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RECENT STATISTICS ABOUT WEEKDAY SUICIDES IN THE US

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Dear Editor,

A seminal meta-analysis published by Martin Plöderl (2021) showed that the number of suicides in Austria in the period 1970-2017 was not evenly distributed across the different days of the week. In particular, a peak was observed on Mondays, while the number of suicides generally declined at weekends. We therefore planned a study to verify the reproducibility of these findings with more recent data and in a different country.

We performed a digital search of the most recent version of the US Centers for Disease Control and Prevention (CDC) WONDER online database for the years 2018-2022 (Centers for Disease Control and Prevention, 2024), an official nationwide

repository of death certificates. The search included the more recent searchable years (i.e., from 2018 to 2022) using specific ICD-10 codes for suicide (i.e., X60-X84: intentional self-harm), stratified by the different days of the week. Suicide data were reported as mean number of deaths \pm standard deviation (SD) over the searchable periods. Data were graphically plotted in Microsoft Excel (Microsoft, Redmond, WA, USA), and the statistical significance throughout the period was assessed using one-way analysis of variance (ANOVA) and Tukey post-hoc test (StatPages; Interactive Statistical Calculation). Statistical significance was set at $p < 0.05$. The study was conducted in accordance with the Declaration of Helsinki and the terms of the relevant local legislation.

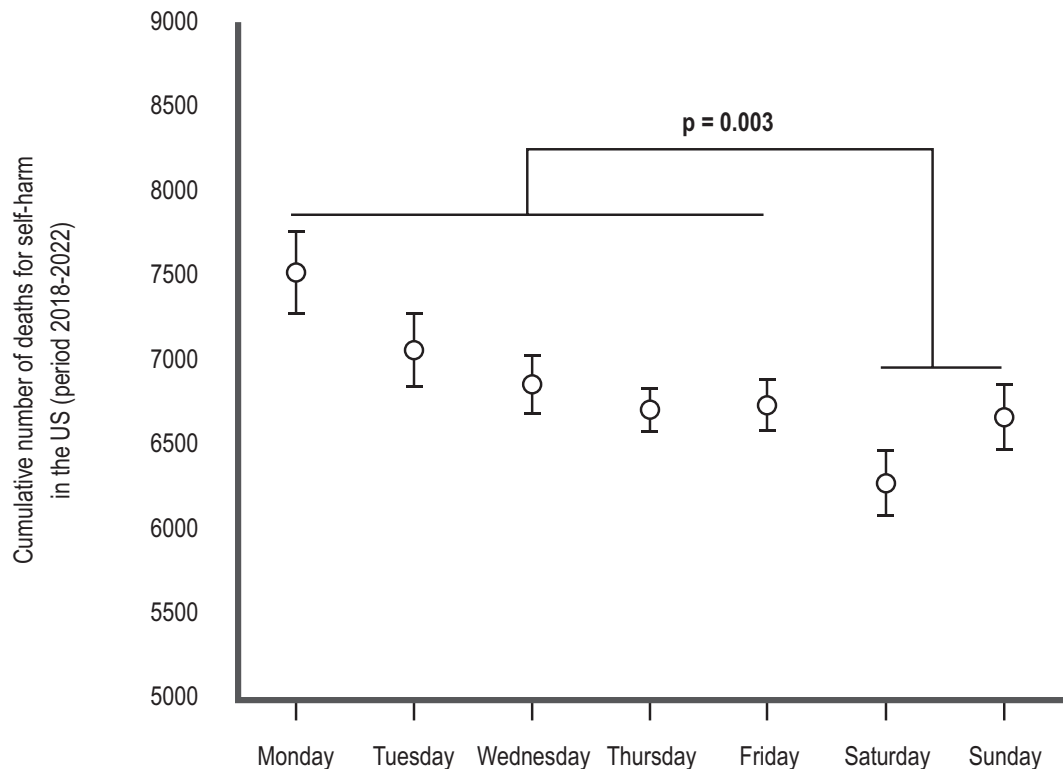


Figure 1. Overall number of deaths (with standard deviation; SD) for self-harm leading to death in the US during the years 2018-2022 and stratified according to the weekday.

The results of our analysis are summarized in Figure 1. The cumulative mortality trend for suicides from 2018-2022 in the US was found to be statistically significant using ANOVA ($f=16.6$; $p<0.001$). In particular, the mean number of deaths for self-harm recorded during the weekend (6471 ± 183) was significantly lower than during the rest of the weekdays (6979 ± 166 ; $p=0.003$). As for the Tukey post-hoc test comparing the cumulative mortality for suicides between the different days of the week, the number of deaths was higher on Mondays compared to all other days of the week (all $p<0.01$) and was lower on Saturdays compared to all other weekdays (all $p<0.05$) except

Sunday. No other statistically significant differences between the different weekdays could be observed (all $p>0.05$).

Taken together, our data could hence confirm that self-harm leading to suicide was higher on Mondays in the US between 2018-2022, as already reported in Austria. Moreover, we also found that the trend in suicides in the US declined significantly on weekends, reaching a minimum on Saturday. Whether differential exposure to stressful events and social ties could play a role in determining this trend would need to be investigated in further research specifically aimed at identifying the actual causes that led to self-harm resulting in death.

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