Corrigendum to Against All Odds, Femicide Did Not Increase During the First Year of the COVID-19 Pandemic: Evidence From Six Spanish-Speaking Countries

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The article uses threshold models—as developed by Bruce (2008, 2012) and adapted by Maldonado-Guzmán et al. (2020)—to measure whether the number of femicides recorded in each country in 2020 differed significantly from the average number recorded from 2017 to 2019. However, due to a misinterpretation of the formula proposed by Maldonado-Guzmán et al. (2020), there is a mistake in the estimation of the Z-scores. Concretely, the formula applied in the article is based on the weighted standard deviation and includes the year 2020, when it should have been based on the standard deviation and exclude that year. Consequently, the last two paragraphs of the section Data Analysis (pages 626-627) should read as follows:

Thereafter, we compute the standard deviation for the period 2017 to 2019. \( x_i \) is the number of femicides in the year \( i \), \( \bar{x} \) is the average of femicides between 2017 and 2019 (not weighted) and \( N \) the number of years, in our case 3.

\[
SD = \sqrt{\frac{\sum (x_i - \bar{x})^2}{N-1}}
\]

Finally, we compute the weighted Z-score. The threshold technique bases its estimates upon this coefficient, which corresponds to the number of standard deviations above or below the weighted average for the previous years. To calculate the weighted Z-score, we subtract the weighted average of the number of femicides in 2020 (X) from those committed from 2017 to 2019 and divide the product by the standard deviation:
Weighted Z-score = \frac{X - Weighted \bar{x}}{SD}

This change of the formula has an impact on three of the last four columns of Table 3 (page 628), namely the Weighted Z-score, the SD, and the Z-score, which should read as follows:

Table 3 (excerpt) revised. Weighted Z-score, Weighted average, Standard deviation and Z-score used for the threshold analyses (2020 compared to the period 2017-2019) in six countries*.

| Country   | Weighted Z-score | Weighted average | SD    | Z-score |
|-----------|------------------|------------------|-------|---------|
| Argentina | 1.9              | 282.3            | 6.7   | 1.6     |
| Chile     | -0.4             | 44.2             | 2.6   | -0.4    |
| Paraguay  | -1.7             | 48.3             | 9.5   | -2      |
| Panama    | 3.9              | 21.2             | 2.5   | 4.2     |
| Mexico    | 0.5              | 892.8            | 104.6 | 0.8     |
| Spain     | -3               | 52.8             | 2.6   | -2.6    |
| Total     | 0.5              | 1341.7           | 103.16| 0.8     |

*Note: The excerpt of Table 3 presented here only shows the modifications to the original Table 3 (included in page 629 of the article). There are no modifications to the rest of that Table.

The corrected weighted Z-scores do not have an impact on the conclusions of the article. The data collected show that, despite the lockdowns introduced during the first year of the pandemic, femicide rates did not rise in the countries under study. The weighted Z-score of Panama (3.9) reflects a statistically significant increase because of the 10 femicides registered in January 2020 (that represent 32% of all femicides committed in that country during that year), but that was two months before the beginning of the lockdowns, and therefore those femicides cannot be seen as a side effect of the pandemic. On the other hand, the weighted Z-score for Spain (-3) means that the decrease in femicides observed in that country during 2020 is statistically significant.

It must also be mentioned that, probably because threshold models have only recently been used in the field of criminology (Bruce, 2008, 2012; Maldonado-Guzmán et al. 2020; Duarte & Cadavid, 2020), one can find slight variations in the formulas used by different authors. For example, Duarte and Cadavid (2020) do not introduce any transformation of the variables and based their formula on the arithmetic mean, the standard deviation and the standard Z-score. Using that formula, one obtains the Z-scores shown in the last column of the revised Table 3, which lead to the same conclusions stated above. The results (not shown here but available on demand) are also similar when the formula is based on the weighted average and the weighted SD.
Finally, in the revised Table 3 presented above we have also included an indicator of the trend in the total number of femicides registered in the six countries under study. The latter was obtained by adding the figures observed in each country and then treating the result as if it belonged to a single supra-national entity. The weighted Z-score (0.5) corroborates that femicide did not increase during the first year of the COVID-19 pandemic.

**References**

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