

# Conduct Disorder in Times of Crisis in the Eastern Mediterranean Region

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## Background

The Eastern Mediterranean Region (EMR) has a high burden of conduct disorder (CD) and has the largest proportion of displaced populations globally. Violence and displacement increase the need for mental health services, aggravated by the lack of mental health professionals.<sup>1,2</sup>

## Methods

Using descriptive study design, the 2015 global CD burden (disability-adjusted life years DALYs per 100,000 populations) was compared to the EMR CD burden. To assess change over time (1990-2015), the trend of CD in 22 EMR countries was graphed and compared with the global CD burden. Using correlation analysis, the relationship of CD with a) Corruption Perception Index; b) Global Peace Index; c) Human Development Index were assessed. CD data were obtained from 2015 Global Burden of Disease Study (Institute for Health Metrics and Evaluation). De-identified data was used for analysis; therefore, ethical review not required.

Table 1 provides the links to the data sets used in the study.

### Table 1 Data Sets Used in Study

CD	<a href="https://vizhub.healthdata.org/gbd-compare/">https://vizhub.healthdata.org/gbd-compare/</a>
HDI	<a href="http://hdr.undp.org/en/content/human-development-index-hdi">http://hdr.undp.org/en/content/human-development-index-hdi</a>
GPI	<a href="http://visionofhumanity.org/indexes/global-peace-index/">http://visionofhumanity.org/indexes/global-peace-index/</a>
CPI	<a href="https://www.transparency.org/news/feature/corruption_perceptions_index_2016">https://www.transparency.org/news/feature/corruption_perceptions_index_2016</a>
WHO/EMR	<a href="http://www.who.int/about/regions/emro/en/">http://www.who.int/about/regions/emro/en/</a>

## Results

In the majority of EMR countries, CD DALYs were higher in comparison to the rest of the world (99 vs. 81). The top six countries with the highest burden of CD were: Afghanistan, Somalia, Sudan, Syria, Yemen, and Iraq. Even though CD trend declined globally and in EMR over the 25 years, countries in EMR with political conflict still experienced increased trend of CD burden (see Figures 1 and 2).

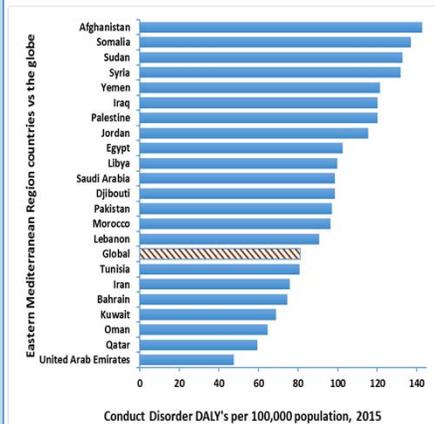


Figure 1. Burden of Conduct Disorder (DALY's per 100,000 population) in the Eastern Mediterranean region countries compared to the global rate 2015.

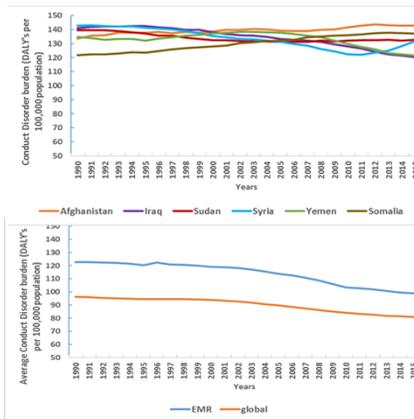


Figure 2. The trend of Conduct Disorder (DALY's per 100,000 population), in EMR compared to the global burden.

Correlation analyses showed that CD burden was positively associated with corruption, and was inversely associated with human development (see Figures 3 and 4).

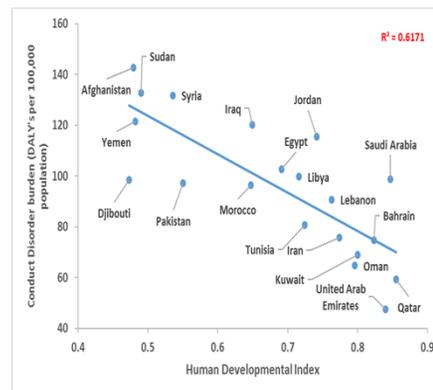


Figure 3. The association between Conduct Disorder and the Human Developmental Index in the Eastern Mediterranean Region countries, for the year 2015..

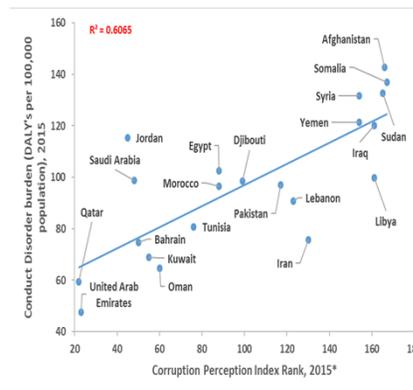


Figure 4. The association between Conduct Disorder and the Corruption Perception Index Rank in Eastern Mediterranean Region countries for the year 2015.

## Discussion and Conclusion

In our study as well in other systematic reviews, a higher prevalence of CD in the EMR as compared to the world was noted.<sup>1,2</sup>

Clear evidence of the social determinants of mental health problems was shown in the literature.<sup>2,3</sup> Our study revealed that EMR countries in crisis presented the highest burden of CD. In existing literature, armed conflicts and traumatic experiences correlated positively with prevalence of mental, behavioral, and emotional problems.<sup>1,2,4</sup> In general CD burden estimation is limited by lack of data due to methodological challenges in quantifying disability.<sup>3,4,5</sup>

To the best of our knowledge, this is the first exploration of CD with indices of violence and corruption. Since CD can lead to delinquency and criminal behavior in adulthood, if kept undetected and not treated, can result in disastrous consequences.

## References

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