

Medical students' insight on suicidal ideation [Letter]

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Dear editor

As medical students, we found 'Suicidal ideation in medical students: recent insights' interesting to read. Based on this article, we propose suggestions for the next systematic review.²

Concerning the associated factors contributing to suicidal ideation (SI) in medical students we can only infer the ranking from the order in which they are mentioned. Hence, these claims could be substantiated with the percentages for each.

We agree with the author that there is a correlation between stigma and the under-treatment of SI. Rivera-Segarra et al, 2018³ suggest educating the medical students about stigma, which could prove beneficial for both students and their future patients. Of those who completed suicide, at least 50% contacted their physicians in the preceding month. Moreover, stigma can also co-exist with non-disclosure of SI; in the male medical student population, a greater suicide stigma was observed.³

To broaden the investigation, the method can be modified to search for "suicid*" or specific words such as "suicidality" or "suicide intervention" or "suicide literacy", along with "medical students" in the advanced search.

To provide more relevant insight into the causes of SI in medical students, we suggest that the author includes recent articles that take into account the Big-Five personality traits (especially stability and dominance), in work related settings using the Business-Focused Inventory of Personality 6 Factors (BIP-6F) scale, since those possessing these traits can be more susceptible.¹

To address the heterogeneity of SI prevalence between the studies, we have plotted SI prevalence against cumulative sample size of studies ordered by increasing SI prevalence. The "India" study seems to be an outlier (Figure 1), as it lies outside the top 5%. To probe this further, we estimated the mean and standard deviation (Table 1) and obtained values of 13.8% and 10.3% respectively. The 95% confidence interval is [-6.3(0), 34.0]. The "India" (and perhaps 'Pakistan 2') study lies outside this; hence it inflates the range of SI prevalence by almost double. It may be worthwhile to take this into account, as it had the fourth lowest sample size (the geographical proximities of the outliers India and Pakistan might suggest a geographical stratification of SI).²

Moreover, to estimate the SI prevalence during university from the lifetime SI data, one should search for SI prevalence up to the age of 18 (assumed to be the same for both medical and non-medical students). Then, subtract this value

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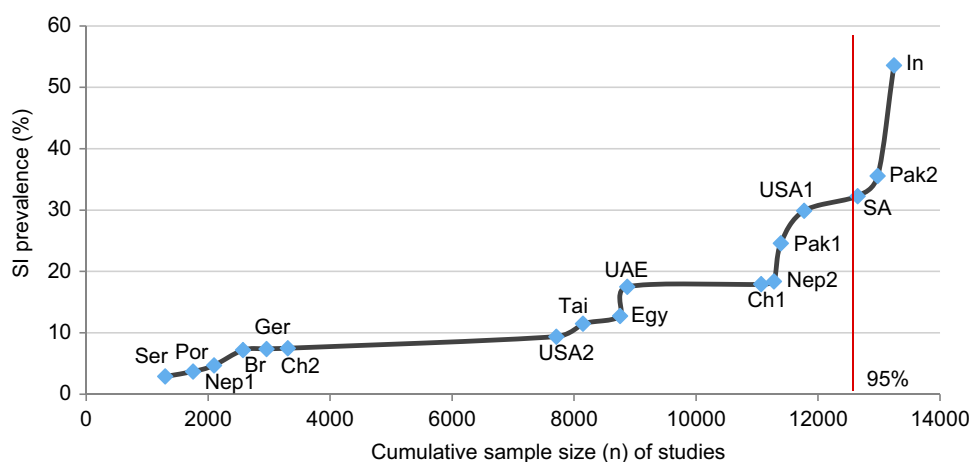


Figure 1 The “Indian” study lies above the 95th percentile.

Table 1 Standard deviation (SD) estimation indicates that the “India” study is an outlier

Country	Sample size (n)	SI prevalence	Cumulative sample size (n)	SI*n	(SI*n/100)	(SI prevalence - mean)	(SI prevalence - mean) ²	(SI prevalence - mean) ² *n
Serbia	1296	2.9	1296	3758.4	37.584	-10.98035	120.5680861	156256.2396
Portugal	456	3.7	1752	1687.2	16.872	-10.18035	103.6395261	47259.62391
Nepal 1	343	4.7	2095	1612.1	16.121	-9.18035	84.27882612	28907.63736
Brazil	475	7.2	2570	3420	34.2	-6.68035	44.62707612	21197.86116
Germany	389	7.4	2959	2878.6	28.786	-6.48035	41.99493612	16336.03015
China 2	348	7.5	3307	2610	26.1	-6.38035	40.70886612	14166.68541
USA 2	4402	9.4	7709	41378.8	413.788	-4.48035	20.07353612	88363.70601
Taiwan-China	435	11.5	8144	5002.5	50.025	-2.38035	5.666066123	2464.738763
Egypt	612	12.75	8756	7803	78.03	-1.13035	1.277691123	781.946967
UAE	115	17.5	8871	2012.5	20.125	3.61965	13.10186612	1506.714604
China 1	2198	17.9	11069	39344.2	393.442	4.01965	16.15758612	35514.3743
Nepal 2	206	18.4	11275	3790.4	37.904	4.51965	20.42723612	4208.010641
Pakistan 1	114	24.6	11389	2804.4	28.044	10.71965	114.9108961	13099.84216
USA 1	385	29.9	11774	11511.5	115.115	16.01965	256.6291861	98802.23666
South Africa	874	32.3	12648	28230.2	282.302	18.41965	339.2835061	296533.7844
Pakistan 2	331	35.6	12979	11783.6	117.836	21.71965	471.7431961	156146.9979
India	265	53.6	13244	14204	142.04	39.71965	1577.650596	418077.408
Σ	13244				1838.314			1399624

Note: $1399624/13244=105.6878$ $\sqrt{105.6878}=10.28046$ SD=10.28046 Mean \pm 1.96 SD = [-6.3 34.0].

from the lifetime SI rate of medical students to give SI rate within medical school.

From personal experience, we feel that graduate medical students may be more equipped to deal with the pressure of medical school. We would be interested to see if the type of program the student is in and their year of study affects SI prevalence. We predict that doing medicine as a first degree correlates with an increased SI prevalence.

Finally, we believe this article has given us a better perspective on this subject and identifying suicidal ideation in individuals can hopefully lead to more effective suicide prevention strategies.

Disclosure

The authors report no conflicts of interest in this communication.

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