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16 **Title:**

17 **Comparison of empathy with patients between Iranian surgical and psychiatric medical**
18 **residents**

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20 **Abstract:**

21 **Background:** Empathy is considered paramount to the medical profession because it affects
22 patients' satisfaction, compliance, and quality of care. This study was conducted to measure and
23 compare Iranian surgical and psychiatric medical residents' empathy scores and to clarify their
24 associated factors.

25 **Methods:** This cross-sectional study was performed on all first to third-year medical residents of
26 psychiatry and general surgery who studied in hospitals affiliated with the Iran University of
27 Medical Sciences (IUMS), Tehran, Iran, in 2021. The Persian-validated version of the "Jefferson

28 scale of empathy” was used to evaluate empathy among the residents. A multivariable regression
29 analysis was used to find the associated independent factors of the empathy score.

30 **Results:** Eighty-eight participants were enrolled in the present study, including fifty-three
31 psychiatric and thirty-five surgical medical residents. The total mean score (SD) of empathy
32 was 104.3 (11.0). The mean empathy scores were higher in female residents compared to their
33 male counterparts (109.3 vs. 99.1); $p<0.001$), the psychiatric residents compared to surgical
34 ones (109.2 vs. 96.7; $p<0.001$), and the third-year residents compared to the second-year
35 residents (107.1 vs. 99.8; $p=0.027$). Having controlled the effect of confounders, the specialty
36 was independently associated with the empathy score ($p=0.001$). However, academic year level
37 and gender were not associated with empathy scores after the adjustments ($p=0.078$ and $p=0.990$,
38 respectively).

39 **Conclusion:** The independent effect of specialty on the medical residents’ empathy scores showed
40 that the clinical education environment could influence empathy towards patients.

41 **Keywords:** Empathy, Medical residents, Iran, Curriculum, Professionalism

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