



**ASSESSMENT OF THE PSYCHOSOCIAL HEALTH STATUS OF ADOLESCENTS
12-18 YEARS OLD
IN THE OCCUPIED PALESTINIAN TERRITORY**

A CROSS SECTIONAL BASELINE SURVEY

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Contents

List of Tables	1
List of Figures	1
List of Appendices	1
Abbreviations	2
Executive Summary	3
Introduction	8
Conceptualizing the Mental Health of Palestinian Adolescents	8
The Resilience Model of Health Outcomes.....	10
Measures of health outcomes	11
Aims and Objectives.....	13
General Objective:	13
Specific Objectives:	13
Methods.....	14
Sampling.....	14
Instrument	15
Field work.....	15
Analysis	15
Factor Analysis (FA).....	16
Regression Analyses.....	21
Results.....	22
Description of Results	22
a. Basic Adolescent Characteristics.....	22
b. Basic Characteristics of Household Heads	23
c. Psychosocial and Associated Factors	24
Factors Associated with Adolescent Psychosocial Health	25
1. Well Being	25
2. Distress.....	29
3. Human Insecurity	35
Discussion.....	39
Conclusion.....	45
Recommendations	46
Limitations.....	47
References	48

Appendices.....	51
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List of Tables

Table 1: Results of the Confirmatory Factor Analysis.....	18
Table 2: Final Factor Analysis Structure.....	19
Table 3: Basic Characteristics of Adolescents (N= 2081).....	23
Table 4: Basic Characteristics of Household Heads (N=2081).....	24
Table 5: Frequency Distribution of Psychosocial Scales and Associated factors by Region in the oPt (N= 2081).....	25
Table 6: WHO Well Being Index by Selected Associated Factors for the oPt (N=2081).....	26
Table 7: Binary Logistic Regression Analysis for the WHO Well Being Index in the oPt (N=1666)*.....	28
Table 8: Binary Logistic Regression Analysis for the WHO Well Being Index - the West Bank (N= 1187)*.....	28
Table 9: Binary Logistic Regression Analysis for the WHO Well Being Index - the Gaza Strip (N=489)*.....	29
Table 10: Distress by Selected Associated Factors for the oPt (N=2081).....	31
Table 11: Binary Logistic Regression Analysis for the Distress Scale in the oPt (N=1645).....	33
Table 12: Binary Logistic Regression Analysis for the Distress Scale in West Bank (N= 1153)*.....	34
Table 13: Binary Logistic Regression Analysis for the Distress Scale in Gaza strip (N=488)*.....	34
Table 14: Human Insecurity Scale by Selected Associated Factors for the oPt (N= 2081).....	35
Table 15: Binary Logistic Regression Analysis for the Human Insecurity Scale in the oPt (N=1781)*.....	36
Table 17: Binary Logistic Regression Analysis for the Human Insecurity Scale in the West Bank (N=1238)*.....	37
Table 18: Binary Logistic Regression Analysis for the Human Insecurity Scale in the Gaza Strip(N=543)*.....	38

List of Figures

Figure 1: Protective Factors Identified by Benzeis (2005) from Reviewing Forty Research Papers on Resilience and Factors Associated with Children and Adolescence Well Being.....	9
Figure 2: Adolescents at Risk of Ill being, Distress and Human Insecurity: West Bank and Gaza Strip.....	39

List of Appendices

Appendix 1: The Study Questionnaire.....	52
Appendix 2: Description of Variables Hypothesized to be Part of the Scales in the Psychosocial Health Study of Palestinian Adolescents.....	60
Appendix 3: Initial Exploratory Factor Analysis Structure (9 Factors, Varimax Rotation).....	68

Abbreviations

CFA	Confirmatory factor analysis
CI	Confidence interval
EFA	Exploratory factor analysis
GS	Gaza Strip
HH	Household Head
ICPH	Institute of Community and Public Health
oPt	Occupied Palestinian territory
OR	Odds ratio
PCBS	Palestinian Central Bureau of Statistics
S.D.	Standard Deviation
WB	West Bank

Executive Summary

Adolescents and young people are usually considered a physically healthy group which does not require much of the attention of policymakers and service providers. However, this group may suffer from ill being and low levels of psychosocial health. In the context of the oPt, where young people and the population at large continue to experience chronic and protracted exposure to political violence, and endure the social suffering related to war, an interest in the psychosocial and mental health of adolescents and young people has emerged in recent years. Palestinian adolescents have, over their life course, chronically experienced direct political violence. They have also been living in poverty and isolation, the consequences of Israeli military occupation of Palestinian land. Such a predicament is a main rationale for attempting to understand and measure the psychosocial health of Palestinian adolescents, in the hope of working to address some of the determinants of their ill health and ill being which can realistically be addressed while simultaneously calling for justice to Palestinians.

Thus the aim of this study is to provide baseline data assessing the psychosocial health of Palestinian adolescents and associated factors (determinants). The ultimate aim is to identify high risk groups and the factors associated with their ill being in order to inform interventions. The study employs instruments which solicit responses from adolescents themselves (as opposed to clinical assessments) in rating their own psychosocial health status, which brings the voice of Palestinian adolescents into discussions of interventions, which we believe is an essential component informing interventions.

The study uses 3 different measures/instruments appropriate for context and culture: the WHO-5 Well Being Index, which was tested repeatedly by ICPH in the oPt and is deemed appropriate to use; the Distress Scale and the Human Insecurity Scale, both developed by ICPH/BZU and tested on various groups from the Palestinian population inside and outside the oPt, and with excellent statistical and interpretive results.

The initial phase of this study entailed piloting the draft instrument in 2012 on a number of adolescents living in the oPt. An Exploratory Factor Analysis was conducted to assess the most reliable and valid scales that can measure psychosocial well being among adolescents as well as selected associated factors. Based on the results of this Factor Analysis, the instrument was updated where some scales were changed and others were removed or replaced by other validated ones.

The second phase of the study, completed in 2013, utilized the updated instrument from the pilot study to assess the psychosocial well being of Palestinian adolescents and associated factors. A representative sample of Palestinian households having at least 1 adolescent 12-18 years old was selected by PCBS. The sample covered both

the West Bank and the Gaza Strip and can be generalized to all adolescents 12-18 years old who live in the oPt.

Face to face interviews were conducted by PCBS field workers with one adult in addition to one adolescent living in the household selected randomly. The final sample consisted of 2081 adolescents.

Both Exploratory Factor Analysis using SPSS and Confirmatory Factor Analysis using MPlus were used to restructure the psychosocial well being measures and associated factors based on the study results. This analysis yielded 8 scales. The first 3 were the dependent variables designed to measure psychosocial health. Those were the WHO-5 Well Being Index, the Distress Scale as well as the Human Insecurity Scales. The 5 remaining scales were selected as factors associated with the psychosocial health measures. Those included the Positive Family, Positive School and Positive Neighborhood Relations Scales, Aggressive Behavior and Humiliation by Nuclear Family Members scale.

The findings indicate that the sample contained an equal proportion of boys and girls. 93% of the adolescents who participated in the study were currently attending schools or have already graduated. 16% were living in crowded households and 6% reported that they were in the labor force. Locality type and refugee status distribution resembles that of the oPt in general. 6% of the participants were living in female headed households, 94% of household heads were currently married, 76% were currently employed and 60% reported having less than a high school education (Tawjihi).

Results also indicate that 46% of participants reported ill being, 15% were moderately to severely distressed and a high of 83% reported moderate to high levels of human insecurity. No significant variation was observed by region in relation to the WHO-5 Wellbeing Index. Paradoxically, adolescents in the West Bank were found to be significantly more distressed at ($p < 0.05$) and more insecure ($p < 0.001$) compared to adolescents living in the Gaza Strip. This may be due to ongoing presence of the Israeli army, settlers, checkpoints, and Separation Wall as part of their daily realities.

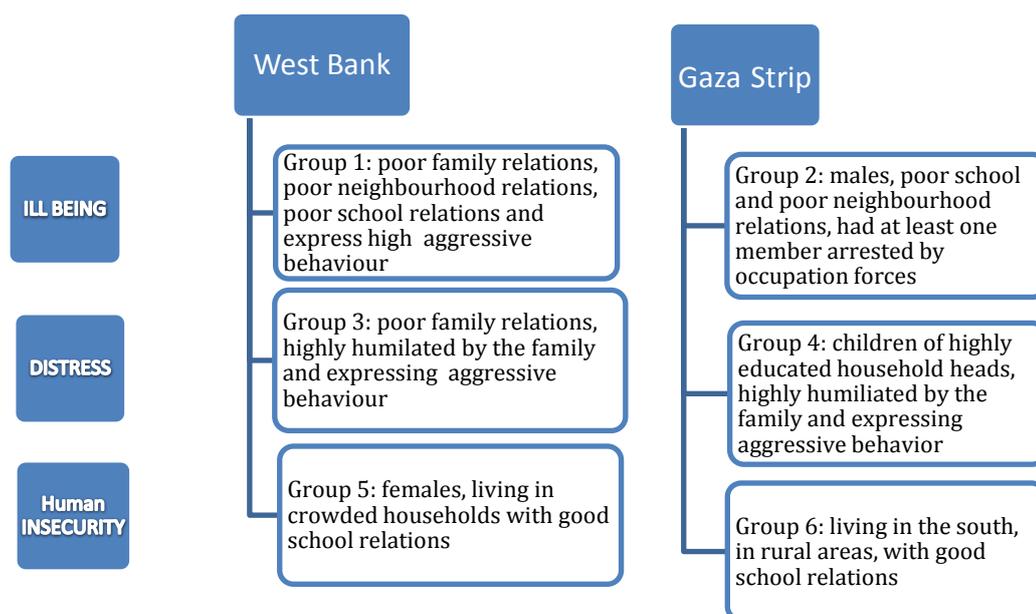
Bivariate analysis was conducted and significant results were entered into regression models to identify the factors associated with low psychosocial health levels. At first, Binary Logistic Regression was completed for the oPt as a whole, and then repeated for the West Bank and the Gaza Strip separately, given that the differences between these two regions were identified as important early on in the analyses phase, and therefore essential to elucidate.

For the oPt as a whole, the majority of adolescents who participated in this study reported high levels of human insecurity (83%) moderate levels of ill being (46%) and low levels distress (15%). The results also showed that sex, age, locality, region are not associated with the well being of adolescents. Relational aspects were the major

factors associated of well being where ill being was strongly associated with poor family, school and neighborhood relations. Adolescents who reported ill being were more likely to express more aggressive behavior compared to those with better well being.

Relational aspects were also important factors associated with the level of distress expressed by the Palestinian adolescents who participated in this study. In addition to poor family, school and neighborhood relations and expressing aggressive behavior, being humiliated by nuclear family members was an important in the oPt sample as a whole. Human Insecurity was reported by females significantly more than males (in line with other findings from ICPH research) and from the West Bank (compared to the Gaza Strip), those living in households with high crowding ratios, and those living in the South of the Gaza Strip.

Based on these results and others contained in detail in the full report, this study identified six groups of adolescents at risk of ill being, distress and human insecurity:



In general, poor family, school and neighborhood relations were associated with ill being (the WHO-5 index) and therefore, these negative relations place adolescents at risk. Distress was more strongly associated with humiliation, a finding reported in previous studies by ICPH. Human insecurity was associated to the economic hardship proxy measures used in this study. These results were also selectively associated with gender, aggressive behavior and education of parents. A direct association with exposure to Israeli military political violence was observed only in one group in the

Gaza Strip who were at risk of ill being and had a member of the family arrested by the Israeli occupation army along with other risk factors. The lack of association between direct exposure to political violence and health outcomes may be due a decline in such exposures especially on the West Bank in recent times. It can also be seen as an indication of the resilience process developed by adolescents – normalizing the abnormal - in the face of adversity. Indeed, our adolescents have only known life in warlike conditions.

Overall, this study can only demonstrate further the complexity of identifying factors contributing to adolescents' psychosocial health, and deeming one factor or another a risk or protective factor. The variety of combinations in the risk groups is not surprising, nor is the fact that factors can be both risk and/or protective aspects in different contexts. The literature emphasizes that these are not static and change with contexts. These results need to be emphasized and prompt all to be very wary of generalizations related to different groups and over time, and to ensure to investigate and come to grips with the experiences of different groups and their psychosocial health status across periods. The results clearly point to the importance of the family and community in the lives of adolescents. These results enhance and reaffirm the view that it is more useful to address adolescent concerns outside of the clinic, and inside the social realm of their daily lives.

The task of identifying psychosocial risk and protective factors in the oPt is especially complex because in addition to the daily stressors facing adolescents world-wide, Palestinian adolescents must find ways to thrive under a complex and constantly changing, uncertain, ambiguous and insecure conditions of Israeli military occupation. This predicament translates not only as violence and disruption of daily life, but especially as an intrusion on the delicate social fabric of the family and society. This was an evident result in this study with reports of high human insecurity despite the relatively low percentage of adolescents who were directly exposed to violence. These results point to cumulative structural causes of human insecurity which cannot be captured in cross sectional studies completed in one moment in time. Such broader level structural and contextual factors nevertheless can have important and pervasive influences on the psychosocial health of Palestinian adolescents, and the Palestinian population in general. Indeed, the fear and threat of expulsion as a result of the 1948 war and the dispossession and dispersion of 2/3 of the Palestinian population, in addition the 1967 war experience and the expulsion of around 180,000 Palestinians to neighboring countries, is imprinted in the national consciousness. This may well be a very important factor affecting the human security of all Palestinians, including adolescents, as the experience and the story of the Diaspora is handed down from generation to generation.

Finally, the results of this study point to the vital importance of addressing different adolescent groups' psychosocial health needs differently in future interventions, and tailoring interventions to these differing needs.

Introduction

Conceptualizing the Mental Health of Palestinian Adolescents

The occupied Palestinian territory is witnessing an emerging interest in the mental and psychosocial health of adolescents and in measuring the outcomes of programs geared towards alleviating the social suffering related to war, exposure to political violence, and poverty and isolation. In recent years there has also been a shift away from using measures related to young people's risky behavior, and parent or teacher reports about young people, to using subjective health measures with adolescents assessing their own health status. Such subjective health measures include not just self-reporting of physical symptoms but also reporting on subjective feelings and perceptions of psychosocial wellbeing. Many argue that this approach is a more accurate measure of health, more inclusive of a majority that does not suffer from severe behavioral and health problems, more empowering for the adolescents as well as a more cost effective approach to understanding and assessing health.

At the same time, the epidemiological transition characterized by a decline in infectious diseases and a rise in chronic diseases which have become leading causes of morbidity and mortality in the occupied Palestinian territory also means that psychosocial health has been gaining increasing importance as a determinant of health. Psychosocial health affects not only predisposition to chronic illness through bio-psychological paths, but also affects health behaviors and attitudes to illness (Topolski et al. 2004). A 1986 WHO report notes a strong psychosocial component of health and suggests that adolescents take part in data collection in order to give more agency to the participants. Whereas risky behaviors are increasingly being seen as reflection of ill being, subjective health measures tackle the determinants of health (Topolski et al. 2004). Moreover, subjective health measures shed light on a majority that are free of disease and may not report somatic symptoms but may still suffer from ill being (Park 2004). It is after all far more beneficial and cost effective to take preventative measures than treatment by focusing on this majority (Luthar et al. 2000). And lastly, there is a unique quality to reported subjective health related to the importance of self-awareness and introspection and its accurate reflection of inner distress (Edwards et al. 2002; Mechanic 1983), in addition to reports in the literature indicating that subjective health measures can in fact predict death.

Adolescents are at a certain developmental age between childhood and adulthood. Biologically, this period is characterized by natural physiological changes resulting

partially from the maturation of the reproductive organs. These physical and hormonal changes are accompanied by changes in social perception of the adolescents' of themselves and their environments. It is a time of understanding and negotiating identity. Whereas the family remains important, many emotional attachments are transferred to peers (Williams and Kelly 2005). In order to measure psychosocial health of adolescents, the interaction between adolescents and their environments must be understood (Benzies and Mychasiuk 2009). Researchers have reviewed the scientific literature and identified aspects associated with adolescents' mental health on an individual, family and community level , moving away from the risky behavior approach (negative and stigmatizing), and towards the notions of protective factors and resilience building (positive and enabling) (See Figure 1).

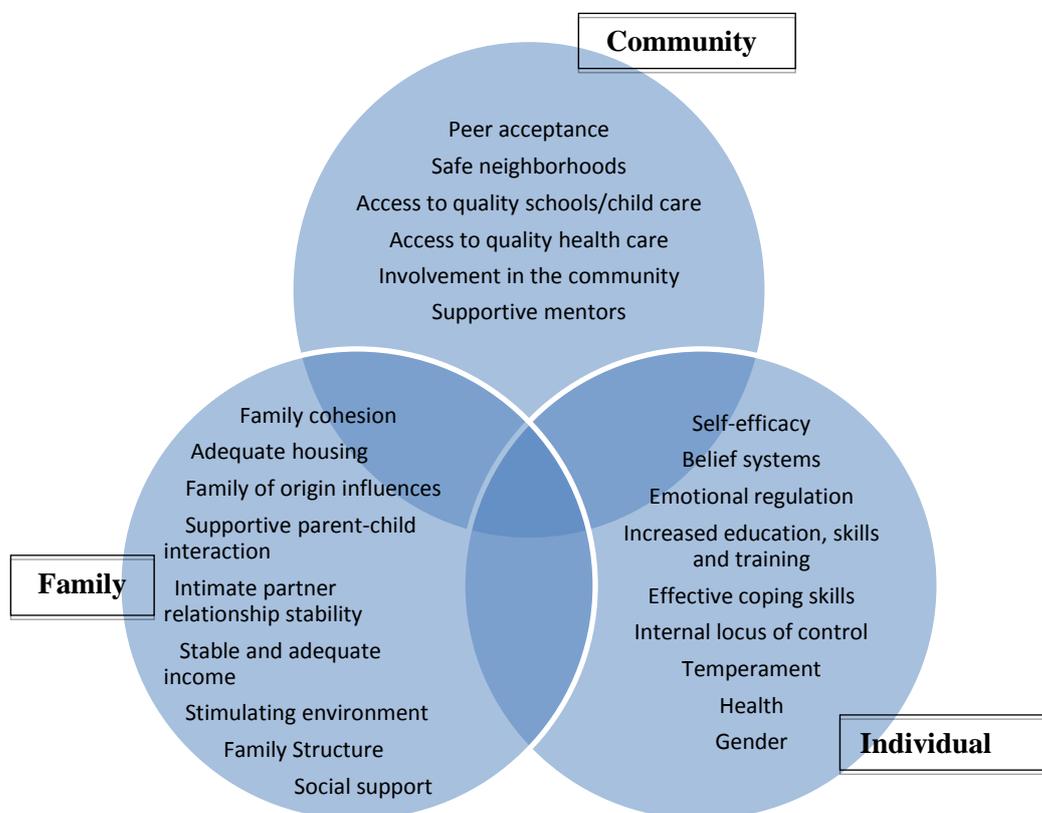


Figure 1: Protective Factors Identified by Benzies (2005) from Reviewing Forty Research Papers on Resilience and Factors Associated with Children and Adolescence Well Being

To be sure, individual characteristics of adolescents contribute to their mental health, as these determine the way individuals interact with others as well as how they perceive their environment. These characteristics are in part genetic, and in part acquired through the socialization process within the family and the community (Howard and Medway 2004). For example, expression of maternal love in childhood was found to be related to social competence and adjustment (Eisenberg et al.

2003). In other words, the way in which psychosocial mental health is expressed relates to interplay between genetic endowments and environmental determinants beginning with the family, then the school, the neighborhood, the community and the nation.

This report emphasizes factors related to the psychosocial mental health of adolescents which are located in the family and the community as the interest is in identifying groups rather than individuals at risk. The family is the primary social support of youth (Olsson et al. 2003) and poor family relations are associated with aggressive behaviors and bad school achievements. Close relationship with a caring adult whether from the family or the community is important as it may provide warmth, encouragement and assistance (Olsson et al. 2003; Fergus and Zimmerman 2005). Good school environment with supportive peers and teachers has been positively linked to academic success (Noam and Hermann 2002). However, in reality, many adolescents face adversity and grow up in environments far removed from those identified in the literature as favorable for development. Adolescents grow in conditions of poverty, war, broken families, being surrounded by aggressive peers, unsupportive teachers and many other factors that put them at risk of ill being (Zolkoski and Bullock 2012). However, not all adolescents growing up in adverse circumstances develop negative health outcomes.

The Resilience Model of Health Outcomes

The model of “resilience”, which developed from studying groups of adolescents who thrived despite adversity offers a framework for understanding how different factors interact to affect health outcomes. This framework aims to identify **risk factors** which are “circumstances that increase the probability of poor outcomes” as well as **protective factors** which “alter responses to adverse events so that potential negative outcomes can be avoided” (Walsh 2003). Although there is an ongoing discussion of how exactly protective factors contribute to positive health outcomes, proponents of this approach share the view that adolescents, with some support, become active agents in facing adversity. It is a model that recognizes the need for intervention without stigmatizing and pathologising mental health (Fergus and Zimmerman 2005).

Resilience is not a personal trait that one possesses or lacks but is a process of adjustment found in the psychosocial aspects of adolescents’ lives. “Psychosocial” is a meso-level component that is more than the “psychological” and the “social” (Martikainen et al. 2002). Psychosocial explanations of health are essentially viewed here as processes that cannot be captured by a single measurement at one level. Researchers (Martikainen, Bartley et al. 2002) distinguish between factors that contribute to health through structural pathways and those which are psychosocial

pathways. Central to this approach is that “macro and meso level social processes lead to perceptions and psychological processes at the individual level”. Thus psychosocial factors can influence health through direct psychobiological processes or through modified behaviors and lifestyles. The authors brings the example of psychosocial component of “unemployment” which refers not to the inability to buy material necessities , which in turn produce negative health outcomes, but that unemployment leads to “loss of self-esteem and feelings of worthlessness that affect health via direct psychobiological processes or through modified behaviors and lifestyles. (Krieger 2001) uses “embodiment” to describe psychosocial processes and includes the larger political and economic situation in the ecology of health outcomes.

The resilience model was seen as an appropriate model for the purpose of this study because it emphasizes the larger context in which individuals live. And importantly, it allows for the inclusion of the larger political context which Palestinian adolescents endure, and its contribution to mental health. In addition, this model views protective factor as embedded within the family and community, and therefore proposed interventions are directed towards capitalizing on resources available to the adolescent in these environments (Fergus and Zimmerman 2005). This is very much in tune with the local Palestinian context where the majority express resistance to clinical psychological interventions and psychotherapy which pathologize social suffering and reduce interventions into one to one therapies or the provision of medications instead of an approach which takes into consideration the issue of justice (Ziadni et al. 2011).

Measures of health outcomes

Risk and protective factors are not static, they change from one context to another (Walsh 2003), and so are health outcomes, highlighting the need to develop a local model of resilience in oPt (Alvord and Grados 2005). More so, protective and risk factors must be viewed within the local culture to successfully help children cope and adapt to difficulties. Researchers (Cicchetti and Rogosch 2002) found that the process of resilience may differ for groups of adolescents with respects to factors like region, locality and gender. The contextual factor must also be taken into consideration when identifying what is a “good health outcome”. Other researchers (Zolkoski and Bullock 2012) express the view that the most optimal outcome indicators are those most relevant to the risk encountered, and bring the example that “when there are serious life adversities such as exposure to war, the absence of psychiatric distress can be a more logical outcome than excellence in functioning”.

In accordance with adversity facing adolescents in the oPt, the local cultural views of health and illness and the larger uncertainties related to the ongoing Israeli military occupation, three measures were chosen as health outcomes: the WHO Well Being Index, the Distress and the Human Insecurity Scales, both developed by the ICPH during the past decade of working in research and interventions with Palestinian adolescents and young people.

WHO Well Being Index

The WHO Well Being Index is composed of five simple and easily administered questions which measure current mental well being (in the past 2 weeks). It was designed to be used in primary health care and other settings as an indication of individuals at risk of developing mental ill being expressed through depressive like symptoms. The WHO Well Being Index has a proven validity in both clinical settings and psychometrically (Bech 2004). It is not however, a diagnosis of any medical disorders. An unpublished ICPH report has confirmed the validity of this health measure in the oPt. Whereas the WHO Well Being Index has been used in clinical setting before, this index may be measuring something more subtle in the Palestinian context. Palestinian researchers (Giacaman et al 2011) point to how chronic injustice and violation of human rights corresponds to a local definition of well being and illness, that which oscillates from “ease” to “dis-ease” and the grey area in between rather than “illness” and “health”. In accordance with the local culture, many psychosocial symptoms are expressed in a psychosomatic form (Unpublished ICPH study on infertility), and is evident in descriptions of psychosocial states which use language that usually describes physical states of ill being. The WHO Well Being Index can measure psychosomatic symptoms because it includes questions about physical as well as mental well being. In this study this scale is not seen as reflecting depressive like symptoms as such, but rather reflecting a general state of wellbeing.

Distress Scale (developed by ICPH in line with context and culture)

Psychosocial distress is prevalent among adolescents. Several studies showed that the social distribution of psychosocial distress in adults are similar to those found among adolescents (Aneshensel and Sucoff 1996). The Distress scale was previously used in the Palestinian context to measure the psychosocial impact of humiliation by the Israeli army. Unlike the WHO Well Being Index, this scale measures the presence of negative feelings not only the absence of positive ones.

Human Insecurity Scale (developed by ICPH in line with context and culture)

The Human Insecurity Scale acknowledges that adolescents worry about their families and the future of their families in unstable and deteriorating political and economic condition (Nguyen & Gillham et al. 2008). It has been initially developed by the ICPH to assess the well being of Palestinians living in the Gaza Strip six months following a fierce Israeli military attack on the area (Ziadni et al. 2011).

Aims and Objectives

General Objective:

The aim of this study is to assess the prevalence and determinants (associated factors) of psychosocial well being among Palestinian adolescents using 3 different measures: the WHO Well Being Index, the Distress Scale and the Human Insecurity Scale.

Specific Objectives:

- To assess the validity and reliability of a psychosocial well being instrument developed in a pilot phase preceding this baseline study using advanced psychometric statistical methods (Factor Analysis).
- To assess the prevalence of well being among Palestinian adolescents using the WHO Well Being Index.
- To assess the prevalence of distress among Palestinian adolescents using a locally developed Distress Scale.
- To assess the prevalence of human insecurity among Palestinian adolescents using locally developed Human Insecurity Scale.
- To assess factors associated with the different psychosocial well being measures in order to identify high risk groups.

Methods

Sampling

This is a cross-sectional study covering a representative sample of all young people 12-18 years old in the West Bank and Gaza Strip. The sample was derived by the Palestinian Central Bureau of Statistics (PCBS) utilizing projections from the 2007 oPt Housing and Establishment Census. The target population consisted of all Palestinian children 12-18 years old who were living with their families in the West Bank and Gaza Strip in 2013. A three stage stratified cluster sample of 2081 households were chosen. The sample was derived using all 165 enumeration areas (EAs), which were enumerated in the 2007 Housing and Establishment Census as a sampling frame. From each enumeration area, 30 systematic random households were selected. Each enumeration area consists of buildings and housing units with an average of 124 households. The first stratum of the sampling was by region (north, center and south of the West Bank and the Gaza Strip) and secondly by the type of locale: urban, rural and refugee camp. This stratification was completed to ensure that the size of the sampled households in each stratum fits with the actual number of households in that stratum as in the population.

The first stage of the sample consisted of 30 EAs according to the 2007 PCBS census using stratified systematic random sampling. In the second stage, 30 random households which housed at least one adolescent in the 12-18 year age group were chosen randomly in each of the 30 enumeration areas. These were selected by beginning at the starting point of each EA annotated by the 2007 PCBS census and moving along the houses located to the right of the field worker (according to the method of the 2007 census) until the needed number was achieved.

After clearly explaining the aims of the survey to potential respondents, the fieldworkers then moved to the third stage of sampling once the household head agreed to participate in the survey. In the third stage of sampling, one 12-18 years old from each household was then selected randomly using Kish Table techniques to ensure that each chosen respondent has an equal probability of selection (The World Health Survey (WHS) - Sampling Guidelines for Participating Countries n.d.), and yielding results which are representative of all 12-18 year old young people in each of the West Bank and Gaza Strip. The sex of the adolescents was chosen based on the serial number of the household; a male member was chosen in the case the household had an odd number and a female member for a household with an even number. Once the member was chosen, the aim of the study was once more explained to the adolescent. Oral consent was obtained from the adolescent if 15 years old and over, and obtained from the parents if the adolescent was under the age of 15 years.

Instrument

The measurement instrument aimed at identifying adolescents at risk of ill being and inadequate psychosocial health by posing questions about possible constructs underlying health. The instrument was divided into two sections: the first section contained basic demographic and socio-economic information of all family members. The second section was made up of 69 questions grouped into 9 scales aimed at measuring various aspects of adolescent psychosocial health. These were derived from the results of an analysis of a pilot study completed in 2012 (UNICEF 2013). The pilot study included 600 participants aged between 12-18 years living in the West Bank and Gaza Strip at the time of the survey. The identified and psychometrically acceptable scales were: Relations at School, Family Relations, Neighborhood Relations, Aggressive Behavior and the subjective measures of psychosocial health: the WHO Well Being Index, the Distress and Human Insecurity scales.

Factor Analysis and Reliability Analysis informed the selection of questions to include in scales assessing the well being of adolescents. When some scales did not perform well in the pilot study, they were replaced with previously developed and validated scales by the ICPH, and used in the oPt . Those included the Positive School Relations Scale, and the Humiliation Scale in addition to 11 questions asking about individual and family exposure to political violence as possible associated factors. All scales scored well with reliability and validity tests.

See Appendix 1 for the study instrument

Field work

The field work was conducted by the Palestinian Central Bureau of Statistics (PCBS) teams. It took place in the period between August 2013 to September 2013 in both the West Bank and Gaza Strip. The survey was completed by trained field workers who have been previously trained during the pilot study, with additional training completed just before the commencement of field work. Training included the ethical principles upheld by Birzeit University which include: oral informed consent, confidentiality, and maintaining the dignity of participants. 72 persons were involved in the data collection process of which 52 were field workers. Face to face interviews were conducted with one of household adults to obtain basic demographic and socio-economic data on the household, and the selected adolescent (based on the method described above to ensure representativeness of the sample).

Analysis

Data was entered and cleaned using Microsoft Access software and then transferred to SPSS version 22 for analysis. The research team at the Institute of Community and Public Health – Birzeit University was responsible for data analyses.

Basic descriptive analysis was initially performed to inspect and gain a preliminary idea of the data at hand. All negatively phrased questions were reverse scaled so that all questions used in the analyses followed the same direction (positive).

Responses of “I don’t know” and “not applicable” were excluded from the analyses. The percentages of these responses were low in general, ranging between 0.1% and 2.2% for most of the variables and up to about 5.5% for the questions on family relations (specifically related to relations with the father); 9.9% on school relations (specifically related to school attendance). This was expected as similar no-response percentages were also found when analyzing the pilot study, and in general, the proportion of no-response remained very low.

Using Factor Analysis, different scales were developed (*see Factor Analysis below*) and univariate, bivariate and multivariate analysis were conducted to identify the factors associated with different psychosocial well being measures. In preparation for the analyses, responses to questions on exposure to violence were recoded from a 1-3 and 1-4 Likert scale into binary scores of “yes” and “no”.

Factor Analysis (FA)

The first part of the analysis included reaffirming the reliability and validity of all the scales developed in the pilot of this study. Both Exploratory (EFA) using SPSS software, and Confirmatory Factor Analysis (CFA) using MPlus software were conducted to obtain the most valid and reliable scales.

Early on we noted that questions on exposure to violence did not factor well together as a scale. This may be due to the design of the questions which did not include the intensity of exposure. However, our view is that, in contrast to the period between 2000 and 2005 in the West Bank, and 2009 and 2011 in the Gaza Strip where exposure to violence was at its peak, the period in which this study was completed entailed rather less exposure to violence by all means. Indeed, the data set indicates that there was a small sample of adolescents who were exposed to the type of political violence which prevailed in previous periods. In the end, a decision was made to insert the exposure to violence as individual questions in the Regression Analyses instead of a scale with different exposures lumped together to measure a particular phenomenon.

A. Exploratory Factor Analysis

First, it was important to determine whether there were regional differences between the West Bank and Gaza Strip. This step was important and differences were expected because the two regions are artificially separated and isolated from each other by the Israeli army, and increasingly there are differences in demographic and socio-economic conditions as well as the type of exposure to violence. Basic descriptive analysis showed some differences between the two regions of the oPt to be significant (See results section below). Factor Analysis for the whole of oPt was compared to that of the analysis when the data was divided according to region. We found that such differences had no effect on the extracted factors, and therefore proceeded with analyzing the data for the oPt as a whole.

We began by conducting an Exploratory Factor analysis for 57 questions of the 69 covered in the questionnaire. The 12 questions excluded from Factor Analysis were related to exposure to violence, included individually in later analyses. (See Appendix 2 for the descriptives of these variables stratified by region). Principal Component Extraction was performed with list wise Varimax rotation which included variables with loadings of 0.4 or more. The initial analysis yielded 13 factors with an Eigen value greater than 1. The variance explained by these factors was 59%. Factor Analysis was repeated several times based on several expectations from the data at hand. We viewed the scree plot to determine the cut off points where factors begin to have low loadings. The first Exploratory Analysis showed the more and less robust scales. Some scales had low Chronbach's Alphas, and others were divided or mixed with other scales, and yet a third group showed strong cohesion and high reliability. The former were examined for the possibility of deleting some items in favor of the scale's overall reliability. The first selection process excluded the questions on negative family relations due to its low loadings as well as constantly overlapping with Humiliation and Aggressive Behavior scales. (See Appendix 3 for details of the initial factors' structure).

"The Humiliation Scale" versus "The Negative Family Relations Scale"

A decision was made to use the humiliation scale to describe negative family relations instead of using the original Negative Family Relations Scale. In accordance with a meso-level view of psychosocial we found that the Humiliation Scale was a more appropriate indication of the negative interactions within the family. By definition "Humiliation is a social process linked to loss of dignity, honor and justice" (Giacaman et al. 2007). Humiliation was seen more appropriate because it is an internalization of abuse (verbal and physical) within the family. We believe humiliation is a more accurate measure of negative family relations than is physical beating: In an unpublished qualitative study (ICPH, 2013), Palestinian participants reported their opinions on being beaten by their parents as children and it was found that not all beating was seen as negative and humiliating. Moreover, the emotions associated with being beaten were dependent upon the context and the subjective perceptions of participants.

B. Confirmatory Factor Analysis (CFA)

We subjected the rest of the scales to a Confirmatory Factor Analysis using the program Mplus. The results of Confirmatory Analysis were surprising because they showed a bad fit model even though the scales had good reliability. In order to bring the model to an acceptable validity, we experimented with removing certain scales and certain items. We did this systematically based on the statistics provided by the Confirmatory Analysis, as well as what we learned about the data from extensively examining it in Exploratory Analysis.

The second stage of analysis considerably changed the structure and content of the questionnaire. The scales most affected were the School Relations Scale, the Human Insecurity and the Humiliation scale. The questions on school relations were reduced to questions on subjective measures of the school environment; the Human Insecurity questions were reduced to questions directly related to family members; and the questions on humiliation were reduced to questions on being humiliated by members of the nuclear family. Three other items (A01.B: Your mother understands you, A05.B: You said bad words during the last week and A08.H: To what extent did you feel angry) were removed due to lack of variance in the answers. (See Appendix 1: Study Instrument)

The main criteria used to assess model fit were the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI), the Root Mean Square Error of Approximation (RMSEA) and the Standardized Root Mean Square Residuals (SRMR). For the TLI and CFI, a value of 0.95 is indicative of good model fit. For the SRMR, a value of ≤ 0.08 and for the RMSEA a value of <0.06 is indicative of a good model fit (Schreiber et al. 2006). Table 1 summarizes the main results for the model fit indices resulted from the CFA after several attempts.

Table 1: Results of the Confirmatory Factor Analysis

Criteria of Model Fit		Value
CFI	Comparative Fit Index	0.945
TLI	Tucker-Lewis Index	0.939
RMSEA	Root Mean Square Error of Approximation	0.036
SRMR	Standardized Root Mean Square Residuals	0.037

After a good fit model was reached in Confirmatory Factor Analysis, the data was re-entered into Exploratory Factor Analysis. The final EFA was done listwise, with a Varimax rotation and eigenvalue higher than one. It yielded 8 scales made up of 35 questions (the same factor structure yielded in the CFA). The scales are: Positive Family Relations, Positive School Relations, Positive Neighborhood Relations, Aggressive Behavior, WHO Well Being Index, Distress, Human Insecurity and Humiliation by Nuclear Family scales. All the items had good loading and acceptable alpha scores. (See Table 2).

Based on the final EFA loadings' results, factor scores were calculated. This was done by first multiplying the answer on each item (on a Likert scale of 1-4) by the loadings of each item as calculated in the EFA. (See loadings in Table 2). The individual's score on a scale was the sum of the scores of the individual items. After each scale had a minimum and a maximum score, the raw score was converted to a score of 0-100. That is, the highest raw score on a given scale was recorded into a 100 and the lowest raw score on a given scale was recorded into 0. Thus every individual had a score in the range of 0-100 on each of the scales in the questionnaire. Such coding insured that the scores are comparable across scales.

Table 2: Final Factor Analysis Structure

Outcome Factors			
Factor 1: Distress Scale	Mean	S.D	Alpha
	21.9	18.2	0.86
	<i>Item loading</i>		
To what extent do you feel "HAMM"	0.70		
To what extent do you feel frustrated	0.77		
To what extent do you feel incapacitated	0.73		
To what extent do you feel humiliated	0.65		
To what extent do you feel lonely	0.63		
To what extent do you feel worried	0.71		
To what extent do you feel sad	0.77		
To what extent do you feel sick of life	0.59		
Factor 2: WHO Well Being Index	Mean	S.D	Alpha
	54.8	22.2	0.84
	<i>Item loading</i>		
You felt cheerful and in good spirits during last week	0.73		
You felt active and vigorous during last week	0.75		
You woke up feeling fresh and relaxed during last week	0.75		
Your daily life has been filled with interesting things during the last week	0.75		
You felt calm and relaxed during the last week	0.75		
Factor 3: Human Insecurity Scale	Mean	S.D	Alpha
	74.9	22.8	0.78
	<i>Item loading</i>		
To what extent do you fear for your family in your daily life	0.72		
To what extent do you feel worried/afraid of your future and the future of your family	0.69		
To what extent are you afraid about the safety of your family	0.87		
To what extent does your family fear for your safety	0.80		
Determinants and Associated Factors			
Factor 4: Positive School Relations Scale	Mean	S.D	Alpha
	65.1	23.0	0.77
	<i>Item loadings</i>		
Rules in my school are fair	0.53		
Your school is a nice place to be at	0.78		
You feel related to this school	0.82		
You feel safe at school	0.78		
Most of the students in your class are kind and love to help	0.55		

Table 2 (Continued)

Factor 5: Positive Family Relations Scale	Mean	S.D	Alpha
		73.5	21.6
<i>Item loadings</i>			
Your father understands you	0.68		
Your parents treat you in the same way as your brothers and sisters	0.63		
Your parents listen to you	0.77		
Your parents help you to solve difficult problems	0.72		
Factor 6: Positive Neighborhood Relations Scale	Mean	S.D	Alpha
	71.4	27.2	0.84
<i>Item loading</i>			
You like your neighborhood	0.87		
You feel safe in your neighborhood	0.82		
You feel satisfied in your relations with people in your neighborhood	0.84		
Factor 7: Humiliation Scale	Mean	S.D	Alpha
	13.0	22.0	0.78
<i>Item loading</i>			
Have you been humiliated by your father	0.81		
Have you been humiliated by your mother	0.85		
Have you been humiliated by your brothers and sisters	0.74		
Factor 8: Aggressive Behavior Scale	Mean	S.D	Alpha
	27.9	21.7	0.71
<i>Item loading</i>			
You were aggressive (pushed, beat, shoved) someone during last week	0.54		
You were nervous during last week	0.85		
You got angry quickly during last week	0.83		
Exposure to violence	Yes (%)	No (%)	
Has anyone from your family been arrested by the occupation forces	20.2	79.8	
Has anyone from your family been hit or injured by the occupation forces or settlers	11.0	89.0	
Has anyone from your family been martyred	8.2	91.5	
Has your home been demolished or shelled by the occupation forces or settlers	4.9	95.1	
Have you been detained for a long period at a checkpoint by the occupation forces or settlers	8.2	91.8	
Were you exposed to physical search by the occupation forces or settlers	8.9	91.1	
Were you exposed to any investigation by the occupation forces or settlers	2.7	97.3	
Were you exposed to tear gas	18.8	81.2	
Were you exposed to sound bombs	23.0	77.0	
Were you prevented from travelling	2.1	97.9	
Was anyone from your family prevented from travelling	7.4	92.6	
Have you been humiliated by the occupation forces	5.9	94.1	

Regression Analyses

The final scales and health measures were converted to binary variables so that score were grouped into “low” and “moderate to high/severe”. Based on previous experience, a cutoff point of 0.6 was chosen for all the scales except for one. For example individuals scoring above 0.6 on Family Relations were labeled as having good family relations and individuals scoring below 0.6 were labeled as having poor family relations. Only for the WHO Well Being Index, a cutoff point of 0.5 was chosen as this is commonly used in the literature and clinics to identify individuals with possible symptoms of ill being.

Next, bivariate analyses was conducted to check for associations between demographic and socio-economic factors, the scales (Positive Family Relations, Positive School Relations, Positive Neighborhood Relations, Aggressive Behavior and Humiliation by Nuclear Family Scale) and questions on exposure to violence with each of the health outcomes (WHO Well Being Index, Distress Scale and Human Insecurity Scale). This analysis was repeated for the West Bank and Gaza Regions separately.

A Binary Logistic Regression Model was built for the variables found to be significantly associated with each health outcome, in addition to some classically included confounding variables: age, sex, type of locality and crowding ratio as a proxy for poverty. Regression analyses were repeated for the West Bank and Gaza Strip separately.

All of the analyses were repeated separately for West Bank and Gaza Strip because of an underlying belief that the embodiment/expression of mental health is different across these regions because of different structural and psychosocial factors. The 2011 World Bank report on poverty in oPt shows that the Gaza Strip suffers from more poverty, especially in the areas of the south of the strip, with the highest rates in Khan-Yunis and Gaza City. In the UNICEF 2011 report on Interagency Psychosocial Evaluation Projects”, one recommendation based on the findings was to look more closely at the differences between West Bank and Gaza Strip in adolescent psychosocial measures.

Note: The Human Insecurity Scale which resulted from CFA did not explain variations. So a single EFA was conducted for the original items in the scale and a new Human Insecurity Scale was calculated based on the loadings which resulted from the EFA. All the results related to human insecurity are based on this scale.

Results

Description of Results

a. Basic Adolescent Characteristics

50% of the participants in this study were males and 50% were females. 93% were currently attending school or already graduated. 7% (102) of the school age adolescents had dropped out of school at the time of the survey. There were no significant differences between the West Bank and the Gaza Strip in dropout rates. There were significant regional differences between the Gaza Strip and the West Bank participants in the type of locality where they lived at ($p < 0.001$) with the Gaza Strip sample consisting of considerably more urban dwellers, making up the highest percentage of 84% of Strip participants compared to 66% among West Bank dwellers. In contrast, as one would expect given the much smaller rural area in the Strip, 24% of the West Bank participants reported living in rural areas as compared to 3.1% among Gazans.

There was a significant difference in refugee status between the two regions of the country at ($p < 0.001$), with refugees making up to 31% of the West Bank sample compared to a high of 67% for the Gaza Strip sample. 16% of participants reported living in crowded homes with significant differences between the West Bank and Gaza Strip at ($p < 0.001$), and with 21% of Gaza Strip participants living in homes with more than 3 persons per room as compared to 14% for West Bankers. Whereas the majority of adolescents reported being outside the labor force at the time of the survey, 6.0% reported being in labor force. The regional difference was insignificant. (See Table 3).

Table 3: Basic Characteristics of Adolescents (N= 2081)

Region		West Bank		Gaza Strip		oPt		p-value
		N	%	N	%	N	%	
Sex	Male	747	51.0%	302	49.1%	1049	50.4%	0.44
	Female	719	49.0%	313	50.9%	1032	49.6%	
	Total	1466	100.0%	615	100.0%	2081	100.0%	
Age Group	12-13 years	542	37.0%	200	32.5%	742	35.7%	0.14
	14-15 years	449	30.6%	206	33.5%	655	31.5%	
	16-18 years	475	32.4%	209	34.0%	684	32.9%	
	Total	1466	100.0%	615	100.0%	2081	100.0%	
Educational Attendance Status	Currently attending/Graduated	1363	93.0%	571	93.0%	1934	93.0%	0.97
	Attended and dropped out	102	7.0%	43	7.0%	145	7.0%	
	Total	1465	100.0%	614	100.0%	2079	100.0%	
Type of Locality	Urban	963	65.7%	517	84.1%	1480	71.1%	<0.001
	Rural	354	24.1%	19	3.1%	373	17.9%	
	Camps	149	10.2%	79	12.8%	228	11.0%	
	Total	1466	100.0%	615	100.0%	2081	100.0%	
Refugee Status	Refugee	457	31.2%	410	66.7%	867	41.7%	<0.001
	Non refugee	1008	68.8%	205	33.3%	1213	58.3%	
	Total	1465	100.0%	615	100.0%	2080	100.0%	
Crowding Ratio	Not crowded (Less than 3 persons per room)	1260	85.9%	488	79.3%	1748	84.0%	<0.001
	Crowded (3 persons or more per room)	206	14.1%	127	20.7%	333	16.0%	
	Total	1466	100.0%	615	100.0%	2081	100.0%	
Employment	In labor force	95	6.5%	30	4.9%	125	6.0%	0.071
	Outside of labor force	1370	93.5%	585	95.1%	1955	94.0%	
	Total	1465	100.0%	615	100.0%	2080	100.0%	

b. Basic Characteristics of Household Heads

The majority of the surveyed households were headed by males (94%), however 91 households were female headed, making up 6.4% of the total households. The majority of household heads were currently married at the time of the survey at 94%. There were no significant regional differences in these two characteristics. A significant regional difference in employment of household head was noted ($p < 0.001$) with a higher levels of unemployment of 16% in the Strip compared to 4.0% in the West Bank. In addition, significant differences in educational levels of household heads were also noted by region ($p < 0.001$), with a higher percentage of household heads had a high school degree (Tawjihi) or more in the Strip at 47% compared to West Bank at 36%. (See Table 4).

Table 4: Basic Characteristics of Household Heads (N=2081)

Region		West Bank		Gaza Strip		oPt		p-value
		N	%	N	%	N	%	
Sex	Male	1375	93.8%	573	93.2%	1948	93.6%	0.280
	Female	91	6.2%	42	6.8%	133	6.4%	
	Total	1466	100.0%	615	100.0%	2081	100.0%	
Marital status of HH	Married	1381	94.3	577	93.8	1958	94.1%	0.821
	Other*	84	5.7	38	6.2	122	5.9%	
	Total	1465	100.0%	615	100.0%	2080	100.0%	
Employment of HH	Employed	1185	80.8%	391	63.6%	1576	75.8%	<0.001
	Unemployed	58	4.0%	101	16.4%	159	7.6%	
	Other**	222	15.2%	123	20.0%	345	16.6%	
	Total	1465	100.0%	615	100.0%	2080	100.0%	
Education status of HH	Up to 11th grade	932	63.6%	328	53.3%	1260	60.5%	<0.001
	Passed Tawjihi or more	533	36.4%	287	46.7%	820	39.4%	
	Total	1465	100.0%	615	100.0%	2080	100.0%	

* This refers to persons who were single at the time of the survey and were either married before or never married (divorced, widowed, separated, and never was married and engaged)

** This includes a group not working due to illness, disability, old age and those retired, or housewives.

c. Psychosocial and Associated Factors

The frequency distributions of the psychosocial scales and associated factors are shown in (Table 5). 46% of respondents reported low levels of well being (ill being), 15% reported moderate to high levels of distress, and 83% moderate to high levels of human insecurity. Reports of moderate to severe distress were higher among West Bankers at 16% compared to Gazans at 12% ($p=0.032$). West Bankers reported significantly higher levels of human insecurity at 86% compared to 77% for Gazans ($p<0.001$).

Around 30% of all participants reported having low levels of positive family relations (poor family relations), with 37% of Gazans reporting poor family relations compared to 26% for West Bankers ($p<0.001$). 37% of all participants reported low levels of positive school relations (poor school relations), with 42% for Gazans compared to 36% for West Bankers ($p=0.014$). 28% of participants reported low neighborhood relations (poor neighborhood relations) with Gazans at 36% compared to 25% for West Bankers ($p<0.001$). 22% of the adolescents reported having moderate to high levels of aggressive behavior, with 23% of West Bankers compared to 21% for Gazans and with borderline significant differences ($p= 0.046$). 11.2% of participants reported being humiliated by nuclear family members with 15% reporting moderate to severe humiliation by family members in the Gaza Strip compared to 10% in the West Bank ($p<0.001$). (See Table 5).

Table 5: Frequency Distribution of Psychosocial Scales and Associated factors by Region in the oPt (N= 2081)

Scale (cut off point)		Region						p-value
		West Bank		Gaza Strip		oPt		
		N	%	N	%	N	%	
WHO Well Being Index	Moderate to high well being	796	54.5%	331	53.8%	1127	54.3%	0.782
	Low well being (ill being)	665	45.5%	284	46.2%	949	45.7%	
	Total	1461	100.0%	615	100.0%	2076	100.0%	
Distress	Low	1202	83.9%	538	87.6%	1740	85.0%	0.032
	Moderate to severe	230	16.1%	76	12.4%	306	15.0%	
	Total	1432	100.0%	614	100.0%	2046	100.0%	
Human Insecurity	Low	193	13.9%	144	23.5%	337	16.8%	<0.001
	Moderate to severe	1195	86.1%	470	76.5%	1665	83.2%	
	Total	1388	100.0%	614	100.0%	2002	100.0%	
Positive Family Relations	Moderate to high	1007	73.8%	354	61.4%	1361	70.1%	<0.001
	Low (poor)	357	26.2%	223	38.6%	580	29.9%	
	Total	1364	100.0%	577	100.0%	1941	100.0%	
Positive School Relations	Moderate to high	840	63.9%	315	57.8%	1155	62.1%	.014
	Low (poor)	475	36.1%	230	42.2%	705	37.9%	
	Total	1315	100.0%	545	100.0%	1860	100.0%	
Positive Neighborhood Relations	Moderate to high	1082	75.3%	382	64.2%	1464	72.0%	<0.001
	Low (poor)	355	24.7%	213	35.8%	568	28.0%	
	Total	1437	100.0%	595	100.0%	2032	100.0%	
Aggressive Behavior	Low	1125	77.3%	479	78.8%	1604	77.8%	0.466
	Moderate to severe	330	22.7%	129	21.2%	459	22.2%	
	Total	1455	100.0%	608	100.0%	2063	100.0%	
Humiliation by Nuclear Family	Low	1236	90.4%	487	85.0%	1723	88.8%	0.001
	Moderate to severe	131	9.6%	86	15.0%	217	11.2%	
	Total	1367	100.0%	573	100.0%	1940	100.0%	

Factors Associated with Adolescent Psychosocial Health

1. Well Being

Bivariate analyses of the oPt sample as a whole revealed that males reported significantly more ill being at 50% compared to females at 41%, significant ($p < 0.001$). A significant percentage of adolescents who dropped out of school reported ill being at 68% compared to 44% of those enrolled in school or who graduated ($p < 0.001$). 65% percent of adolescents who reported they were in the labor force (employed or looking for employment) reported ill being compared to 45% of those outside the labor force ($p < 0.01$).

The educational attainment of household heads was also related to the well being of adolescents, with 48% of participants with household heads with less than high school education reporting ill being compared to 42% with more educated household heads ($p = 0.007$). Poor family relations were significantly related to ill being as 65% of those with poor family relations reported ill being compared to 40% with good family relations ($p < 0.001$). 60% of participants with poor school relations reported ill being compared to 34% of those with good school relations (p

<0.001). Neighborhood relations were significantly associated with wellbeing (p <0.001) as more participants with poor neighborhood relations reported ill being at 59% compared to those with good neighborhood relations at 40%. 59% of adolescents reporting moderate to severe aggressive behavior reported ill being compared to 42% among those reporting low levels of aggressive behavior (p<0.001). 55% of those moderately to severely humiliated by nuclear family members reported ill being compared to those with lower humiliation levels at 44% (p=0.002). (See Table 6 below).

Table 6: WHO Well Being Index by Selected Associated Factors for the oPt (N=2081)

		Moderate to High Well Being		Low Well Being		Total		p-value
		N	%	N	%	N	%	
Sex	Male	524	50.0%	523	50.0%	1047	100.0%	<0.001
	Female	603	58.6%	426	41.4%	1029	100.0%	
	Total	1127	54.3%	949	45.7%	2076	100.0%	
Educational Status	Currently attending/ graduated	1080	56.0%	849	44.0%	1929	100.0%	<0.001
	Attended and dropped out	47	32.4%	98	67.6%	145	100.0%	
	Total	1127	54.3%	947	45.7%	2074	100.0%	
Relation to labor force	In labor force	44	35.2%	81	64.8%	125	100.0%	<0.001
	Out labor force	1083	55.5%	867	44.5%	1950	100.0%	
	Total	1127	54.3%	948	45.7%	2075	100.0%	
Educational Attainment of HH	Up to 11th grade	652	51.9%	604	48.1%	1256	100.0%	0.007
	Passed Tawjihi or more	475	58.0%	344	42.0%	819	100.0%	
	Total	1127	54.3%	948	45.7%	2075	100.0%	
Positive Family Relations	Moderate to high	857	63.1%	501	36.9%	1358	100.0%	<0.001
	Low (poor)	200	34.6%	378	65.4%	578	100.0%	
	Total	1057	54.6%	879	45.4%	1936	100.0%	
Positive school relations	Moderate to high	758	65.7%	395	34.3%	1153	100.0%	<0.001
	Low (poor)	285	40.5%	418	59.5%	703	100.0%	
	Total	1043	56.2%	813	43.8%	1856	100.0%	
Positive Neighborhood Relations	Moderate to high	877	60.0%	584	40.0%	1461	100.0%	<0.001
	Low (poor)	232	41.0%	334	59.0%	566	100.0%	
	Total	1109	54.7%	918	45.3%	2027	100.0%	
Aggressive Behavior	Low	933	58.3%	666	41.7%	1599	100.0%	<0.001
	Moderate to severe	187	40.7%	272	59.3%	459	100.0%	
	Total	1120	54.4%	938	45.6%	2058	100.0%	
Humiliation by the Nuclear family	Low	964	56.0%	757	44.0%	1721	100.0%	0.002
	Moderate to severe	96	44.7%	119	55.3%	215	100.0%	
	Total	1060	54.8%	876	45.2%	1936	100.0%	

Dividing the sample and conducting the analyses separately for the West Bank and Gaza Strip, we found that, similar to the results obtained for the oPt as a whole, school attendance, relation to the labor force, education of household head, aggressive behavior, family, school and neighborhood relations were all significantly associated with well being levels in the West Bank.

Interestingly, the association between well being and region, which did not appear when analyzing the oPt data as a whole became significant when analyzing West Bank data alone, and with more participants from the south of West Bank reporting ill being at 50% compared to the center of West Bank at 48% and north of WB at 41% ($p=0.007$). 59% of those reported having been interrogated by the Israeli occupation army or settlers reported ill being compared to 45% reported by those not exposed to this political violence ($p=0.038$). Having a family member arrested was significantly associated with ill being as well ($p=0.032$), with 50% of those exposed reported ill being compared to 44% reported by those not exposed to this type of political violence. 54% of adolescents humiliated by the Israeli army reported ill being compared to 45% who did not report exposure to such political violence ($p=0.047$).

Analyses of the Gaza Strip data showed results similar to those of the oPt, sex was significant at ($p<0.001$) as 56% of males reported ill being as compared to females at 37%. In addition, school attendance, involvement in the labor force, relational factors like family, school and neighborhood relations were all significantly associated with well being. Aggressive behavior and humiliation by nuclear family members were also associated with ill being. Similar to the West Bank having a family member arrested in the Gaza Strip had a significant association with well being. More so, region had a significant association with well being at ($p=0.023$) as participants from the south reported more ill being at 51% as compared to those from north of the Gaza Strip at 42%.

Regression analyses revealed that family relations, school relations, neighborhood relations and aggressive behaviors were significantly associated with well being in the oPt. Adolescents with poor family relations were more likely to report ill being (OR:2.3 95%CI [1.8-3.0]); those with poor school relations were more likely to report ill being (OR:2.1 95%CI [1.7-2.6]); and those with poor neighborhood relations were also more likely to report ill being (OR:1.8 95%CI [1.4-2.3]). Adolescents reporting ill being were also more likely to exhibit aggressive behavior (OR: 1.6 95%CI [1.3-2.1]) (See Table 7).

Table 7: Binary Logistic Regression Analysis for the WHO Well Being Index in the oPt (N=1666)*

Variables**	Categories	Adjusted OR	95% CI		p-value
			Lower	Upper	
Positive Family Relations	Moderate to high	1			
	Low	2.327	1.825	2.967	<0.001
Positive School Relations	Moderate to high	1			
	Low	2.132	1.710	2.658	<0.001
Positive Neighborhood Relations	Moderate to high	1			
	Low	1.823	1.436	2.313	<0.001
Aggressive Behavior	Low	1			
	Moderate to severe	1.645	1.273	2.125	<0.001

* The dependent variable is the WHO Well Being Index: comparing ill being with well being

**Variable(s) entered on step 1: sex, age, region, locality type, labor force participation, crowding ratio, sex of household head, education of household head, Positive Family Relations, Positive School Relations, Positive Neighborhood Relations, Aggressive Behavior, Humiliation by Nuclear Family Members.

Regression analysis for the West Bank revealed results consistent with the results in the oPt as family, school and neighborhood relations were positively associated with well being (OR: 3.1, 2.2, 1.7 respectively), (see Table 8 for 95% CI) and aggressive behavior was positively associated with ill being (OR: 1.6, 95% CI [1.2-2.3]).

Table 8: Binary Logistic Regression Analysis for the WHO Well Being Index - the West Bank (N= 1187)*

Variables**	Categories	Adjusted OR	95% CI		p-value
			Lower	Upper	
Positive Family Relations	Moderate to high	1			
	Low	3.156	2.327	4.281	.000
Positive School Relations	Moderate to high	1			
	Low	2.202	1.684	2.879	.000
Positive Neighborhood Relations	Moderate to high	1			
	Low	1.653	1.225	2.232	.001
Aggressive Behavior	Low	1			
	Moderate to severe	1.646	1.214	2.233	.001

* The dependent variable is the WHO Well Being Index: comparing ill being with well being

**Variable(s) entered on step 1: sex, age, relation to labor force, locality type, crowding ratio, region, educational attainment of the head of household, Positive Family Relations, Positive School Relations, Positive Neighborhood Relations, Aggressive Behavior, family member arrested by the occupation forces, exposure to any investigation by the occupation forces or settlers, humiliation by the occupation forces

Unlike the results for the oPt in general and the West Bank in particular, sex was significantly associated with well being in the Gaza Strip, as males were more likely to report ill being (OR: 1.6 95% CI [1.1-2.4]). Having a family member arrested by the occupation forces was also associated with ill being (OR: 2.6, 95% CI [1.3-5.2]). In consistency with results from the oPt and the West Bank, poor school and neighborhood relations (but not poor family relations) were associated with ill being (OR 2.3 and 2.5 respectively) (See Table 9 for 95% CI).

Table 9: Binary Logistic Regression Analysis for the WHO Well Being Index - the Gaza Strip (N=489)*

Variables**	Categories	Adjusted OR	95% CI		p-value
			Lower	Upper	
Sex	Females	1			
	Males	1.627	1.088	2.432	.018
Positive School Relations	Moderate to high	1			
	Low	2.305	1.512	3.511	.000
Positive Neighborhood Relations	Moderate to high	1			
	Low	2.511	1.651	3.820	.000
Family member arrested by the occupation forces	No	1			
	Yes	2.608	1.319	5.158	.006

* The dependent variable is the WHO Well Being Index: comparing ill being with well being

**Variable(s) entered on step 1: sex, age, locality type, crowding ratio, region, region2, Positive School Relations, Positive Neighborhood Relations, Aggressive Behavior, Humiliation by Nuclear Family Members, family member arrested by the occupation forces, exposure to physical search by the occupation forces or settlers, humiliation by the occupation forces

2. Distress

A higher percentage of adolescents who dropped out of school reported moderate to severe levels of distress at 29% compared to 14% of those attending school or have graduated at the time of the survey ($p < 0.001$). Participants reporting themselves as in the labor force were also more likely to report moderate to severe distress at 22% in comparison to those outside the labor force at 14.5% ($p = 0.02$). There were significant regional differences in reported distress as well ($p = 0.03$): a higher percentage of West Bankers reported moderate to severe distress at 16% compared to 12% among Gazans. Adolescents living in female headed households were significantly more likely to report moderate to severe distress at 26% compared to those coming from households headed by males at 14% ($p < 0.001$). In addition, participants from families whose household head was not married at the time of the survey, reported significantly more distress at 28% compared to those with married household heads at 14% ($p < 0.001$). Further manipulation of the data indicated 84% of those who reported high levels of distress and with unmarried household heads were living in households headed by women, compared to 2% among those who reported high levels of distress and reported their households as headed by men who were not married.

18% of adolescents from families with less educated household heads reported moderate to severe levels of distress compared to 11% from those from more educated household heads ($p < 0.001$). 23% of those who reported poor family relations reported moderate to high distress, as compared to only 11% of those who reported good family relations ($p < 0.001$). School relations were significantly associated with distress ($p < 0.001$) as a higher percentage of those with poor school relations reported moderate to severe distress at 19% compared to those who

good school relations at 11% . Participants with poor neighborhood relations were significantly more likely ($p<0.001$) to report moderate to severe levels of distress at 22% compared to those with good neighborhood relations at 12%. Twenty five percent of participants who exhibited moderate to severe aggressive behaviors reported moderate to severe levels of distress, whereas only 12% in this category reported low aggressive behavior ($p<0.001$). Adolescents who reported being humiliated by the nuclear family members reported moderate to severe distress at 39% compared to those who reported low levels of humiliation at 14% ($p<0.001$). (See Table 10).

Table 10: Distress by Selected Associated Factors for the oPt (N=2081)

		Low		Moderate to Severe		Total		p-value
		N	%	N	%	N	%	
Educational Status	Currently attending/ graduated	1635	86.1%	264	13.9%	1899	100.0%	<0.001
	Attended and dropped out	103	71.0%	42	29.0%	145	100.0%	
	Total	1738	85.0%	306	15.0%	2044	100.0%	
Relation to Labor Force	In labor force	97	77.6%	28	22.4%	125	100.0%	0.016
	Out labor force	1642	85.5%	278	14.5%	1920	100.0%	
	Total	1739	85.0%	306	15.0%	2045	100.0%	
Region	West Bank	1202	83.9%	230	16.1%	1432	100.0%	0.032
	Gaza Strip	538	87.6%	76	12.4%	614	100.0%	
	Total	1740	85.0%	306	15.0%	2046	100.0%	
Sex of HH	Male	1644	85.8%	272	14.2%	1916	100.0%	<0.001
	Female	96	73.8%	34	26.2%	130	100.0%	
	Total	1740	85.0%	306	15.0%	2046	100.0%	
Marital Status of HH	Currently married	1653	85.8%	273	14.2%	1926	100.0%	<0.001
	Other	86	72.3%	33	27.7%	119	100.0%	
	Total	1739	85.0%	306	15.0%	2045	100.0%	
Educational Attainment of HH	Up to 11th grade	1019	82.2%	221	17.8%	1240	100.0%	<0.001
	Passed Tawjihi or more	720	89.4%	85	10.6%	805	100.0%	
	Total	1739	85.0%	306	15.0%	2045	100.0%	
Positive Family Relations	Moderate to high	1190	89.2%	144	10.8%	1334	100.0%	<0.001
	Low (poor)	442	76.9%	133	23.1%	575	100.0%	
	Total	1632	85.5%	277	14.5%	1909	100.0%	
Positive School Relations	Moderate to high	1009	89.4%	120	10.6%	1129	100.0%	<0.001
	Low (poor)	563	80.9%	133	19.1%	696	100.0%	
	Total	1572	86.1%	253	13.9%	1825	100.0%	
Positive Neighborhood Relations	Moderate to high	1271	88.1%	171	11.9%	1442	100.0%	<0.001
	Low (poor)	435	78.1%	122	21.9%	557	100.0%	
	Total	1706	85.3%	293	14.7%	1999	100.0%	
Aggressive Behavior	Low	1395	88.5%	182	11.5%	1577	100.0%	<0.001
	Moderate to severe	337	74.7%	114	25.3%	451	100.0%	
	Total	1732	85.4%	296	14.6%	2028	100.0%	
Humiliation by the Nuclear Family	Low	1507	88.7%	192	11.3%	1699	100.0%	<0.001
	Moderate to severe	130	60.7%	84	39.3%	214	100.0%	
	Total	1637	85.6%	276	14.4%	1913	100.0%	

The West Bank data revealed associations similar to the oPt as a whole. Dropping out of school, being in the labor force, having female household heads and low education of household heads were all significantly related to higher distress levels in this sample. Relational factors of poor family, poor school and poor neighborhood relations and being humiliated by close family members were also significantly related to higher distress levels. However, analysis of the West Bank data alone also revealed new associations. Age was significantly related to levels of distress ($p=0.01$) as 14-15 year old adolescents reported moderate to high distress at 19.5% followed by 16-18 year old adolescents at 17% and at 13% for the 12-13 year old adolescents. More of those who had a family member hit or injured by occupation forces reported moderate to high levels of distress at 22% than those who did not at 15% ($p<0.001$). 28% of those interrogated by occupation forces reported high to moderate distress compared to 16% of those who did not ($p=0.02$). Participants exposed to sound bombs reported significantly more moderate to high distress at 21% compared to those who were not exposed at 14.5% ($p=0.003$). 30% of participants who were prevented from travelling abroad reported moderate to high distress as compared to those who were not prevented at 16% ($p=0.02$). 27% of those who had a family member prevented from travelling abroad reported moderate to high distress compared to 15% of those who had not, ($p=0.003$). Humiliation by the Israeli occupation army was significantly related to distress as well($p<0.001$), with 28% of those humiliated reported moderate to high distress compared to 15% who were not humiliated by the Israeli occupation army.

Analysis of the Gaza Strip region alone showed similar results to those obtained for the oPt sample as a whole: adolescents with non married household heads and less educated household heads reported significantly higher distress levels. In addition, poor family, school and neighborhood relations, showing aggressive behavior and being humiliated by the family were all associated with moderate to high levels of distress. Adolescents exposed to physical search by the occupation forces reported significantly more moderate to high level of distress at 50% compared to 12% reported by those not physically searched by occupation forces at ($p=0.02$). 50% of those prevented from travelling reported moderate to high distress compared to 12% not exposed to this violence($p<0.001$). Humiliated by occupation forces was positively associated with distress levels, as 57% of those humiliated reported moderate to high distress compared to 12% of those not humiliated ($p<0.001$).

Regression Analysis for the oPt as a whole showed regional differences in reported distress levels, as Gazans were less likely to report high levels of distress (OR: 0.5, 95% CI [0.4-0.8]) compared to the West Bankers. Distress levels were higher in families where household heads were more educated compared to lesser educated household heads (OR: 1.6, 95% CI [1.2-2.3]). Good family, school and neighborhood relations were inversely associated with distress level (OR: 1.8, 1.6, 1.5 respectively)

(see Table 11 for 95% CI). The more distressed the adolescents, the more likely to express aggressive behavior (OR: 1.8, 95% CI [1.3-2.5]). Finally, the more humiliated by nuclear family members, the more likely for these adolescents to be distressed (OR: 4.0, 95% CI [2.8-5.9]). (See Table 11).

Table 11: Binary Logistic Regression Analysis for the Distress Scale in the oPt (N=1645)

Variables**	Categories	Adjusted OR	95% CI		p-value
			Lower	Upper	
Region	West Bank	1			
	Gaza Strip	0.536	.368	.782	.001
Educational attainment of HH	Up to 11th grade	1			
	Passed Tawjihi or more	1.637	1.171	2.287	.004
Positive Family Relations	Moderate to high	1			
	Low	1.808	1.297	2.520	.000
Positive School Relations	Moderate to high	1			
	Low	1.597	1.155	2.207	.005
Positive Neighborhood Relations	Moderate to high	1			
	Low	1.545	1.106	2.160	.011
Aggressive Behavior	Low	1			
	Moderate to severe	1.780	1.264	2.507	.001
Humiliation by the Nuclear Family	Low	1			
	Moderate to severe	4.048	2.760	5.936	.000

* The dependent variable is the Distress Scale: comparing moderate to severe level of stress with low level of distress

**Variable(s) entered on step 1: sex, age, labor force participation, locality type, crowding ratio, region, sex of household head, marital status of household head, educational status of household head, Positive School Relations, Positive Neighborhood Relations, Aggressive Behavior, humiliation by nuclear family members

In contrast to the results of Regression Analysis for the oPt as a whole, Regression Analysis conducted on the West Bank sample alone showed that only poor family relations were associated with higher levels of distress (OR: 1.9, 95% CI [1.3-2.9]) but not school nor neighborhood relations. In consistency with the oPt results, humiliation by nuclear family members and expressing aggressive behavior were associated with high level of distress (OR 1.7 and 4.4 respectively, see Table 12 for 95% CI) In addition, having a family member hit or injured by the Israeli occupation forces was also significantly associated with high levels of distress (OR: 2.5, 95% CI [1.4-4.3]). (See Table 12).

Table 12: Binary Logistic Regression Analysis for the Distress Scale in West Bank (N= 1153)*

Variables**	Categories	Adjusted OR	95% CI		p-value
			Lower	Upper	
Positive family relations	Moderate to high	1			
	Low	1.932	1.296	2.881	.001
Aggressive behavior	Low	1			
	Moderate to severe	1.679	1.111	2.538	.014
Humiliation by the close family	Low	1			
	Moderate to severe	4.412	2.723	7.150	.000
Family member has been hit or injured by the occupation forces or settlers.	No	1			
	Yes	2.482	1.433	4.300	.001

* The dependent variable is the Distress Scale: comparing moderate to severe level of distress with low level of distress

**Variable(s) entered on step 1: sex, age, labor force participation, locality type, crowding ratio, sex of household head, marital status of household head, educational status of household head, Positive Family Relations, Positive Neighborhood Relations, Aggressive Behavior, Humiliation by Nuclear Family Members, family member hit or injured by the occupation forces or settlers, exposure to physical search by the occupation forces or settlers, exposure to any investigation by the occupation forces or settlers, exposure to sound bombs, prevention from travelling, family member prevented from travelling, humiliation by the occupation forces

Regression Analysis conducted for the Gaza Strip sample alone revealed that humiliation by the nuclear family (OR: 4.3, 95% CI [2.1-9.0]) and expressing aggressive behavior (OR: 2.1, 95% CI [1.3-5.1]) were significantly associated with higher levels of distress among adolescents. In addition, educational attainment of the head of household was a negative risk factor for distress (OR: 2.6, 95% CI [1.3-5.1]). (See Table 13).

Table 13: Binary Logistic Regression Analysis for the Distress Scale in Gaza strip (N=488)*

Variables**	Categories	Adjusted OR	95% CI		p-value
			Lower	Upper	
Educational attainment of head of household	Up to 11th grade	1			
	Passed Tawjihi or more	2.565	1.295	5.080	0.007
Aggressive behavior	Low	1			
	Moderate to severe	2.072	1.029	4.171	0.041
Humiliation by the close family	Low	1			
	Moderate to severe	4.344	2.096	9.001	<0.001

* The dependent variable is the distress scale, comparing moderate to severe level of stress with low level of distress

**Variable(s) entered on step 1: sex, age, labor force participation, locality type, crowding ratio, marital status of household head, educational status of household head, positive family relations, positive neighborhood relations, Aggressive behavior, Prevention from traveling, Humiliation by the occupation forces.

Note : humiliation by the occupation although was significant , it yielded a wide CI (1 to 86)

3. Human Insecurity

Eighty three percent of the adolescents in the oPt reported moderate to severe levels of human insecurity. Sex was significantly associated with human insecurity ($p < 0.001$) with more females at 86% reporting moderate to high human insecurity than males at 81%. Adolescents living in rural areas reported higher levels of human insecurity at 87% compared to those living in urban areas at 83% and camp at 76% ($p = 0.002$). Adolescents living in the West Bank reported higher levels of human insecurity at 86% compared to the Gaza Strip at 77% ($p < 0.001$). More participants with unmarried household heads reported higher human insecurity at 84% compared to those with married household heads at 77% ($p = 0.043$). Interestingly, those with good school relations reported significantly higher levels of human insecurity at 87% compared to 78% of those with poor school relations, significant at ($p < 0.001$). (See Table 14).

Table 14: Human Insecurity Scale by Selected Associated Factors for the oPt (N= 2081)

		Low Human Insecurity		Moderate to Severe Human Insecurity		Total		p-value
		N	%	N	%	N	%	
Sex	Male	198	19.5%	817	80.5%	1015	100.0%	0.001
	Female	139	14.1%	848	85.9%	987	100.0%	
	Total	337	16.8%	1665	83.2%	2002	100.0%	
Locality type	Urban	239	16.8%	1187	83.2%	1426	100.0%	0.002
	Rural	47	12.8%	320	87.2%	367	100.0%	
	Camp	51	24.4%	158	75.6%	209	100.0%	
	Total	337	16.8%	1665	83.2%	2002	100.0%	
Region	West Bank	193	13.9%	1195	86.1%	1388	100.0%	<0.001
	Gaza Strip	144	23.5%	470	76.5%	614	100.0%	
	Total	337	16.8%	1665	83.2%	2002	100.0%	
Marital status of HH	Currently married	308	16.4%	1574	83.6%	1882	100.0%	0.043
	Other	28	23.5%	91	76.5%	119	100.0%	
	Total	336	16.8%	1665	83.2%	2001	100.0%	
Positive School Relations	Moderate to high	147	13.2%	964	86.8%	1111	100.0%	<0.001
	Low (poor)	147	21.9%	525	78.1%	672	100.0%	
	Total	294	16.5%	1489	83.5%	1783	100.0%	

Analysis of the West Bank data separately revealed similar results to those obtained for oPt, with the sex of respondents and good school relations significantly associated with higher levels of human insecurity in the West Bank. Unlike the results for oPt, those reporting living in crowded households reported higher levels of human insecurity at 93% compared to those from less-crowded households at 85% ($p = 0.003$). Adolescents outside labor force reported higher level of human insecurity at 87% compared to 79% of those within labor force at ($p = 0.031$). 87% of participants humiliated by the nuclear family reported high levels of human insecurity compared to those not humiliated at 78%, ($p = 0.009$).

Analyses of the Gaza Strip data on its own also showed similarities to the analyses results of the oPt data as a whole: good school relations were positively associated with human insecurity. Locality type was significantly associated with human insecurity in the Gaza Strip ($p < 0.001$) as participants living in rural areas reported having the highest level of human insecurity at 84% followed by urban areas at 79% and camps at 57%. Those living in the south of the Gaza Strip reported higher levels of human insecurity at 83% compared to those living in the north at 71% ($p = 0.001$). Interestingly, a lower percent of participants whose home was demolished or shelled by the Israeli occupation army reported human insecurity at 63% compared to 78% among those never exposed to this violence ($p = 0.015$). Finally, 69% of those exposed to sound bombs in the Gaza Strip reported high levels of human insecurity compared to 79% of those who were not exposed ($p = 0.023$).

Regression analysis for the oPt sample showed that sex, region, marital status of the head of household and school relations were significant associated factors. Males in the oPt were less likely to experience human insecurity (OR: 0.7, 95% CI [0.6-0.9]). Those living in the Gaza Strip were also less likely to report human insecurity (OR: 0.5, 95% CI [0.4-0.7]). Adolescents living in families with currently unmarried head of household (divorced, separated or unmarried brothers and sisters) were less likely to report human insecurity compared to those living in families with currently married head of household (OR: 0.6, 95% CI [0.4-0.99]). However, this difference was a borderline difference at a p-value of 0.045. Interestingly, adolescents having poor school relations were less likely to express human insecurity (OR: 0.6, 95% CI [0.5-0.8]). (See Table 15).

Table 15: Binary Logistic Regression Analysis for the Human Insecurity Scale in the oPt (N=1781)*

Variables**	Categories	Adjusted OR	95% CI		p-value
			Lower	Upper	
Sex	Females	1			
	Males	0.714	0.550	0.926	0.011
Region	West Bank	1			
	Gaza Strip	0.513	0.390	0.675	<0.001
Marital status of HH	Currently married	1			
	Other	0.612	0.376	0.997	0.049
Positive School Relations	Moderate to high	1			
	Low	0.609	0.470	0.790	<0.001

* The dependent variable is the Insecurity Scale: comparing moderate to severe levels of insecurity with low level of insecurity

**Variable(s) entered on step 1: sex, age, locality type, crowding ratio, region, marital status of household head, Positive School Relations

Regression analysis for the West Bank sample alone was generally consistent with the results obtained for the oPt sample. The results showed that sex and school relations were associated with human insecurity. Males were less likely to

experience human insecurity compared to females (OR: 0.65 , 95% CI [0.5-0.9]). Moreover, the crowding ratio at home was significantly associated with human insecurity levels among adolescents as those living in crowded families had higher level of human insecurity compared to those living in less crowded families (OR: 2.4. 95% CI [1.2-4.7]). Consistent with the oPt results, good school relations were positively associated with human insecurity levels, as adolescents with poor school relations were less likely to experience human insecurity (OR: 0.6, 95% CI [0.7-0.8]). (See Table 17).

Table 16: Binary Logistic Regression Analysis for the Human Insecurity Scale in the West Bank (N=1238)*

Variables**	Categories	Adjusted OR	95% CI		p-value
			Lower	Upper	
Sex	Female	1			
	Male	0.653	.463	0.920	0.015
Crowding Ratio	Not crowded (Less than 3 persons per room)	1			
	Crowded (3 persons or more per room)	2.411	1.237	4.700	0.010
Positive School Relations	Moderate to high	1			
	Low	.577	0.411	0.811	0.002

* The dependent variable is the Insecurity Scale: comparing moderate to severe levels with low level of human insecurity

**Variable(s) entered on step 1: sex, age, labor force participation, locality type, crowding ratio, Positive School Relations

Regression analysis for the Gaza Strip sample alone revealed different types of factors associated with human insecurity compared to the West Bank. Adolescents living in refugee camps were less likely to have high levels of human insecurity compared to urban dwellers (OR: 0.3, 95% CI [0.2-0.5]). However, those living in the south of the Gaza Strip were more likely to have higher levels of human insecurity (OR: 2.2, 95% CI [1.4-3.4]) compared to those living in the north. Consistent with the pattern for the oPt , Gaza Strip adolescents with good school relations seems to have lower levels of human insecurity (OR:0.6, 95% CI [0.4-0.9]). (See Table 18).

Table 17: Binary Logistic Regression Analysis for the Human Insecurity Scale in the Gaza Strip(N=543)*

Variables**	Categories	Adjusted OR	95% CI		p-value
			Lower	Upper	
Locality type	Urban	1			
	Rural	2.239	0.468	10.724	0.313
	Camp	0.303	0.175	.523	<0.001
Region	North Gaza	1			
	South Gaza	2.180	1.406	3.378	<0.001
Positive School Relations	Moderate to high	1			
	Low	0.617	0.403	.944	0.026

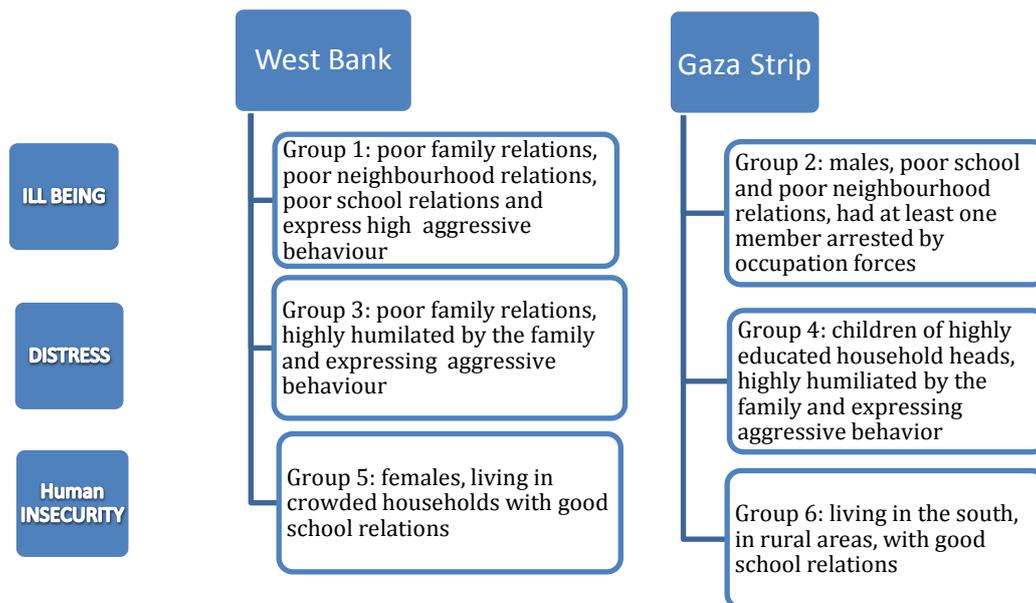
* The dependent variable is the Human Insecurity Scale: comparing moderate to severe levels with low level of human insecurity

**Variable(s) entered on step 1: sex, age, locality type, crowding ratio, region, Positive School Relations, home has been demolished or shelled by the occupation, exposure to sound bombs

Discussion

The aim of this study was to identify groups of adolescents at risk of ill being, distress and human insecurity. The questionnaire used was developed in accordance with ecological theories related to adolescent mental health and self-reports on relations within the family and community (school and neighborhood). The majority of adolescents who participated in this study reported high levels of human insecurity (83%) moderate levels of ill being (46%) and low levels distress (15%). Six high risk groups were identified based on Multivariate Logistic Regression Analyses. Those are summarized in Figure 2.

Figure 2: Adolescents at Risk of Ill being, Distress and Human Insecurity: West Bank and Gaza Strip



The results of analyzing the oPt sample as a whole showed that sex, age, locality, region are not related to the well being of adolescents. Relational aspects were the major determinants of well being where ill being was strongly associated with poor family, school and neighborhood relations. Adolescents who reported ill being were more likely to express more aggressive behavior compared to those with better well being. In the West Bank, adolescents reporting ill being also reported a combination of poor family relations, poor school relations and expressed aggressive behavior. These results are supported by the international literature on the importance of good family relations and good school relations for the wellbeing of adolescents. Researchers (Bennett et al. 2005) found that good schooling can be protective

against certain deficits in the home environment. Moreover, it was reported (Hutchings and Lane 2005) that parents spending time doing activities with children can be protective against externalizing aggressive behavior. It seems that the absence of support from these two important settings in adolescent lives is likely to put them at risk of externalizing aggressive behavior, reflecting the low level of support needed. It is interesting that this association is present despite gender, given that boys are more likely to express negative feelings through aggressive behavior while girls are more likely to internalize negative feelings. In this group externalizing aggressive behavior is seen as a risk rather than outcome. In addition, because of the cross sectional nature of the study, causality cannot be established.

Adolescents reporting ill being in the Gaza Strip were identified those who have poor neighborhood relations, poor school relations and at least one family member arrested by the occupation forces. Neighborhoods are important settings in adolescents lives as well, as they provide both the individual and their family with support, identity, a sense of belonging and encouragement of positive behaviors through rewarding acts of help (Gilligan 2000; Voydanoff 2005). In our study poor family and school relations indicate generally poor community relations. These neighborhood settings present more risk of ill being for males than females. Researchers (Benzies and Mychasiuk 2009; Criss et al. 2002) found that males are at higher risk of ill being as compared to females because they are more sensitive to problems in their communities and are at higher risk of externalizing aggressive behavior because they are more likely to befriend aggressive peers. The sex difference may be further augmented in the Palestinian context because males are more likely to participate in activities in the neighborhood whereas girls spend more time at home (Rabaia et al. 2010). There is a need to look further into the association between arrest of a family member and ill being in this group. It is interesting that this was the only group with exposure to political violence identified a risk factor.

Relational aspects were important factors associated with the level of distress expressed by the Palestinian adolescents who participated in this study. In addition to poor family, school and neighborhood relations and expressing aggressive behavior, being humiliated by nuclear family members was an important in the oPt sample as a whole. As noted above, some regional differences were observed as more adolescents in the West Bank reported moderate to high levels of distress compared the Gaza Strip. Adolescents living in the West Bank with poor family relations, who have been moderately or highly humiliated by close family members and expressing aggressive behavior were at risk of moderate to severe levels of distress irrespective of gender. These results once again emphasize the importance of the family and the negative consequence of the absence of positive relations in this setting. It is different from Group 1 (from West Bank with overall poor relations and expressed aggressive behavior, see Figure 2) in that the former not only experience the “lack of understanding and support of the family members” but are

also “humiliated by the family members”. The difference between the two measures of family relations (Positive Family Relations Scale and Humiliation Scale) is reflected in the difference in the health outcomes identified: the WHO Wellbeing Index essentially measures the “lack of wellbeing” while the Distress Scale measures the “presence of negative feelings”. This association between humiliation and distress has been found previously in adults with relation to political violence (Giacaman et al. 2011). Again, aggressive behavior is seen as a risk factor rather than an outcome, and therefore its relation to other risk factors for this group is beyond the scope of this study.

Adolescents from the Gaza Strip with high distress have highly educated household heads, reported being highly humiliated by the family and expressed aggressive behavior. Similar to Group 3 (from West Bank, with poor family relations, humiliated by family and expressed aggressive behavior, see Figure 2), this group’s reports demonstrated an association between humiliation and distress. One might have expected that having more educated parents is favorable for the development of children. Indeed, the literature shows an association between favorable behavioral development in children and cognitive stimulation in the home environment (Serbin and Karp 2004), as well as a link between parental skills and emotional wellbeing of children (Black and Ford-Gilboe 2004). One study however offers a different perspective (Dodge et al. 1994). This study reported that parents from better social and economic backgrounds are more sensitive to their children’s aggressive behaviors, and therefore are more likely to alter their responses to the child in a way that negatively affects them. Perhaps it may be the case that more educated parents are also more sensitive to the aggressive behavior of this group, and so are more likely to respond to it in a negative way. This however, seems to be a farfetched assumption as there are differences in the determinant parental characteristics (high level education vs. high socio-economic background) and the target age group (adolescents vs. children). Further work is needed to understand how education of parents becomes a risk factor in the association between family humiliation, aggressive behavior and distress.

In the oPt, human insecurity was most highly reported by females from the West Bank living within families with a currently married household head and interestingly having good school relations. Looking more closely at the West Bank region shows that the prevalence of human insecurity is reported by females who live in crowded households and who have positive school relations. Human insecurity is related to fear of dispossession as well as economic hardship. It is then inevitably related to the economic situation of the household. The finding that females are at an increased risk of human insecurity compared to males was found among Palestinian adults from the Gaza Strip in a previous study which explained this sex association in the light of the responsibilities commonly held by females as the “primary care giver to the whole of the family” and therefore increased insecurity as a result of “greater

stress associated with the potential loss of the breadwinner” (Ziadni et al. 2011). The other possible explanation for this association is that given that adolescent girls have rather more restricted lives and freedoms, including freedom of movement outside the home, and freedom to utilize family or other resources compared to adolescent boys, the human insecurity they may be exhibiting could be linked to their feeling of relative incapacitation in dealing with hardship and the lack of agency and empowerment which this can bring, and their lack of capacity to respond to adversity.

Crowding ratios at home are associated with human insecurity, and this finding is important as crowding ratios are usually used as proxies for poverty. It is interesting to note that the findings indicate that good school relations seem to act as a risk factor rather than a protective factor in this context. This might be due to human insecurity being more strongly related to the family than is distress and well being. Thus attending a good school, possibly around students with less crowded families or better socio-economic conditions, increases the sense of human insecurity in females. Alternatively, living in crowded families may take other pathways to insecurity, mediated by a good school environment. It has been reported that smaller families experience less financial strain, resulting in lower stress levels, and that in turn affects parenting behavior and interaction with children (Smokowski et al. 2004; Jackson et al. 2000). Further investigation is needed to understand how good school relations are a risk for females living in crowded households.

In the Gaza Strip, adolescents living in the south, in rural areas and having good school relations are at high risk of human insecurity. According to the 2011 World Bank report on poverty in oPt, the south of the Gaza Strip is one of the poorest regions in the oPt. This group is therefore similar to Group 5 (females from West Bank, from poor and crowded households, with good school relations, see Figure 2) in that adolescents from households with economic hardship are at risk of human insecurity. Interestingly this association is independent of sex in the Gaza Strip.

The results of this study can only demonstrate further the complexity of identifying factors contributing to adolescents’ psychosocial health, and deeming one factor or another a risk or protective factor. The variety of combinations in the risk groups is not surprising, nor is the fact that factors can be both risk and/or protective aspects in different contexts (such as the school environment). The literature (Walsh 2003) emphasizes that these are not static and change with contexts. These results need to be emphasized and prompt all to be very wary of generalizations related to different groups and over time, and to ensure to investigate and come to grips with the experiences of different groups and their psychosocial health status. Be it as it may, the results clearly point to the importance of the family and community in the lives of adolescents. These results enhancing and reaffirm the view that it is more useful

to address adolescent concerns outside of the clinic, and inside the social realm of their daily lives.

The task of identifying psychosocial risk and protective factors in the oPt is especially complex because in addition to the daily stressors facing adolescents world-wide, Palestinian adolescents must find ways to thrive under a complex and constantly changing, uncertain, ambiguous and insecure conditions of Israeli military occupation. This predicament translates not only as violence and disruption of daily life, but especially as an intrusion on the delicate social fabric of the family and society. This was an evident result in this study with reports of high human insecurity despite the relatively low percentage of adolescents who were directly exposed to violence. These results point to cumulative structural causes of human insecurity which cannot be captured in cross sectional studies completed in one moment in time. Such broader level structural and contextual factors nevertheless can have important and pervasive influences on the psychosocial health of Palestinian adolescents, and the Palestinian population in general. Indeed, the fear and threat of expulsion as a result of the 1948 war and the dispossession and dispersion of 2/3 of the Palestinian population, in addition the 1967 war experience and the expulsion of around 180,000 Palestinians to neighboring countries, is imprinted in the national consciousness, and is handed down from generation to generation. This may well be a very important factor affecting the human security of all Palestinians, including adolescents, as the experience and the story of the Diaspora is handed down from generation to generation.

Reported levels of ill being and distress were low compared to reported levels of high human insecurity. This contrast may be explained by the protective effects of resources available to groups of adolescents in the oPt. The results of this study suggest that most likely these resources are embedded in the family, neighborhood and schools and are internalized by individuals through psychosocial pathways. Whereas family, school and the neighborhood may protect adolescents from ill being and distress, they cannot protect them from human insecurity, a feeling resulting from conditions outside the control of these communities, and related to Palestinian history and current ongoing Israeli military occupation and colonization. How the family and communities work in this complex Palestinian context is yet to become clear.

Figure 1 shows the different pathways through which both risk and protective factors operate. Social support can be in the form of emotional support, the presence of role models around adolescents, and transfer of knowledge and skills related to coping. Further research is needed to elucidate such pathways in the local context. However what this study made clear is that when social support is flawed one way or another, adolescents become at risk of a variety of negative health outcomes. Groups of adolescents who feel misunderstood and humiliated by their

families, or feel unsafe and unhappy in their neighborhoods and schools are at risk of ill being and distress.

Exposure to Violence and Psychosocial Health Outcomes

“A primary psychological effect of war on victims is witnessing the destruction of a social world embodying their history, identity, values and roles of everyday life” (Summerfield 2002).

When researching the effects of chronic violence and military occupation on adolescents psychosocial health, the question arises as to how and through which pathways the effects are expressed. The resiliency framework is useful for the Palestinian context because it takes into account the larger political and socio-economic context. Palestinian youth have been exposed to imprisonment, interrogation, restriction on mobility, breakdown of family life through imprisonment or unnatural death of a parent, exposure to tear gas and sounds bombs, as well as threats to identity through the denial of personal and collective history.

If one is to look at these violent events through a psychosocial model, then the effects of violence do not need to affect the youth directly through for example physical destruction of property or loss of income. In a quantitative study, Palestinian researchers (Giacaman et al. 2007) found an exponential relationship between humiliation by occupation and feelings of distress. The failure of the association to appear in the Regression Analysis completed in this study (except in the case of one group) does not indicate that violence has no effect on health; it can at best be interpreted as having no **direct** relation to health outcomes at the particular moment in time when the study was completed. Such results can perhaps be explained through psychosocial resources available in the family and community. The (UNICEF 2011) report on Interagency Psychosocial Evaluation Projects noted the point regarding scores on resilience measurements in the pre-intervention group that : “youth had good resilience because they came with the support of the family”. One pathway that need in depth investigation is how are adolescents affected by adult exposure to violence, and which pathways these effects take.

These are all questions for future research aiming to understand Palestinian youth not as a homogenous group, but rather as groups with commonalities and differences in life experiences, contexts and ways of enduring and resisting exposure to the effects of direct and indirect ever lingering political violence. Such research is vital for the implementation of interventions which should not assume that ‘one hat fits all’. If anything, the results of this study point to the vital importance of

addressing different adolescent groups' psychosocial health needs differently in future interventions, and tailoring interventions to these differing needs.

Conclusion

This study consisted of two phases. The first entailed developing an instrument designed to measure psychosocial health and factors associated with the psychosocial mental health of a representative sample of adolescents in the oPt. The second phase was validating the questionnaire, establishing its reliability, and using it to identify groups at risk of ill being, distress and human insecurity.

The results of this study demonstrate that the majority of Palestinian adolescents reported high levels of human insecurity reflecting the effects of Israeli military occupation and its consequences on individuals living in the oPt. In contrast, moderate levels of distress and ill being allude to a process of adolescent resilience building and their struggle to maintain normality under abnormal conditions (Nguyen & Gillham et al. 2008) This contrast indicates that there are protective resources available to adolescents in the environment of the home, school and neighborhood. This study demonstrates that adolescents facing possible ill being and distress are the ones lacking support from these settings' resources. This confirms the importance of the family, the school, and the community for this age group, and that positive mental health outcomes are to be found in the experiences of the everyday life and not in the clinic.

It is worth noting here that the demographic and socioeconomic characteristics used in this study did not play a crucial role in affecting the psychosocial well being of Palestinian adolescents in this study, while relational aspects as mentioned above played a major role. This was highly manifested in both well being and distress measures. Furthermore, regional differences between the West Bank and the Gaza Strip reflect different circumstances and therefore the different needs of adolescents living there. Hence, interventions targeting adolescent psychosocial well being in the oPt should consider these two major findings of the study, in addition to the other findings.

Recommendations

Recommendations for interventions

- There are regional differences between the West Bank and Gaza, and the needs of adolescents differ across these regions, therefore interventions must be designed separately for each.
- It is important to understand risk factors as a group of factors which are dynamic processes in their relation to health outcomes. Any intervention must target the different levels at which the factors exist. Isolating individual factors as risk factor is not accurate. Approaching multiple risks will more likely increase positive adjustment (Masten and Coatsworth 1998), (Benzies and Mychasiuk 2009).
- Further work is needed to identify how the different aspects (family, neighborhood, school, aggressive behavior, region, gender, exposure to violence and poverty) contribute to health outcomes, i.e. which aspects act on a psychosocial level, and how can they be addressed.
- “WHO emphasizes in developing countries mental health should be viewed as an integral part of public health and social welfare program not as a specialist activity (Giacaman et al. 2005). Interventions must be in the community by people from the community.
- Even though interventions must focus on capitalizing on available resources within the family and the community one must not overlook the more practical aspects of such problems. For example the lack of infrastructure in Gaza caused by the war , or the large number of students per class in schools in the oPt which stands in the way of teachers forming close ties and relationships with the students, or for example poor neighborhood environments caused by the larger political contexts such as Kafr A’qab (ICPH study, in press). Interventions must make sure that basic resources are available before addressing social relations.

Limitations

Limitations of this study:

- Analysis of outliers: A small, but important, number of adolescents were not living with their fathers (5%) at the time of the study, or were not attending school (dropped out or already graduated) (10%). The analyses found in this study did not include these small groups because of the small sample size which made it impossible to look further into the issues and problems of these groups separately. However, it must be stressed that these groups are important to investigate in the future as they may be at higher risk of ill being, distress and human insecurity than the rest of the adolescent population given their circumstance.
- Many of the questions on exposure to Israeli army violence yielded results with small percentages. Thus such questions were also excluded from the analysis. The association between psychosocial mental health and exposure to political violence is nevertheless very important, but has been overlooked in this study as our main aim was representation of all Palestinian adolescents in the oPt. We thus recommend that future research would be completed to identify the link between political exposure to violence and ill health, in order to inform future interventions.
- Above all, this is a cross sectional study which can be generalized to all Palestinian adolescents living in the oPt, but where only associations can be identified, not causation.

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Appendices

Appendix 1: The Study Questionnaire



Palestinian Central Bureau of Statistics Children Psychosocial Survey

All information in this form is purely for statistical purposes and not for any other purposes. And is considered confidential under the Statistical Law in 2000.

IDH00-Questionnaire Serial No: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>		IDH04- No. of household in the EA <input type="text"/> <input type="text"/>	
IDH01- Governorate <input type="text"/> <input type="text"/>		IDH05- Building number _____	
IDH02- Locality <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>		IDH06- Number of housing unit _____	
IDH03-Enumeration Area Number in Locality <input type="text"/> <input type="text"/> <input type="text"/>		IDH07- HH Name	
Interview Record			
IR01-Visits Schedule	Day	Month	
	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	First Visit
	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	Second Visit
	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	Third Visit
IR02 -Total Number of Visits			<input type="text"/>
IR03 - Interview Result <input type="text"/>	1	Completed	
	2	Partially Completed	
	3	Family is abroad	
	4	Unit does not exist	
	5	No one at home	
	6	Refused to cooperate, the reason	
	7	An unoccupied housing unit	
	8	Information not available	
	9	There are no members of eligible group	
	10	Other, specify	
IR04- Number of males aged 12-18 years <input type="text"/> <input type="text"/>		IR05- Number of females aged 12-18 years <input type="text"/> <input type="text"/>	
IR06- Number of males aged 12-18 years who were interviewed <input type="text"/> <input type="text"/>		IR07- Number of females aged 12-18 years who were interviewed <input type="text"/> <input type="text"/>	
IR08- Total number of household members <input type="text"/> <input type="text"/>		RN- Number of rooms in the house <input type="text"/> <input type="text"/>	
PCBS USE:			
EN01-Interviewer's Name.....	EN06: Interviewer's Code <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	EN11: Interview Date .../.../2013	
EN02- Supervisor's Name	EN07: Supervisor's Code <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	EN12 : Delivering Date .../.../2013	
EN03- Editor's Name.....	EN08: Editor's Code <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	EN13 : Editing Date .../.../2013	
EN04- Coder's Name.....	EN09: Coder's Code <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	EN14 : Coding Date. .../.../2013	
EN05- <u>Data Entry Person's</u> Name.....	EN10: Data Entry Person's Code <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	EN15 : Data Entry Date. .../.../2013	

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HR01	HR02	HR03	HR04	HR05	HR05A	HR06	HR07	HR08
Line no. of member	Names of usual HH residents (Full names)	The relationship of (name) to the head of HH? 1. Head of HH. 2. Husband/ wife 3. Son/daughter 4. Father/mother 5. Brother/sister 6. Grandfather/mother 7. Grandchild 8. Daughter/son in law 9. Other relatives 96. Other	Sex 1. Male 2. Female	What is the birth date (name) in day and month and year I don't know: Record 98 in day column Record 98 in month column record 9998 in year column	Age Record the answer in full years. Record (00) if age is less than one year. If age is 95 and above record 95 Record 98 if it is not known	Refugee Status 1. Registered refugee 2. Unregistered refugee 3. not refugee	Education Attendance (for persons aged 5 years and over) 1. Currently attending school 2. Attended school at any time and left before completing level 3. Attended school and graduated 4. Never attended school	Educational Status (for persons aged 10 years and over) 1. Illiterate 2. Can read and write 3. Elementary 4. Preparatory 5. Secondary 6. Associate diploma 7. Bachelor 8. High diploma 9. Masters Degree 10. Ph.D. 98. Don't know
01.		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
02.		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
03.		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
04.		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
05.		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
06.		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
07.		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
08.		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
09.		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
10.		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
11.		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
12.		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
13.		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
14.		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
15.		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>

		Person 10 years and over				(for persons 12 years and over)
HR01	HR02	HR09	HR10	HR11A	HR12	
	Names of usual HH residents (Full names)	Number of education years that were successfully passed. Record (00) if it is less than one year	Work Status during the past week (for persons aged 7 years and above) 1. Employed from 1-14 hours 2. Employed 15-34 hours 3. Employed 35 hours and above (Doesn't work but wants to – has ever worked) 4. Looked for work last week 5. Did not look for work because of frustration (Doesn't work but wants to – has never worked) 6. looked for work last week 7. Did not look for work because of frustration (Doesn't work and doesn't want to) 8. Full time student 9. Housewife 10. Unable to work 11. has revenue 12. other <u>6-12 move to HR12</u>	Main Occupation Describe main tasks for coding	Marital Status 1.Never married 2.Legally married 3.Currently married 4.Divorced 5.Widowed 6.Separated	
01.		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	
02.		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	
03.		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	
04.		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	
05.		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	
06.		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	
07.		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	
08.		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	
09.		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	
10.		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	
11.		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	
12.		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	
13.		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	
14.		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	
15.		<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	
<i>Interviewer: put x inside the square if you used additional questionnaire. .</i>				<input type="checkbox"/>		



**Palestinian Central Bureau of Statistics
Children Psychosocial Survey
Individuals 12-18 years Questionnaire**

All information in this form is purely for statistical purposes and not for any other purposes. And is considered confidential under the Statistical Law in 2000.

NH-Questionnaire Serial No: <input style="width: 20px; height: 20px;" type="text"/>	ND- No. of household in the EA <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>
NP- Line number from HR01 <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>	NN- Name _____
NS- Sex: 1.male 2. female <input style="width: 20px; height: 20px;" type="checkbox"/>	IR-Interview result <input style="width: 20px; height: 20px;" type="checkbox"/> 1. Completed 2. Refused to cooperate 3. Could not interview the individual chosen 4. Other

A01	(Positive Family Relationship) Choose the appropriate answer about your feeling in general/ now (inside your household). 1. Not at all 2. A little 3. A lot 4. All the time 5. I don't know 6. Not applicable	. Your father understands you <input style="width: 20px; height: 20px;" type="checkbox"/> . Your mother understands you <input style="width: 20px; height: 20px;" type="checkbox"/> C. Your parents treat you in the same way as your brothers and sisters <input style="width: 20px; height: 20px;" type="checkbox"/> . Your parents listen to you <input style="width: 20px; height: 20px;" type="checkbox"/> . Your parents help you to solve difficult problems <input style="width: 20px; height: 20px;" type="checkbox"/>
A02	(Negative Family Relationship) Choose the appropriate answer about your feeling in general/ now (inside your household). 1. Not at all 2. A little 3. A lot 4. All the time 5. I don't know 6. Not applicable	A. Your father beats you <input style="width: 20px; height: 20px;" type="checkbox"/> B. Your mother beats you <input style="width: 20px; height: 20px;" type="checkbox"/> C. Your parents shout at you <input style="width: 20px; height: 20px;" type="checkbox"/> D. Your brothers and sisters beat you <input style="width: 20px; height: 20px;" type="checkbox"/> E. You fight with your brothers and sisters <input style="width: 20px; height: 20px;" type="checkbox"/>
A03	(Positive School Relationship) Choose the appropriate answer about your feeling in general/ now (in your school). 1. Not at all 2. A little 3. A lot 4. All the time 5. I don't know 6. Not applicable	A. In your school students participate in forming rules <input style="width: 20px; height: 20px;" type="checkbox"/> B. Rules in your school are fair <input style="width: 20px; height: 20px;" type="checkbox"/> C. Students in your school choose their partners in teamwork <input style="width: 20px; height: 20px;" type="checkbox"/> D. Students have their say on how to spend time in the classroom <input style="width: 20px; height: 20px;" type="checkbox"/> E. Students have their say on deciding what activities to do <input style="width: 20px; height: 20px;" type="checkbox"/> F. Your school is a nice place to be at <input style="width: 20px; height: 20px;" type="checkbox"/> G. You feel related to this school <input style="width: 20px; height: 20px;" type="checkbox"/>

		H. You feel safe at school	<input type="checkbox"/>
		I. Most of the students in your class are kind and love to help	<input type="checkbox"/>
A04	(Positive Neighbor Relationship) Choose the appropriate answer about your feeling in general (outside your household). 1. Not at all 2. A little 3. A lot 4. All the time 5. I don't know	A. You like your neighborhood B. You feel safe in your neighborhood C. You feel satisfied in your relations with people in your neighborhood	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
A05	(Aggressive Behavior) Choose the appropriate answer about your feeling in general (During the last week). 1. Not at all 2. A little 3. A lot 4. All the time 5. I don't know	A. You were aggressive (pushed, beat, shoved) someone during the last week B. You said bad words (cursed, insulted) during the last week C. You were nervous during last week D. You got angry quickly during last week	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
A06	(WHO Well-being Indicator) Choose the appropriate answer about your feeling During the past two weeks (outside your household). 1. Not at all 2. A little 3. A lot 4. All the time 5. I don't know	A. You felt cheerful and in good spirits during last week B. You felt active and vigorous during last week C. You woke up feeling fresh and relaxed during last week D. Your daily life has been filled with interesting things during the last week E. You felt calm and relaxed during the last week	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
A07	(Lack of Human Safety) Choose the appropriate answer about your feeling in general/ now 1. Not at all 2. A little 3. A lot 4. All the time 5. I don't know	A. To what extent do you feel afraid for yourself in your daily life B. To what extent do you fear for your family in your daily life C. To what extent do you feel worried/afraid of not being able to provide essential needs for your family D. To what extent do you feel worried/afraid of losing your family income E. To what extent do you feel worried/afraid of losing your home F. To what extent do you feel worried/afraid of displacement or uprooting G. To what extent do you feel worried/afraid of your future and the future of your family H. To what extent do you fear about your safety I. To what extent do you fear about the safety of your family	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

	J. To what extent does your family fear about your safety	<input type="checkbox"/>
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A08	(Adversity) Choose the appropriate answer about your feeling in general/ now 1. Not at all 2. A little 3. A lot 4. All the time 5. I don't know	A. To what extent do you feel grieved B. To what extent do you feel frustrated C. To what extent do you feel incapacitated D. To what extent do you feel humiliated E. To what extent do you feel lonely F. To what extent do you feel concerned G. To what extent do you feel sad H. To what extent do you feel angry I. To what extent do you feel sick of life	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
A09	Has anyone from your family been arrested by the occupation forces?	1. No 2. Yes, one 3. Yes, more than one 4. I Don't know	<input type="checkbox"/>
A10	Has anyone from your family been hit or injured by the occupation forces or settlers?	1. No 2. Yes, one 3. Yes, more than one 4. I don't know	<input type="checkbox"/>
A11	Has anyone from your family been martyred	1. No 2. Yes, one 3. Yes, more than one 4. I don't know	<input type="checkbox"/>
A12	Has your home been demolished or shelled by the occupation army or settlers	1. No 2. Yes, once 3. Yes, more than once 4. I don't know	<input type="checkbox"/>
A13	Have you been detained for a long period at a checkpoint by the occupation forces or settlers?	1. No 2. Once or twice 3. Three or four times 4. More than four times	<input type="checkbox"/>
A14	Were you exposed to physical search by the occupation forces or settlers?	1. No 2. Once or twice 3. Three or four times 4. More than four times	<input type="checkbox"/>
A15	Were you exposed to any interrogation by occupation forces or settlers?	1. No 2. Once or twice 3. Three or four times 4. More than four times	<input type="checkbox"/>
A16	Were you exposed to tear gas?	1. No 2. Once or twice 3. Three or four times 4. More than four times	<input type="checkbox"/>
A17	Were you exposed to voice bombs?	1. No 2. Once or twice 3. Three or four times 4. More than four times	<input type="checkbox"/>
A18	Were you prevented from travelling?	1. No 2. Once or twice 3. Three or four times 4. More than four times	<input type="checkbox"/>
A19	Have any one from your family was prevented to travel ?	1. No 2. Once or twice 3. Three or four times 4. More than four times	<input type="checkbox"/>

Choose the appropriate answer about events that you have encountered over <u>the past year</u>			
A20	Have you been humiliated by your father?	1. No 2. Once or twice 3. Three or four times 4. More than four times 5 . Not applicable	<input type="checkbox"/>
A21	Have you been humiliated by your mother?	1. No 2. Once or twice 3. Three or four times 4. More than four times 5 . Not applicable	<input type="checkbox"/>
A22	Have you been humiliated by your brothers? and sisters	1. No 2. Once or twice 3. Three or four times 4. More than four times 5 . Not applicable	<input type="checkbox"/>
A23	Have you been humiliated by any one of your relatives?	1. No 2. Once or twice 3. Three or four times 4. More than four times	<input type="checkbox"/>
A24	Have you been humiliated by a friend?	1. No 2. Once or twice 3. Three or four times 4. More than four times	<input type="checkbox"/>
A25	Have you been humiliated by other boys / girls in school?	1. No 2. Once or twice 3. Three or four times 4. More than four times 5 . Not applicable	<input type="checkbox"/>
A26	Have you been humiliated by boys / girls out of school and out of the house?	1. No 2. Once or twice 3. Three or four times 4. More than four times	<input type="checkbox"/>
A27	Have you been humiliated by the occupation forces?	1. No 2. Once or twice 3. Three or four times 4. More than four times	<input type="checkbox"/>
A28	To what extent do you feel satisfied with your life?	1. Strongly agree 2. Agree 3. Disagree 4. Strongly disagree 5. I don't know	<input type="checkbox"/>

Appendix 2: Description of Variables Hypothesized to be Part of the Scales in the Psychosocial Health Study of Palestinian Adolescents

Table 1: Positive Family Relationship Stratified by Region

Region		West Bank		Gaza Strip		oPt		P-value
		N	%	N	%	N	%	
Your father understands you	Not at all	34	2.4%	21	3.6%	55	2.8%	<0.001
	A little	480	34.6%	201	34.8%	681	34.6%	
	A lot	324	23.3%	190	32.9%	514	26.1%	
	All the time	551	39.7%	166	28.7%	717	36.5%	
	Total	1389	100.0%	578	100.0%	1967	100.0%	
Your mother understands you	Not at all	14	1.0%	10	1.7%	24	1.2%	<0.001
	A little	275	19.0%	109	18.0%	384	18.7%	
	A lot	396	27.4%	226	37.4%	622	30.3%	
	All the time	762	52.7%	259	42.9%	1021	49.8%	
	Total	1447	100.0%	604	100.0%	2051	100.0%	
Your parents treat you in the same way as your brothers and sisters	Not at all	55	3.8%	47	7.7%	102	5.0%	<0.001
	A little	175	12.1%	76	12.5%	251	12.2%	
	A lot	314	21.7%	227	37.2%	541	26.3%	
	All the time	903	62.4%	260	42.6%	1163	56.5%	
	Total	1447	100.0%	610	100.0%	2057	100.0%	
Your parents listen to you	Not at all	17	1.2%	6	1.0%	23	1.1%	<0.001
	A little	302	20.8%	132	21.6%	434	21.0%	
	A lot	396	27.2%	262	43.0%	658	31.9%	
	All the time	739	50.8%	210	34.4%	949	46.0%	
	Total	1454	100.0%	610	100.0%	2064	100.0%	
Your parents help you to solve difficult problems	Not at all	43	3.0%	16	2.6%	59	2.9%	<0.001
	A little	245	17.0%	122	20.0%	367	17.9%	
	A lot	326	22.6%	232	38.1%	558	27.2%	
	All the time	829	57.4%	239	39.2%	1068	52.0%	
	Total	1443	100.0%	609	100.0%	2052	100.0%	
Your father beats you	All the time	9	0.6%	16	2.8%	25	1.3%	<0.001
	A lot	27	1.9%	22	3.8%	49	2.5%	
	A little	307	22.1%	178	30.7%	485	24.6%	
	Not at all	1049	75.4%	363	62.7%	1412	71.6%	
	Total	1392	100.0%	579	100.0%	1971	100.0%	
Your mother beats you	All the time	10	0.7%	14	2.3%	24	1.2%	<0.001
	A lot	28	1.9%	28	4.6%	56	2.7%	
	A little	301	20.8%	145	24.0%	446	21.7%	
	Not at all	1108	76.6%	417	69.0%	1525	74.4%	
	Total	1447	100.0%	604	100.0%	2051	100.0%	
Your parents shout at you	All the time	68	4.7%	31	5.1%	99	4.8%	0.003
	A lot	222	15.2%	103	16.9%	325	15.7%	
	A little	803	55.1%	370	60.7%	1173	56.7%	
	Not at all	364	25.0%	106	17.4%	470	22.7%	
	Total	1457	100.0%	610	100.0%	2067	100.0%	
Your brothers and sisters beat you	All the time	20	1.4%	6	1.0%	26	1.3%	0.217
	A lot	65	4.5%	27	4.4%	92	4.5%	
	A little	309	21.4%	155	25.4%	464	22.6%	
	Not at all	1053	72.8%	422	69.2%	1475	71.7%	
	Total	1447	100.0%	610	100.0%	2057	100.0%	
Your fight with your brothers and sisters	All the time	166	11.5%	58	9.5%	224	10.9%	0.080
	A lot	182	12.6%	95	15.6%	277	13.5%	
	A little	767	52.9%	336	55.1%	1103	53.6%	
	Not at all	334	23.1%	121	19.8%	455	22.1%	
	Total	1449	100.0%	610	100.0%	2059	100.0%	

Table 2: Positive School Relations

Region		West Bank		Gaza Strip		Opt		p-value
		N	%	N	%	N	%	
In your school, students participate in forming rules	not at all	487	36.5%	153	28.1%	640	34.1%	< 0.001
	a little	543	40.7%	289	53.0%	832	44.3%	
	a lot	158	11.9%	76	13.9%	234	12.5%	
	all the time	145	10.9%	27	5.0%	172	9.2%	
	Total	1333	100.0%	545	100.0%	1878	100.0%	
Rules in your school are fair	not at all	195	14.6%	41	7.5%	236	12.6%	< 0.001
	a little	507	38.0%	256	47.0%	763	40.6%	
	a lot	343	25.7%	149	27.3%	492	26.2%	
	all the time	289	21.7%	99	18.2%	388	20.6%	
	Total	1447	100.0%	604	100.0%	2051	100.0%	
Students in your school choose their partners in teamwork	not at all	293	22.0%	76	13.9%	369	19.7%	< 0.001
	a little	537	40.3%	257	47.2%	794	42.3%	
	a lot	257	19.3%	143	26.2%	400	21.3%	
	all the time	244	18.3%	69	12.7%	313	16.7%	
	Total	1331	100.0%	545	100.0%	1876	100.0%	
Students have their say on how to spend time in the classroom	not at all	552	41.3%	166	30.4%	718	38.2%	< 0.001
	a little	527	39.5%	246	45.1%	773	41.1%	
	a lot	180	13.5%	105	19.2%	285	15.2%	
	all the time	76	5.7%	29	5.3%	105	5.6%	
	Total	1335	100.0%	546	100.0%	1881	100.0%	
Students have their say on deciding what activities to do	not at all	420	31.5%	124	22.7%	544	28.9%	< 0.001
	a little	611	45.8%	281	51.5%	892	47.4%	
	a lot	200	15.0%	110	20.1%	310	16.5%	
	all the time	104	7.8%	31	5.7%	135	7.2%	
	Total	1335	100.0%	546	100.0%	1881	100.0%	
Your school is a nice place to be at	not at all	128	9.6%	32	5.9%	160	8.5%	< 0.001
	a little	380	28.4%	185	33.9%	565	30.0%	
	a lot	371	27.7%	185	33.9%	556	29.5%	
	all the time	458	34.3%	144	26.4%	602	32.0%	
	Total	1337	100.0%	546	100.0%	1883	100.0%	
You feel related to this school	not at all	95	7.1%	32	5.9%	127	6.7%	< 0.001
	a little	301	22.5%	154	28.2%	455	24.2%	
	a lot	383	28.7%	200	36.6%	583	31.0%	
	all the time	557	41.7%	160	29.3%	717	38.1%	
	Total	1336	100.0%	546	100.0%	1882	100.0%	
You feel safe at school	not at all	72	5.4%	18	3.3%	90	4.8%	< 0.001
	a little	218	16.3%	111	20.3%	329	17.5%	
	a lot	363	27.2%	204	37.4%	567	30.1%	
	all the time	684	51.2%	213	39.0%	897	47.6%	
	Total	1337	100.0%	546	100.0%	1883	100.0%	
Most of the students in your class are kind and love to help	not at all	55	4.1%	9	1.6%	64	3.4%	< 0.001
	a little	344	25.7%	154	28.2%	498	26.4%	
	a lot	395	29.5%	220	40.3%	615	32.7%	
	all the time	543	40.6%	163	29.9%	706	37.5%	
	Total	1337	100.0%	546	100.0%	1883	100.0%	

Table 3: Positive Neighborhood Relations

Region		West Bank		Gaza Strip		oPt		P-value
		N	%	N	%	N	%	
You like your neighborhood	not at all	123	8.4%	63	10.2%	186	8.9%	< 0.001
	a little	226	15.4%	158	25.7%	384	18.5%	
	a lot	368	25.1%	220	35.8%	588	28.3%	
	all the time	747	51.0%	174	28.3%	921	44.3%	
	Total	1464	100.0%	615	100.0%	2079	100.0%	
You feel safe in your neighborhood	not at all	73	5.0%	37	6.0%	110	5.3%	< 0.001
	a little	179	12.2%	131	21.3%	310	14.9%	
	a lot	399	27.2%	240	39.0%	639	30.7%	
	all the time	815	55.6%	207	33.7%	1022	49.1%	
	Total	1466	100.0%	615	100.0%	2081	100.0%	
You feel satisfied in your relations with people in your neighborhood	not at all	84	5.7%	44	7.2%	128	6.2%	< 0.001
	a little	244	16.7%	156	25.4%	400	19.3%	
	a lot	421	28.8%	254	41.3%	675	32.5%	
	all the time	712	48.7%	161	26.2%	873	42.1%	
	Total	1461	100.0%	615	100.0%	2076	100.0%	

Table 4: Aggressive Behavior

Region		West Bank		Gaza Strip		oPt		p-value
		N	%	N	%	N	%	
You were aggressive (pushed, beat, shoved) someone during last week	all the time	23	1.6%	18	2.9%	41	2.0%	< 0.001
	a lot	100	6.8%	38	6.2%	138	6.6%	
	a little	409	27.9%	224	36.4%	633	30.4%	
	not at all	934	63.7%	335	54.5%	1269	61.0%	
	Total	1466	100.0%	615	100.0%	2081	100.0%	
You said bad words (cursed, insulted) during last week	all the time	22	1.5%	11	1.8%	33	1.6%	< 0.001
	a lot	103	7.0%	41	6.7%	144	6.9%	
	a little	424	29.0%	239	38.9%	663	31.9%	
	not at all	913	62.4%	324	52.7%	1237	59.6%	
	Total	1462	100.0%	615	100.0%	2077	100.0%	
You were nervous during last week	all the time	79	5.4%	29	4.7%	108	5.2%	0.048
	a lot	223	15.2%	120	19.5%	343	16.5%	
	a little	760	51.9%	322	52.4%	1082	52.0%	
	not at all	402	27.5%	144	23.4%	546	26.3%	
	Total	1464	100.0%	615	100.0%	2079	100.0%	
You got angry quickly during last week	all the time	102	7.0%	20	3.3%	122	5.9%	0.005
	a lot	212	14.5%	80	13.0%	292	14.0%	
	a little	613	41.9%	285	46.3%	898	43.2%	
	not at all	537	36.7%	230	37.4%	767	36.9%	
	Total	1464	100.0%	615	100.0%	2079	100.0%	

Table 5: WHO Well Being Index

Region		West Bank		Gaza Strip		oPt		p-value
		N	%	N	%	N	%	
You felt cheerful and in good spirits during last week	not at all	100	6.8%	38	6.2%	138	6.6%	< 0.001
	a little	658	45.0%	298	48.5%	956	46.0%	
	a lot	414	28.3%	203	33.0%	617	29.7%	
	all the time	290	19.8%	76	12.4%	366	17.6%	
	Total	1462	100.0%	615	100.0%	2077	100.0%	
You felt active and vigorous during last week	not at all	86	5.9%	23	3.7%	109	5.2%	< 0.001
	a little	560	38.3%	220	35.8%	780	37.5%	
	a lot	472	32.2%	264	42.9%	736	35.4%	
	all the time	346	23.6%	108	17.6%	454	21.8%	
	Total	1464	100.0%	615	100.0%	2079	100.0%	
You woke up feeling fresh and relaxed during last week	not at all	153	10.5%	31	5.0%	184	8.9%	< 0.001
	a little	577	39.4%	265	43.1%	842	40.5%	
	a lot	433	29.6%	241	39.2%	674	32.4%	
	all the time	301	20.6%	78	12.7%	379	18.2%	
	Total	1464	100.0%	615	100.0%	2079	100.0%	
Your daily life has been filled with interesting things during the last week	not at all	117	8.0%	32	5.2%	149	7.2%	< 0.001
	a little	612	41.8%	259	42.1%	871	41.9%	
	a lot	459	31.3%	246	40.0%	705	33.9%	
	all the time	277	18.9%	78	12.7%	355	17.1%	
	Total	1465	100.0%	615	100.0%	2080	100.0%	
You felt calm and relaxed during the last week	not at all	81	5.5%	28	4.6%	109	5.2%	< 0.001
	a little	634	43.3%	257	41.8%	891	42.8%	
	a lot	466	31.8%	251	40.8%	717	34.5%	
	all the time	284	19.4%	79	12.8%	363	17.5%	
	Total	1465	100.0%	615	100.0%	2080	100.0%	

Table 6: Human Insecurity Scale

Region		West Bank		Gaza Strip		oPt		p-value
		N	%	N	%	N	%	
To what extent do you feel afraid for yourself in yourself in your daily life	all the time	383	26.3%	80	13.0%	463	22.3%	< 0.001
	a lot	349	23.9%	150	24.4%	499	24.1%	
	a little	416	28.5%	262	42.6%	678	32.7%	
	not at all	310	21.3%	123	20.0%	433	20.9%	
	Total	1458	100.0%	615	100.0%	2073	100.0%	
To what extent do you fear for your family in your family in your daily life	all the time	798	54.5%	192	31.2%	990	47.6%	< 0.001
	a lot	404	27.6%	219	35.6%	623	30.0%	
	a little	191	13.1%	158	25.7%	349	16.8%	
	not at all	70	4.8%	46	7.5%	116	5.6%	
	Total	1463	100.0%	615	100.0%	2078	100.0%	
To what extent do you feel worried/afraid of not being able to provide essential needs for your family	all the time	356	24.4%	43	7.0%	399	19.2%	< 0.001
	a lot	361	24.8%	172	28.0%	533	25.7%	
	a little	438	30.0%	313	50.9%	751	36.2%	
	not at all	303	20.8%	87	14.1%	390	18.8%	
	Total	1458	100.0%	615	100.0%	2073	100.0%	
To what extent do you feel worried/afraid of losing your family income	all the time	414	28.3%	101	16.4%	515	24.8%	< 0.001
	a lot	364	24.9%	203	33.1%	567	27.3%	
	a little	406	27.8%	248	40.4%	654	31.5%	
	not at all	277	19.0%	62	10.1%	339	16.3%	
	Total	1461	100.0%	614	100.0%	2075	100.0%	
To what extent do you feel worried/afraid of losing your home	all the time	288	20.1%	81	13.2%	369	18.0%	< 0.001
	a lot	255	17.8%	194	31.5%	449	21.9%	
	a little	342	23.8%	214	34.8%	556	27.1%	
	not at all	549	38.3%	126	20.5%	675	32.9%	
	Total	1434	100.0%	615	100.0%	2049	100.0%	
To what extent do you feel worried/afraid of displacement or uprooting	all the time	240	16.9%	66	10.7%	306	15.0%	< 0.001
	a lot	250	17.6%	180	29.3%	430	21.1%	
	a little	362	25.5%	222	36.1%	584	28.7%	
	not at all	568	40.0%	147	23.9%	715	35.1%	
	Total	1420	100.0%	615	100.0%	2035	100.0%	
To what extent do you feel worried/afraid of your future and the future of your family	all the time	665	45.5%	147	23.9%	812	39.1%	< 0.001
	a lot	451	30.9%	233	37.9%	684	33.0%	
	a little	259	17.7%	198	32.2%	457	22.0%	
	not at all	85	5.8%	37	6.0%	122	5.9%	
	Total	1460	100.0%	615	100.0%	2075	100.0%	
To what extent do you fear about your safety	all the time	569	39.0%	131	21.3%	700	33.8%	< 0.001
	a lot	385	26.4%	194	31.5%	579	27.9%	
	a little	329	22.5%	220	35.8%	549	26.5%	
	not at all	176	12.1%	70	11.4%	246	11.9%	
	Total	1459	100.0%	615	100.0%	2074	100.0%	
To what extent do you fear about the safety of your family	all the time	799	54.7%	194	31.5%	993	47.8%	< 0.001
	a lot	419	28.7%	219	35.6%	638	30.7%	
	a little	192	13.1%	148	24.1%	340	16.4%	
	not at all	52	3.6%	54	8.8%	106	5.1%	
	Total	1462	100.0%	615	100.0%	2077	100.0%	
To what extent does your family fear about your safety	all the time	1024	70.5%	330	53.7%	1354	65.5%	< 0.001
	a lot	299	20.6%	143	23.3%	442	21.4%	
	a little	114	7.8%	100	16.3%	214	10.3%	
	not at all	16	1.1%	42	6.8%	58	2.8%	
	Total	1453	100.0%	615	100.0%	2068	100.0%	

Table 7: Distress Scale

Region		West Bank		Gaza Strip		oPt		p-value
		N	%	N	%	N	%	
To what extent do you feel "HAM"	all the time	74	5.1%	27	4.4%	101	4.9%	0.114
	a lot	180	12.3%	56	9.1%	236	11.4%	
	a little	666	45.7%	306	49.8%	972	46.9%	
	not at all	538	36.9%	226	36.7%	764	36.9%	
	Total	1458	100.0%	615	100.0%	2073	100.0%	
To what extent do you feel frustrated	all the time	45	3.1%	18	2.9%	63	3.0%	0.46
	a lot	122	8.4%	39	6.3%	161	7.8%	
	a little	621	42.6%	271	44.1%	892	43.1%	
	not at all	669	45.9%	287	46.7%	956	46.1%	
	Total	1457	100.0%	615	100.0%	2072	100.0%	
To what extent do you feel incapacitated	all the time	27	1.9%	12	2.0%	39	1.9%	0.033
	a lot	89	6.1%	29	4.7%	118	5.7%	
	a little	427	29.5%	220	35.8%	647	31.4%	
	not at all	905	62.5%	354	57.6%	1259	61.0%	
	Total	1448	100.0%	615	100.0%	2063	100.0%	
To what extent do you feel humiliated	all the time	37	2.5%	13	2.1%	50	2.4%	.106
	a lot	74	5.1%	22	3.6%	96	4.6%	
	a little	360	24.7%	179	29.1%	539	26.0%	
	not at all	989	67.7%	401	65.2%	1390	67.0%	
	Total	1460	100.0%	615	100.0%	2075	100.0%	
To what extent do you feel lonely	all the time	47	3.2%	14	2.3%	61	2.9%	.094
	a lot	80	5.5%	22	3.6%	102	4.9%	
	a little	396	27.1%	156	25.4%	552	26.6%	
	not at all	937	64.2%	423	68.8%	1360	65.5%	
	Total	1460	100.0%	615	100.0%	2075	100.0%	
To what extent do you feel worried	all the time	51	3.5%	18	2.9%	69	3.3%	009
	a lot	170	11.6%	42	6.8%	212	10.2%	
	a little	687	47.0%	306	49.8%	993	47.8%	
	not at all	553	37.9%	249	40.5%	802	38.6%	
	Total	1461	100.0%	615	100.0%	2076	100.0%	
To what extent do you feel sad	all the time	41	2.8%	17	2.8%	58	2.8%	.612
	a lot	139	9.5%	50	8.1%	189	9.1%	
	a little	692	47.3%	283	46.0%	975	46.9%	
	not at all	591	40.4%	265	43.1%	856	41.2%	
	Total	1463	100.0%	615	100.0%	2078	100.0%	
To what extent do you feel angry	all the time	112	7.7%	25	4.1%	137	6.6%	<0.001
	a lot	213	14.6%	58	9.4%	271	13.0%	
	a little	635	43.4%	310	50.4%	945	45.5%	
	not at all	503	34.4%	222	36.1%	725	34.9%	
	Total	1463	100.0%	615	100.0%	2078	100.0%	
To what extent do you feel sick of life	all the time	127	8.7%	44	7.2%	171	8.3%	<0.001
	a lot	174	11.9%	50	8.1%	224	10.8%	
	a little	563	38.6%	297	48.4%	860	41.5%	
	not at all	593	40.7%	223	36.3%	816	39.4%	
	Total	1457	100.0%	614	100.0%	2071	100.0%	

Table 8: Severe Exposure to violence

Region		West Bank		Gaza Strip		Total		p-value
		N	%	N	%	N	%	
Has anyone from your family been arrested by the occupation forces?	Yes, more than one time	92	6.3%	20	3.3%	112	5.4%	<0.001
	Yes, one	267	18.3%	39	6.3%	306	14.8%	
	No	1100	75.4%	556	90.4%	1656	79.8%	
	Total	1459	100.0%	615	100.0%	2074	100.0%	
Has anyone from your family been hit or injured by the occupation forces or settlers?	Yes, more than one time	25	1.7%	24	3.9%	49	2.4%	<0.001
	Yes, one	107	7.3%	72	11.7%	179	8.6%	
	No	1327	91.0%	519	84.4%	1846	89.0%	
	Total	1459	100.0%	615	100.0%	2074	100.0%	
Has anyone from your family been martyred?	Yes, more than one time	16	1.1%	22	3.6%	38	1.8%	<0.001
	Yes, one	81	5.5%	58	9.4%	139	6.7%	
	No	1366	93.4%	535	87.0%	1901	91.5%	
	Total	1463	100.0%	615	100.0%	2078	100.0%	
Has your home been demolished or shelled by the occupation forces or settlers?	Yes, more than one time	2	0.1%	8	1.3%	10	0.5%	<0.001
	Yes, one	49	3.4%	43	7.0%	92	4.4%	
	No	1411	96.5%	564	91.7%	1975	95.1%	
	Total	1462	100.0%	615	100.0%	2077	100.0%	
Have you been detained for a long period at a checkpoint by the occupation forces or settlers?	More than four times	16	1.1%	0	0.0%	16	0.8%	<0.001
	Three or four times	19	1.3%	0	0.0%	19	0.9%	
	Once or twice	124	8.5%	11	1.8%	135	6.5%	
	No	1305	89.1%	604	98.2%	1909	91.8%	
	Total	1464	100.0%	615	100.0%	2079	100.0%	
Were you exposed to physical search by the occupation forces or settlers?	More than four times	24	1.6%	0	0.0%	24	1.2%	<0.001
	Three or four times	17	1.2%	0	0.0%	17	0.8%	
	Once or twice	140	9.6%	4	0.7%	144	6.9%	
	No	1283	87.6%	611	99.3%	1894	91.1%	
	Total	1464	100.0%	615	100.0%	2079	100.0%	
Were you exposed to any investigation by the occupation forces or settlers?	More than four times	5	0.3%	0	0.0%	5	0.2%	<0.001
	Three or four times	3	0.2%	0	0.0%	3	0.1%	
	Once or twice	46	3.1%	2	0.3%	48	2.3%	
	No	1410	96.3%	612	99.7%	2022	97.3%	
	Total	1464	100.0%	614	100.0%	2078	100.0%	
Were you exposed to tear gas	More than four times	80	5.5%	6	1.0%	86	4.1%	<0.001
	Three or four times	50	3.4%	11	1.8%	61	2.9%	
	Once or twice	235	16.1%	9	1.5%	244	11.7%	
	No	1099	75.1%	589	95.8%	1688	81.2%	
	Total	1464	100.0%	615	100.0%	2079	100.0%	
Were you exposed to voice bombs	More than four times	82	5.6%	72	11.7%	154	7.4%	<0.001
	Three or four times	49	3.3%	27	4.4%	76	3.7%	
	Once or twice	218	14.9%	31	5.0%	249	12.0%	
	No	1115	76.2%	485	78.9%	1600	77.0%	
	Total	1464	100.0%	615	100.0%	2079	100.0%	
Were you prevented from travelling?	More than four times	2	0.1%	1	0.2%	3	0.1%	.798
	Three or four times	3	0.2%	1	0.2%	4	0.2%	
	Once or twice	28	1.9%	8	1.3%	36	1.7%	
	No	1431	97.7%	605	98.4%	2036	97.9%	
	Total	1464	100.0%	615	100.0%	2079	100.0%	
Have any one from your family was prevented to travel?	More than four times	8	0.5%	3	0.5%	11	0.5%	0.001
	Three or four times	5	0.3%	7	1.1%	12	0.6%	
	Once or twice	75	5.1%	56	9.1%	131	6.3%	
	No	1376	94.0%	549	89.3%	1925	92.6%	
	Total	1464	100.0%	615	100.0%	2079	100.0%	

Table 9: Humiliation Scale

Region		West Bank		Gaza Strip		Total		p-value
		N	%	N	%	N	%	
Have you been humiliated by your father?	More than four times	61	4.4%	44	7.6%	105	5.3%	<0.001
	Three or four times	53	3.8%	41	7.1%	94	4.8%	
	Once or twice	238	17.1%	124	21.4%	362	18.4%	
	No	1038	74.7%	370	63.9%	1408	71.5%	
	Total	1390	100.0%	579	100.0%	1969	100.0%	
Have you been humiliated by your mother?	More than four times	60	4.2%	36	6.0%	96	4.7%	<0.001
	Three or four times	34	2.4%	27	4.5%	61	3.0%	
	Once or twice	188	13.0%	123	20.4%	311	15.2%	
	No	1163	80.5%	418	69.2%	1581	77.2%	
	Total	1445	100.0%	604	100.0%	2049	100.0%	
Have you been humiliated by your brothers and sisters?	More than four times	74	5.1%	25	4.1%	99	4.8%	0.145
	Three or four times	45	3.1%	30	4.9%	75	3.6%	
	Once or twice	219	15.1%	100	16.4%	319	15.5%	
	No	1109	76.6%	456	74.6%	1565	76.0%	
	Total	1447	100.0%	611	100.0%	2058	100.0%	
Have you been humiliated by any one of your relatives?	More than four times	39	2.7%	11	1.8%	50	2.4%	0.649
	Three or four times	22	1.5%	8	1.3%	30	1.4%	
	Once or twice	104	7.1%	42	6.8%	146	7.0%	
	No	1298	88.7%	554	90.1%	1852	89.1%	
	Total	1463	100.0%	615	100.0%	2078	100.0%	
Have you been humiliated by a friend?	More than four times	14	1.0%	10	1.6%	24	1.2%	0.100
	Three or four times	20	1.4%	15	2.4%	35	1.7%	
	Once or twice	183	12.5%	64	10.4%	247	11.9%	
	No	1247	85.2%	526	85.5%	1773	85.3%	
	Total	1464	100.0%	615	100.0%	2079	100.0%	
Have you been humiliated by other boys/ girls in school?	More than four times	18	1.3%	10	1.8%	28	1.5%	0.295
	Three or four times	26	1.9%	13	2.4%	39	2.0%	
	Once or twice	169	12.3%	81	14.8%	250	13.0%	
	No	1161	84.5%	442	81.0%	1603	83.5%	
	Total	1374	100.0%	546	100.0%	1920	100.0%	
Have you been humiliated by other boys/ girls out of school and out of the house?	More than four times	17	1.2%	13	2.1%	30	1.4%	0.143
	Three or four times	14	1.0%	10	1.6%	24	1.2%	
	Once or twice	138	9.4%	49	8.0%	187	9.0%	
	No	1295	88.5%	543	88.3%	1838	88.4%	
	Total	1464	100.0%	615	100.0%	2079	100.0%	
Have you been humiliated by the occupation forces?	More than four times	14	1.0%	0	0.0%	14	0.7%	<0.001
	Three or four times	12	0.8%	0	0.0%	12	0.6%	
	Once or twice	90	6.1%	7	1.1%	97	4.7%	
	No	1348	92.1%	608	98.9%	1956	94.1%	
	Total	1464	100.0%	615	100.0%	2079	100.0%	

Appendix 3: Initial Exploratory Factor Analysis Structure (9 Factors, Varimax Rotation)

	Factors							
	1	2	3	4	5	6	7	8
	Distress	Human Insecurity	Positive Family Relations	WHO Well Being Index	Humiliation Scale	Positive School Relations	Aggressive Behavior	Positive neighborhood Relations
A01_A Your father understands you			.642					
A01_B Your mother understands you			.623					
A01_C Your parents treat you in the same way as your brothers and sisters			.558					
A01_D Your parents listen to you			.648					
A01_E Your parents help you to solve difficult problems			.619					
A03_A In your school students participate in forming rules						.564		
A03_B Rules in your school are fair						.486		
A03_C Students in your school choose their partners in teamwork						.570		
A03_D Students have their say on how to spend time in the classroom						.662		
A03_E Students have their say on deciding what activities to do						.633		
A03_F Your school is a nice place to be at						.567		
A03_G You feel related to this school						.543		
A03_H You feel safe at school						.475		
A03_I Most of the students in your class are kind and love to help						.457		
A04_A You like your neighborhood								.812
A04_B You feel safe in your neighborhood								.785
A04_C You feel satisfied in your relations with people in your neighborhood								.797
a05_A_r You were aggressive (pushed, beat, shoved) someone during last week							.645	
a05_B_r You said bad words (cursed, insulted) during last week							.628	
a05_C_r You were nervous during last week							.759	
a05_D_r You got angry quickly during last week							.739	
A06_A You felt cheerful and in good spirits during last week				.688				
A06_B You felt active and vigorous during last week				.730				
A06_C You woke up feeling fresh and relaxed during last week				.716				
A06_D Your daily life has been filled with interesting things during the last week				.730				
A06_E You felt calm and relaxed during the last week				.735				
A07_A_r To what extent do you feel afraid for yourself in yourself in your daily life		.544						

	Factors							
	1	2	3	4	5	6	7	8
	Distress	Human Insecurity	Positive Family Relations	WHO Well Being Index	Humiliation Scale	Positive School Relations	Aggressive Behavior	Positive neighborhood Relations
A07_B_r To what extent do you fear for your family in your family in your daily life		.615						
A07_C_r To what extent do you feel worried/afraid of not being able to provide essential needs for your family		.640						
A07_D_r To what extent do you feel worried/afraid of losing your family income		.688						
A07_E_r To what extent do you feel worried/afraid of losing your home		.529						
A07_F_r To what extent do you feel worried/afraid of displacement or uprooting		.508						
A07_G_r To what extent do you feel worried/afraid of your future and the future of your family		.685						
A07_H_r To what extent do you fear about your safety		.716						
A07_I_r To what extent do you fear about the safety of your family		.736						
A07_J_r To what extent does your family fear about your safety		.578						
A08_A_r To what extent do you feel "HAM"	.713							
A08_B_r To what extent do you feel frustrated	.756							
A08_C_r To what extent do you feel incapacitated	.706							
A08_D_r To what extent do you feel humiliated	.587							
A08_E_r To what extent do you feel lonely	.618							
A08_F_r To what extent do you feel worried	.706							
A08_G_r To what extent do you feel sad	.782							
A08_H_r To what extent do you feel angry	.610							
A08_I_r To what extent do you feel sick of life	.574							
a20_r Have you been humiliated by your father?					.588			
a21_r Have you been humiliated by your mother?					.585			
a22_r Have you been humiliated by your brothers and sisters?					.607			
a23_r Have you been humiliated by any one of your relatives?					.562			
a24_r Have you been humiliated by a friend?					.594			
a25_r Have you been humiliated by other boys/ girls in school?					.644			
a26_r Have you been humiliated by other boys/ girls out of school and out of the house?					.587			