

Changes in smoking, stress, and sleep duration among Israeli hospital workers during COVID-19

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Background:

Mental health impacts of the COVID-19 pandemic, especially among frontline health workers, have been widely noted. The aim of this study was to explore smoking behaviour changes and associations with perceived changes in stress levels and sleep duration among Israeli hospital workers during the COVID-19 pandemic.

Methods:

An online cross-sectional survey was conducted (May-June, 2020) among employees of a large tertiary medical centre. Data collected included socio-demographic characteristics, smoking status, perceptions of risk for COVID-19 infection and disease severity, presence of a chronic illness, COVID-19 exposure and infection status, involvement in treating COVID-19 patients, changes in stress levels, sleep duration, and in smoking behaviour during the pandemic. Multi-nominal logistic regression modelling assessed the effect of covariates on smoking behaviour changes.

Results:

More than half (59%) of the 920 respondents, reported an increase in stress levels, and 28% reported changes in sleep duration. One-third (35%) of current smokers (n=132) reported smoking more during COVID-19. Increased smoking was associated with increased stress (OR = 3.45; 95% CI 1.2-9.4). In addition, a significant association was demonstrated between an increase in sleeping hours and a decrease in smoking (OR = 6.62, 95% CI 1.2-32). The negative association between changes in smoking and sleep duration was strongest among smokers who reported perceived levels of stress to be the same or slightly higher than pre-COVID-19.

Conclusions:

The mental health implications of the COVID-19 pandemic, specifically for health workers, include negative changes in smoking behaviours and sleep patterns. Mental health support for health workers should address smoking behaviours alongside stress-management skills and coping strategies. Lessons learned from the current pandemic should guide us as the world prepares for a future health crisis.

Key messages:

- Increased stress was linked with increased smoking among Israeli hospital workers during COVID-19.
- Mental health support should target smoking together with offering stress-management skills.