

WG 3 (Psychological Health)

Predicting Severe Mental Illness Among Israeli Adolescents and Soldiers: Insights from Draft Board Assessments and Psychiatric Hospitalization Records

Mark Weiser, Carmel Kalla, Jacob Rotschild, Gadi Cohen.
Sheba Medical Center, IDF Department of Mental Health.

Background and Rationale:

Previous research by our group integrated data from assessments conducted by the Israeli draft board with records of psychiatric hospitalizations both during and after military service. This extensive dataset enabled the characterization of adolescents assessed at age 17 who were later hospitalized for severe mental illness. Our findings indicated that 17-year-old individuals later diagnosed with schizophrenia were more likely to exhibit cognitive impairment (0.4 standard deviations), lower levels of social activity, and an increased likelihood of non-psychotic psychiatric disorders compared to age, sex, and socioeconomic status-matched controls. However, the differences between cases and controls were not large enough to provide meaningful predictive accuracy. In soldiers hospitalized during their military service who had been previously examined by a mental health professional, the positive predictive value of delusions or hallucinations was too low for accurate early identification of at-risk individuals.

Research Methodology:

We are currently in the process of obtaining approval to relink these datasets. This expansion will allow us to track approximately three million adolescents over a follow-up period of up to 40 years.

Findings and Conclusions:

Utilizing modern artificial intelligence, data mining, and machine learning techniques—unavailable during our initial studies—we aim to develop more accurate predictive models. A separate, unrelated study will examine PTSD risk among soldiers exposed to combat stress or injury, using data from the October 7th attacks and subsequent months. By linking PTSD assessments with draft board data, we aim to identify baseline factors differentiating soldiers who develop post-traumatic symptoms from those who do not.

WG 3 (Psychological Health)

Mental Challenges and Mental Fitness Among Individual Augmentees in the IDF

Ofir Ohayon, Tal Ashkenazi, Danielle Levi, Yoav Levinstien, Avishai Antonovsky.
Medical Corps, IDF.

Background and Rationale:

Combat soldiers face a wide variety of mental challenges on the battlefield. Despite the broad common denominator of combat activity, it is worth identifying and mapping distinctive mental challenges which characterize specific combat units in unique missions. In these mixed methods study we sought after the mental challenges of individual augmentees (soldiers who individually join organic units per specific missions). As far as we know, this subject has not received sufficient research attention so far.

Method:

The study was conducted in the first half of 2021, in three units: "OKETZ" (dog handlers), "YAHALOM" (special engineering unit) and the Combat Documentation Squad (photographers). Data were collected from 109 combat soldiers, using seven questionnaires (self-efficacy, professional ability, fear of mistakes, sense of coherence, burnout, situational anxiety, and well-being). In addition, focus groups were conducted to examine the functional aspects of their military activities.

Results:

A qualitative content analysis of the focus group findings revealed 4 main themes relating to individual augmentees' operational functioning: (a) before carrying out the mission, (b) while performing the mission, (c) after completing the mission, (4) a sense of meaning versus a sense of burden. A general finding that overarches the four themes was the feeling of loneliness. Quantitative results from the questionnaires point to differences between the three units which are in line with the qualitative analysis.

Conclusions:

The most demanding mental challenge that the individual augmentee combat soldier faces is the sense of loneliness that accompanies the act of teaming. This general conclusion expresses the importance of satisfying the basic human need for social belonging, a need that intensifies in life-threatening situations, such as those experienced by members of individual augmentee units. In light of the findings, we propose a few changes in the combat preparation programs of individual augmentee units, as well as in officer training courses for commanders of organic combat units.