

Online-only supplementary material**Appendix 1** Medical Student Stress Factor Scale (MSSF) – Portuguese Version

Prezado Estudante,

Estão listadas abaixo algumas situações de estresse. Por favor, responda cada item abaixo circulando o número que indique o quanto cada uma dessas experiências é estressante pra você. Para responder, marque um número de 1 a 7, sendo 1 = nem um pouco estressante, 4 = moderadamente estressante e 7 = extremamente estressante.

	1 = nem um pouco estressante a 7 = extremamente estressante						
1. Baixa motivação para aprender	1	2	3	4	5	6	7
2. Clima de competição entre os colegas	1	2	3	4	5	6	7
3. Dificuldade de entender o conteúdo	1	2	3	4	5	6	7
4. Falta de tempo com amigos e família	1	2	3	4	5	6	7
5. Falta de tempo para exercícios físicos	1	2	3	4	5	6	7
6. Falta de tempo para lazer e entretenimento	1	2	3	4	5	6	7
7. Incapacidade de responder as perguntas dos pacientes	1	2	3	4	5	6	7
8. Lidar com o paciente	1	2	3	4	5	6	7
9. Medo de fracassar na faculdade	1	2	3	4	5	6	7
10. Notas	1	2	3	4	5	6	7
11. Preocupação com a própria alimentação	1	2	3	4	5	6	7
12. Problemas sexuais	1	2	3	4	5	6	7
13. Provas e avaliações	1	2	3	4	5	6	7
14. Quantidade de conteúdo a aprender	1	2	3	4	5	6	7
15. Quantidade de trabalhos e atividades para casa	1	2	3	4	5	6	7
16. Relacionamento amoroso	1	2	3	4	5	6	7
17. Relacionamento com colegas de sala	1	2	3	4	5	6	7
18. Relacionamento com a família	1	2	3	4	5	6	7
19. Relacionamento com os professores	1	2	3	4	5	6	7
20. Saúde de outras pessoas da família	1	2	3	4	5	6	7
21. Saúde física	1	2	3	4	5	6	7
22. Saúde psíquica/mental	1	2	3	4	5	6	7
23. Auto cobrança por bons resultados	1	2	3	4	5	6	7
24. Medo de fracassar na disciplina	1	2	3	4	5	6	7
25. Obter notas inferiores às dos colegas	1	2	3	4	5	6	7
26. Pouco tempo para estudar todo conteúdo	1	2	3	4	5	6	7
27. Pressão da faculdade por bons resultados	1	2	3	4	5	6	7
28. Pressão da família por bons resultados	1	2	3	4	5	6	7

Pontuação da Medical Student Stress Factor Scale (MSSF) – Portuguese Version:

Escore Global:

$(Q1+Q2+Q3+Q4+Q5+Q6+Q7+Q8+Q9+Q10+Q11+Q12+Q13+Q14+Q15+Q16+Q17+Q18+Q19+Q20+Q21+Q22+Q23+Q24+Q25+Q26+Q27+Q28)/28$

Ambiente de Aprendizagem e Performance Acadêmica:

$(Q2+Q9+Q10+Q13+Q14+Q15+Q23+Q24+Q25+Q27+Q26+Q28)/12$

Relacionamento:

$(Q12+Q16+Q17+Q18+Q19)/5$

Saúde:

$(Q11+Q20+Q21+Q22)/4$

Falta de tempo:

$(Q4+Q5+Q6)/3$

Questões de aprendizado:

$(Q1+Q3+Q7+Q8)/4$

Appendix 1 Medical Student Stress Factor Scale (MSSF) – Proposed English Version

Dear Student,

Some stressful situations are listed below. Please, rate each item below by circling the number that indicates to what degree each of these situations is stressful to you: 1 = not stressful at all, 4 = moderately stressful, and 7 = extremely stressful.

	1 = not stressful at all to 7 = extremely stressful						
1. Lack of motivation to learn	1	2	3	4	5	6	7
2. Competitive environment	1	2	3	4	5	6	7
3. Difficulty understanding the content	1	2	3	4	5	6	7
4. Lack of time with friends and family	1	2	3	4	5	6	7
5. Lack of time for exercise	1	2	3	4	5	6	7
6. Lack of leisure time	1	2	3	4	5	6	7
7. Inability to answer patients' questions	1	2	3	4	5	6	7
8. Interaction with patients	1	2	3	4	5	6	7
9. Fear of failing medical school	1	2	3	4	5	6	7
10. Grades	1	2	3	4	5	6	7
11. Concern about my own diet	1	2	3	4	5	6	7
12. Sexual issues	1	2	3	4	5	6	7
13. Exams/evaluations	1	2	3	4	5	6	7
14. Extensive content	1	2	3	4	5	6	7
15. Extensive homework	1	2	3	4	5	6	7
16. Romantic relationships	1	2	3	4	5	6	7
17. Peer relationships	1	2	3	4	5	6	7
18. Family relationships	1	2	3	4	5	6	7
19. Faculty relationships	1	2	3	4	5	6	7
20. Health of family members	1	2	3	4	5	6	7
21. Physical health	1	2	3	4	5	6	7
22. Mental health	1	2	3	4	5	6	7
23. Excessive self-pressure for good grades	1	2	3	4	5	6	7
24. Fear of failing any course	1	2	3	4	5	6	7
25. Lower grades than peers	1	2	3	4	5	6	7
26. Lack of time to study	1	2	3	4	5	6	7
27. Faculty pressure	1	2	3	4	5	6	7
28. Family pressure	1	2	3	4	5	6	7

Scoring the Medical Student Stress Factor Scale (MSSF) – Proposed English Version:

Global Score:

$(Q1+Q2+Q3+Q4+Q5+Q6+Q7+Q8+Q9+Q10+Q11+Q12+Q13+Q14+Q15+Q16+Q17+Q18+Q19+Q20+Q21+Q22+Q23+Q24+Q25+Q26+Q27+Q28)/28$

Learning Environment/ Academic Performance:

$(Q2+Q9+Q10+Q13+Q14+Q15+Q23+Q24+Q25+Q27+Q26+Q28)/12$

Relationships:

$(Q12+Q16+Q17+Q18+Q19)/5$

Health:

$(Q11+Q20+Q21+Q22)/4$

Lack of time:

$(Q4+Q5+Q6)/3$

Learning issues:

$(Q1+Q3+Q7+Q8)/4$

Table S1 Correlations between DASS sub-scores, medical school year, sex and family income

	DASS Depression	DASS Anxiety	DASS Stress
Medical school year	-0.157*	-0.256*	-0.275*
Female sex	-0.005	0.200*	0.223*
Family income	-0.107 [†]	-0.014	-0.06

DASS = Depression Anxiety and Stress Scale.

* $p < 0.01$, [†] $p < 0.05$.

Table S2 Main stressors of medical students in years 1-4 (n=334)

Statement	Mean	SD
Extensive content	6.07	1.207
Insufficient time to study	6.00	1.337
Sleep deprivation	5.84	1.515
Excessive self-pressure for good grades	5.74	1.500
Exams and evaluations	5.72	1.442
Lack of leisure time	5.65	1.412
Extensive homework	5.48	1.512
Lack of time with friends and family	5.39	1.593
Fear of failing any course	5.33	1.758
Faculty pressure	5.27	1.776
Fear of failing medical school	5.17	1.895
Grades	5.16	1.694
Competitive environment	5.13	1.921
Difficulty understanding the content	5.06	1.700
Lack of time for exercise	5.03	1.643
Lack of motivation to learn	5.02	1.647
Family pressure	4.99	1.995
Uncertainties	4.95	1.766
Knowing that I will be observed during exams	4.87	1.927
Ignorance of the criteria used to correct exams	4.75	1.806
Insufficient time to answer all exam questions	4.69	1.87
Inability to answer patients' questions	4.62	1.888
Concern about my diet	4.47	1.729
Mental health	4.4	1.983
Physical health	4.24	1.843
Lower grades than peers	4.24	1.992
Health of family members	4.01	1.887
Poor grades in previous exams from a certain course	4.00	2.213
Multiple-choice questions	3.99	1.849
Financial issues	3.66	1.88
Family relationships	3.43	1.992
Peer relationships	3.09	1.657
Romantic relationships	3.04	1.888
Interaction with patients	2.88	1.690
Complex exam questions	2.69	1.695
Faculty relationships	2.43	1.375
Sexual issues	2.39	1.722
Employment issues (unrelated to medical school)	2.12	1.655
Substance use	1.76	1.486

SD = standard deviation.

Table S3 Main stressors of medical students in years 5 and 6 (n=97)

Statement	Mean	SD
Extensive content	5.80	1.404
Insufficient time to study	5.44	1.421
Lack of leisure time	5.43	1.574
Sleep deprivation	5.43	1.683
Lack of time with friends and family	5.30	1.508
Excessive self-pressure for good grades	5.16	1.824
Lack of time for exercise	4.96	1.744
Exams and evaluations	4.81	1.704
Extensive homework	4.80	1.687
Competitive environment	4.79	1.859
Fear of failing medical school	4.66	1.936
Uncertainties	4.64	1.804
Faculty pressure	4.64	1.927
Lack of motivation to learn	4.57	1.626
Inability to answer patients' questions	4.53	1.653
Difficulty understanding the content	4.47	1.696
Family pressure	4.47	2.067
Concern with my diet	4.41	1.749
Grades	4.35	1.797
Fear of failing any course	4.31	1.954
Ignorance of the criteria used to correct exams	4.26	1.872
Insufficient time to answer all exam questions	4.07	1.883
Poor grades in previous exams from a certain course	4.00	2.010
Knowing that I will be observed during exams	3.96	1.989
Mental health	3.86	1.995
Health of family members	3.84	1.972
Physical health	3.81	1.906
Financial issues	3.75	1.995
Multiple-choice questions	3.72	1.766
Lower grades than peers	3.42	1.802
Romantic relationships	2.93	1.763
Family relationships	2.87	1.777
Peer relationships	2.74	1.603
Interactions with patients	2.71	1.338
Employment issues (unrelated with medical school)	2.44	1.854
Faculty relationships	2.39	1.538
Sexual issues	2.35	1.535
Complex exam questions	2.19	1.502
Substance use	1.49	1.147

SD = standard deviation.