as compared to those who did (24.1% vs 17.0% respectively); however, this difference did not reach statistical significance (p=0.104). When taking only clusters of overanxious disorder symptoms, 28.4% of those who didn't move out had at least four symptoms of OAD whereas 20.0% of those who did move had such a cluster of symptoms (p= 0.069).

6- Post Traumatic Stress Disorder

Children and adolescents who moved out and those who didn't were equally likely to be affected by PTSD (17.4% vs 19.8; p= 0.572).

II- Therapy Assessment Group

Of all children and adolescents included in this group, 73.3% reported changing their place of residence during the grapes of wrath war. The average log of the war score, house damage score, and physical injury score were not found to differ between those who changed their residence and those who did not.

1- Gender

Changing residence during the last chapter of wars was not found to differ by sex. Males and females children and adolescents were equally likely to have moved out of the South and West Bekaa during the grapes of wrath (72.1% vs 74.5%; p= 0.769).

2- Age

No statistically significant difference was found in displacement when studied by age in the therapy assessment group. 78.3% of children 6-9 years of age moved out, 66.7% of those in the 10-12 age group, and 76.5% of adolescents (13+ age group) (p= 0.474).

3- Depression

As in the pure assessment group, depression was not found to be associated with the change in the place of residence: 19.4% of those who didn't' move out were depressed vs 11.8% of those who did (p= 0.294).

4- Separation Anxiety

Again (as in the pure assessment group), separation anxiety is found to differ between those who moved out and those who did not where the latter group was more likely to be affected by separation anxiety than the former one (45.2% vs 24.7% respectively; p= 0.034). This is expected because displacement might have included separation from parents, brothers or sisters, or other figures to whom the child is attached and since people who didn't move out saw most of their neighbors, friends, and possibly family members leaving out the village, so we can assume that these were "more separated" from possible attachment figures and thus are found to suffer more from separation anxiety; but unfortunately, we didn't ask the children or their parents whether this was the case to confirm this line of thinking.

5- Overanxious Disorder

No statistically significant difference was found between displaced and not displaced children and adolescents with respect to the occurrence of probable overanxious disorder

The Grapes of Wrath: Results

(17.6% vs 19.4% respectively; p= 0.833). 35.5% of children and adolescents who were not displaced suffered from at least four of the OAD symptoms and 21.2% of those who

moved out suffered from a cluster of four of these symptoms. However, this difference did not reach statistical significance (p= 0.115).

6- <u>Post Traumatic Stress Disorder</u>

Children and adolescents who stayed in the South and West Bekaa were more likely to suffer from PTSD as compared to those who moved out (25.8% vs 15.3% respectively). However, this difference did not reach statistical significance (p= 0.193).

SCHOOL BASED TREATMENT

The School Based Treatment took place in 6 schools, 2 in each of the 3 regions to be the most heavily exposed, as designated by the Ministry of Education, to the Grapes of Wrath chapter of the Lebanon Wars. In Tyre, the schools were: Kleyleh and Kana; in Nabatieh: Jibchit and Habbouch; in West Bekaa: Sohmor and Yohmor.

Regular visits to each school were carried out every 5 days of actual treatment. These visits were led by one of the senior researchers who had trained the teachers. In these sessions all teachers participated in the therapy documented in their Day Therapy Report forms.

As detailed in the Methodology section, there were 3 principal clusters of techniques each aimed at one of the 3 disorders most commonly found in similar post war situations, namely the Post Traumatic Stress Disorder, Depression and Bereavement, and Separation Anxiety Disorder. For Post Traumatic Stress Disorder there were two sets of therapeutic interventions, the first aiming at decreasing the contagious effects of fear and its interference with daily activities and helping the children to resume normal life activities; with regard to Depression and Bereavement, treatment techniques revolved around the concept of death; for Separation Anxiety Disorder, treatment techniques stressed the overt

expression and discussion of the students' anxieties among each other, with the teacher, and with their parents.

School Based Treatments were initiated on May 29th, five days after the training of the teachers. The classroom therapeutic intervention would last half an hour on a daily basis (see Training).

A- IMPLEMENTATION OF SCHOOL BASED TREATMENT.

I- PTSD

The first School Based Treatment was concerned with the issue of PTSD which was addressed though identification of common fears following extreme situations as experienced by the students with the aim of (1) decreasing the contagious effects of fear by resorting to more reality based information concerning the possible recurrence of the traumatic events, (2) provision of solution(s) for the constructive behaviour that ceased to exist following the experienced trauma, and (3) adapting a normalization attitude-behaviour by reinforcing class cohesion and identification with a problem-solving figure.

II- Death and Bereavement

The reality of death was introduced and discussed, as function of the age level of a classroom, through stories and drawings, and that in order to better understand the different available concepts of death and the verbal and non-verbal reactions of grief and anger about the loss of close persons. Students were also encouraged to illustrate their concepts of a dead person. The treatment in question aimed at (1) ascertaining the reality of death (2) helping the students express their sorrow, and (3) examining the different conceptions of death and after death and that in order to: (1) correct the frightening images of a dead

person that some students have, (2) accept death as a finality, (3) help the grieving student to recall a dead close person after his best appearances during life time and, identify with that person following his/her good deeds, (4) correct the misperception that some children may have equating death with punishment.

III- Separation Anxiety

The symptomatic content of this disorder was worked out by directly asking the students if any had experienced each of the related cognitions or behaviours following a separation experience from parents during war time, and how much of a clinging behaviour there is at moments children are in the presence of their parents or friends. This is done with two major aims in mind: first to help children express their different anxieties of separation and share these with other students and own parents, and second, to seek solutions for their particular anxieties from their classmates and parents. The techniques used in this regard were expressing the anxiety of separation, obtaining solutions from other classmates as approved by the teacher, and repeating the same with their parents who are addressed with the main question "when you were at my age and felt (...), what did you do to (...)". Classroom expressed anxieties and proposed solutions were illustrated graphically and appeared in the classroom until the end of the academic year.

B- THERAPEUTIC GAINS

I- PTSD

a- Kleileh and Kana (Tyre)

In Kleileh, as well in Kana, (the latter center was delayed to take off for organizational reasons), the most evident early step was the newly formed acquisition of PTSD as a disorder, not only affecting students, but the teachers themselves and their families. The immediate reaction was a greater tolerance of some student behaviours, not acceptable until then, such as isolation and irritability, accepting behaviours such as weeping as symptomatic, and apathy as a morbid manifestation and not mere "stubbornness". Other resulting responses were new celebrations at school (e.g. a birthday celebration and a school lunch); therapeutic interventions used to continue sometimes in the playground at the demand of the students. The attitude of teachers toward the students throughout the process became more "human", appreciating their difficulties which were similar to themselves, and some teachers gave the School Based Treatments priority over their pure teaching role. In Kana, cases of PTSD were seen too in the school and 2 were referred to our clinic in Beirut. In this school (which was more affected than the other school in the area by PTSD), the main therapeutic gains were the corrected misperception of

equating scholastic failure with the observed symptoms of PTSD and the de-dramatization of existing PTSD symptoms.

b- Jibchit and Habbouch (Nabatieh)

Knowledge of the symptoms and recognition of these in the students and in the teachers who were leading the School Based Treatments were again the most immediate effects, in addition to viewing these as sources of many manifestations of existing distress. This allowed all subjects, students and teachers, a way to contain their symptoms through more introspection and conscious attempts at controlling various symptoms. Teachers found that they had a more comprehensive role in a post war situation, having come back after the end of the hostilities with no handles on the traumata, and sharing with their students similar experiences. The ongoing therapeutic interactions rendered teachers-students interactions more satisfactory for both parties; over time, students were appearing more "intelligent" and "richer" than ever thought, a teacher's perception that developed a result of the students comprehension and discussion of the problems at hand.

c- Sohmor and Yohmor (West-Bekaa)

Here, students responses were overwhelmingly centered around the recurrence of the recent traumatic events and consequences (e.g. displacement), and many responses in this direction were expressed in dreams, interpreted according to local beliefs. Fears were

directly related to the experienced war activities (e.g. displacement, war planes, battle ships, shelling, incurred deaths) and of symbolic benign sounds (e.g. sudden door knock). The students who had seen dead warriors during burial ceremonies were the most affected and started the least initially. Open discussion increased the number of students who shared in the discussions, more actively, with a gradually happier classroom atmosphere.

II- DEPRESSION

a- Kleileh and Kana (Tyre)

Reconciliation with death, decreased fear of death, and hopefulness were the most frequently expressed changed perceptions, as seen by the intervening teachers throughout the time of therapy. The main observed and expressed attitudinal change as seen by the teachers, as well by the visiting senior researcher, was "life continues"; a differential pace of change occurred between the two centers, something attributed by the senior researcher to the background "mentality" of each center, the prevailing socio-economic status in each center, and the degree of conformity to religion in each, added to the fact that the more religious and political village of the two had been the most hardly hit in all Lebanon during the "Grapes of Wrath".

b- Jibchit and Habbouch (Nabatieh)

Learning to invest in action rather than in rumination and a change from denial to a more realistic appraisal of death, were among the major changes accomplished in these two schools. Early students statements revolved around a challenging attitude toward death, illustrated by projecting pictures of heroism and courage with a denial of fear. In this area as well, one of the 2 centers, again the more political and religious, was more in line with this general attitude. A more realistic atmosphere started to emerge when students and teachers

started to move away from this attitude, talking about their real feelings which had been "hiding" behind their more or less stereotyped thinking which had blocked their way to deeper introspection and had blurred their emotions. In teachers, a more real and positive attitude started to emerge from the new awareness that life does not stop at the limits of war, voiding life from any other ambition except that of fighting. They started addressing the students with the new perception that youngsters did "pay a price"; inviting the latter to "should think about death" helped to pave the way for 2 developments: first, reducing the pressure on the students to think in the old stereotyped way, and second, to be more expressive of their real feelings.

c- Sohmor and Yohmor (West Bekaa)

As in the other 2 regions, early discussions of death were deeply immersed in a spiritual religious content. The same indifference toward death and dying was expressed "we don't care", and always said in a collective tone. This indifference definitely changed to a better appreciation when death was no more talked about as a theoretical condition when students started discussing their individual experiences of loss (lived and witnessed). Finality of death was spontaneously present in most responses, and an early observed change was that "although death is a right ... we should continue living and not precipitate our death". Students who were still convinced about the recurrence of the trauma, expected themselves to be "victims of the next war". Several incidents in the region, like intermittent

shelling, helped to keep most residents (as expressed by many teachers, students, and reports about neighbours) in an state of alertness, ready to seek shelter by taking refuge in more secure nearby villages. It required more than 2 interventions to motivate students to openly describe their experiences which in the case of 2 students at least were about witnessing the actual death of 2 relatives in a shelling. The contribution made by these students was major in "allowing" more classmates to give more detailed responses to the "friend" (teacher) interested in their sorrow; students who later opened up said that they had kept all along control over their emotions, and were living a silent depression. Their interest to re-live the happy pre-war occasions was a collective sign of the wish to resume happier moments in life.

III- SEPARATION ANXIETY

a- Kleileh and Kana (Tyre)

Not leaving home on their own and only in the company of their parents, clinging to their parents, and somatization at school where the main symptoms of this disorder that were addressed in therapy. Change was observed when the students acquired more insight, this time starting to link these behavioural manifestations with fear: somatizing at school in order to return home, clinging to remain at proximity with parents or other elders; discussion of fears was the main vehicle of change which appears to have decreased all of the more manifest symptoms, as observed by both teachers and as self reported by the students.

b- Jibchit and Habbouch (Nabatieh)

During the last session meant to supervise the progress in separation anxiety and overanxious disorder, positive changes were seen in the teacher's expressed interest in the therapeutic material they were delivering and their own reactions towards the accomplished work were seen as both rewarding and challenging. The areas that has required special attention included the specific fear of being separated from parents, and fear of one or both parents being absent.

c- Sohmor and Yohmor (West Bekaa)

The most common manifestation of this disorder was clinging to parents which serves, as said by most respondents, two purposes: 1) youngsters when on their own ignore how to behave in a situation of shelling, and 2) insisting on being with their parents helped them to know better about the fate of their parents in the same situation of shelling or air raids. Many responses explained the clinging behaviour as well in terms of preferring to die before their parents do, so they would not feel the agony of loss in case any parent dies first. Change seems to have been precipitated when students saw that shared fears are also present in other students, their teacher, and many of their parents whom they had asked. Another mechanism of change was the expression of fears and the proposition of solutions by other classmates.

C O N C L U S I O N

This is one of the valuable initiatives in the history of Lebanon Wars: it was designed to help the most vulnerable groups of all: children and adolescents that were exposed to an extreme experience: the Grapes of Wrath chapter, a chapter that will not be forgotten by all the Lebanese and most specifically by the children of the south and the west Bekaa. This initiation was started by UNICEF (Lebanon) that was quite sensitive to the urgency of the matter. The support and logistics of the Lebanese Ministry of Education and the enthusiasm of the UNICEF personnel allowed our Institute for Development of Research and Applied Care (IDRAC), to carry on this extensive study with an efficiency that seems to us today, several months later unbelievable fear, inspite of our teams experience in the field of epidemiologic research, mental health and war over the past two decades.

This operation comprised two chapters:

First: assessment of the extent of mental healths causalities among children and adolescents 6 to 17 years of age exposed to this war through a one to one interview on survey on a sample representative of this population and of their parents (1000 interviews).

Second: treatment of about 2500 children and adolescents through “first aid” psychological intervention. Trauma does not necessarily heal alone with time. Children must be helped to learn to confront their fears and bad memories which is the first act on the road of recovery and this what we have tried to do through this intervention.

From a purely statistical and scientific way of looking at things, the results of the survey conducted on these children shows how deeply disturbing was this experience on the mental health state of children living and suffering day after day the memory of this experience and this was manifested through the high prevalence of all the psychiatric disorders that we studied (depression, separation anxiety, overanxious disorder, and post traumatic stress disorder) and that were in their vast majority a consequence of this war. Even, children that were not "cases" (i.e. not fulfilling the DSM-IIIR criteria) did suffer the symptoms of these disorders that ranged from difficulty in sleeping, recurrent nightmares, difficulty in concentration, unrealistic worries and concerns, need for reassurance to the more severe symptoms of thinking about death and suicide. Children and adolescents lived through the terrible events of this damage and destruction of homes and physical injuries.

These events were measured through the individual “war scores” that were computed and found to be highly and consistently associated with depression.

The treatment of these children and adolescents constituted the direct contact and the only way through which we really felt the real threat and its wide manifestation of disturbances that were our focus; of equal importance was the direct contact that we established and festered between the children and their teachers whereby the teachers felt they are able to identify attitudes and perceptions towards specific topics and to restructure these perceptions along specific guidelines and regular support and coaching from our senior team that was there, in the war zones, next to the adolescents, children teachers and directors of schools to flight of feelings of despair, cognitive misconstructions and to relieve post traumatic burdens though extensive participation of the students. The children themselves felt the relief and security when talking about their feelings and ideas to their teachers. This process thus created will not be restricted only to the treatment period and will be a long term goal. As for the effectiveness of this treatment on the level of decreasing symptoms and disorders, this is to be assessed in a later phase that is highly recommended and quite necessary to be able to draw conclusions regarding the effectiveness of treatment, to identify any long term effects that the war might have on these children, and to be able to plan for long term strategies for helping traumatized children in Lebanon and elsewhere.

T A B L E S

Table 1

Current, One-month, Six-month, One-year, and more than one year prevalences of mental health disorders among the pure assessment and the therapy-assessment samples

Psychiatric Disorder	Pure Assessment (N=402)		Therapy* Assessment (N=116)	
	N	%	N	%
Depression				
2-weeks prevalence	50	**12.4**	16	**13.8**
One-month prevalence_	13	3.2	2	1.7
Six-month prevalence	0	0.0	0	0.0
one-year prevalence	0	0.0	0	0.0
More than one year prevalence	1	0.2	2	1.7
Separation anxiety				
Lifetime prevalence	77	**19.2**	35	**30.2**
One-month prevalence	63	15.7	29	25.0
Overanxious Disorder*				

Lifetime prevalence	75	**18.7**	21	**18.1**

Post Traumatic Stress

DSM III-R PTSD	72	**17.9**	21	**18.1**
Probable PTSD	38	9.5	10	8.6

_One-month preceding the past 2-weeks at time of the interview
***Probable overanxious disorder**

Table 2

Gender and mental health disorders among the pure assessment and the therapy assessment groups

Pure Assessment
(N=402)

Disorder	Sex					
	Males		Females		Total	
	N	**%**	**N**	**%**	**N**	**%**
Depression	22	**10.8**	28	**14.1**	50	**12.4**
Separation anxiety	35	**17.2**	42	**21.1**	77	**19.2**
Overanxious disorder	42	**20.7**	33	**16.6**	75	**18.7**
Post traumatic stress disorder	35	**17.2**	37	**18.6**	72	**17.9Therapy Assessment (N=116)**

	Sex					
Disorder	**Males**		**Females**		**Total**	
	N	**%**	**N**	**%**	**N**	**%**
Depression	7	**11.5**	9	**16.4**	16	**13.8**
Separation anxiety	21	**34.4**	14	**25.5**	35	**30.2**
Overanxious disorder	12	**19.7**	9	**16.4**	21	**18.1**
Post traumatic stress disorder	10	**16.4**	11	**20.0**	21	**18.1**

Table 3

Age and mental health disorders among the pure assessment and the therapy assessment groups

Pure Assessment
(N=402)

Disorder	Age 6-9		10-12		13+		Total	
	N	%	**N**	%	**N**	**%**	**N**	**%**
Depression*	8	**6.7**	19	**12.9**	23	**16.9**	50	**12.4**
Separation anxiety	18	**15.1**	35	**23.8**	24	**17.6**	77	**19.2**
Overanxious disorder_	9	**7.6**	34	**23.1**	32	**23.5**	75	**18.7**
Post traumatic stress disorder_	11	**9.2**	30	**20.4**	31	**22.8**	72	**17.9**

Therapy Assessment

(N =116)

Age

Disorder	**6-9**		**10-12**		**13+**		**Total**	
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Depression	1	**4.3**	6	**14.3**	9	**17.6**	16	**13.8**
Separation anxiety	8	**34.8**	11	**26.2**	16	**31.4**	35	**30.2**
Overanxious disorder	2	**8.7**	8	**19.0**	11	**21.6**	21	**18.1**
Post traumatic stress disorder	2	**8.7**	10	**23.8**	9	**17.6**	21	**18.1**

*** p=0.047**
_ p=0.001
_p=0.012

Table 4

Informant and mental health disorders among the pure assessment and the therapy assessment groups

Pure Assessment (N=402)						
	Informant					
Disorder	Children		Adolescents		Total	
	N	**%**	**N**	**%**	**N**	**%**
Depression*	29	**10.1**	21	**18.3**	50	**12.4**
Separation anxiety	56	**19.5**	21	**18.3**	77	**19.2**
Overanxious disorder_	44	**15.3**	31	**27.0**	75	**18.7**
Post traumatic stress disorder_	45	**15.7**	27	**23.5**	72	**17.9Therapy Assessment (N=116)**
	Informant					
Disorder	**Children**		**Adolescents**		**Total**	
	N	**%**	**N**	**%**	**N**	**%**
Depression	7	**10.8**	9	**17.6**	16	**13.8**

Separation anxiety	19	**29.2**	16	**31.4**	35	**30.2**
Overanxious disorder	10	**15.4**	11	**21.6**	21	**18.1**
Post traumatic stress disorder	12	**18.5**	9	**17.6**	21	**18.1**

*** p=0.025**
_ p=0.007
_ p=0.065 (borderline significance)

Table 5

Average log war score for the pure assessment group and gender , age, and the different psychiatric disorders

	Average log war score
Gender	
Males	1.58
Females	1.79
Age*	
6 - 9	1.28
10 - 12	1.63
13+	2.09
Psychiatric Disorders	
Depression_	
Yes	2.74
No	1.54
Separation anxiety	
Yes	1.78
No	1.61

Overanxious Disorder

Yes	1.93
No	1.61

Post-traumatic Stress

Yes	1.96
No	1.62

*** P = 0.069**
_ P = 0.005

Table 6

Average log war score for the therapy assessment group and gender , age, and the different psychiatric disorders

	Average log war score
Gender	
Males	3.37
Females	3.38
Age	
6 - 9	2.87
10 - 12	3.62
13+	3.40
Psychiatric Disorders	
Depression	
Yes	2.43
No	3.53
Separation anxiety	
Yes	3.13
No	3.25

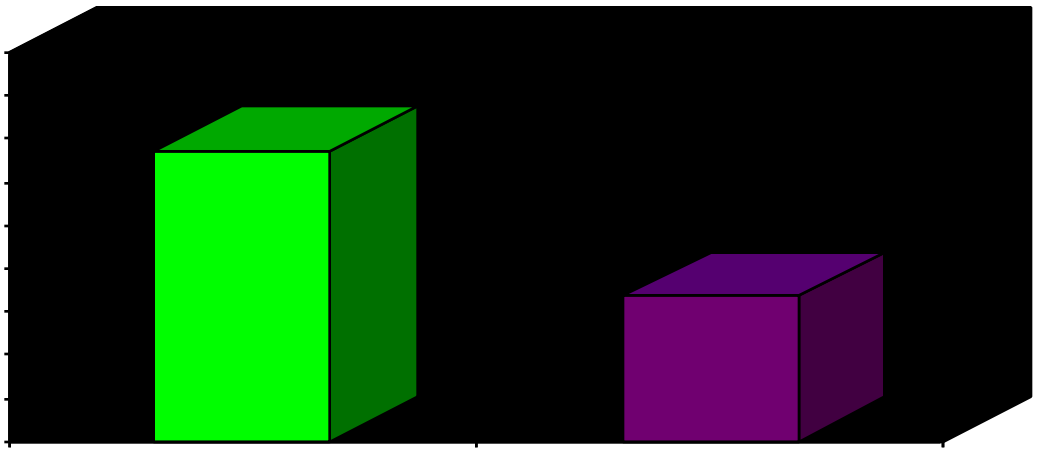
Overanxious Disorder

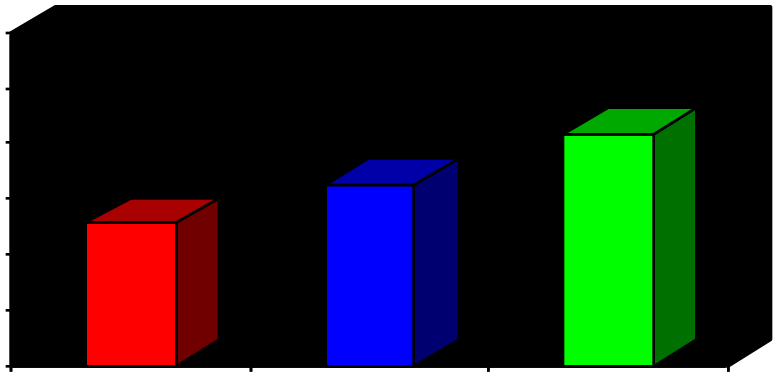
Yes	3.75
No	3.25

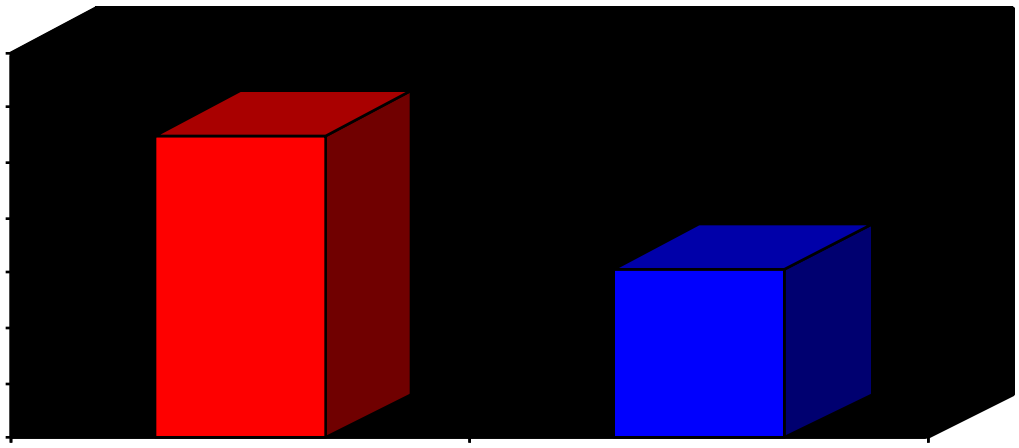
Post-traumatic Stress

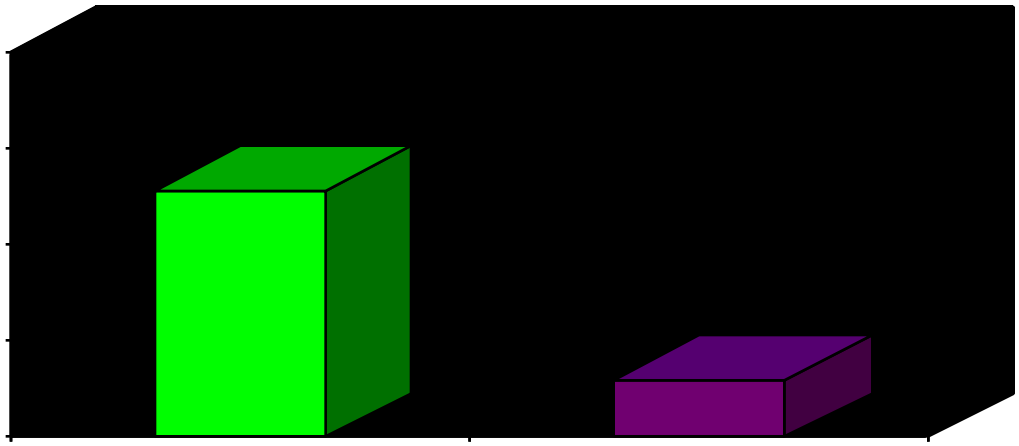
Yes	4.40
No	3.15

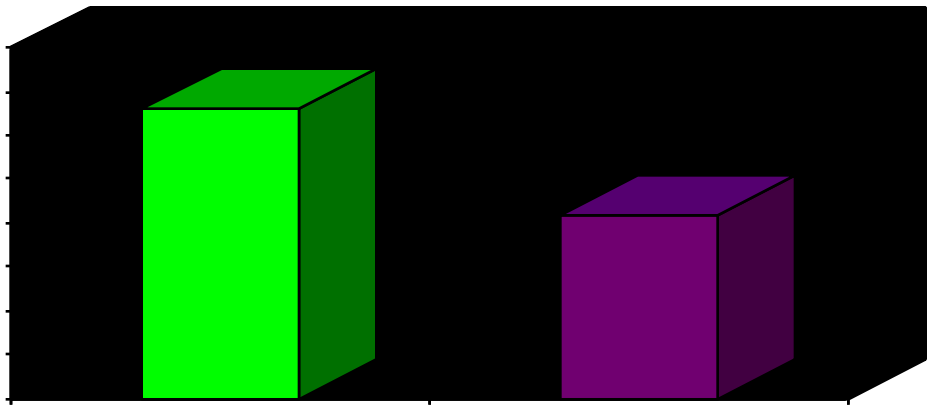
F I G U R E S

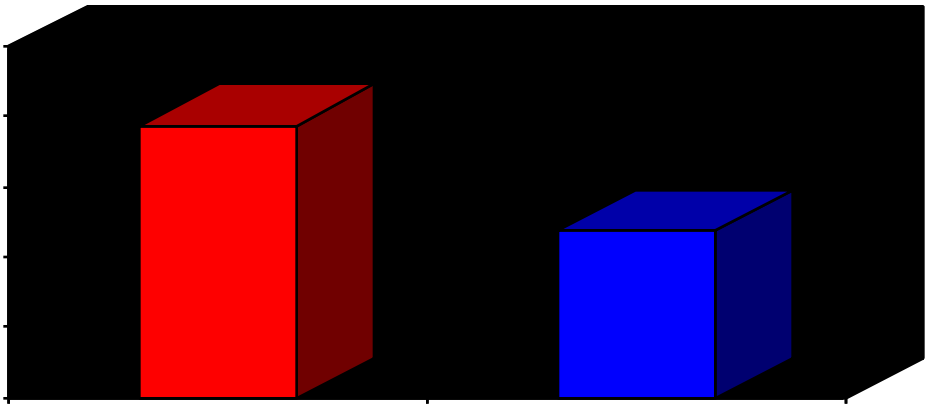


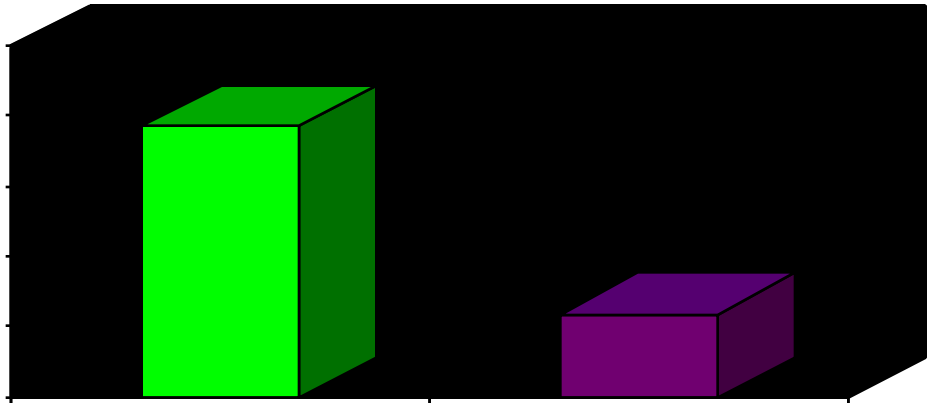


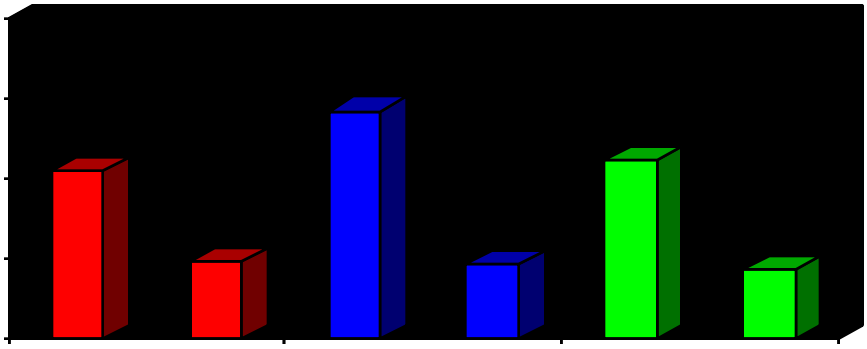












A P P E N D I C E S

Appendix I

I- Pure Assessment (N=402)

Region selected	Name of school	N% of students	N% of student
Bekaa	Sohmor (ãÊœÓØÉ ÓÍãÑ ÇáÑÓãíÉ)	275	16
	Al-Najah (ãÊœÓØÉ ÇáäÌÇÍ - ãÔÛÑÉ)	699	16
Mohafazat Al-Nabatieh	Yater (íÇØÑ ÇáãÊœÓØÉ)	76	16
	Houmin Al-Faoka (Íœãíä Çá_œ_Ç ÇáãÎÊáØÉ)	182	16
	Kfertibneet (ÇáÇÑÔÇÏ Çáääœ_ÌíÉ - ß_ÑÊÈäíÊ)	311	16
	Froun (_Ñœä ÇáãÊœÓØÉ)	134	16
	Al-Nabatieh (ÇáÌÏíÏÉ ááÈäÜÜÜÜÇÊ)	311	16
	Ain-Kana (Úíä _ÇäÇ ÇáÑÓãíÉ)	187	16
	Abba (ÚÜÈøÜÜÇ ÇáãÊœÓØÉ)	259	16
	Al-Sultanieh (ÇáåÜÏÇíÜÜÉ œÇáÇÑÔÜÜÇÏ - ÇáÓáØÇäíÉ)	520	16

Region selected	Name of school	N% of students	N% of student
Mohafazat Al-Janoub	Arzoun (ÃÑÒœä)	40	12
	Al-Burghlieh (Çáã_ÇÕÏ ÇáÅÓÜáÇãíÜÉ - ÇáÈÑÛáíÉ)	68	12
	Batoulieh (ÈÜÜÇÊœáíÜå)	62	12
	Tyre (ÇáäÌÜÜÜÜÇÍ ÕÜÜœÑ)	47	32
Mohafazat Al-Janoub	Juwayah (ÑœÖÉ ÏÑœíÔ ãßí - Ìœíç)	117	12
	Al-Shieitieh (Çáã_ÇÕÏ ÇáÅÓáÇãíÉ - ÇáÔÚíÊíÉ)	105	12
	Al-Bazourieh (ÇáÈÇÒœÑíÉ ÇáÇÈÊÏÇÆíÉ)	338	12
	Tyre (ÕœÑ ÇáãÓÇßä)	227	12
	Al-Abbasieh (ÇáÚÇãáíÉ - ÇáÚÈÇÓíÉ)	118	25
	Maarakah (ÇáÚáãíÉ ÇáÍíÏËÉ - ãÚÑßÉ)	208	17
	Hanaweih (ÍäÜÜÜÇœíÜÜå)	140	17
	Tarfilsieh (ØíÑ_áÓíÜå)	191	17
	Dair Kanoun (ÏíÑ _ÜÇäœä - ÑÃÓ ÇáÚíä)	274	17
	Al-Moustafa (ÇáãÕØ_ì - ÇáÍœÔ ÕœÑ)	993	17
	Bourj Al-Shamali (ÑœíÓÇÊ ÇáÈÑÌ - ÈÑÌ ÇáÔãÇáí)	735	16

II- Therapy Assessment (Nu2500) all were treated and 100 were pre-tested

Region selected	Name of school	N% of students	N% of student for pretesting
Bekaa	Sohmor (ãÊœÓØÉ ÓÍãÑ)	275	9
	Yohmor (ãÊœÔØÉ íÍãÑ)	133	8
Mohafazat Al-Nabatieh	Jibshit (ÌÜÈÜÔíÜÜÊ)	420	18
	Habboush (ÍÈÜÜœÔ)	437	18
Mohafazat Al-Janoub	Koleileh (_ÜáíÜáÜÜÉ)	585	24
	Kana (_ÜÜÇäÜÜÇ)	522	23

Appendix II

- Pure Assessment (PA) This is the group of 402 children and adolescents which were only assessed. (N=45000 total population; n=402 assessed)

- Combined Therapy-Assessment TA This is the group of children and adolescents who received treatment and has been pretested for mental health disorders. (N=2500 treated, n=100 pretested/assessed)

- Sampling frame List of all schools present in the South and the exposed Bekaa region

- DICA Diagnostic Interview for Children and Adolescents.

- Statistical Significance $P < 0.05$

- Baseline Rates Rates present when normal conditions are prevailing (i.e, before the war).

- SA Separation Anxiety

- OAD Overanxious Disorder

- PTSD Post-traumatic Stress Disorder

Appendix III

DSM III-R and DSM-IV Criteria

DSM III-R

American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders, Third Edition, Revised. Washington, DC, American Psychiatric Association, 1987.

I- Depression

A. At least five of the following symptoms have been present during the same two-week period and represent a change from previous functioning; at least one of the symptoms is either (1) depressed mood, or (2) loss of interest or pleasure. (Do not include symptoms that are clearly due to a physical condition, mood-incongruent delusions or hallucinations, incoherence, or marked loosening of associations.)

(1) Depressed mood (or can be irritable mood in children and adolescents) most of the day, nearly every day, as indicated either by subjective account or observation by others
(2) markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day (as indicated either by subjective account or observation by others of apathy most of the time)
(3) significant weight loss or weight gain when not dieting (e.g., more than 5% of body weight in a month), or decrease or increase in appetite nearly every day (in children, consider failure to make expected weight gains)
(4) insomnia or hypersomnia nearly every day
(5) psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down)
(6) fatigue or loss of energy nearly every day
(7) feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick)

(8) diminished ability to think or concentrate, or indecisiveness, nearly every day (either by subjective account or as observed by others)

(9) recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide

B. (1) It cannot be established that an organic factor initiated and maintained the disturbance
(2) The disturbance is not a normal reaction to the death of a loved one (Uncomplicated Bereavement)

Note: Morbid preoccupation with worthlessness, suicidal ideation, marked functional impairment or psychomotor retardation, or prolonged duration suggest bereavement complicated by Major Depression.

C. At no time during the disturbance have there been delusions or hallucinations for as long as two weeks in the absence of prominent mood symptoms (i.e., before the mood symptoms developed or after they have remitted).

D. Not superimposed on Schizophrenia, Schizophreniform Disorder, Delusional Disorder, or Psychotic Disorder NOS.

II- Separation Anxiety

A. Excessive anxiety concerning separation from those to whom the child is attached, as evidenced by at least three of the following:
(1) unrealistic and persistent worry about possible harm befalling major attachment figures or fear that they will leave and not return
(2) unrealistic and persistent worry that an outward calamitous event will separate ` the child from a major attachment figure, e.g., the child will be lost, kidnapped, killed, or be the victim of an accident
(3) persistent reluctance or refusal to go to school in order to stay with major attachment figures or at home
(4) persistent reluctance or refusal to go to sleep without being near a major attachment figure or to go to sleep away from home
(5) persistent avoidance of being alone, including “clinging” to and “shadowing” major attachment figures
(6) repeated nightmares involving the theme of separation
(7) complaints of physical symptoms, e.g., headaches, stomachaches, nausea, or vomiting, on many school days or on other occasions when anticipating separation from major attachment figures
(8) recurrent signs or complaints of excessive distress in anticipation of separation from home or major attachment figures, e.g., temper tantrums or crying, pleading with parents not to leave

(9) recurrent signs of complaints of excessive distress when separated from home

or major attachment figures, e.g., wants to return home, needs to call parents when they are absent or when child is away from home

B. Duration of disturbance of at least two weeks.

C. Onset before the age of 18.

D. occurrence not exclusively during the course of a Pervasive Developmental Disorder,

Schizophrenia, or many other psychotic disorder.

III- Overanxious Disorder

A. Excessive or unrealistic anxiety or worry, for a period of six months or longer, as indicated by the frequent occurrence of at least four of the following:

(1) excessive or unrealistic worry about future events
(2) excessive or unrealistic concern about the appropriateness of past behavior
(3) excessive or unrealistic concern about competence in one or more areas, e.g., athletic, academic, social
(4) somatic complaints, such as headaches or stomachaches, for which no physical basis can be established
(5) marked self-consciousness
(6) marked self-consciousness
(6) excessive need for reassurance about a variety of concerns
(7) marked feelings of tension or inability to relax

B. If another Axis I disorder is present (e.g., separation Anxiety Disorder, Phobic Disorder, Obsessive Compulsive Disorder), the focus of the symptoms in A are not limited to it. For example, if Separation Anxiety Disorder is present, the symptoms in A are not exclusively related to anxiety about separation. In addition, the disturbance does not occur only during the course of a psychotic disorder or a Mood Disorder.

C. If 18 or older, does not meet the criteria for Generalized Anxiety Disorder.

D. Occurrence not exclusively during the course of a Pervasive Developmental Disorder, Schizophrenia, or any other psychotic disorder.

IV- Post-traumatic Stress Disorder

A. The person has experienced an event that is outside the range of usual human Q experience and that would be markedly distressing to almost anyone, e.g., serious threat to one's life or physical integrity; serious threat or harm to one's children,

spouse, or other close relatives and friends; sudden destruction of one's home or community; or seeing another person who has recently been, or is being seriously injured or killed as the result of an accident or physical violence.

B. The traumatic events is persistently reexperienced in at least one of the following ways:

(1) recurrent and intrusive distressing recollections of the event (in young children, repetitive play in which themes or aspects of the trauma are expressed)

(2) recurrent distressing dreams of the event

(3) sudden acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative [flashback] episodes, even those that occur upon awakening or when intoxicated)

(4) intense psychological distress at exposure to events that symbolize or resemble an aspect of the traumatic event, including anniversaries of the trauma

C. Persistent avoidance of stimuli associated with the trauma or numbing of general responsiveness (not present before the trauma), as indicated by at least three of the following:

(1) efforts to avoid thoughts or feelings associated with the trauma

(2) efforts to avoid activities or situations that arouse recollections of the trauma

(3) inability to recall an important aspect of the trauma (psychogenic amnesia)

(4) markedly diminished interest in significant activities (in young children, loss of recently acquired developmental skills such as toilet training or languages skills)

(5) feeling of detachment or estrangement from others

(6) restricted range of affect, e.g., unable to have loving feelings

(7) sense of a foreshortened future, e.g., does not expect to have a career, marriage, or children, or a long life

D. Persistent symptoms of increased arousal (not present before the trauma), as indicated by at least two of the following:

(1) difficulty falling or staying asleep

(2) irritability or outbursts of anger

(3) difficulty concentrating

(4) hypervigilance

(5) exaggerated startle response

(6) physiologic reactivity upon exposure to events that symbolize or resemble an aspect of the traumatic event (e.g., a woman who was raped in an elevator breaks out in a sweat when entering any elevator)

E. Duration of the disturbance (symptoms in B, C, and D) of at least one month.

DSM-IV

American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Revised. Washington, DC, American Psychiatric Association, 1994.

I- Depression

A. Presence of a single Major Depressive Episode.

B. The Major Depressive Episode is not better accounted for by Schizoaffective Disorder
and is not superimposed on Schizophrenia, Schizophreniform Disorder, Delusional Disorder, or Psychotic Disorder Not Otherwise Specified.

C. There has never been a Manic Episode, a Mixed Episode, or a Hypomanic Episode.
Note:
This exclusion does not apply if all of the manic-like, mixed-like, or hypomanic-like episodes are substance or treatment induced or are due to the direct physiological effects of a general medical condition.

II- Separation Anxiety

A. Developmentally inappropriate and excessive anxiety concerning separation from home or from those to whom the individual is attached, as evidenced by three (or more) of the following:
(1) recurrent excessive distress when separation from home or major attachment figures occurs or is anticipated
(2) persistent and excessive worry about losing, or about possible harm befalling, major attachment figures
(3) persistent and excessive worry that an untoward event will lead to separation from a major attachment figure (e.g., getting lost or being kidnapped)
(4) persistent reluctance or refusal to go to school or elsewhere because of fear of separation
(5) persistently and excessively fearful or reluctant to be alone or without major attachment figures at home or without significant adults in other settings
(6) persistent reluctance or refusal to go to sleep without being near a major attachment figure or to sleep away from home
(7) repeated nightmares involving the theme of separation

(8) repeated complaints of physical symptoms (such as headaches, stomachaches, nausea, or vomiting) when separation from major attachment figures occurs or is anticipated

B. The duration of the disturbance is at least 4 weeks.

C. The onset is before age 18 years.

The Grapes of Wrath: Appendix III

D. The disturbance causes clinically significant distress or impairment in social, academic (occupational), or other important areas of functioning.

E. The disturbance does not occur exclusively during the course of a Pervasive Developmental Disorder, Schizophrenia, or other Psychotic Disorder and, in adolescents and adults, is not better accounted for by Panic Disorder With Agoraphobia. Specify if: Early Onset: if onset occurs before age 6 years

III- <u>Generalized Anxiety Disorder</u>

A. Excessive anxiety and worry (apprehensive expectation), occurring more days than not for at least 6 months, about a number of events or activities (such as work or school performance).

B. The person finds it difficult to control the worry.

C. The anxiety and worry are associated with three (or more) of the following six symptoms (with at least some symptoms present for more days than not for the past 6 months). Note: Only one item is required in children.

(1) restlessness or feeling keyed up or on edge

(2) being easily fatigued

(3) difficulty concentrating or mind going blank

(4) irritability

(5) muscle tension

(6) sleep disturbance (difficulty falling or staying asleep, or restless unsatisfying sleep)

D. The focus of the anxiety and worry is not confined to features of an Axis I disorder,

e.g., the anxiety or worry is not about having a Panic Attack (as in Panic Disorder), being embarrassed in public (as in Social Phobia), being contaminated (as in Obsessive-Compulsive Disorder), being away from home or close relatives (as in Separation Anxiety Disorder), gaining weight (as in Anorexia Nervosa), having multiple physical complaints (as in Somatization Disorder), or having a serious illness (as in Hypochondriasis), and the anxiety and worry do not occur exclusively during Posttraumatic Stress Disorder. E. The anxiety, worry, or physical

symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

F. The disturbance is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition (e.g., hyperthyroidism) and does not occur exclusively during a Mood Disorder, a Psychotic Disorder, or a Pervasive Developmental Disorder.

IV- **Posttraumatic Stress Disorder**

A. The person has been exposed to a traumatic event in which both of the following were present:

(1) the person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others

(2) the person's response involved intense fear, helplessness, or horror. Note: In children, this may be expressed instead by disorganized or agitated behavior

B. The traumatic event is persistently reexperienced in one (or more) of the following ways:

(1) recurrent and intrusive distressing recollections of the event, including images, thoughts, or perceptions. Note: In young children, repetitive play may occur in which themes or aspects of the trauma are expressed.

(2) recurrent distressing dreams of the event. Note: In children, there may be frightening dreams without recognizable content.

(3) acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative flashback episodes, including those that occur on awakening or when intoxicated). Note: In young children, trauma-specific reenactment may occur.

(4) intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event

(5) physiological reactivity on exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event

C. Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before the trauma), as indicated by three (or more) of the following:

(1) efforts to avoid thoughts, feelings, or conversations associated with the trauma

(2) efforts to avoid activities, places, or people that arouse recollections of the trauma

(3) inability to recall an important aspect of the trauma

(4) markedly diminished interest or participation in significant activities

(5) feeling of detachment or estrangement from others

(6) restricted range of affect (e.g., unable to have loving feelings)

(7) sense of a foreshortened future (e.g., does not expect to have a career, marriage, children, or a normal life span)

D. Persistent symptoms of increased arousal (not present before the trauma), as indicated by two (or more) of the following:

(1) difficulty falling or staying asleep

(2) irritability or outbursts of anger

(3) difficulty concentrating

(4) hypervigilance

(5) exaggerated startle response

E. Duration of the disturbance (symptoms in Criteria B, C, and D) is more than 1 month.

F. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Appendix IV

WAR EVENTS QUESTIONNAIRE (WEQ)

Family I.D. ..... **Interviewer ID .....**
Individual I.D. ..... **Date .....**

A. OBJECTIVE WAR EVENTS

Ask:
I am going to ask you about specific war events that may have happened to you or to somebody close to you since ..... (insert the time interval under investigation). The event could have occurred several times; please note every occurrence.

1. HOUSE DAMAGE

EVENT	Code
.Never hit	0
.Shrapnels only	1
.More than (shrapnels only) but less than (partially destroyed)	2
.Partially destroyed	3
.Totally destroyed	4

WITNESSING	Code
.Knew about it	K
.Saw it from far	F
.Saw it and was near	C
.Saw it and was very near	V

VICTIM:

a) A very close person *

	Event	Witness	Date (Mth.\Yr.)	Sub Score** (1-10)
	------	------	---\---	------
Has the house of somebody	------	------	---\---	------
very close to you ever been	------	------	---\---	------

damaged?	------	------	---\---	------
	------	------	---\---	------

b) Self

	Event	Witness	Date (Mth.\Yr.)	Sub Score** (1-10)
	------	------	---\---	------
Has your house ever been	------	------	---\---	------
damaged ?	------	------	---\---	------
	------	------	---\---	------
	------	------	---\---	------

2. PHYSICAL INJURY

EVENT	Code	WITNESSING	Code
.Not injured	0	.Knew about it	K
.Almost injured	1	.Saw it from far	F
.Superficial injury	2	.Saw it and was close	C
.Serious injury	3	.Saw it and was very close	V
.Fatal	4		

VICTIM:

a) A very close person *

	Event	Witness	Date (Mth.\Yr.)	Sub Score** (1-10)
	------	------	---\---	------
Has somebody very close	------	------	---\---	------
to you ever been injured ?	------	------	---\---	------
	------	------	---\---	------
	------	------	---\---	------

b) Self

	Event	Witness	Date (Mth.\Yr.)	Sub Score** (1-10)
	------	------	---\---	------
Have you ever been injured ?	------	------	---\---	------
	------	------	---\---	------
	------	------	---\---	------

------ ------ ---\--- ------

OBJECTIVE WAR EVENTS AND CORRESPONDING OBJECTIVE WEIGHTS**

EVENTS	WEIGHTS
1. HOUSE DAMAGE	
Severity of Event:	
.Less than partially destroyed	1
.Partially destroyed	4
.Totally destroyed	8
Witnessing if Victim is a very close person *	
.The interviewee was told about it	25
.Saw it from far	50
.Saw it and was close	15
.Saw it and was there	300
Witnessing if Victim is self (interviewee)	
.The interviewee was told about it	100
.Saw it from far	150
.Saw it and was close	200
.Saw it and was there	400
2. PHYSICAL INJURY	
Severity of Event if Victim is a very close person *	
.Almost injured	1
.Superficial injury	1
.Serious injury	4
.Fatal	24
Witnessing if Victim is a very close person *	
.The interviewee was told about it	150
.He saw it from far	175
.He saw it and was close	250
.He saw it and was there	400

Severity of Event if Victim is self (interviewee)

.Almost injured	700
.Superficial injury	700
.Serious injury	3200

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