

**KAREN FOLEY:** Welcome back to *The Student Hub Live*. We're talking all things exams. And in this session, we're talking about stress responses, where I'm joined by Duncan Banks.

Duncan, Alison says that she's got a fear about getting a question that she can't answer. And for some people, there's an awful lot going on. And we're all feeling a little bit stressed about exams.

But some stress is good. It's just the level of stress, isn't it? So I was hoping that you could fill us in, then, on what is actually happening in the body, and why we feel so stressed, and how we might know when that stress is maybe too much.

**DUNCAN BANKS:** Well, stress is a normal action on the body to a situation where perhaps isn't unusual. I mean, finding a question which you can't answer on an exam paper is probably one of those. Usually on exam papers, though, there will be alternatives, so maybe if you're going to be doing exams, you need to look at alternatives to the one that you rehearsed.

**KAREN FOLEY:** I did an exam. I'll tell you this. I did an exam once, and there was a question I couldn't answer, because I'd revised completely the wrong thing. And I don't know whether sometimes it's a question you can't answer, or it's a question you think you can't answer, because very often, if you sort of looked in the right areas-- because you do get guidance about what sort of to maybe look at. Sometimes you just need to be really lateral.

And I did a biology exam when I was very young, and I had to write about whales and their sonars. And I hadn't done that, but I'd done the brain. And so then I wrote an essay saying, well, actually, these whales are beaching themselves because they're very, very intelligent. And I reframed the whole essay. And I passed, only just. But I did pass, because I'd reframed the question. So maybe some of this fear is about feeling the fear so much that it stops you then from thinking.

**DUNCAN BANKS:** Yeah, I think that's going to be the case, if you're having a panic attack. And I think this is the classical sign, perhaps at one end of the spectrum of stress. If you're fully prepared for an examination and you get exactly these questions that you're looking for, then of course, you're not really as stressed out as someone who's prepared for a different exam. You're coming on the wrong day or whatever.

But I think on the whole, people should be able to answer questions even if they haven't prepared. And it's in your case, for that particular question, by looking at the question and saying, I do know something about the brain, for example, and work out what it is that you already know that could fill in some of those spaces on the question.

**KAREN FOLEY:** So we've asked you at home to let us know how you feel about certain things. And we'd like to know where your stress levels all. So are they through the roof, more panic than terror, more terror than panic, actually, not too bad, considering, or more zen than stressed? We've got a Wordle, and we need three things in there. If you can't think of three, that's fine. Just put a full stop.

Times I've felt stressed before, so thinking back maybe to not now, but another time in your life when maybe you felt a similar level of stress to what you're feeling now. When I'm stressed, I notice changes in my-- so where are you noticing those changes? Is it in your diet, your sleep, your communication, your attention, or your activity levels, so what you're doing in the day? And if you could take your stress away, would you? No chance, or it's got its place? So let's see what you've all said about your stress levels.

Right now, there are more panic than terror. OK? So that's the sort of key thing-- and through the roof. And some people are not too bad, considering. It is, after all, a Friday afternoon preceding a bank holiday, so that could be to do with that, or it could be to do with the exam. But on the whole, Duncan, there's a sort of higher level.

Now, what is the difference, then, between some sort of acute stress or something that's, I guess, more short-term and something that's chronic?

**DUNCAN BANKS:** Well, chronic is when you're exposed to a stressful situation for a very, very long time. I think the way the body reacts is almost completely different to the acute stress of an exam condition. So leading up to an exam, you could say that you are suffering chronic stress.

Stress actually is beneficial to you. You couldn't really do exams without having some sort of stress, because the body is preparing you for a situation where you need to make mental adjustments. It will give you more glucose available to the body to use, because your brain is using glucose, so preparing that. The blood flow to the brain increases. The blood flow decreases to parts of the body which are not important for obviously exam conditions, so for internal organs and so on, like the gut and intestines and so on.

So it's redistributing the physiological mechanisms to enable you to make a decision quickly. And if you have to make that decision, not in an exam condition, but, say, elsewhere, in terms of panic, that's one end of the spectrum, where you have to decide what am I going to do with this.

I have had people in exams try to walk out because they haven't actually understood the question. And stopping them, I say, sit down, be calm, relax, breathe properly, and read the question. It's all-important, just read the question. Make sure you understand the question, because you know it. You've actually spent a lot of time rehearsing for those exams.

I know what it's like, because I've been an Open University student myself. So I know what it's like to take exams. And they can be stressful, but you can always get through it. Stress is actually an important part of life. I think we need to remember that.

**KAREN FOLEY:** So how does stress work? I mean, we all know the classic fight or flight type thing, and those responses. And you've sort of said, you know, sometimes it can be very useful to have that, because you're more alert. You might be able to do things faster. You've sort of got greater levels of attention, et cetera. And your body's reprioritizing what's going on. So that can be incredibly helpful on an exam.

But equally, for some people, when they do have a lot going on, more of that chronic sort of stress, that can really wear you down. That can make it hard to think and remember and do all sorts of things.

**DUNCAN BANKS:** Yes, that's true. That's why I think relaxation and having the ability to perhaps distract yourself from the exam situation now and again, to relax, get a better night's sleep, even though maybe it's not going to be possible, eat properly, and do some exercise, things that you would normally do in everyday life before rehearsing for exams or do exams, just continue some of those, maybe not as much.

**KAREN FOLEY:** Now, you said before, things like breathe. I mean, that sounds, especially for someone who's got chronic stress, that sounds really-- you know, I can't breathe. I can't relax. I can't do these things.

But to some extent, is there an aspect of trying to trick your body by doing behavioural things into maybe reacting in a different way? So are there things that people can do when they are feeling under this level of stress, when there's a lot going on that they can't do much about?

Are there techniques that we can use with our bodies to maybe try and encourage different responses?

**DUNCAN BANKS:** I think that uniquely, amongst the animals, we are-- as human beings, we have social brains. We have high cognitive function. So we worry about the future. Whereas something like a zebra would not worry about Brexit or whatever it is you've been talking about.

**KAREN FOLEY:** They never worry about Brexit.

[LAUGHTER]

**DUNCAN BANKS:** So I mean, there are big differences in the way that humans behave compared to other animals. So though you see stress in all animals, I think we have the ability to control our environment more than others. So I think what you need to do is, if you're leading up to exams, make sure that you talk to someone about your problems. Maybe have your partner or whoever's around, if you're family, make sure that they are looking after you.

**KAREN FOLEY:** Duncan, can we take a trip to the Hot Desk? Because what's happening is that some people are feeling so much stress that they're finding it hard to listen, which I get, because sometimes it's really, really difficult to sort of make sense of things. And you've got such wonderful advice. So let's just take a quick check in with where everyone's at at home.

**MYCHELLE:** We do have a lot of people feeling stressed. And they're identifying that they know they're not the only ones. But that doesn't necessarily help.

And so we've had some really good advice from Jeanette, and I just wonder if we could all actually just take a moment and breathe in and breathe out. Just give ourselves a moment. And then Duncan, your tips have been incredibly helpful. So maybe we can come back to you for some more of those.

People are talking about getting hundreds of emails, stress at work, lots of things outside. So what can we proactively do? How can we improve our mindfulness when it comes to reducing our stress?

**DUNCAN BANKS:** I think it's all about relaxation. Stress is preparing your body for the situation that you're about to enter, i.e., an exam condition. So you shouldn't be at all surprised if your heart rate is increasing or your respiration is increasing. You shouldn't be worried about that. That's a normal thing to happen to everyone.

Maybe you increase sweating, you've got a dry mouth. I think we've all experienced this. You know, if you have to be a public speaker for the first time, you would experience all these things. And there's an element of this happening in exams. So recognise those, and say that's completely normal.

**KAREN FOLEY:** Let's see, because we asked people earlier when they felt stressed at other times. So let's maybe sort of reflect on some of these other situations that we've clearly lived through at other times of our life when we felt stressed.

So driving test, moving house, death of parents, forgetting, juggling work and baby, before interviews, being late, of course, after dad died, failing, when I haven't revised, waiting for TMA, exams, getting overworked, work, first presentation. So there's an awful lot here-- meeting people, as well-- social anxieties, for sure. First date-- so there's an awful lot of things that we've clearly lived through, all of which are really valid in terms of those stress responses.

Is it useful to ever think about those situations and how we might have coped in the past, and how we might have coped differently now? You're saying that you believe that relaxation is a key. It's difficult to relax when you've got a driving test. You know, some of those things are tricky. Is there a sense of almost trying to replay our reactions to some of those things better this time, in an exam?

**DUNCAN BANKS:** So the very first exam you take, you don't know what exams about. And maybe you should reflect, well, actually, what I did, I could have done a little bit better. Or actually, what I did was really good. I'll repeat that. I think some degree of reflection is quite good-- a familiarisation with exam conditions and so on.

Be prepared, I think is probably one thing, because a lot of people are very worried before they go into exam that they forgot to do something. Make sure you've got a list of those things that you need to do for the exam before you go into the exam, and you've got that already prepared. So preparation for exam [INAUDIBLE]. So you can decrease the anxiety of exam conditions by making sure you're prepared, thoroughly prepared in many, many ways.

But what is unusual about stress is that there's a continuum of stress, from something that you and I might find innocuous-- so it could be, for example, a phobia. So as a child, I was really fearful of dogs. I was born and brought up in Malaysia, and most dogs we considered actually to be rabid. So I was taught never to go near a dog.

And so when I eventually came to this country, I still had that fear of dogs. So every time I saw a dog, my heart rate would increase, my respiration rate would increase, until I realised, actually, that no one around me was suffering from the same condition. I had to habituate myself to the situation.

So familiarisation is a way in which you can train yourself to say, actually, that's an inappropriate response to that situation. I shouldn't need to do that, because that animal or that situation is not going to hurt me. The exam is not going to hurt me, because I can always take the exam again. So relax, you know? Be cool about it.

**KAREN FOLEY:** OK. So habituation is this idea, then, in terms of conditioning, where you're sort of being in a situation that you might have normally responded to in a certain way, and staying cool with it. So you would do that with OCD, for example, or with spider phobias or something like that, and you sit there and get a bit closer to a spider.

Difficult, though, in an exam, because you're not going to be able to go, oh, can you just set this up for me, and can I come into the hall, et cetera? How might you habituate or apply some of those theories, bearing in mind what everyone has said before about the variety of times that we've all felt stressed? How might we start getting that idea of habituation and reassurance, really, that we've been like that before?

**DUNCAN BANKS:** OK. Stop writing in the exam. Go to your drink of water, and use that as a way of relaxing. So take your bottle of water, undo it-- that's a relaxation thing-- start drinking.

Or in fact, in this case, this is what I would call a stress brain. And this brain is something I can squeeze and vent my stress out on it. So have something that will distract yourself from the exam, just for 30 seconds to a minute. And that might mean that you settle down better.

**KAREN FOLEY:** Michael and Jeanette say that one of their anxieties is not knowing exactly what the question is asking. And we also asked people about changes that they might notice as well. Let's see what you had to say about some of the changes that you might notice. Where are you noticing them when you're feeling stressed?

So the key thing here has been in attention-- very interesting-- and also sleep. So whereas there's been less emphasis on things like diet and communication, with virtually no one that have seen changes in activity levels. The attention is something. It's hard to concentrate. And equally, it's hard to concentrate, I guess, when you're feeling stressed revising, but also in that

exam, which is what Michelle and Jeanette are saying-- I'm sorry, Michael and Jeanette are saying.

**DUNCAN BANKS:** I think it's a question of focusing. Maybe the lack of attention is that your mind is wandering off. Maybe you should become more attentive to what you're there for. So very often, people are saying, am I really doing this exam? This is an important exam for me.

And so yes, when it is an important exam, I know it. I know the information. I can get it onto paper. I can plan out what I do for the next three hours. I mean, I've had the same problem as an OU student. And I can remember thinking--

I was doing my oral exam for Chinese. And as people know, Chinese is not an easy language to learn. And we had a choice of five different scenarios, and we were going to be given one scenario, or actually two scenarios. And we had to devise a way of predicting where the questioning was going to go.

So what I did in preparation for that was actually to look at all the different combinations of scenarios and memorise them with a native speaker, and practise and practise and practise. So in the end, I used trigger points. So as soon as a certain key, a series of keywords came up, I knew it's going to be along these lines.

And I suppose with exams, the best thing you can do is actually probably to go through old exam papers and make sure you understand the type of question, and also with your tutor, the type of answers that they were expecting. So when you see the exam paper, you've seen something like it before, so you're not going to think, oh my goodness, I've never-- I didn't know this was going to happen. You already know that's going to happen, because you've prepared yourself for it.

**KAREN FOLEY:** OK. So that all sounds really good. So you're just saying, revise properly, the question you're going to answer, and then answer it. Libby is suspicious of whether or not this is a squeazy toy, because you didn't squeeze it, Duncan.

**DUNCAN BANKS:** Oh, yeah.

**KAREN FOLEY:** No, it's fine. Because it's a good point, Libby, and you shouldn't be taking things that squeak into exams--

**DUNCAN BANKS:** No, no, it doesn't squeak.

**KAREN FOLEY:** --or give them to your dog. And Sue thinks it's a whoopee cushion brain, which I think you've clearly demonstrated that it isn't. What is happening though? You've got a more sensible brain, Duncan, which I'm delighted about. What is happening?

**DUNCAN BANKS:** So I'm going to explain the difference between acute stress and chronic stress. Acute stress is what would happen over a short period of time. And the body's reaction is usually involving the nerves, the body's sympathetic and parasympathetic nerves of the body. But in longer-term stress, in terms of sort of leading up to an exam, what is involved is really more sort of hormonal.

This is a cut-out, a middle of the brain. And this is the cerebral cortex. This is what you'll see if you take off your skull and look through. And what you're looking at here is the inside of the brain. This is the brain stem and pons. This is cerebellum. This controls your posture and movement.

But you can see here, this structure here, pea-like thing, is called the pituitary gland. And that actually, some people call it the master gland. But actually, it's a gland that's quite complex, in that it's got a neural and hormonal part of it. And it controls the release of a variety of different types of hormones from the adrenal cortex.

And one of the most important ones is cortisol. So we know about cortisol. It's what we call a glucocorticoid, so it's involved in glucose metabolism. But it also has-- it's really released over a longer period of time from chronic stress. And one of the side effects of that is it suppresses the immune system.

So it's not uncommon for students, coming up to exams, to suffer more from colds and illnesses. So you shouldn't think that that's unusual. It would be a normal action of long-term stress. So this gland here would control the release of hormones in the body. And those hormones would have an effect on the stress response or cause a stress response.

**KAREN FOLEY:** So what are, then, some of the harmful effects of stress on the body? And I guess, to what extent, then, can you try and alleviate those, through things like relaxation, et cetera? Because you can see the real impact here, and we know that a lot of cortisol will have a variety of effects that are largely-- well, mainly negative, aren't they? But then there's many positives, apart from sometimes being able to really focus your attention on something. But that's completely different to the chronic stress side of things. How will it all work?

**DUNCAN BANKS:** OK. So the harmful effects of stress really are when you've got stress for a very, very long period of time. This would not normally be the case for students doing exams, because exams are over in a short time. So if you have an environment which is stressful all the time, say your a city trader or something, then you stand a much higher chance of having a variety of different things go wrong with you. So you may suffer higher incidence of heart attacks and breathing difficulties and so on.

And the reason for this is that you are sustaining a higher blood pressure for a longer period of time. That higher blood pressure is causing an effect on the arteries. So you're more likely to have plaques build up, and those plaques will cause heart attack. So the long-term effects of stress can be quite bad. So we've got people who suffer from gastric problems, for example.

Or stress which is causing problems of home, long-term stress causing problems at home-- maybe you're a married couple or a couple who are looking at planning for a baby-- stress is actually not good if you're going to do that. It has a deleterious effect on both males and females, in terms of marital bliss or whatever. So long-term stress is not something I would say is good for you.

Short-term stress is actually vital. I mean, we all need a stress response in order to perform optimally in the environment where we find ourselves. So in exam condition, that means that you have increase in blood supply to the brain. That's going to be useful, surely. Increase in availability of metabolites, things like glucose, which are going to be used by the brain in order to function normally-- so those types of things in the stress response are absolutely essential.

The fact is that you're going to have an increase in heart rate, an increase in respiration rate, maybe some perspiration, and a dry throat, means that those are manifesting the stress response. And you can counteract some of those by, for example, increase in respiration rate would be relaxation, decrease in heart rate to counteract those things.

**KAREN FOLEY:** OK. So we're going to go through, in a second, just what's happening in the exam, but I think it's important to acknowledge that there are some students out there, they have this stress, partly like when Maureen's got five TMAs and an awful lot on. Other people, we know with Open University students they're juggling a whole lot of roles and responsibilities all at the same time. For some people, this is a reality, and it's the way it is.

And I really do urge you to speak to the student support team, because they can really, really

help. Sometimes just having someone to help prioritise stuff can be incredibly useful. And your tutor, as well, can really help prioritise those things. But I hear someone else has won a t-shirt, Mychelle.

**MYCHELLE:** They have. We have had such good conversation in the box here. But I'd like to say, it's going to someone who has suggested that we use keywords. This person has a worry bracelet that they use to help distract them when they're feeling stressed, has recommended going to OUSA for past exam papers, has said tell yourself that you have done this before. You've passed an exam before. You can pass this exam too. Have a positive attitude.

And it was actually Jeanette, who told us to breathe at the beginning. And I think those are all such good tips. So well done, Jeanette. Send us your details and we'll get a t-shirt out to you.

**KAREN FOLEY:** Yeah, we'll pop those in the post first thing on Tuesday, after the bank holiday weekend, if not today. But do send us your emails, your full address-- studenthub@open.ac.uk. OK.

So Duncan, we've talked about trying to get rid of the chronic stress. That's a bad thing. In the exam, we've got some stress. How can we embrace some of those things that are going on-- the butterflies and the tummy, the perspiration, et cetera? How can we deal with some of those responses? What might we expect, if, for example, we haven't sat an exam for 50 years, and like one of our students has out there at the minute? So what might people expect, and how can they use that to their advantage?

**DUNCAN BANKS:** OK. They can probably visualise doing the exam beforehand. So try and get a feel of what the conditions are likely to be, so it won't be completely unfamiliar to them. And maybe even go back 50 years to when you did your last exam, actually. I mean, I've always done exams, throughout virtually the whole of my life. So not having had exam condition for 50 years would probably worry me considerably.

Although I mean, what people are finding who do stress work is they're looking at standardised type of stress environment in which to do their research. And very often, the driving test is one of them. There aren't many people who aren't stressed out when they're doing their driving test.

**KAREN FOLEY:** Because that is one situation where you might die if you crash the car.

**DUNCAN BANKS:** [Laughing]

[LAUGHTER]

**KAREN FOLEY:** Sorry. My driving test went well, though. It really did.

**DUNCAN BANKS:** Right, OK.

**KAREN FOLEY:** Passed the first time.

[LAUGHTER]

**DUNCAN BANKS:** No. OK. So visualising the exam is probably one way, I would say, if you haven't done an exam for a long time. And actually, probably ask people who've-- regular exam takers, or even the tutors. The tutors are there for a reason, and even up to exam. You say you're worried about it. And if you really are affected by the exam, then you need to tell someone close to you about it.

**KAREN FOLEY:** Good. Well, Duncan, that's been really, really useful. And Jeanette, you're welcome for the t-shirt. I'm glad you enjoy it. And I hope it helps. And there's certainly been so much advice here.

Duncan, you've given us a really good indication of what's happening, and really the difference between chronic and acute stress. And I really hope that sort of going through some of that has allowed students to think, OK, this is fine. This is normal. These are some times that I might need to think, is this really helpful? Is there some part of my life I might be able to look at shifting?

But also, that in an exam, these things may happen. And they will help you do things with more attention a little bit quicker, a little bit faster, and hopefully a little bit better. So thank you very much.

All right. Mychelle and Peter, we're going to take a little video break now. And then we're going to come back and talk about one of my favourite things, which is food, because Ben, from sport science, is going to come and tell us what to eat, how much to sleep, and what we should do with our diet, et cetera, so that we can be in the best shape, because as Duncan has told us, our immune system and keeping healthy is a really, really important part when we're sort of being attacked by all of this cortisol.

So the assessment video is going to come up next. And then join me in the next session with

Ben. See you soon.

[MUSIC PLAYING]