

## Policy Briefing "Digital Mental Health"

# Mental Health in Times of War

*This policy briefing from the German Israeli Health Forum for Artificial Intelligence (GIHF-AI) sheds light on the impact of the Hamas attack on October 7, 2023, and the subsequent war on the Israeli population. It highlights both the psychological effects and the enormous challenges for the Israeli healthcare system. Additionally, it examines Israel and Germany's healthcare systems in the mental health sector, focusing on Digital Mental Health and international cooperation possibilities.*

In July 2022, the European Leadership Network (ELNET) organized a Mental Health Day in Tel Aviv through its innovation project GIHF-AI. The event took place as part of a Digital Health delegation trip organized by the German Israeli Network of Startups & Mittelstand (GINSUM). The theme was "Where global challenges for mental health meet innovative solutions in technology". It centered around Israeli Mental Wellness and Health Tech innovations used in treating Post-Traumatic Stress Disorders (PTSD)<sup>1</sup> According to the World Health Organization (WHO), **mental health** is defined as "a state of mental well-being that enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community".<sup>2</sup> Mental health is also a **prerequisite for individuals to realize their intellectual and emotional potential** and find fulfillment in society, education, and work. Societally, mental health contributes to **economic prosperity, solidarity, and social justice**.

**PTSD** can arise **in response to overwhelming events** such as **severe accidents, violent crimes, disasters, or acts of war**. In Israel, many people have had direct and indirect experiences with war trauma, stemming from the Holocaust and the wars and terrorist attacks since its establishment in 1948. Studies suggest that the Israeli population has sig-

nificant resilience<sup>3</sup>, which refers to the ability to "develop successfully despite adverse life circumstances and critical life events due to the multitude of potentially traumatizing events".<sup>4</sup>

### Mental Health in Israel since October 7

However, the situation in Israel concerning the mental health of the population has changed. **The unprecedented Hamas attack targeting Israel on October 7, 2023, and the subsequent war, have far-reaching psychological and psychiatric consequences for the Israeli population.**<sup>5</sup> Clinics in Israel have admitted numerous patients with **acute stress reactions and stress disorders** since the attack. It is expected that many people will suffer from PTSD as a result of this attack. Among them are not only those directly affected psychologically and physically but also their families and indirectly involved individuals, as the attack and its consequences have shaken the entire country.<sup>6</sup>

Even the **medical personnel have not been immune to the fears prevalent in the population during the conflict**. Many of them have family members in the military, both on active duty and in reserve. Many mourn family members or close friends who were killed or held captive in the Gaza Strip.<sup>7</sup> Shortly af-

ter the Hamas massacre, the Israeli crisis hotline for mental health, operated by the NATAL organization, experienced a drastic increase in calls from 25 to 100 calls per day to now 1,200 calls per day.<sup>8</sup>

Studies worldwide have shown that traumatic events like wars and armed conflicts can lead to a significant increase in post-traumatic stress and depression. A review published by the World Health Organization (WHO) in 2022 of 129 studies from 39 countries shows that **one in five people (22 percent) who have experienced a war or another conflict in the last 10 years suffers from mental illnesses.** These include **depression, anxiety, post-traumatic stress disorders, bipolar disorders, and schizophrenia.**<sup>9</sup>

A **concrete example is the impact of September 11 in the United States:** Among adults living in New York City and adjacent areas in New Jersey and southern Connecticut, **7.5 percent reported symptoms of post-traumatic stress disorder (PTSD), and nearly 10 percent reported symptoms of depression.** The rates of these symptoms were almost double the national baseline prevalence of 3.6 percent for PTSD and 4.9 percent for depression.<sup>10</sup> The scale and resulting physical and emotional effects of the attack on October 7 are considered by experts to be comparable to the collective trauma experienced by American society during September 11.<sup>11</sup>

Compared to events in Israel in **recent years, it is anticipated that the recent attack will have more substantial, long-term effects on people.** Reasons for this include the current situation not being resolved and thus characterized by a high degree of uncertainty and instability. It is still unclear how many people were killed and who is still alive, making it impossible to find closure and grieve. Studies have found that situations of unclear loss are associated with a higher degree of psychological distress and post-traumatic symptoms.<sup>12</sup>

Added to this is the extreme brutality of the attack, which indiscriminately targeted soldiers and civilians, including entire families, Holocaust survivors, infants, children, and elderly people. Moreover, Israel being a **small and closely-knit society** means that

**almost all Israeli citizens are directly or indirectly confronted with loss, fear, and grief.** Hundreds of thousands of residents from southern and northern Israel were evacuated for security reasons or due to the destruction and burning of their homes. The loss of housing and the extended stay in emergency shelters result in financial losses and difficulties in returning to everyday life.

With the loss of family members, neighbors, and friends, many people have also lost their natural support systems, which are crucial for trauma coping.<sup>13</sup> Those who were held hostage for weeks must cope not only with processing the terrible experiences but also with the transition from isolation and helplessness to sensory overload and freedom, which can lead to strong stress reactions.<sup>14</sup> **A significant portion of the Israeli population will need professional psychosocial care now and in the future to process what they have experienced. Both the healthcare system and communities, social workers, and policymakers play a key role in creating the necessary conditions for this.**

The WHO Special Representative in Israel, Dr. Michel Thieren, has assessed healthcare measures at several points. He has visited hospitals, such as one in Ashkelon where many of the wounded are being treated, talked to the injured and displaced, visited destroyed and abandoned towns and villages, and observed the extremely challenging work of forensic experts to get an overview. He reported, among other things, that most victims did not speak about their own injuries but rather about what they experienced and the images of people dying before their eyes. Moreover, a significant amount of uncertainty is palpable. According to him, a great number of people urgently need psychological support, as mental health problems are rapidly spreading in the population. "Violence, deaths, injuries, displacement—all of this has significant long-term challenges that are difficult for healthcare systems to adequately address"<sup>15</sup>, summarized Dr. Michel Thieren.

### Israel's Psychosocial Healthcare

According to the National Health Insurance Law of 1994, the Israeli population is entitled to health-

care services through one of the four health service providers (HMOs): Clalit, Maccabi, Meuchedet, and Leumit, which simultaneously act as payers and providers. However, mental health care was the responsibility of the government until the mental health reform in June 2015. Since the reform, the sole responsibility for providing psychosocial services has been transferred from the Ministry of Health to the health service providers. The significance of this development lay in the merging of mental and physical health care, aiming not only to improve care but also to destigmatize mental illnesses. Since then, the HMOs have been responsible for providing psychosocial services, overseen by the Ministry of Health. **The importance of mental health due to the COVID-19 pandemic has also led to it being considered a critical aspect of healthcare, on par with physical health.**<sup>16</sup>

However, there is still a **need for improvement in healthcare**. There is a significant and growing gap between demographic groups in accessing psychosocial services. **Mental health issues are rapidly increasing across all age groups**, a trend observed globally. Particularly within the context of the COVID-19 pandemic, the worldwide prevalence of anxiety disorders and depression has increased by 25 percent, according to a report by the WHO.<sup>17</sup> **This trend is also evident in Germany.**<sup>18</sup> The psychiatric care in Israel is distributed among multiple service providers, including welfare and social services, leading to gaps in care and inconsistent data. **Regulations supporting psychosocial care in Israel lag behind compared to other sectors.**<sup>19</sup>

Additionally, integrating patient information from psychosocial treatment across all care settings presents a significant challenge. **There are evident gaps concerning various population groups, especially children and the Arab Israeli population.** Moreover, reimbursement pathways and financial incentive structures need updating to integrate solutions for mental health into the Israeli healthcare system. Finally, Israel, like many other countries, suffers from a significant shortage of mental health professionals across all care sectors.<sup>20</sup>

A positive note is the **significant interest among**

**relevant stakeholders in Israel to improve mental health care at the national level.** This is attributed to the impact of the COVID-19 pandemic and recent traumatic events. This has led to multiple measures and was one of the driving forces behind the recent amendment of the Israeli Ministry of Health's data regulations in November 2023, allowing the inclusion of mental health data in the general patient records of HMOs. Hospitals, HMOs, and other relevant institutions are also working to support the population in coping with the situation, rapidly establishing new structures.<sup>21</sup>

### Digital Mental Health in Israel

In addition to conventional methods such as psychotherapy and medication, experts affirm that internet-based applications help alleviate symptoms and reduce stress. The spectrum of deployment of Digital Mental Health or e-Mental Health applications ranges “from universal and targeted prevention for at-risk groups to psychotherapeutic internet interventions to bridge waiting times, as a complement to conventional methods, to relapse prevention after completing treatment”.<sup>22</sup> They also offer the chance to address the increasing lack of therapy options and prevent relapses. **Technological solutions have the potential to create individualized solutions for patients that were hardly achievable with conventional approaches.**<sup>23</sup>

Since 2011, 63 mental health startups have been founded in Israel, with a third of them inactive. Even before the COVID-19 pandemic, there was increased activity in mental health: between 2018 and 2020, 30 new startups were founded. Although the number of startups has decreased since then, the momentum with an average of five startups per year from 2021 to 2023 is still noticeable.<sup>24</sup>

### Mental Health in Germany

Also in **Germany**, the **psychiatric support system faces the significant challenge of coping with the growing demand for assistance due to mental illnesses.** The German system encompasses **out-patient, day-care, inpatient, and supplementary services, involving various professionals and aim-**

ing to ensure high-quality care.<sup>25</sup> Germany's psychiatric policy is shaped by the Psychiatry Reform, the so-called **Psychiatry Enquete, of 1975**. The associated reform process towards community-based psychiatry focusing on social-psychiatric principles led to a significant improvement in care. Along with the **GKV Health Reform Act of 2000**, which also focused on reintegrating mentally ill people after hospital stays, it further **strengthened the role of social work** alongside the provision of psychosocial services by doctors and psychotherapists. The social work complements the range of services through coordination, counseling, support, accessing resources, as well as therapy.<sup>26</sup>

Demand for medical support due to mental health problems is increasing in Germany as well, while only a fraction of those affected actually receive professional support. **Although the utilization of medical help is growing, only about 20 percent of individuals with psychiatric diagnoses receive appropriate treatment.** Between 2019 and 2023, depressive symptoms increased multiple times in the population. Between 2021 and 2023, there was also an increased occurrence of anxiety symptoms. Furthermore, self-rated mental health deteriorated.<sup>27</sup>

The **significance of prevention and health promotion**, which also includes destigmatizing mental illnesses, is **steadily increasing**. Initiatives such as the *Aktionsbündnis Seelische Gesundheit* (Action Alliance for Mental Health) advocate for nationwide education and information on mental health and against the stigmatization of mental illnesses, welcomed by governmental bodies and practitioners. To obtain better data on the population's mental health, the German Federal Ministry of Health supported **extensive additional surveys on mental health as part of the Robert Koch Institute's study on the health of adults in Germany (DEGS)**. This also includes information on the use of facilities within the care system. The data from the survey phase is currently being evaluated.<sup>28</sup>

**Aforementioned opportunities from innovative additions to care in the form of Digital Mental Health** are also recognized and promoted in Ger-

many. A task force established by the German Association for Psychiatry, Psychotherapy, and Psychosomatics (DGPPN) and the German Psychological Society (DGPs) has presented criteria that can help professionals and users select effective and recommended interventions.<sup>29</sup> Moreover, the **focus** of the **Digital Health Applications (DiGA) listed in the directory of the Federal Institute for Drugs and Medical Devices (BfArM) is on applications for treating people with mental illnesses**, supported by the E-Health Initiative of the Federal Ministry of Health (BMG). Additionally, the **Fraunhofer Institute for Open Communication Systems (Fraunhofer FOKUS) was tasked with creating a meta-catalog for criteria for evaluating health apps** (APPKRI criteria for health apps), incorporating the results of the DGPPN and other institutions.<sup>30</sup>

## Conclusion and Outlook

**Engagement in mental health** needs to coincide not only with **destigmatization and health education** but also with **international and interdisciplinary collaboration**, especially an **increase in global investments and fostering innovation**. Moreover, enhanced cooperation between healthcare providers and policymakers is recommended to implement effective psychosocial programs and **facilitate access to Digital Mental Health**. In this context, an open dialogue regarding the added value of these digital applications, as experts may have varying assessments, is crucial. This could lead to acceptance challenges from the side of healthcare providers. Transparency, evidence, discourse, and the creation of a criteria catalog can persuade and optimize digital applications. Additionally, awareness of the benefits must be strengthened, and an innovation-promoting infrastructure needs to be established to offer more internet-based solutions. This is indispensable in times of increasing shortages of professionals and simultaneously rising demands.

According to the recent WHO Mental Health Atlas, **governments worldwide spent an average of just over 2% of their health budgets on mental health in 2020**, and in many low-income countries, there was less than one mental health professional per

100,000 inhabitants. This does not align with the need. **Simultaneously, internet-based applications can improve treatment while relieving the financial and personnel burdens on the healthcare system.** If the innovative Startup Nation Israel collabo-

rates with Germany and its firmly established and multimodal psychosocial care and research system, they can play a pioneering role in this field from which people worldwide can benefit.<sup>31</sup>



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