Forensic Assessment of Psychological Torture

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Introduction	494
Classification of Psychological Torture Methods	494
Forensic Documentation of Torture	495
Assessing Psychological Torture: General Guideline	495
Quick Assessment	496
Specific Protocols	496
General Considerations	496
Threats	496
Self-Conscious Emotions: Humiliation, Guilt and Shame	497
Sleep Deprivation	497
Hunger and Starvation	498
Assessing Credibility	499
Torturing Environments	500
Clinical Consequences	500
Conclusion and Recommendations for Further Research	501
References	502

Abstract

This article defines psychological torture as the use of techniques of cognitive, emotional, or sensory attacks that target the conscious mind and cause psychological suffering, damage, or identity breakdown in most subjects subjected to them. The idea is helpful to introduce a change of outlook from a pain-centered approach to a self and identity centered approach. There are three types of psychological torture methods: (1) methods that attack the cognitive and emotional system, (2) methods that manipulate the body without physical contact and (3) methods that operate on the body but which, due to their characteristics, the psychological impact goes far beyond the physical impact. This article provides a conceptual framework and a general guide to exploring forms of psychological torture. It introduces specific assessment and documentation protocols for some paradigmatic methods: threats, self-aware emotions (humiliation, guilt, and shame), sleep deprivation, hunger, and starvation. These are examples of conducting specific explorations, as the number of actual methods is endless. One of the critical elements in the documentation of torture is the credibility analysis of the allegations. The article offers key elements as applied to torture survivors from the point of view of forensic psychiatry. It also discusses the documentation of Torturing Environments, where it is the combination of different forms of physical or psychological coercion that, taken one by one, would not be considered as ill-treatment or torture, but whose combination causes a level of physical and psychological suffering that exceeds, in most people, the threshold of what can be considered, from a medical point of view, "severe" suffering as required in the United Nations definition of torture. Finally, the article outlines the main clinical consequences, on the understanding that the existence of sequelae is a corroborative element of the existence of torture, but that their absence in no case rules out torture.

Key Points

- Torture has impacts on body and mind that are indissociable. Contemporary torture very often leaves no permanent marks
 and is based on psychological methods.
- A contemporary definition of psychological torture by (Pérez-Sales, 2017) considers it as those processes that "involve attacking or manipulating the inputs and processes of the conscious mind that allow the person to stay oriented in the surrounding world, retain control and have the adequate conditions to judge, understand, and freely make decisions which are the essential constitutive ingredients of an unharmed self".
- A focus on psychological torture shifts the analysis from physical pain and suffering and its medical consequences as core elements of ill-treatment and torture to the idea that pain is one among other methods of breaking the self, altering self-determination, will, and ultimately changing identity, which are the core elements of ill-treatment and torture.
- This article defines a torturing environment as a milieu that creates the conditions for torture. It is built by contextual elements, conditions and practices that obliterate the will and control of the victim, exposing the self.

- There are specific protocols to document psychological torture that complement the Istanbul Protocol, as the United Nations (UN) reference tool for documenting torture. Especially relevant and underexplored are Threats and Other Fear-Producing Conditions, conditions producing secondary emotions (humiliation, shame, guilt), and manipulation of environment including sleep deprivation, attacks to basic functions and sensory attacks.
- It is essential to include a consistency-credibility analysis of torture allegations.
- Absence of psychological consequences does not prove that torture did not take place.

Introduction

Forensic examination of torture from a predominantly medical perspective focuses mainly on the multiple ways in which it is possible to harm the body or produce pain. This article on Forensic Assessment of Psychological Torture takes a different albeit complementary perspective in line with the experience and testimonies of victims (and perpetrators) and contemporary forms of torture (Pérez-Sales, 2017) Table 1. We want to indicate by thinking on and documenting psychological torture that the ultimate battlefield of torture is not the body that suffers (still the main one), but the "I", the being, the identity. Torture aims to break the human being understood as a consciousness that feels and thinks moved by reasoning and emotions. The idea of a body in pain (Scarry, 1985) appeals to a human being who tries not to lose his or her humanity (Viñar, 2007), which goes beyond pain to reflect on the idea of suffering.

When we speak of psychological torture, what we do is, from an epistemological, pragmatic and pedagogical point of view, (1) go against the idea of physical pain as the central and defining core of torture (2) put the focus of reflection on the psychological processes associated with the rupture of will, free agency, the capacity to control one's own life and the dignity that torture entails (Brunner et al., 2017; Eisenberger, 2012; Lindner, 2004; Luban, 2009).

We define psychological torture as the use of techniques of cognitive, emotional or sensory attacks that target the conscious mind and cause psychological suffering, damage or identity breakdown in most subjects subjected to them; such techniques may be used alone or together with other techniques to produce a cumulative effect (Pérez-Sales, 2017, p. 8).

Classification of Psychological Torture Methods

We consider three paradigms of psychological torture depending on the interaction between the physical and psychological elements of the attack (Pérez-Sales, 2020b) Fig. 1.

Type 1: Situations in which the person is subjected to a form of pure cognitive and emotional suffering, with two central categories.

- 1.1. Attacks that provoke primary negative emotions (rage, disgust, fear). The main form, universally used, are attacks on security and sense of control: threats and fear-provoking situations. The most frequent threats are false accusations, mock executions, increased physical pain, or torture, and threats to family and loved ones.
- 1.2. Attacks targeting the core self and identity by provoking secondary negative emotions. The main form, also universally used, are actions that generate humiliation, shame, and guilt.

Type 2. Situations in which the person is subjected to cognitive and emotional attacks through physical manipulation of the body and essential body functions without direct physical contact. The main forms are sensory deprivation and isolation, painful

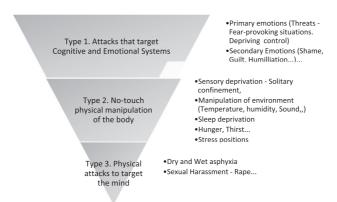


Fig. 1 Patterns of psychological torture. The effect is cumulative. Each category includes the previous. Type 1 Attacks the target cognitive and emotional system; Type 2 No-touch physical manipulation of the body; and Type 3 Physical attacks to target the mind.

music, or sounds, thirst or starvation and sleep deprivation. Some of these situations generate both physical pain and psychological breakdown.

Type 3. Situations in which the person is subjected to an attack or aggression with physical contact but whose objective is basically psychological. The main forms are dry or wet asphyxia and prolonged stress positions. In dry asphyxia (use of plastic bags) or wet asphyxia (bathtub, waterboarding), the lack of air stimulates interoceptors that trigger overwhelming critical distress that goes well beyond the actual risk of death of the person.

Rape and, in general, all forms of sexual torture constitute a form of psychological torture that encompasses all the previous categories.

Forensic Documentation of Torture

In the forensic documentation of torture, the expert should try to:

- (1) Help the alleged survivor elaborate an account of events. Discard a medical and psychiatric explanation when there are difficulties in recalling events.
- (2) Determine the severity of suffering (clinical impact) and, more importantly, the subjective impact. When these are not detectable, explain resilience factors.
- (3) Provide a scientific opinion on the Credibility of the description of events of the alleged victim i.e., appraise the consistency between the accounts of torture, the symptoms reported and the observations made by the examiner.
- (4) Provide evidence, if possible, regarding the intentionality and purpose of the alleged perpetrator.

The Istanbul Protocol (IP), as a UN consensus assessment guide, provides an essential toolkit for documenting allegations of torture. We will provide in this article some additional tools that complement the IP.

Assessing Psychological Torture: General Guideline

Torture methods have traditionally been quantified using checklists. However, checklists fail to accurately capture the almost infinite range of available torture methods and the victims' subjective experience and the impact of chronic or combined methods. The Torturing Environment Scale (TES) was designed as a multidimensional alternative that groups torture methods according to the specific human function under attack (Pérez-Sales *et al.*, 2021).

If a person receives little and poor food, is subjected to living conditions without any privacy, without access to information, is kept apart from his or her children, is subjected to conditions of noise, temperature or humidity that prevent restful sleep and is subjected to treatment that is harsh and humiliating, hardly any of these conditions taken one by one will be considered by a legal actor to be elements amounting to torture. They are likely to be regarded as incidental elements of a detention environment and, at the very least, can be considered as forms of inhuman or degrading treatment. The fact is that the cumulative and combined effect of all these conditions creates an environment that causes severe physical and psychological suffering, in which, if the intentionality and purpose required by the convention's definition can be demonstrated, we could speak of a Torturing Environment (Table 2).

We define a Torturing Environment as a space in which there are conditions that, taken together, would meet the legal definition of torture. It is formed by a set of contextual elements, conditions and practices that diminish or override the victim's

Table 1 Voices from survivors

Type 1

"Something as seemingly banal as stool. (...). It is difficult to imagine what it can mean the struggle not defecate or urinate on in terms of keeping your own dignity and self-respect. Furthermore, when you stand for hours... Being able to resist not knowing whether they will allow you to the bathroom in an hour or a day... - that joined the hunger, sleep, thirst" (Uruguay)

"Unpredictability has to do with never knowing what will happen in the next hour. When they carry me to the bathroom you do not know if you run to the bathroom or to the death... (...)" (Uruguay)

"I can't say why those days are indelibly marked in my soul. Fear is embodied, my body keeps a permanent memory of it and it comes in estrange pains, unrepentant insomnia..." (...) "Fear will accompany you forever (...)" (Spain)

"Pain is forgotten after some days... the humiliation, the deep humiliation of being naked, teased, with my menstruation...like if I was not a human being...this is indelibly stamped in my mind" (Afghanistan)

Type II

"The first two weeks it was total isolation. Nobody talked. I often asked for pain, for physical pain. Once I told one of them: "Hit me, hit me". He smiled at me and said: "We do not do this kind of things here, there is nothing like that" "If there are no sensation it means that you are eating your brain all the time". (Iran) "Hunger drives you mad. It is a slow death in which you see yourself dissolving in confusion, sadness and pain" (Myanmar)

Type III

"It is impossible to describe what the bathtub means. (...) The torture provokes a repeated, repetitive and unforgettable experience of near-death, of being confronted with basic survival instincts and seeing them explode... the only way to survive is to abandon yourself, to accept death as a certain reality... only then, by reifying, by abolishing all mental defences, by submission is it possible to mentally survive. But you will never be the same. The anguish and humiliation, the experience of near-death and helplessness will remain for ever" (Brasil).

Table 2 Key elements to assess in a torturing environment

- Basic physiological functions [primary needs]: Size and cell conditions, sleep/waking disruptions, food, and water intake, heat/cold, humidity, urination/defecation...
- 2. **Relation to the environment**: Sensory deprivation (hooding, earmuffs ...), handling time, sounds, noises, music, light conditions, mind-altering methods
- Need for safety: Methods causing fear/panic (witnessing torture of other persons, threats to person/family, exposure to phobias), manipulation of hope and despair, manipulation of expectations of pain, exposure to anxiety-provoking situations (waiting time, ruminations on past, present and future), near-death (dry and wet asphyxia, mock executions...)
- 4. **Physical integrity**: Pain inflicted by others (beatings, blunt trauma), self-inflicted forced pain (stress positions, positional torture), exhaustion exercises, extreme pain (electric, chemical mechanical pain devices ...), mutilations, brain injury...
- 5. Reproduction/sexual integrity: Forced nakedness, forced sex, sexual assaults, rape.
- 6. **Need for belonging, acceptance, and care**: Blocking human contact (isolation, solitary confinement, and incommunicado detention), breaking social identity networks (family, social, political, religious networks), manipulation of affect (forced traumatic bonding with the torturer, love/hate manipulations, random rewards ...)

will and control over his or her life and compromise the self (Pérez-Sales, 2017). This environment will constitute Cruel, Inhuman or Degrading Treatment (CIDT) or Torture when it has been generated to achieve any of the objectives specified in international law and in particular those exemplified by the UN Convention against Torture; obtaining information, confession, punishment, intimidation or coercion and discrimination, among others.

Quick Assessment

For a quick assessment of psychological torture, the forensic expert should explore, besides attacks to physical integrity:

- (1) The physical conditions in which the person was held and how essential physiological functions and needs are covered
- (2) Situations that produce fear and panic plus situations that deprive the person of control and produce helplessness or hopelessness
- (3) Situations that attack identity and dignity and aim to produce humiliation, shame, or guilt.

Specific Protocols

A network of human rights organizations¹ led and coordinated by Dignity has been developing tools for the forensic documentation of psychological torture (Søndergaard *et al.*, 2019). This pioneering and ongoing effort has provided additional tools to the Istanbul Protocol. This section is based on that work.

The methods of psychological torture selected have been chosen because of their high frequency and epidemiological significance and they represent one of the three basic types of psychological torture described above. The guidelines are intended as specialized tools based on the best available evidence. The medical and legal rationale for these methods and a detailed description of the entire protocol can be found in the original references. We will develop here a practical and quick reference that would guide the examination by a forensic expert. The guidelines can be used as a framework to develop future guidelines for exploration of other psychological torture methods.

General Considerations

For all of them, there are some shared elements developed in the ethical requirements of the Istanbul Protocol: Take proper informed consent, consider security issues and develop an empathic interview (UNHCR, 1999, Chapter 1–4).

Threats

Threats are a common feature of detention and interrogation settings and have long been regarded as a routine procedure, while their importance in configuring a torturing environment is undervalued. As a way of example, in a study of a sample of 200 survivors assessed with the Istanbul Protocol in the Basque Country, threats per se were one of the three methods of torture that people indicated as a personal breaking point. Survivors who tolerated pain, dry asphyxiation (the "bag") or strenuous exercise broke down when they perceived immediate and credible threats directed at their parents, partners, or children (Argitutz et al., 2015).

We can define threats in the context of ill-treatment and torture as the explicit or implicit expression of intentionally harming a person, in order either to coerce with the purpose to change opinions, intentions or behaviors or to punish, through the production of mental suffering, usually fear and anxiety (Pérez-Sales, 2021).

We can consider seven broad categories of fear-production methods: (1) Manipulation of hopes and expectations; (2)Threats to the person (e.g., endless isolation, endless interrogation, rape, pain, torture, death); (3) Threats against family or relatives (next-of-kin) (e.g., rape, detention, punishment, retaliation), or threats against other detainees; (4) Anguish associated with lack of information or undue procedures (e.g., relatives of people detained/disappeared; detention without proper legal safeguards); 5 Experiences of near death (e.g.,

¹Dignity (Denmark), Redress (UK), PCATi (Israel) (Spain), Forpost (Ukraine).

Table 3 Forensic assessment of threats in the context of ill-treatment and torture

- 1. Fear and anxiety related to threats are enhanced by all other elements of a torturing environment involving attacks on cognitive or emotional functions. Assess threats in the overall framework of the torturing environment and in particular in the interactions with other torturing situations. Pay special attention to: (a) frightening or intimidating space (b) hunger-thirst and attacks to basic body functions (c) pain-producing conditions including life-threatening conditions (asphyxia...)
- 2. Ask openly about the subjective experience of threats in the alleged victim words: types, relevance, and impacts. Collect answers as verbatim as possible.
- 3. What were the main threats? Who made the threats? Which one affected the person more and subjective logic behind that? Was referred to an action that would take place immediately? Could the person somehow prepare or cope? Which were the expectancies that the perpetrator would go on and make it real? How affected was the person during the period of torture and at the time of examination?
- 4. Vulnerabilities: Age, physical condition. Pay special attention to psychosocial history including experiences of trauma, crisis or loss that can be logically connected to panic, fear and anxiety responses, and history of phobias.
- 5. Clinical impacts. Assess (a) Sustained anxiety responses including panic attacks, Fear-related symptoms and avoidant behaviors that can be logically linked to the threatening situation, Post Traumatic Stress Disorder (PTSD) related to the threat, especially symptoms of avoidance and hyper vigilance. Long-term shame and guilt feelings. In all cases, collect verbatim examples that show the connection between contents of the threats and clinical symptoms.
- 6. Legal assessment (not part of the interview): (a) Assess direct or indirect official involvement (b) Severity of the threat in objective and subjective (victim's perceptions) terms (c) Intention of the threat (explicit or implicit)
- 7. Credibility: (a) There is a demonstrable pattern or strategies verified in cases of other detainees (b) Observing the damage produced by the threats, no measures were taken by the perpetrator to reduce it (c) Threat is so severe that unintentionally is not possible (d) Persistence, repetition, or prolongation of the threat over a long period of time (e) The perpetrator explicitly expresses the determination to harm, humiliate or attack dignity. (f) The perpetrator seemed out of control (g) there was a detailed plan to make the threat happen (h) the person is forced to see the threat acted upon others. Collect verbatim examples.

mock executions, dry/wet asphyxia); (6) Witnessing others' torture or death; and (7) Use of situations evoking insurmountable fear (e.g., phobias, total darkness). To analyze threats, the forensic expert should consider: (1) Channel through which the message is communicated (verbal, non-verbal, contextual, through indirect ways like social networks) (2) Characteristics of the aversive consequence announced: explicit, concrete, detailed versus vague or undefined; physical versus psychological; predictable and somehow controllable versus unpredictable and uncontrollable (3) Combination with other methods that foster fear and anxiety (including sleep or food deprivation) (4) Purpose (5) Credibility of the threat. (Pérez-Sales, 2021) (Table 3).

Self-Conscious Emotions: Humiliation. Guilt and Shame

While in the legal world, humiliation is equated with degrading treatment, i.e., the type of abuse that would entail less severity or cause less harm or suffering to the person, research shows that it is precisely the after-effects of harm caused by painful secondary emotions (humiliation, shame and guilt) that leave the most lasting and permanent marks and cause most extreme psychological suffering (Eisenberger, 2012; Koenig, 2013; Nickerson *et al.*, 2015; Pollmann, 2011).

Shame, humiliation, and guilt have objective and subjective components. Forensic assessment is essential to evaluate the objective components (for which anthropological expertize may sometimes be essential) and the subjective component.

The map of self-conscious negative emotions is complex and entails differences depending on the who and how of the aggression (Pérez-Sales, 2017) **Table 4**.

Torture is more often linked to humiliation than shame. Someone humiliates a person by depriving us of what makes a human being human. Guilt appears when a person is forced to act against his or her very basic and nuclear moral codes. The damage might be symbolic or real, but in any case, it is irreversible. The act cannot be undone.

When humiliation or guilt feelings are so deep to be permanent and long-lasting, then shame appears as damage to identity and self-image, to what we think we are and how others see us. Humiliation and guilt have a common pathway to shame as the more destroying of the three emotions.

While fear provokes permanent feelings and beliefs related to living in an insecure world, loss of control renders the person helpless, shame damages identity and the inner sense of dignity.

Sleep Deprivation

Total Sleep Deprivation is defined as the elimination of sleep for a period of time (at least one night) after the person has been awake for an extended period. It is an absolute value (e.g., 43 h). Sleep Disruption (SD) is defined as the interruption or fragmentation of sleep, where frequent arousal disrupts normal sleep dynamics. Sleep disruption is associated with increased awakenings and, typically, a reduction of deep sleep, although the total amount of time might seem similar to a typical night's sleep (Pérez-Sales *et al.*, 2019). For an adult (18 – 65), the minimum duration of necessary sleep is no less than 6 h, and for an older adult (>65), not less than 5 h (Hirshkowitz *et al.*, 2015; Watson *et al.*, 2015). There is a recommendation that suggests that intentionally forcing a person to have less than 6 h of continuous, restful sleep must be considered a form of degrading treatment that could amount to cruel and inhuman treatment or torture if prolonged in time, irrespective of other coexisting or cumulative elements of a torturing environment (Pérez-Sales, 2020c) Table 5.

Table 4 Producing self-conscious emotions as torture

Self-conscious emotion	Examples of methods
Humiliation: Acts committed against a person aimed to break his or her sense of dignity and value	 Forced to be naked Insults, debasing treatment Deprecation based on personal characteristics or values Feral treatment Forced to perform humiliating acts in public
Guilt: Act that a person is forced to commit that breaks the persons' moral codes.	Forced betrayal of a relative.Forced to harm othersViolation of Taboos
Shame: Acts aimed to produce a negative and painful view of the self	 Public exposure of personal characteristics Preventing personal hygiene Total lack of privacy

Table 5 Assessment of sleep deprivation

- 1. Sleep deprivation and sleep disruption enhance and are enhanced by all other elements of a torturing environment involving attacks on cognitive or emotional functions. Assess sleep deprivation in the overall framework of the torturing environment and in particular in the interactions with other torturing situations.
- 2. In a monitoring visit or legal process, seek to objectively verify the hours of sleep through existing detention or interrogation records, if available.
- 3. Ask openly about the subjective experience of sleep deprivation: duration, symptoms, and impacts. Record the examinee's answers as verbatim as possible.
- 4. Baseline: Sleep pattern prior to detention or torture.
- 5. Sleep pattern during detention or torture, including total hours of uninterrupted sleep and reasons for the interruption. Pay attention to sleeping conditions: overcrowding, hygiene, temperature, permanent light, ventilation, noise, shouting, searches and strip-searches, stress positions and shackles or restraints. Include physical and emotional state that prevents sleep: Fear, anxiety, pain, ruminations.
- 6. Interrogation pattern, when relevant: maximum number of hours in continuous interrogation, the maximum number of hours forced to stay awake, number of hours of rest between interrogations.
- 7. Sleep pattern after release. Alterations that are temporally attributable to detention.
- 8. Medical or psychological consequences during detention:
 - Acute symptoms: Consciousness, orientation, alertness, attention and concentration, memory, perception, reasoning and judgement, emotional state.Quantification. Evaluate on a scale of 0–100, with 100 being the worst imaginable, the consequences of not sleeping on the dimensions: [1] Physical pain [2] Psychological suffering [3] Physical tiredness [4] Emotional state [5] Drowsiness.Chronic symptoms: ICD-Diagnosis and especially Sleep disorders (Insomnia, hypersomnia, Altered circadian rhythm, Nightmares and parasomnias).
- 9. Legal assessment. Gather information to formulate a grounded opinion on (a) the Purpose of Sleep deprivation (obtaining information, confession, discrimination) (b) False memories during, or after interrogation. Signature of incrimination or confession being sleep deprived. (c) Indicators of Intentionality (Purpose made explicit, pattern, context, prolonged despite complaints, viciousness, among others).
- 10. Consider psychometric tools related to the quality of sleep (like the Pittsburgh Sleep Quality Index)

Note: Pérez-Sales, P., Søndegaard, E., Shir, E., et al., 2019. Protocol on medico-legal documentation of sleep deprivation. Torture Journal 28 (2), 28–55. Available at: https://doi.org/10.7146/torture.y29i2.116320.

Hunger and Starvation

There are accounts of forced imposition of hunger or starvation in places of detention and concentration camps worldwide. Hunger refers to the subjective sensation of wanting or needing food. Provided that hunger is a subjective sensation, sometimes it is better to work with objective measures in human rights research. Food deprivation is defined as a food intake below the dietary required minimum energy level. Food deprivation is often combined with Food manipulation, referring to the quality, aspect, taste or contamination of the food provided to an individual (Al-Shawaf, 2016; Dignity, 2016). Finally, starvation refers to a deficiency in caloric intake severe enough to be below the level needed to maintain an organism's life.

Short-term food deprivation or manipulation. Available research shows that the specific physical and psychological impacts of short-term food restriction must be assessed on a case-by-case basis taking into account specific vulnerability criteria of each victim, including age, gender, past experiences of deprivation or trauma, physical state, and psychological status. Context, purpose, motivation, and meaning are essential for understanding the impact of short-term food deprivation. Food manipulation and even mild food deprivation in caloric terms, when used as a form of dehumanization, humiliation, and denigration of the detainee, maybe a powerful method to produce severe suffering and break identity.

Table 6 Forensic assessment of deprivation and manipulation of food as ill-treatment or torture

- 1. Short-term food manipulation and deprivation.
 - Assess overall daily intake or nutritional status.
 - Assess food security: Guarantee of regular access to food, food-intake dependent of rules, rewards or punishments, anxiety regarding getting
 food, periods of day/night being usually hungry, being forced to shameful or undignified ways of obtaining or eating food.
 - Assess food conditions and palatability.
 - Food restriction combined with other methods of a torturing environment, especially pain, sleep deprivation, forced exercise or stress positions.
 - Prolonged interrogations (up to 6 h) without food and water supplies available (minimum every 2 h)
 - Vulnerability elements: Age, Pregnancy, Chronic disease (Diabetes...)
 - Medical or psychological consequences during detention: Acute symptoms: Consciousness, orientation, alertness, attention and concentration, memory, perception, reasoning and judgement, emotional state. Quantification. Evaluate on a scale of 0–100, with 100 being the worst imaginable, the consequences of food deprivation on the dimensions: [1] Physical pain [2] Psychological suffering [3] Physical tiredness [4] Emotional state [5] Cognition [6] Hunger.
- 2. Chronic food deprivation Starvation

All the above plus a detailed full body examination with a special focus on dermatological (dry cracked skin, impaired wound healing, alopecia), skeletal (osteoporosis, myopathies), cardiovascular (bradycardia, arrhythmias), renal (Edema, Ascites, electrolyte abnormalities, hypoalbuminemia and signs of renal failure), endocrine (Hypothyroidism, Thiamine deficit), hematological (anemia, pancytopenia), gastrointestinal (diarrhea and malabsorption caused by atrophy of villi, impaired pancreatic function and bacterial overgrowth, dysphagia, liver dysfunction), neurological (peripheral neuropathies, seizures, brain atrophy), and ophthalmological (night blindness (vitamin A), Lagophthalmos) systems. Impaired immune system (pneumonia, urinary infections are common). All aspects of female reproduction are impaired. In pregnant women fetal growth and development may be damaged.

3. Legal assessment. Gather information to formulate a grounded opinion on: (a) Purpose of Food deprivation (punishment, discrimination, obtaining information, confession...) (b) Signature of incrimination or confession being food deprived. (c) Indicators of Intentionality (Purpose made explicit, pattern, context, prolonged in spite of complaints, viciousness, among others).

It is especially relevant to assess the combination of short-term deprivation and manipulation of food with other methods as part of a torturing environment, with preliminary evidence showing interaction with fear, sleep deprivation, asphyxia, and pain-producing methods, including exhaustion exercises.

Starvation. Defining and measuring an individual's food needs is a challenge given variations in gender, age, health status and level of physical activity. In chronic food deprivation, the human body may adapt to downward regulation systems during the first two weeks. After that period, severe consequences affect all organs, with thiamine deficit as the earliest and most dangerous condition. This decline is associated with cognitive, emotional and personality changes.

Chronic starvation's medical and psychological effects are critical and produce severe suffering.

In both short-time and long-time food deprivation the assessment should be accompanied by the victim's assessment of weight loss, if possible, based on weighing and indicated in kilo gram (kg)/length period of food deprivation taking into consideration existence of hunger edema. The limit between short-term and prolonged food deprivation has been proposed to be two weeks. In other words while short-term food deprivation (less than two weeks) might amount to cruel, inhuman or degrading treatment, especially when combined with other methods and conditions, prolonged food deprivation (established as less than 2000 calories/day for more than two weeks) is a life-threatening condition that produces severe suffering in almost all human beings and that should, in most if not all cases, amount to torture (Pérez-Sales, 2020a). This is to be added to contextual overall assessment: Intentionality and purpose, quality of the food /content of vitamins, protein, and minerals regardless the content of calories, the level of physical activity; subjective experience of hunger, food insecurity and other psychosocial elements in the way food is provided **Table 6**.

Assessing Credibility

The Istanbul Protocol puts a strong emphasis on credibility assessment and tries to fill the gap left by the lack of witnesses and physical findings by using, among other things, a rigorous, extensive and intensive psychiatric and psychometric assessment that has forensic probative value.

One of the biggest challenges in the forensic assessment of torture allegations in contexts where there are no witnesses and the torture leaves no physical marks, or they vanish within a short time is the analysis of the consistency and credibility of the testimony. Based on criteria of a scientific nature and as objective and verifiable as possible, the expert must make a judgment on one of the four levels established by the IP. However, different formulations can be adopted (Table 7). Some forensic experts are reluctant to issue an opinion on credibility. A victim deserves a credibility analysis because often, the IP and the credibility analysis are the only proof that the person has in legal proceedings, being clear that the role of the expert's opinion is not to assess the Credibility of the victim, but the victim's statement.

There is currently no psychometric instrument or interview model that assesses credibility that has shown sufficiently high sensitivity and specificity values to be considered valid in the framework of a legal process. Therefore, the judgement of consistency must be based on a set of criteria combining (1) characteristics of the account, including internal logic and semantic and content analysis, emotions and reactions and non-verbal communication (2) triangulation with external sources including reports,

Table 7 Levels of consistency and credibility modified and expanded from IP suggestions

Levels of consistency

- 1. Not consistent: the medical or psychological consequences could not have been caused by the events described;
- Consistent: the medical or psychological consequences could have been caused by the events described, but they are non-specific and there are other possible causes;
- 3. Highly consistent: the medical or psychological consequences could have been caused by the events described, and there are few other possible causes;
- 4. Diagnostic: this medical or psychological consequences could not have been caused in any way other than that described.

Levels of credibility

- 1. Lack of credibility: the factual account cannot be said to be reliable or plausible.
- 2. Credible: the account is broadly reliable and consistent, but this does not mean that every single detail in the account is.
- 3. Highly credible: the account is reliable and consistent both in the general account and in most of the details provided,
- 4. Maximum credibility: it is possible to state that both the overall story and all the details are reliable and consistent.

Table 8 Elements explaining inconsistencies in the testimony of a torture survivor

- 1. Extreme traumatic experiences, like torture, are often unspeakable, indescribable.
- 2. Memory is a constructed account, a pact of sorts between the actual and tolerable truth, between one's own memories and the narratives of others. Over time, in repeating the account, the survivor subtly accommodates to the resonance that the facts generate in the listener as well as to what s/he can tolerate. (Herlihy et al., 2012).
- 3. Feelings of guilt or shame linked to parts of the experience.
- 4. Dissociation during the torture experience or when trying to recall it.
- 5. Type of interview: empathy, directive versus open style, tolerance to silence and interruptions. Lack of trust in the interviewer or the interviewer is perceived to be a punitive authority or as reproducing an interrogation situation.
- 6. Inappropriate setting. Time constraints. Poor translation.
- 7. When the interviewer asks about aspects that the person does not remember, there is a tendency to reply with what the person believes that the interviewer would like to hear. The belief is that silence or the lack of response will generate a lack of credibility. Subsequently, this might lead to inconsistencies as it is difficult to remember exactly what was said in previous accounts (Gudjonsson, 2003).
- 8. Head injuries and post contusion syndromes due to beatings (Mind, 2010)
- 9. Fear of the consequences of there being a written record of the account and of the name of those responsible for the events recounted.

interviews with family members or witnesses of the aftermath and others (3) analysis of short and long term medical and psychiatric sequels and impacts, including cultural coherence (4) complementary tests (5) psychometric tools. The combination of all these elements allows the forensic expert to formulate a proper judgement **Table 8**.

There are many reasons why an account may be inconsistent that do not necessarily have to do with a will to deceive on the part of. Among the criteria on which the expert can base his or her judgement are those detailed in **Table 9** (Pérez-Sales *et al.*, 2016).

Torturing Environments

The idea that torture environments exist has multiple applications in forensic research. One of them is the monitoring of collective spaces. For instance, the Moria refugee camp on the Greek island of Lesvos presented conditions for the refugees there that could be considered, on the whole, as a torturing environment. In a general population study with 150 semi-structured interviews, it was found that in the six months previous to the fire that destroyed the camp, 100% of refugees had suffered food insecurity and 45% intermittent periods of hunger, 96% dehydration and illness due to insufficient, contaminated or lack of access to water, 100% restriction in access to sanitation, 97% prolonged periods of less than 4 h of restful sleep. 59.4% attested to the impossibility of intimacy or of being alone at any time, 49% of men and women experienced situations of extreme fear and 28% of suffered humiliation and discrimination that they considered to have caused severe mental suffering. 41% of women had suffered sexual abuse by other refugees, and 12% had been raped. These data lead the authors of the report to conclude that the refugee camp constituted a Torturing Environment on European soil (G.A.C./SiRa, 2020).

Clinical Consequences

There are two main clinical consequences categories to explore.

(1) Clinical psychological and psychiatric consequences, being the more often anxiety disorders, PTSD and complex PTSD, personality changes, drug addictions and chronic depressive disorders (Kagee and Naidoo, 2004; Maercker et al., 2013; Reyes, 2008; Steel et al., 2009). In these cases, it might be helpful to use semi-structured clinical interviews (like the MINI) or specific psychometric scales (like the Post-traumatic Checklist Civilian Version (PCL-C) and Harvard Trauma Questionnaire for

Table 9 Criteria to assess credibility of torture allegations based in the standard evaluation form for credibility analysis

- 1. The plausible and logical description of alleged torture (circumstances, type, methodology, duration). Internal consistency of the testimony includes emotions, cognitions, meaning attributed and coping reactions.
- Documentation supporting relevant dates and locations cited by the survivor. Triangulation of the events with external sources of information (e.g., newspapers, Internet)
- 3. Triangulation of information through blind and independent interviews with witnesses.
- 4. Triangulation of events, physical and psychological consequences, personality, or functional changes blindly contrasted with one or more other first-hand sources (family, friends, co-detainees, or others).
- 5. At the time of the alleged facts, expected or typical physical or psychological reactions to extreme stress within the cultural and social context of the examinee.
- 6. Medical tests (including X-rays, blood tests, Electromyography- EMG, and others) showed consistency with the alleged events.
- 7. Psychometric assessment (PTSD, depression, Impact on worldviews, neuropsychological tests), blindly assessed and with results consistent with the alleged events.
- 8. Medium / long term physical sequel consistent with the alleged events.
- 9. Objective and verifiable personality changes or changes in perception of others and worldviews that can be temporally associated with the time when the alleged events took place
- 10. Functional changes (in work, studies, personal relationships, or others) after the events, objectively verifiable and attributable to them.
- 11. At the time of the expert assessment, the evaluee's ICD/DSM (International Classification of Diseases / Diagnostic and Statistical Manual of Mental Disorders) principal clinical diagnosis related to the events is consistent with allegations.
- 12. Previous reliable medical or forensic assessments showing immediate physical or psychological consequences or medium or long-term sequelae consistent with the events described.
- 13. Facts are consistent with country reports produced by human rights organizations, international organizations, or entities associated with or recognized by United Nations agencies to prevent or denounce torture.
- 14. Concurrence of two forensic experts
- 15. Court sentence or legal administrative procedure (e.g., refugee status, asylum claim) recognizes degrading treatment, ill-treatment, or torture.

Note: Pérez-Sales, P., González-Rubio, R., Mellor-Marsá, B., Martínez-Alés, G., 2021. Beyond torture checklists: an exploratory study of the reliability and construct validity of the Torturing Environment Scale (TES). BMC Public Health 21 (1), 372. Available at: https://doi.org/10.1186/s12889-021-10384-wP.

- PTSD, the Beck Depression Inventory and Hamilton Anxiety and Depression Scales, or the Mini-Mental State and MOCA for brief neuropsychological assessment).
- (2) Sometimes the impacts cannot be expressed as a clinical diagnosis. However, subtle elements of damage can be detected and explored in the way the person understands themselves, others, or the surrounding world. In dimensions related to the self, it can lead to loss of self-confidence and a deteriorated image of self, loss of sense of control and agency and feelings of vulnerability and helplessness, lack of tolerance to uncertainty and ambiguity, and need to be reassured in front of minor problems, internal attributions of responsibility leading to remorse or guilt, inability to give meaning to the experience, difficulties in finding a purpose and meaning in life and a perception of lack of future associated to a life project.

Concerning others, the psychological impact of torture can be related to changes in the assumption of the kindness of human beings, to having a capacity of trust and confidence, broken expectation of empathy and compassion from others and eventually losing owns' capacity of feeling love or empathy, the incommunicability of the experience of torture and the associated experience of alienation from those that did not undergo a similar experience and might not understand what it means, and related to that, the importance of bearing witness. All these complex elements are the expression of damage to the identity, partially collected in the concept of Complex PTSD but going far beyond it.

Important to remember that the lack of clinical consequence should not be interpreted as a lack of credibility.

Conclusion and Recommendations for Further Research

Although torture as a form of human rights violation constitutes an attack on the integrity of the human being, understood as a unity of mind and body, the analysis of psychological torture represents a novel and valuable approach that allows the focus of medical and psychological research to be placed on how the perpetrator seeks to break the elements of identity and the conscious self that constitute the essential cores of the human being, shifting the focus away from approaches centered on the production of pain. It delves into the alternative idea of suffering, understanding it as physical and mental suffering.

The torture of the future will increasingly be torture that leaves no marks, that is justifiable in the eyes of public opinion and that acts in a more undetectable way, seeking to avoid the legal consequences of such acts. A clear example of the evolution of torture is the so-called Internet-based torture and other forms of communication (Pérez-Sales and Serra, 2020), where physical proximity to the perpetrator is not even necessary to cause harm.

Against this background, it is necessary to develop forensic documentation protocols that complement the Istanbul Protocol as a reference tool in the documentation of torture and go beyond the measurement of clinical findings. It is worth remembering, in this regard, that the observation of clinically evident damage (physical or psychological) supports the existence of torture but that its absence does not rule it out. The fact that some people are resilient to forms of ill-treatment and torture does not mean that they have not suffered situations that amount to torture that the forensic expert must detect and document. In this sense, there is a vast field of research on (1) methods of torture that cause harm through systems of attack on the human mind, in all its physical,

cognitive, and emotional complexity (2) the combination of these in the form of torturing environments in which there is a cumulative and combined effect of such methods to cause, ultimately, the temporary breakdown or permanent rupture of the person submitted to them.

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