

Appendix 1. Stress Questionnaire for Medical Students

We are very aware of the stress of medical student life and as a Teaching and Learning group are looking to address this by developing materials to help students to identify and manage stress. To do this we need to measure baseline stress among medical students prior to the introduction of any materials and ask that you take a few moments to complete these questionnaires as they will provide us with valuable information. All data is anonymous and confidential. Thank you for your time.

Date: 2017

Age _____ Gender (Circle): M F GEM (Circle): Yes No

How stressed have you been in the past month? Mark 'X' on this line where 0 is lowest and 10 is highest.

0 _____ 10

0=Lowest

10=Highest

What things in your life make you feel stressed?

1. _____

2. _____

3. _____

How do you feel when you are stressed /how do you react?

1. _____

2. _____

3. _____

How do you cope when you are stressed?

1. _____

2. _____

3. _____

Any other comments?

_____ Thank You.

PERCEIVED STRESS SCALE

The questions in this scale ask you about your feelings and thoughts during the last MONTH. In each case, you will be asked to indicate by circling *how often* you felt or thought a certain way.

0 = Never 1 = Almost Never 2 = Sometimes 3 = Fairly Often 4 = Very Often

1. In the last month, how often have you been upset because of something that happened unexpectedly?
0 1 2 3 4

2. In the last month, how often have you felt that you were unable to control the important things in your life?
0 1 2 3 4

3. In the last month, how often have you felt nervous and "stressed"?
0 1 2 3 4

4. In the last month, how often have you felt confident about your ability to handle your personal problems?
0 1 2 3 4

5. In the last month, how often have you felt that things were going your way?
0 1 2 3 4

6. In the last month, how often have you found that you could not cope with all the things that you had to do?
0 1 2 3 4

7. In the last month, how often have you been able to control irritations in your life?
0 1 2 3 4

8. In the last month, how often have you felt that you were on top of things?
0 1 2 3 4

9. In the last month, how often have you been angered because of things that were outside of your control?
0 1 2 3 4

10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?
0 1 2 3 4

Appendix 2 Detailed List of Qualitative Comments:

What things make you stressed:

Answers to this question fell into 7 main categories or themes, and includes exams, relationships, future, college, finance and work-life balance/time management. Other less frequently reported themes included personal health and illness but in the context of falling behind and not having time to recover. Table 4a.

157 completed this section:

Exams:

Exams as a stress was reported by 95 out of 157 (60.5%) and this fell into two broad categories, stress related to demands of the exams and stress related to personal factors. The category of stress related to personal factors extended to students' approach to exams and to their thinking, including fear of failure or performing poorly. Comments were made about constant pressure both from the college and from the students thinking and personal and college expectations. Others included expected academic performance and deadlines, balancing college and exams and work and relationships, the relentless nature of the exams and the 'incessant nature' of the final year as well as a negative focus on what students did not know rather than what they knew. Comments included 'not enough hours in the day', 'hyper-competitive environment', 'constant college demands', 'exams close together', 'volume of work'. Many reported being stressed by 'being unprepared', 'fear of not performing at my best', 'falling behind', 'failing', 'not doing well', 'being left behind', 'expectation on myself versus the reality', 'comparing myself to others and their success', 'my thoughts', 'my reactions to things', 'overwhelmed' and 'procrastination'.

Relationships:

Relationships was reported as stressful by 53 out of 157 (33.7%) this included family, partner, friends and colleagues with concern about family members health, little time to spend with them and interpersonal conflict with family and friends.

Future:

Future was reported as a source of pressure by 44 out of 157 (28%). Concern was expressed about immediate issues such as obtaining electives or residency's and the application process involved with specific mention of the pressure experienced by North American students 'trying to balance school with all the extra training, exams and applications that North Americans have'. Further comment implied a lack of support from the College through this process. Comments about future

following graduation and further career path 'deciding what type of medicine /surgery to enter' and the pressure of doing well in medicine as a career choice were prominent along with particular and frequent mention of future employment uncertainty 'unsure of my position next year – what job will I have?'. One commented that their stress was increased from the 'combination of present responsibilities along with planning for the future' as well as 'worrying about putting in work now for applications in the future (audits, research and electives) and a fear that they did not have the time (because of daily college and exam pressures) to do well in these applications and that this would affect future choices. Others mentioned worry and comparing themselves to peers who had chosen careers other than medicine and who were perceived as being more successful and further along their career path. One commented that they felt 'pressure to complete and start working when everyone in peer group has holidays to go on. Seems like other career choice would've been worth it as we are a clever bunch and could've done other things to be successful'.

College:

38 out of 157 (24.2%) commented that 'College' was stressful. Most did not elaborate further but those that did included issues with the organisation of the course (medicine) in general and their perception of lack of support, poor structure and communication deficits as well as academic and financial demands. One commented that 'constant College' created stress for them.

Finance:

33 out of 157 (21%) reported financial stress. Most did not comment further than 'money' and 'finances' but those that did reported financial difficulty due to loans, pressure to pay fees 'bank loans not being approved to pay fees', 'exam results being delayed because of bank loan not being approved for fees' and 'trying to keep on top of money issues'. Those that commented on 'having no money' added that this was in comparison to peers in other professions or 'comparing myself to others and their success'.

Work Life Balance:

Work life balance was reported as being stressful by 32 out of 157 (20.4%) and comments fell into two broad categories, excessive demands and poor time management. Comments included having few social outlets 'letting normal life go', lack of social life, lack of time with friends, limited work-life balance, lack of time to play sport or engage in activity outside college, inability to maintain balanced life-style. Students' were aware of their limited work-life balance and of 'letting other interests and

commitments slip' and of 'not seeing people outside medicine'. Others commented on their poor time management when trying to manage activities as well as study.

Other Themes:

"Personal factors" were cited by 13 (8.3%) as being the source of stress. Personal health and illness were reported as a stress by 10 out of 157 (6.4%) and comments included 'being sick' and 'falling behind' when they needed time out to recover. Others reported feeling 'lonely', 'hospital food unhealthy', 'crime in the area', 'finding housing'. One student reported 'not much at all' to the question 'what things make you stressed'.

How do you feel when you are stressed /how do you react:

148 completed this section and responses were divided into three categories representing the Emotional (anxiety, anger, mood), Cognitive or Thinking and Physical manifestations of stress. Table 4b.

Emotional:

58 out of 148 (39.2%) reported anxiety and this included excessive worry, agitation and panic. A further 48 out of 148 (32.4%) reported being irritable, angry, hostile, grumpy and argumentative and 24 out of 148 (16.2%) felt low mood, depressed and sad. Eight out of 148 reported crying and tears. When combined, the emotional response of anxiety, irritability and low mood was reported 87.8% of students. Thirteen out of 148 (8.8%) reported being 'overwhelmed'.

Cognitive:

Thinking problems and cognitive effects were reported by 24 out of 148 (16.2%) and these included overthinking, poor concentration, sense of failure, hopelessness and procrastination.

Physical:

The physical manifestations of stress, such as poor energy, tiredness, sleep disturbance, appetite disturbance, nail biting, headache, abdominal pain, gastro-intestinal upset, palpitations and breathing difficulties were reported by 44 out of 148 (29.7%).

Sixteen out of 148 (10.8%) reported purely positive impacts of stress that helped them increase productivity and get things done. These students reported that stress made them talk to people, exercise, sleep, read, approach the task in a different way and take a break or focus on hobbies. Twenty out of 148 (13.5%) reported a mixed response to stress where they reported negative, emotional and physical impact but also positive outcomes that increased their focus and productivity. Taken together this means that for 36 students out of 148 (24.3%) their reaction to stress was either totally or partially helpful.

How do you cope when you are stressed?

Of the 162 students 146 (90.1%) completed this section. Of those twelve (8.2%) felt that they did not cope well with stress while the remaining 134 (91.8%) reported they used positive strategies to cope with stress. Students were asked to include three coping strategies and most included more. Table 4c.

Helpful Strategies:

The top ten positive strategies in order included: Exercise (50.7%), Talk to someone (30.8%), Organise, prioritise and plan (23.3%), Time with friends (20.5%), Activity other than study (19.2%), Eat and sleep (17.1%), Meditation, mindfulness, breathing techniques (13%), TV and movies (10.9%), Music (6.8%), Study more (6.8%). Other strategies included Reading (4.8%), Prayer (3.4%), thought management and self-reassurance, relaxation, taking timeout all 2.7%, with Tea, Podcast, Shopping all 1.4% and Sun, Less coffee and Time with Pet all at 0.7%.

Overall, students reported they used five main positive strategies to cope with stress and these were activities other than study (70.5%), connecting with friends and family (51.3%) and exercise (50.7%), followed by Organisation and Planning (32.8%) and Meditation /Relaxation techniques (15.7%). Considerable numbers reported using all categories but interestingly there was not one mention of using support services, trainers, college resources or professional help.

Many used positive self-talk and mentioned that they try to look at 'the bigger picture' and try to 'keep perspective' and while acknowledging that exam results are important that there is a 'broader scheme of things' and that 'it is all manageable'. There was specific mention of reminding themselves of 'all the good things in my life' and that 'it is worth it' and this may account for students high use of activity other than study and family and friends to cope. Many specifically mentioned linking with non-medical friends as supports. A number mentioned the positive benefit of

stress that helps them work harder, focus and perform but the difficulty and negative impact of what they termed 'incessant pressure'.

A significant group (n=14; 9.45%) report that they ignore the signs of stress and comments included: 'put a smile on when I don't feel like it', 'usually takes a day or two to realise I'm stressed', 'don't think about it', 'try to work through it', 'start to avoid situations', 'work more hours', 'am compelled to work faster', 'a lot of time I hide away from my stresses' and 'I talk myself out of it – why I don't have to be stressed'.

Unhelpful strategies:

Twelve students (8.2%) reported that they did not deal with stress well. The strategies they used were as follows: Anger /outbursts or ignoring the problem (n=10; 6.8%), Alcohol (n=6;4.1%), Social isolation (n=5; 3.4%), Don't eat or sleep (n=3; 2%), Cry (n=3; 2%), Procrastinate (n=2; 1.4%), Skin picking (n=1; 0.7%) and not well (n=1; 0.7%). Taking drugs was reported by one respondent and one student reported smoking in order to cope.

Other Comments:

In the free text 'Other Comments' section 22 students chose to make an additional comment. A number of students thanked us for undertaking this work which was regarded as 'worthwhile' with the comment that 'guidance and direction on coping should be done more often through the college course' and that it 'would be a useful exercise to complete throughout the course'. One suggested that 'medical students can cope best when stress when plans/direction and guidance is given' and another that 'students tend to be incredibly stressed in Res (Final Year) year and that can be an overwhelming time'.

Some reported being less stressed during the past month as 'I'm very relaxed compared to my friends /peers (that is, those doing the other modules)' and 'psychiatry was a more enjoyable and organised module than medicine and surgery'. Another commented that they 'thoroughly enjoyed the module (psychiatry)'.

Students suggested possible inputs that included a 'student hotline' and the 'time to talk'. Comments included the student's tendency to self 'diagnose' and others commented that in their experience the counselling service was slow to respond and that the time of appointments

competed with course work or college commitments. Further comments suggested that 'stress was high' due to the 'intensity of the course, exams' and 'intense competition at every stage of the path' along with 'the intensity of this very difficult year' and that 'I know what I should do but time is the biggest issue'.

Others reported that 'not doing well upsets me', 'being perfectionist' and a number reported 'feeling worthless' because of constant focus on what we don't know that has negatively impacted self-esteem'. A number reported feeling a 'lack of support' and 'little positive feedback' along with 'lack of support /encouragement from staff' with a 'focus on what we don't know' as being stressful and something they felt needed to be addressed.