

# The mental health and psychosocial problems of survivors of torture and genocide in Kurdistan, Northern Iraq: A brief qualitative study

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## Abstract

**Background:** From 1986-9, the Kurdish population of Iraqi Kurdistan was subjected to an intense campaign of military action, and genocide by the central Iraq government. This campaign, referred to as the Anfal, included systematic attacks consisting of aerial bombings, mass deportation, imprisonment, torture, and chemical warfare. It has been estimated that around 200,000 Kurdish people disappeared.

**Purpose:** To gain a better understanding of current priority mental health and psychosocial problems among Kurdish survivors of the Anfal, and to inform the subsequent design of culturally appropriate and relevant assessment instruments and services to address these problems. The study examined 1) the nature and cause of current problems of survivors of torture and/or civilian attacks and their families, 2) what survivors do to address these problems, and 3) what they felt should be done.

**Methods:** We used a grounded theory approach. Free list interviews with a convenience sample (n=42) explored the current problems of Kurdish persons affected by torture. Subsequent key in-

formant interviews (n=21) gathered more detailed information on the priority mental health problem areas identified in the free list interviews.

**Results:** Major mental health problem areas emerging from the free list interviews (and explored in the key informant interviews) included 1) problems directly related to the torture, 2) problems related to the current situation, and 3) problems related to the perception and treatment by others in the community. Problems were similar, but not identical, to Western concepts of depression, anxiety, PTSD and related trauma, and traumatic grief.

**Conclusion:** Iraqi Kurdish torture survivors in Iraq have many mental health and psychosocial problems found among torture survivors elsewhere. The findings suggest that the problems are a result of the trauma experienced as well as current stressors. Development of mental health assessment tools and interventions should therefore address both previous trauma and current stressors.

*Key words:* torture, psychology, mental health, Iraq, qualitative research

## Introduction

The Kurdish population of Iraqi Kurdistan has been persecuted by successive Iraqi governments since World War II. Persecution intensified when the Ba'ath Party took power in 1968 and again in 1979 when Saddam Hussein became president.<sup>1</sup> Imprisonment and torture were common, particularly of

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relatives and friends of Kurdish fighters (Peshmarga). Persons were detained and tortured for infractions like having a beard, reading forbidden books, complaining of lack of governmental services, etc. During the Iran-Iraq war (1980 – 1988) family members and other civilians were even forced to observe public executions of those resisting military service, with family members forced to pay for the bullets.<sup>2</sup>

From 1986-9 the Kurdish population was subjected to the 'Anfal', an intensive campaign of military action, torture, and genocide by the Iraq central government. The Anfal included systematic attacks including ground offensives, aerial bombing, systematic destruction of settlements, mass deportation, imprisonment, torture, firing squads, and chemical warfare. Government forces emptied large parts of rural Kurdistan, prohibited the movement of food, people and supplies into those areas, and killed persons and even animals found in those areas.<sup>2</sup> It's estimated that during the 'Anfal' about 200,000 Kurdish people disappeared. More than 4,000 villages were destroyed including all public places such as schools, mosques, churches and historical places. Of the seven million livestock present in Kurdistan at the beginning of the Anfal, only 50,000 remained after this attack.<sup>3</sup> In one famous incident in 1988, 5,000 people in the city of Halabja died in a single day from a chemical weapons attack which came to epitomize the Anfal's ferocity.

There is little published research on the psychological effects of the widespread torture during the Anfal. Dworkin and colleagues<sup>4</sup> examined the long term mental health effects among Kurdish survivors. They found that female gender, age, and multiple traumas were positively associated with higher post-traumatic stress scores and negatively correlated with social function-

ing.<sup>4</sup> Through a validation study of the Reporting Questionnaire for Children, Ahmad and colleagues<sup>5</sup> found that a randomly selected sample of Kurdish children had more mental health problems compared to children in other societies. Other psychological studies have referred to refugees outside Iraq with samples mainly consisting of non-Kurdish Iraqis.<sup>6,7</sup> Research on adult Iraqi torture refugees has indicated an increased risk for multiple traumas<sup>6</sup> compared to non-torture refugees,<sup>8</sup> as well as an increased risk for anxiety, depression and PTSD.<sup>7</sup> At the same time, however, refugee Iraqi torture survivors were more likely to display resilience, sociocultural adjustment and symptoms of posttraumatic growth compared to non-torture survivors.<sup>8</sup> In our literature research, which was limited to papers in English, we could not find a single published qualitative study of the mental health and psychosocial problems among Kurdish torture survivors who were still living in Iraq.

### **Purpose**

The aim of this qualitative study was to identify the priority of current mental health needs and psychosocial problems among Kurdish survivors of the Anfal. Our focus was on survivors of torture but also included survivors of the chemical attack on Halabja. The study also examined the nature and causes of the most salient current problems of those who survived the torture and/or civilian attacks and their families, what they do to address these problems and what they feel should be done.

When this study was conducted, mental health services in urban areas were limited to inpatient and outpatient services conducted by psychiatrists. Rural primary health centers across Kurdistan had trained nurses and equivalents who provided general psychoso-

cial support. However, in both urban and rural areas treatment seeking was scarce because of the stigma related to mental health problems. The study's purpose, therefore, was to inform about the subsequent adaptation of specific interventions that could be provided in these settings and likely to be acceptable to local survivors.

Using local qualitative data to inform that intervention selection and adaptation improves the likelihood that selected services are locally appropriate, feasible, and reflect the priorities of the survivors themselves. Using qualitative data to inform that instrument selection and adaptation is intended to address some of the challenges of using Western-based assessment tools. This includes choosing existing instruments and adapting them to match local concepts as much as possible and using language from the qualitative descriptions while translating the instrument. More detailed descriptions of the collection<sup>9</sup> and use of qualitative data in these ways<sup>10</sup> are provided elsewhere.

## Methods

### *Study Sites*

Data collection took place over a two week period in the Spring of 2008 in the cities and immediate surrounds of Suleimaniyah, Halabja, Kalar, Kfri, Rizgari and Rania, in the Suleimaniyah Governate (equivalent to a province). Many participants in Halabja were survivors of the chemical attack and most of them had also been tortured. All remaining participants were torture survivors, those from Suleimaniyah were former Peshmarga while those from the other sites were civilians. All interviewees were members of the Kurdistan Prisoners Association which has 3,675 members in Suleimaniyah Governate alone. In addition to their own experiences, most interviewees reported having lost close relatives and/or friends due

to torture, imprisonment, and murder by the Saddam Hussein government.

### *Data Collection*

We used a grounded theory approach to data collection and analysis. Grounded theory refers to the use of data for discovery and development of hypotheses and models, rather than their confirmation.<sup>11</sup> In practice, this means the use of qualitative data collection methods based on broadly stated open ended questions. Twelve trained local interviewers supported by three similarly trained local supervisors conducted interviews using two such qualitative methods: free list interviews and key informant interviews. None of the persons who were trained as mental health workers were key informants. Instead, many of the mental health workers acted as interviewers. The supervisors' role was to assist with logistic issues, help arrange the interviews, and review written notes to assure they were complete and understandable.

Interviews done by interviewers in pairs, with one person conducting the interview and the other acting as recorder. All interviews were conducted in the local Kurdish Sorani dialect and verbatim recorded.

### *Free List Interviews*

The study began with 42 free listing interviews. Free list interviews begin with an open ended question that invites responses in the form of a list.<sup>12</sup> Each response is recorded in the left column of a two column sheet. For each response, the interviewee is asked for a short description and this is recorded in the corresponding row on the right column. The intent of this format is to provide an overview of the topic being discussed. For this study the free list question was: 'what are the problems of torture survivors and their families?' The interviews were conducted

with a convenience sample of individuals chosen because of their knowledge about the problems of torture survivors and their families. Interviewees were identified through social networks or formal organizations of survivors and were themselves torture survivors. Some were identified through community mental health workers.

Consistent with grounded theory, interviewees were asked to list all current problems of persons affected by torture (both survivors and family members), rather than specific categories of problems selected a priori. At the end of the free list interview, the interviewers reviewed the list of problems with the interviewee for potential mental health and psychosocial problems (defined as problems referring to thinking, feelings, or relationships). For each of these problems the interviewee was asked to suggest local residents to whom people would go when they have the identified problem.

#### *Key Informant Interviews*

Key informants were local residents recommended as being particularly knowledgeable regarding mental health and psychosocial problems of torture survivors who agreed to participate. Key informants were identified and selected through: a) organizations that represent torture survivors; b) referrals by the free list interviewees; and c) free list interviewees whom interviewers felt were particularly knowledgeable. Professional health care providers (including social workers and counselors) were excluded because of concerns that their responses would be framed in terms of their training rather than the community perspective.

The same pairs of interviewers conducted the key informant interviews. Interviews consisted of naming each of the mental health and psychosocial problems selected from the free lists (see Analysis) and asking

the key informant to tell all they knew about it. Interviewers probed to gather as much information as possible about symptoms/signs and effects of the problem, causes of the problem, and what people did and felt could or should have been done. All key informants were interviewed at least twice unless they refused or it was clear at the first interview that they were not very knowledgeable. Repeated interviews enabled the interviewers to gain additional information not provided in the first interview, either because the key informant had not thought of it then or because the key informant had developed more trust in the interviewers, was more relaxed, and therefore more willing to share information.

As in previous studies<sup>13</sup> both the free list and key informant interviewees were instructed to respond based on their knowledge and interactions with other torture survivors and not to talk about themselves only. This was done to prioritize reporting of widely held knowledge and beliefs rather than personal opinions, to maintain privacy, and to encourage reporting of things that are sensitive, stigmatizing, or illegal. Where interviewees did talk about themselves, interviewers asked if what was reported was relevant only to them or if they felt or knew that it was shared by others. If the former was true, the statements were not recorded as referring to other individuals and not the interviewee.

The study was approved by the Institutional Review Board at Johns Hopkins University (JHU) School of Public Health.

#### **Analysis**

Analysis of both free list and key informant interviews were conducted in the local Kurdish Sorani dialect by the local interviewers, supervisors, and a JHU faculty with a translator. Each free list interviewee was

assigned a simple numeric code. The free list analysis began by transferring all of the problems on all the free list interview records into a single list of all problems. Attached to each problem were the code numbers of all the interviewees who mentioned it. At this stage, two or more interviewees were recorded as having mentioned the same problem if they referred to it using the same language. The resulting list was then reviewed to identify problems that were similar in meaning but had different wording. Where this occurred, the most clearly worded version (based on a consensus among the local interviewers and supervisors) was retained to represent all the versions. The interviewee code numbers for the deleted response were then added to those of the retained version so that all the interviewees who reported the problem were accounted for.

From the resulting composite list a subset of potential mental health and psychosocial problems were selected for further investigation. Selection was done by a group that included the interviewers and supervisors, the NGO partner (Heartland Alliance), and JHU faculty. Selection prioritized problems reported by many interviewees appeared to be severe (based on the descriptions) and could likely be addressed by interventions that were feasible given available resources. On this basis, four problems were selected for further investigation by means of key informant interviews.

For the key informant analysis the interviewers were divided into one team for each selected problem. Each team drew up four blank tables under the subheadings of the probes used in the interviews: symptoms/signs and effects of the problem, causes of the problem, and what people did and felt could or should be done about the problem. Each team reviewed all the key informant

interviews and recorded in the relevant table all statements that referred to their problem along with the codes of the interviewees. As in the free list analysis, if responses had the same meaning but different wording, the wording thought by the team to be the clearest was retained and the interviewee's code numbers for the wording not used were transferred to that of the retained response.

## Results

### *Free Lists*

Forty-two persons were interviewed for the free lists. Interviewees were between the ages of 35 and 60 and more than two thirds were male, reflecting the makeup of the organizations that assisted us in finding many of the interviewees.

Appendix Table A is an abbreviated version of the composite free list produced in the analysis, beginning with the most frequently mentioned problems and continuing in descending order, excluding problems identified by less than three interviewees. Although the free list interviewers did not ask for psychological problems only, most responses were psychological and or psychosocial issues. The team reviewing the data felt that the problems reflected three major psychosocial themes: problems directly related to the torture and other violence during the Anfal (waiting for the ideal to return, remembering the past and the mental effects of these memories, forgetfulness, bad dreams, rage), problems related to survivors' current situation (regret over supporting the Peshmarga, distress about their current situation, family and economic problems, and substance abuse), and problems related to the perceptions and treatment by others in the community (feeling abandoned, feeling inferior, discrimination and isolation, breakdown in social relationships, social injustice). Instead of selecting individual

problems for further exploration in the key informant interviews, the team decided to ask about these three themes. This was done to gain a broader view of survivor mental health issues encompassing the effects of both past events and the current situation.

#### *Key Informant Interviews*

Twenty-one key informants were interviewed, all between the ages of 35 and 60. The majority of the sample was men. Each informant was asked about the three major problem categories derived from the free list interviews: problems directly due to the torture and related violence, problems due to the current situation, and problems related to how survivors are perceived and treated by the community. Appendix Tables B to E summarize the results of the analyses. All responses are listed according to the number of key informants who mentioned it (in decreasing order).

Appendix Table B summarizes the problems of torture survivors reported by key informants in responses to questions about all three categories of problems. Prominent items include: a) depressed mood and anhedonia b) ruminating on the past, c) intrusive memories of past traumatic events and avoidance of them, d) loneliness and isolation, e) sleep problems, f) general anxiety symptoms, g) perceptions of being mentally ill h) yearning for the deceased, and i) irritability. Both free list and key informants frequently mentioned that torture survivors felt 'looked down upon' and badly treated by others. Waiting for those who were killed to return was frequently mentioned, particularly by interviewees whose male family members had been taken away and whose fates were unknown. Some of these interviewees reported continuing to buy clothes for them, waiting in front of their houses in the evening in hope they appear,

and other similar behaviors. Most survivors, both free list interviewees and key informants, expressed regret over their past sacrifices for the current government, especially given their current situation and current perceived lack of government support.

Key informants were also asked to describe the problems of persons close to the torture survivors, mostly family. Their responses are summarized in Appendix Table C. Many problems are similar to those for the torture survivors and include ruminating about their situation, symptoms of depression, anger, lack of understanding of the survivor, and relationship problems within and outside the family.

Key informants were asked to describe the causes of the various problems they described (See Appendix Table D). In addition to the torture experience many of the problems are blamed on survivors' current situation, especially poverty, lack of compensation, inability to provide for their families, and how survivors are perceived and treated by others. These perceptions appear to contribute to marginalization, distress and depressed mood. Many problems are interconnected: mental problems are described as both causes and results of marginalization. Insomnia and depression are listed as both a result of traumatic events and as a cause of other problems.

Key informants were asked how survivors of torture and their families cope with their problems (See Appendix Table E). Unhealthy coping mechanisms were frequently mentioned, such as suicide, alcohol use, and withdrawal. Common healthy coping mechanisms included visiting those impacted by torture, and providing them with work, housing, clinical treatment, and other resources.

## Discussion

The aim of this study was to identify and understand the priority current mental health needs and psychosocial problems of Kurdish survivors of the Anfal and their families. Our focus was on survivors of torture; however survivors of the chemical attack on Halabja were also included. The study also examined the nature and causes of the most salient current problems of those who survived the torture and/or civilian attacks and their families, what they do to address these problems and what they feel should be done. Our purpose was to provide information useful for the subsequent design of culturally appropriate assessment instruments and services to address these problems. At the time of the study existing mental health services were limited to psychiatrists working in inpatient and outpatient centers concentrated in urban centers. There were no other mental health professional services. Our NGO partner had previously trained nurses and equivalents working in rural primary health care centers across Kurdistan in non-specific psychosocial support methods. These workers received referrals from other clinic staff but reported that treatment seeking was limited, due to the stigma attached to mental disorders. This study was the first part of a series of activities to identify and adapt specific interventions that could be provided by these workers and likely to be acceptable to local survivors.

We were also interested in how the findings compared with other studies of Kurdish and non-Kurdish torture survivors, and about the relative importance of the torture experience versus current stresses in determining the major mental health problems. However, we found few similar studies of torture survivors. While some qualitative studies have examined local idioms of distress among Iraqi refugees, most

of the participants were Arab Iraqis from outside Kurdistan and included few Kurds.<sup>14,15</sup> In these studies the most commonly discussed idioms of distress referred to problems of daily living, feelings of insecurity due to disrupted relationships, and uncertainty about one's future. These concerns were different from the three categories of issues that we found among the Kurdish survivors and may reflect the dominance of refugee concerns related to displacement. The idioms described in these studies are also different: respondents in these studies described constant feelings of the "heart being squeezed," which results in sadness, anxiety, irritability, nervousness, and feelings of wanting to be left alone. Others described "constriction in the chest" and "feeling as if being choked." A study that examined Kurdish, Turkish and Assyrian women also found an emphasis on the somatization as symptoms of distress.<sup>15</sup> These idioms did not emerge in our study. This may be because the population was different and/or their experiences were different. However, it may also be our emphasis on the nature of problems rather than their expression, since we recorded few idioms.

In this study, data collection and analysis used a grounded theory approach. However, on reviewing the data we found many of the symptoms of PTSD, depression, anxiety, and traumatic grief<sup>16</sup> similar to mental health outcomes found among other torture survivors outside Kurdistan and Iraq.<sup>17,18</sup> The major psychosocial problems described by our sample have also been found elsewhere: a qualitative study of South-African torture survivors found similar problems of frustration with their current political context, economic concerns, and feelings of isolation.<sup>17</sup>

While symptoms of PTSD, depression,

anxiety, and traumatic grief occurred among our study population, whether they exist as different syndromes, or as part of a single general response (to trauma or to trauma and current stress), cannot be determined. The problem descriptions and the data on causes suggest that past traumatic events are perceived as the main causes of PTSD and traumatic grief whereas depression and anxiety are both the indirect results of past events and responses to the current situation. This is similar to the findings of Schweitzer and colleagues that both pre-migration trauma and post-migration living difficulties predicted trauma symptoms among Burmese refugees but only post-migration living conditions predicted anxiety and depression.<sup>18</sup> Miller and colleagues found that current daily stressors were better predictors of anxiety, depression, and general distress among Afghan women, whereas previous war experiences were better predictors of PTSD.<sup>19</sup> Among Afghani men, daily stressors predicted depression better than previous war experiences.<sup>19</sup>

A better conceptual framework than the DSM for describing the psychosocial effects of torture might be that offered by Silove,<sup>20</sup> which holds that torture survivors may face a number of traumatic events and subsequent stressors both during and after the torture experience. These continuing stressful events may disrupt five adaptive systems: safety, attachment, justice, existential meaning, and identity.<sup>20</sup> Disruption in safety might be the cause of the interviewees' symptoms of PTSD such as intrusive memories, sleep disturbance, and fear of the trauma occurring again while the disruption of attachment may explain interviewees' descriptions of being unable to accept the loss of loved ones and waiting for them to return. Disruption of a sense of justice might cause the frequent mention of anger and rage at being treated

differently and regretting the services they provided for Peshmerga (Kurdish fighters). The loss of existential meaning might cause the sense of alienation in society. Finally, loss or disruption of identity may have produced survivors' sense of isolation and marginalization in society. Overall, this may be a better explanatory model of the effects of trauma among populations exposed to multiple traumas and stresses.

Our data also suggest overlap between the problems of torture survivors and their families: thinking too much about their situation, symptoms of depression, anger, lack of understanding of the survivor, and relationship problems. These similarities may reflect common challenges such as poverty, discrimination and difficult relationships within the family, as well as vicarious traumatization of family members. It is also possible that the interviewees, who were all survivors, were projecting their problems onto family members. However, there were some differences. Torture survivors emphasized survivors' resentment towards the wider society due to discrimination and sacrifices made for the government as well as unfair treatment from others while problems reported among family members focused more on the impact on family relationships, with more frequent mention of family separation, divorce, and lack of awareness of other family members as to the degree of distress survivors were experiencing. This may reflect reality or it may instead reflect the priorities of the survivors when they think about the impacts on their families.

### Limitations

This study interviewed torture survivors about the problems of torture survivors and their families. The data was collected from the Suleimaniyah governate only and included some residents from Halabjah who

had experienced chemical weapons attacks. Therefore, while the culture and experience of persons in other parts of Kurdish Iraq is likely similar, it remains uncertain how well the findings apply to other Kurdish regions.

The analysis relied on counts of the number of informants who gave each response. We regarded this as an indicator of the relative importance or salience of each item. However, the open-ended interviewing method, the limited number of interviews (both total numbers and with each interviewee) and our use of convenience and purposive sampling methods greatly limit how much importance can be given to these counts. Cognizant of this, we divided items into those that were mentioned by many people (and therefore of interest) and those mentioned by few. We did not interpret frequencies beyond this simple designation. Results referring to family members were not derived from family members of survivors who had not themselves experienced trauma. Therefore, information on the effects on families represents the survivors' perspective and not those of the members themselves. The approach we used was brief and more limited than other qualitative studies. We did not explore in detail all the mental health problems of survivors but only the more commonly mentioned problems that appeared important and potentially amenable to locally feasible interventions. Our approach purposely avoided asking informants about themselves, but instead framed them as 'spokespersons' for others like themselves. We did this to expand the reach of responses, to focus on the more salient issues, and to make it more likely that respondents would not shy from shameful or stigmatizing responses. Adding personal information at the interview would likely have resulted in informative counter narratives and therefore richer data. However,

obtaining this level of detail was not the purpose of the study, which was to determine the priority and common views of local torture survivors in order to make a choice about which problems to address in an intervention, given that not all problems can be addressed. Information about how some personal views might differ from the common view would be of interest but not relevant to answering this question.

Based on our findings we conclude that torture survivors in Kurdistan have many of the mental health and psychosocial problems found among survivors elsewhere. These include not only symptoms consistent with PTSD, anxiety, and depression, but also traumatic grief and psychosocial issues related to current circumstances including their perceived treatment by society. As a result of this study the study team subsequently adapted assessment instruments for this population that included the Harvard Trauma Questionnaire and the Hopkins Symptom Checklist for Anxiety and Depression, as well as developing instruments to assess traumatic grief and the psychosocial problems described by the survivors. The implications of these findings do not only relate to developing assessment instruments. Similarities between the problems described by Kurdish torture survivors and survivors of torture and severe trauma elsewhere suggest that interventions found to be effective in other populations may also be effective in Kurdistan. These include Prolonged Exposure for trauma symptoms and Cognitive Behavioral Therapy (CBT) for trauma and depression-anxiety. Versions of CBT with elements of exposure therapy are currently being implemented and tested among this population.

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#### References

1. Human Rights Watch. Genocide in Iraq: The Anfal campaign against the Kurds. New York: Human Rights Watch; 1993.
2. Iraqi Kurdistan's Ministry of Culture. Al Anfal Operations and its effects on young people (Report number 834); 2009.
3. Dzail U. Anfal: Disaster: It's results and dimensions. Erbil first version; 2001.
4. Dworkin J, Prescott M, Jamal R, Hardawan SA, Abdullah A, Galea S. The long-term psychosocial impact of a surprise chemical weapons attack on civilians in Halabja, Iraqi Kurdistan. *J Nerv Ment Dis.* 2008; 196:772-775.
5. Ahmad A, Abdul-Majeed AM, Siddiq AA, Jabar F, Qahar J, Rasheed J. Reporting Questionnaire for Children as a Screening Instrument for Child Mental Health Problems in Iraqi Kurdistan. *Transcult Psychiatry.* 2007; 44(1):5-26.
6. Kira IA, Templin T, Lewandowski L, Clifford D, Wiencsek P, Adnan H, et al. The effects of torture: Two community studies. *Peace Confl.* 2006; 12(3):205-228.
7. Schwarz-Nielsen KH, Elklit A. An evaluation of the mental status of rejected asylum seekers in two Danish asylum centers. *Torture.* 2009; 19(1):51-59.
8. Al-Obaidi AK, Scarth L, Dwivedi KN. Mental disorder in children attending a child psychiatric clinic at the general paediatric hospital in Baghdad. *International Journal of Mental Health Promotion.* 2010; 12(3):25-31.
9. Bolton P. Local perceptions of the mental health effects of the Rwandan genocide. *J Nerv Ment Dis.* 2001; 189(4):243-248.
10. Bolton P. Cross-cultural validity and reliability testing of a standard psychiatric assessment instrument without a gold standard. *J Nerv Ment Dis.* 2001; 189(4):238-242.
11. Strauss A, Corbin J. Basics of Qualitative Research. Grounded Theory Procedures and Techniques. Newbury Park, CA: Sage; 1990.
12. Bernard HR. Research Methods in Cultural Anthropology. Newbury Park, CA: Sage; 1988; 227-229.
13. Wilk C, Bolton P. Local perceptions of the mental health effects of the Uganda acquired immunodeficiency syndrome epidemic. *J Nerv Ment Dis.* 2002; 190(6):394-397.
14. Shoeb M, Weinstein H, Mollica R. The Harvard Trauma Questionnaire: Adapting a cross-cultural instrument for measuring torture, trauma and Post Traumatic Stress Disorder in Iraqi refugees. *Int J Soc Psychiatry.* 2007; 53:447-463.
15. Baarnhielm S. Restructuring illness meaning through the clinical encounter: A process of disruption and coherence. *Cult Med Psychiatry.* 2004; 28:41-65.
16. American Psychiatric Association. Diagnostic and statistical manual of mental disorders (4th ed.). Washington, DC: American Psychiatric Association; 1994.
17. Kagee A. Do South African former detainees experience post-traumatic stress? Circumventing the demand characteristics of psychological assessment. *Transcult Psychiatry.* 2004; 41:323-336.
18. Schweitzer RD, Brough M, Vromans L, Asic-Kobe M. Mental health of newly arrived Burmese refugees in Australia: Contributions of pre-migration and post-migration experience. *Aust N Z J Psychiatry.* 2011; 45:299-307.
19. Miller KE, Omidian P, Rasmussen A, Yaqubi A, Daudzi H. Daily stressors, war experiences, and mental health in Afghanistan. *Transcult Psychiatry.* 2008; 45:611-638.
20. Silove D. The psychosocial effects of torture, mass human rights violations, and refugee trauma. *J Nerv Ment Dis.* 1999; 187(4):200-207.

## Appendix

**Table A:** *Problems of torture survivors and their families (n=42 free list interviews/interviewees)*

| <b>Response</b>  | <b># of Interviewees</b> |
|--|--------------------------|
| Mentally, every one of us think about why we have become like that (handicapped and mental problems), why our life was taken, and why we could not live as a normal person. This makes us feel sad, depressed, impatient, angry, and introverted all the time. | 20                       |
| Social injustice, feeling that there is social unfairness. Feeling discrimination, we are not treated equally.   | 16                       |
| Family problems (divorce), economic and housing problems. Many are political detainees who have been tortured. Drinking alcohol has become the cause of divorce and suicide.   | 10                       |
| Thinking and waiting; they are thinking that their relatives or their bones might come back. They have been buying clothes for their children (in the hope that they will return).   | 7                        |
| Class problem, community is divided into two classes: the rich and the poor.   | 7                        |
| (Men) violate women freedom; women are not allowed to go to her father's home without her husband's permission.  | 6                        |
| We have the problem of fear from the community, means we are afraid to say we were political detainees because people look down at us and (for women) immediately ask have you been raped?   | 6                        |
| We are not happy, we see the films of prison are in front of our eyes every time, and we are so sensitive because we have not been cared for. We only remember the problems and they have mental effect on us until now.                                       | 6                        |
| They (survivors) are not respected as they should be. They have an inferiority complex.  | 5                        |

**Table B:** *Problems of torture survivors related to past events, current situation, and how they are treated by others (n=21 key informants)*

| <b>Response</b>  | <b># of Interviewees</b> |
|--|--------------------------|
| Thinking about the past  | 20                       |
| Depression   | 18                       |
| Insomnia   | 17                       |
| Misery   | 15                       |
| Loneliness   | 14                       |
| They wish for death  | 13                       |
| They get mental illnesses  | 13                       |
| Nightmares   | 12                       |
| They (tortured people) are different from other people; there is nobody to take care of them or work for the family. | 12                       |

|  |    |
|--|----|
| They cannot forget the past easily   | 11 |
| They are treated down (badly)  | 11 |
| They are irritated   | 11 |
| Exhaustion; they lived together (before the disaster) but they are separated now | 11 |
| Nobody listens to us   | 10 |
| Isolation  | 9  |
| Horror and fear; they feel that they will face the disaster again                | 9  |
| Suicide  | 9  |
| Crying   | 8  |
| They are introverted   | 8  |
| They are waiting; waiting for their relatives (who were killed) to come back     | 8  |
| Social relationships are abnormal  | 8  |
| Annoyance  | 8  |
| Poverty  | 8  |
| They don't want to be seen by anybody  | 6  |
| They are not interested in feasts or celebrations (they remind them of the past) | 6  |
| Anxiety  | 6  |
| We are regretful for what we had done (the service we provided for peshmarga)    | 6  |
| Joblessness  | 6  |
| They are alive physically but their soul is dead, they wear black until now      | 5  |
| Dreaming (about the events)  | 5  |
| They have not been compensated   | 5  |

**Table C:** *Problems of persons close to torture survivors (mostly family) (n=21 key informant interviews)*

| <b>Response</b>  | <b># of Interviewees</b> |
|--|--------------------------|
| They are thinking a lot of this bad situation                              | 13                       |
| They are not provided with needs of life                                   | 10                       |
| People are depressed   | 9                        |
| People have got insomnia   | 9                        |
| People are angry   | 8                        |
| People are hopeless  | 8                        |
| There is no awareness (they are not well-educated) among people and family | 8                        |
| People think about suicide   | 5                        |
| Women are isolated from the community                                      | 5                        |

**Table D:** *Causes of some of the problems of torture survivors and their families (n= 21 key informants)*

| <b>Causes of the problems</b>  | <b># of interviewees</b> |
|--|--------------------------|
| <i>Causes of feeling isolated/marginalized</i>   |                          |
| Due to unfairness and the carelessness of people we have been subjected to torture, isolation, annoyance, divorce, and sadness.                              | 14                       |
| Because we are treated poorly we feel annoyed, isolated, and cannot get married.   | 10                       |
| Due to the lack of changes in our life, annoyance, physical pain and handicap, we think about suicide, we wish we were dead and we feel inferiority complex. | 9                        |
| Because we cannot provide our children's requirements we have been faced with isolation and impatience and we feel instability.                              | 7                        |
| <i>Cause of family problems</i>  |                          |
| Income shortage becomes the cause of divorce, tiredness, inferiority, jealousy.  | 4                        |
| We feel affection gap due to loss of our relatives and thinking about the past.  | 3                        |
| <i>Causes of insomnia</i>  |                          |
| Due to thinking a lot, anxiety, and losing our properties we have insomnia mental illness and desperation.   | 15                       |
| <i>Causes of feeling sad or depressed</i>  |                          |
| We wish we were dead because we have not been compensated  | 9                        |
| Due to lack of changes in our life, annoyance, physical pain and handicap, we think about suicide, we wish we were dead and we feel inferiority complex.     | 9                        |
| Because of thinking about death of our husbands, brothers, and relatives we feel sad. It is common among Anfallen (killed) people.                           | 6                        |
| <i>Causes of ruminating/poor thinking</i>  |                          |
| Due to nightmares they cannot forget the past and they are uncomfortable.  | 4                        |
| Due to depression they move their hands, think a lot and get amnesia   | 3                        |
| <i>Causes of anxiety and irritability</i>  |                          |
| Due to unfairness and carelessness of people we have been subjected to torture, isolation, annoyance, divorce, and sadness.                                  | 14                       |
| Because we are treated poorly, we feel annoyed and isolated and we cannot get married.   | 10                       |
| Because we cannot provide our children's requirements we have been faced with isolation and impatience and we feel instability.                              | 7                        |
| <i>Other</i>   |                          |
| Due to bad economic condition, their illnesses cannot be treated   | 6                        |
| Love is meaningless (there is no real love relationship) due to educational discrimination.  | 3                        |

**Table E:** *What torture survivors and their families do about their problems (n=21 key informants)*

| <b>What people do about the problem</b>                              | <b># of interviewees</b> |
|--|--------------------------|
| Resort to suicide  | 11                       |
| These kinds of people should be visited                              | 5                        |
| Resort to alcohol  | 3                        |
| They want to stay in their own houses                                | 3                        |
| They speak aloud and shout to be helped                              | 3                        |
| They need to work in order to forget the past                        | 3                        |
| To open a psychiatric hospital for treating psychological problems   | 3                        |
| To provide them with housing or some areas to build their own houses | 3                        |