

# The Impact of Adherence to Treatment for ADHD on the Quality of Military Service - The Israeli Military Experience

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Mil Med. 2018 Jul 11.

doi: 10.1093/milmed/usy161.

Abstract

## INTRODUCTION:

Attention deficit hyperactive disorder (ADHD) is prevalent in 5.9-7.1% of children and adolescents, and 5% of adults. It results in poor academic, occupational, and social functioning. Pharmacotherapy improves core symptoms; however, average adherence levels are low and decrease at 16-17 years of age, just before the recruitment age to Israel Defense Forces (IDF). This study evaluated the effect of adherence to ADHD pharmacotherapy on occupational performance among soldiers.

## MATERIALS AND METHODS:

Retrospective data were collected for the study cohort, which included all soldiers serving in the IDF from 2008 through 2012 ( $n > 500,000$ ). Each soldier in the cohort was categorized based on adherence to treatment, as measured by prescriptions filled monthly: (1) no treatment, (2) low adherence ( $<2/\text{year}$ ), (3) medium adherence (2-6/year), and (4) high adherence ( $>6/\text{year}$ ). Occupational performance was evaluated by 3 indicative parameters: (1) number of sick days, (2) number of exemptions from daily activities, and (3) military profession disqualification, including sub-analysis to military profession groups.

## RESULTS:

ADHD pharmacotherapy adherence correlated inversely with occupational performance, as exhibited by more sick days and exemptions from daily activities. All soldiers pharmacologically treated for ADHD had higher professional disqualification rates compared with soldiers who did not require ADHD treatment. In contrast to the general trend, in the military drivers group, higher rates of ADHD adherence correlated with lower professional disqualification rates.

## CONCLUSIONS:

Our hypothesis that greater adherence would correlate positively with better occupational performance was refuted. We speculate that increased adherence levels are indicative of more severe ADHD and thus, accompanied by lower occupational performance. The correlation between increased adherence and improved driving ability could be attributed to the nature of driving professions, which require a high level of concentration. Due to the importance of driving in both military and civilian settings, interventions designed to enhance adherence to treatment for ADHD among drivers could have a broad effect on driving consequences, and should be considered by policymakers.