

# Ageing Holocaust survivors in Australia

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During the 1940s, over 35 000 European Jews immigrated to Australia. Australia has the largest per-capita Holocaust survivor population outside Israel, principally concentrated in Melbourne, Sydney and Brisbane.<sup>1</sup> The remaining survivors are now over 65 years of age.

“Early effects of the Holocaust” were well delineated in scientific articles in the 1950s as “concentration camp syndrome”, mainly comprising severe post-traumatic stress disorder (PTSD) and consequent poor functioning in postwar society.<sup>2</sup> In recent years, a phenomenon of “late effects of the Holocaust” has emerged, with impacts on the psychological and physical health of some ageing Holocaust survivors. These late effects have been reported in several countries with large Holocaust survivor populations, including Australia, the United States, Canada and Israel.<sup>1,3-5</sup>

Although some of the late problems experienced by Jewish Holocaust survivors are unique, others are common to other groups who have survived severe physical and psychological trauma such as Australian prisoners of war (POWs) on the Burma Railway or in the Changi Prison camp,<sup>6,7</sup> and more recent waves of immigrants to Australia from, for example, Vietnam, Cambodia, Bosnia and Sudan.<sup>8</sup>

We examined the late effects of the Holocaust using keywords *elderly AND Holocaust AND survivors* and related synonyms. Relevant articles in English that were published from 1990 to August 2010 were identified through database searches (MEDLINE) and citation tracking. Seventeen studies were relevant, which were primarily from Australia, the US, Canada and Israel.

## Psychological and cognitive problems

### Coping with ageing and comorbidities

The harsh environment of the Holocaust had dramatic psychosocial effects on many survivors’ concepts of health, creating an ingrained belief that perfect physical health was necessary to survive.<sup>9</sup> Consequently, some survivors experience disproportionate anxiety when informed that they require standard non-invasive geriatric aids such as walking sticks, dentures, glasses and hearing aids. The idea that they are becoming weaker may be challenging to their self-image as “the ultimate survivor”.<sup>10</sup>

Several studies have found that Holocaust survivors cope much worse than controls with diagnoses of disease. A retrospective analysis of 106 patients matched for sociodemographic and medical background showed that survivors diagnosed with cancer exhibit disproportionate psychological distress, are less able to mobilise partial denial and score higher on avoidance and intrusiveness, culminating in worsened psychosocial outcomes.<sup>11</sup> One limitation of this study was a lack of data on participants’ premorbid psychological function.

In a comparative study of 66 survivors and controls with chronic pain, survivors reported higher pain levels, more pain sites and significantly higher depression scores.<sup>12</sup> Weight loss may be a particularly emotionally invested symptom due to Holocaust memories of emaciation and death by starvation. Likewise, swallowing problems and other causes of dysphagia may provoke fear and distress.

The onset of a decline in coping and psychological distress in old age may erode the will to live. Recent publications have found that older Holocaust survivors with depression are 52% more likely to

## ABSTRACT

- In recent years, a phenomenon of “late effects of the Holocaust” has emerged, with impacts on the psychological and physical health of ageing Holocaust survivors.
- As Holocaust survivors age, they may experience heightened anxiety around normal processes of ageing, worsened post-traumatic stress disorder with cognitive decline, and fear of the medical system.
- Holocaust survivors are at increased risk of osteoporosis, cardiometabolic disease due to hypothalamic–pituitary–adrenal axis dysfunction, cancer, and sequelae of Nazi medical experiments.
- From existing medical literature on this topic, practical principles of management are derived to create a framework for sensitive medical management of Holocaust survivors in Australia.
- The issues discussed are also relevant to the wider geriatric refugee or prisoner-of-war experience.

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report suicidal ideation and 2.9 times more likely to attempt suicide than controls with depression.<sup>3,4</sup>

### Worsening of post-traumatic stress disorder symptoms with cognitive decline

Among the Australian Holocaust survivor population, the prevalence of PTSD is estimated at 39%.<sup>1</sup> Previously identified risk factors for worsened PTSD symptoms among Australian Holocaust survivors include increased age, severity of trauma, use of immature defence mechanisms, and higher neuroticism.<sup>13</sup>

Dementia is present among 22.4% of people aged 85 years and over.<sup>14</sup> Furthermore, Holocaust survivors may be at an elevated risk of vascular dementia owing to an unfavourable cardiometabolic profile (see below).<sup>15</sup> Thus, the impact of cognitive decline on Holocaust survivors may be profound on an individual and community level.

With cognitive decline, PTSD severity may worsen as repressed memories in the brain are liberated. Previously high-functioning patients may become “uncontrollable and highly disruptive following the onset of neurologic illness”.<sup>5</sup> It is conjectured that cognitive decline “diminishes patients’ capacity to inhibit intrusive traumatic memories ... resulting in a re-emergence of PTSD symptoms accompanied by intense feelings of anxiety and depression”.<sup>5</sup>

The sequelae of this phenomenon may be profound. When recalling their experiences, survivors are confronted once more with memories of the deaths of loved ones, and torture at the hands of guards and doctors. They may lose their connection to the family they have created in Australia, and to memories of their post-war success and stability. As dementia progresses, acquired language skills in English may be lost, rendering them less able to communicate with family and medical staff.<sup>5</sup>

Even for those who do not develop dementia, the life-cycle changes of ageing can still precipitate worsening of PTSD severity. Prototypical stressors of ageing, such as retirement, the loss of a

**1 Common traumatic triggers in inpatient management of Holocaust survivors**

Trigger	Holocaust memory	Solution
Showering	"Showers" in death camps, which released poison gas instead of water	Offer baths or handheld shower jets, and do not insist on showering at a set time
Hospital identification band	Patient record number prompts recall of being tattooed with a number	Consider alternative means of identification
Hospital gowns	Fear that personal clothes will never be returned, memory of camp uniforms	Allow survivor to select own clothes
Cachexia	Emaciation evokes memories of severe starvation	Early nutritional intervention, address weight management as a key priority
Dysphagia	Evokes fears of death by starvation	Early speech pathology intervention
Delirium	Relive experiences of the Holocaust	Orientation aids — clock, calendar, board at end of bed; keep a low-level light on at night
Intravenous cannulae	Toxic injections, medical experiments	Try to give medications by mouth as much as possible
Procedures, surgery	Medical experimentation, loss of autonomy at hands of doctors	Be prepared to spend longer than usual gaining consent; explain all aspects of procedure (eg, if shaving will be required)
Ethnicity of health care professionals	Accents and names of health care professionals may trigger Holocaust memories	Awareness, sensitivity and if possible selection of staff

spouse or close friends, health problems and an increased awareness that, once again, death is close, may all drive worsened functioning and increased reporting of PTSD symptoms.<sup>2</sup> Similar findings have been noted in participants who were Australian POWs in the Changi Prison camp or on the Burma Railway during World War II.<sup>6,7</sup>

**Fear of the medical system**

A Sydney researcher elaborated the reasons underlying survivors' understandable distrust and fear of the medical profession —

In the eyes of some survivors, Auschwitz was like a medical operation and the killing program was led by doctors, from beginning to end. Nazi doctors presided over the murder of most of the one million victims of that camp. Doctors performed selections, supervised the killing in the gas chambers and ordered, supervised and at times carried out direct killing of debilitated patients by means of intravenous or intracardiac phenol injections. It is not surprising therefore, that when a survivor becomes ill and is hospitalised, the past may be reawakened.<sup>10</sup>

There are many traumatic cues in the medical experience for Holocaust survivors; even calling an ambulance may be psychologically overwhelming. In the 1990s, Melbourne's Metropolitan Ambulance Service recorded an inappropriately low number of call-outs for chest pain from the suburbs in Melbourne with the highest proportion of Holocaust survivors. It was thought that survivors apparently preferred transport by family members, at the expense of "door-to-needle time".<sup>16</sup>

Hospitalisation is a great upheaval commonly experienced by survivors. Traumatic cues include "absence of family members, loss of privacy, increased sense of vulnerability, and invasion of the body by medical examinations".<sup>17</sup> Survivors frequently develop delusions of being in the camps again.<sup>10</sup> This may result in an apparently inexplicable extreme fear of medical staff, due to misinterpretation of their actions and motives (Box 1).

**Direct medical complications of the Holocaust**

An Israeli study of 86 survivors found that 60% of survivors suffered from direct medical legacies of their Holocaust experi-

ence.<sup>18</sup> As distribution of Holocaust survivors to new countries was not linked to age, health status or nature of Holocaust experiences, the Australian cohort would presumably be comparable in this regard. Across all diseases, prevalence and severity was greatest in the youngest survivors (ie, under 17 years old in 1945), who presumably bore the greatest physiological stress to their development.<sup>19</sup>

**Osteoporosis**

Bone disease secondary to starvation ("hunger osteopathy") was endemic in the Warsaw Ghetto, and was presumably equally if not more common in concentration camps. A 2007 comparative study of 73 female Holocaust survivors and 60 controls, matched for sociodemographic background and risk factors for osteoporosis, demonstrated the long-term impact of this severe nutritional deprivation.<sup>19</sup> Of female survivors who were younger than 17 years in 1945, 58% had osteoporosis of the lumbar spine (L2–L4) or neck of femur, compared with 20% of controls — a significant increase in risk by a factor of 3.47.

**Hypothalamic–pituitary–adrenal axis dysfunction and raised cardiometabolic risk**

Exposure to extreme physiological stress during critical periods of development may trigger permanent changes in cardiometabolic, neurological and endocrine function (the "Barker hypothesis").<sup>15</sup> Investigation of cortisol levels among Holocaust survivors has revealed that they showed adaptive programming, with reduced cortisol metabolism via renal 11β-hydroxysteroid dehydrogenase-2 and hepatic 5α-reductase and enhanced tissue responsiveness to corticosteroids.<sup>15</sup> Although this modulation in the hypothalamic–pituitary–adrenal axis would have been beneficial during acute starvation and salt depletion, in the longer term it places Holocaust survivors at increased risk of cardiometabolic disease, such as hypertension, diabetes, atherosclerotic heart disease, dyslipidaemia, and vascular dementia. Limitations of this study, however, included reliance on medical chart review for diagnosis of current cardiovascular disease, lack of detail on method of participant recruitment, and imperfect matching of the control population for sex.

## 2 General management principles

### Minimise traumatic cues

- Try to use ethnospecific services where possible

### Maximise sense of autonomy

- Give the patient autonomy in non-crucial management decisions
- Provide dignity in terms of clothing and privacy
- Minimise bed transfers
- Listen patiently to the survivor's life story and experiences
- Provide a psychologist referral while patient is in hospital
- Use interpreters as much as possible if patient is limited to communicating in Yiddish, Polish or Russian; professional interpreters are preferable to family members ◆

## Cancer

The Barker hypothesis has also been implicated in explaining the significantly higher rates of cancers, particularly breast and colorectal cancers, observed in Israeli survivors. An examination of Jewish birth cohorts in 5-year increments from 1920 to 1945 revealed that the incidence of cancer is increased among Holocaust-exposed Jews across all cohorts compared with controls.<sup>20,21</sup> The greatest increase was observed in the 1940–1945 birth cohort (a relative risk of 3.50 for all-site cancer among men), among whom there was presumably extreme physiological stress in utero and after birth.

However, this study of 315 544 participants had a major limitation — the inclusion criteria for the “Holocaust-exposed” cohort was only that the participant was Jewish and living in Europe between 1939 and 1945. Therefore, no data were provided on participants' individual Holocaust experience (ie, concentration camps, ghettos, hiding) or degree of malnutrition at the end of the war.

## Sequelae of Nazi medical experiments

Doctors in the death camps performed unethical experiments on large numbers of prisoners.<sup>22,23</sup> Procedures included incompatible unsterile blood transfusions, injections of toxic substances, and unanaesthetised operations, including abortions and male and female sterilisations.<sup>23–26</sup> The effects of these experiments may create late sequelae and new problems decades after the Holocaust. One case study reported that a patient subjected to left intra-testicular injection with an unknown substance in Auschwitz in 1943 developed a secondary giant malignant fibrous histiocytoma of the testis and spermatic cord 53 years later.<sup>27</sup>

## Optimising treatment of Holocaust survivors

Holocaust survivors are a distinct older patient population with unique and identifiable needs evident in the scientific literature. They may react to the physiological changes of ageing with distress and fear, cope poorly with chronic medical conditions, and experience re-traumatisation and worsening of posttraumatic stress with the onset of cognitive decline. In addition, there are discernible direct medical sequelae of the Holocaust experience that need to be recognised and investigated by medical staff.

Despite the need for increased medical support and follow-up for Holocaust survivors, this population has a learned fear of the medical system. However, there are steps that health professionals can take to optimise medical management of Holocaust survivors.

The first step is education and raising awareness. The difficulty of caring for older Holocaust survivors is under-acknowledged within the medical system. Survivors may be dismissed as “problem patients”, without recognition of the wider trends within this demo-

graphic. Increasing research will enable health professionals to draw on a greater database of solutions to common scenarios.

In dealing with Holocaust survivor patients on an individual basis, there are several points that may help optimise rapport and outcomes (Box 2). History-taking is crucial, and obviously recognising a patient as a Holocaust survivor is essential. Unfortunately, history of Holocaust survival is frequently neglected by doctors. One Israeli study showed that 15% of long-term psychiatric patients were unrecognised Holocaust survivors.<sup>28</sup> An American study corroborated this trend, revealing that the charts of 33% of Holocaust survivors bore no mention of their experiences.<sup>29</sup> Clues to Holocaust survival may be as subtle as age, Jewish name, religion, European birthplace or accent, or as obvious as a number tattooed on the left forearm (Box 3).

If a patient is comfortable with discussing their Holocaust experiences, it is desirable to sensitively elicit a detailed history of experiences, particularly focusing on issues with relevance to current health; for example, psychological health, degree of malnutrition and long-term complications of medical experimentation.

If a survivor is admitted to hospital, subsequent medical management should minimise traumatic cues and maximise the patient's sense of autonomy insofar as possible. Ethnospecific services (Box 4) may also be of great help in coordinating ongoing local care.

Although this article specifically addresses the late effects of the Holocaust, many of the complexities in medical management are broadly applicable to the general refugee experience. The principles of sensitive medical care outlined here may thus be useful in approaching the care of elderly refugees from other ethnic backgrounds, for example, Cambodian, Bosnian or Sudanese refugees, as well as older Australian veterans.<sup>30</sup> Apart from the common generic issues, each community will also have their own unique cultural issues requiring elucidation for best medical management.

## 3 Identifying Holocaust survivors and associated health problems

### History

- Identification of likely Holocaust survivor
  - A tattooed number may be visible on the forearm; this is virtually pathognomonic for prior internment in the Auschwitz concentration camp
  - Jewish religion or name
  - European birthplace or accent
  - Over 65 years old
- Direct sensitive questioning about wartime experiences and immigration to Australia
  - In camps? Or hiding?
  - Exposed to medical experiments?
  - Known traumatic triggers?
  - Degree of malnutrition — weight at end of war; persistence of amenorrhoea; problems conceiving children?

### Impact on current health

- Screen for post-traumatic stress disorder symptoms
  - Hyperarousal (ie, sleep problems)
  - Reliving trauma via memories, dreams
  - Avoidance of traumatic triggers, numbing (restricted range of affect, feeling detached from others)
- Assess mood: depressed, suicidal?
- Obtain history of pathological fractures
- Obtain dietary history
- Ask about current family structure, supports, accommodation, financial stability ◆

**4 Supports available for Jewish Holocaust survivors\***

**Victoria**

- Jewish Care (Victoria)
- Jewish Holocaust Museum and Research Centre
- Emmy Monash Aged Care
- Kosher Meals On Wheels
- Chevra Hatzolah ambulance service
- Australian Society of Polish Jews and Their Descendants

**New South Wales**

- Australian Association of Jewish Holocaust Survivors and Descendants
- Child Survivors' of the Holocaust Group
- Jewish Centre On Ageing
- Wolper Jewish Hospital
- The Montefiore Home
- The Jewish House
- JewishCare Sydney
- Club 50

**Queensland**

- Queensland Jewish Community Services
- Gold Coast Jewish Community Council
- Rose's Army

\* In states where official support is not available in the form of an ethnospesific nursing home or volunteer service, consultation with the local synagogue may yield an individual volunteer or interpreter. There are synagogues in all Australian capital cities, as well as Newcastle, the Gold Coast, Launceston, Ballarat and Seymour. ◆

**Conclusion**

Late life is often a time of increased health vulnerability. Holocaust survivors are particularly susceptible to adverse psychological and medical outcomes resulting from their experiences earlier in life. This may also affect the doctor–patient relationship, secondary to their underlying distrust of medical professionals. Awareness, sensitive history taking and careful multidisciplinary management are key to improving survivors' health and trust in medical personnel.

Australia is a country characterised by large refugee minority groups, and experiences with Holocaust survivors should be recalled when dealing with subsequent waves of refugees who have come to Australia and older Australian veterans.

**Competing interests**

None identified.

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