

CASE REPORT

To encourage other practitioners to consider submitting a case report for the E – News, we have restructured the format in line with recommendations from July 2014 and have left in the key guides – should you be interested just email info@nutri-linkltd.co. We will send you the word doc.

Case reports are professional narratives that outline the diagnosis, treatment, and outcomes of the medical problems of one or more patients. Information from case reports can be shared for medical, scientific, or educational purposes. They provide a framework for early signals of effectiveness adverse events, and cost. Case reports and the systematically collected data from which they are written also provide feedback on clinical practice guidelines.

CASE REPORT: STUDENT OVERCOMES EXAM NERVES, IMPROVES MOOD & ENERGY WITH STABILIMUM & ZEN

Abstract. Summarise the following information if relevant: (1) Rationale for this case report, (2) Presenting concerns (eg, chief complaints or symptoms, diagnoses), (3) Interventions (eg, diagnostic, preventive, prognostic, therapeutic exchange), (3) Outcomes, and (4) Main lesson(s) from this case report.

As this case report is written, it is the first day of July, and exams across the country have just been completed by many thousands of teenagers and young twenty-something's at schools and universities. The distress caused by the pressure of exams is not insignificant. The news of one student patient of mine has just reached me, now that she has completed her second year university exams. She presented with lots of nerves, fearfulness, anxiety, short-tempered irritability, poor sleep and general poor mood. The intervention was limited to a handful of nutritional changes and three supplements, one of which has already been clinically trialed in medical final year students.

The outcome in this case has been remarkable and one testament of this is that on arriving back home, the very first thing that the student asked her mother to email me the good news that she effectively overcame all of the stress related symptoms and felt very confident about her exams.

The main lesson from this case report is that sometimes small interventions can have significant effects, but more importantly, natural & non-addictive, non-stimulatory remedies can offer real benefit for the many thousands who take exams, at least once a year.

Key Words. Provide 3 to 8 key words that will help potential readers search for and find this case report.

Exam nerves, anxiety, fear, stress, Stabilimum, Zen

Introduction. Briefly summarize the background and context of this case report.

Miss N.M. had visited me two years prior, shortly before leaving school, and heading into a Gap Year. At that time she had digestive issues which had resolved when she avoided all wheat products, along with some straightforward lifestyle recommendations. At Christmas, 2013, she had re-visited me and this time had wanted help with her nerves/anxiety associated with exams, which affected the whole of her health. She had mocks coming up in January 2014 and then second year exams which contributed towards her degree. She was very concerned that she would flunk the exams but also that her health would suffer too.

Presenting Concerns. Describe the patient characteristics (eg, relevant demographics—age, gender, ethnicity, occupation) and their presenting concern(s) with relevant details of related past interventions.

N.M. is a 20 year old young woman, who at the time of writing has just completed her 2nd year at University. She is, 5 foot 4 inches tall, weighs 9 stone 6 lbs, and physically is fit and strong; she is a rower and lifts weights. When she had

her consultation in December 2013 she presented with nerves about exams with low mood, short temper, irritability, poor sleep, poor appetite & low energy.

Clinical Findings. *Describe: (1) the medical, family, and psychosocial history including lifestyle and genetic information; (2) pertinent co-morbidities and relevant interventions (eg, self-care, other therapies); and (3) the physical examination (PE) focused on the pertinent findings including results from testing.*

There is no medical history to write about for N.M. She has never attended hospital, had any fractures or required medication except for a course of antibiotics for a chest infection in her early teens. She is Caucasian with English heritage, growing up in the south of England. She has one younger sister and one older brother, who are both well. Her parents are also well, and are well informed about sound nutrition. There is no family history of anxiety.

Two years before, N.M. benefited from a wheat free diet which she maintains to this day; in fact, the whole family consume a wheat free diet having witnessed the benefits to N.M. when she was still living at home.

No physical examination was conducted, but N.M. had the appearance of a fit young woman, who engages in the demanding sport of rowing, with evident muscular figure. Her skin was clear, and there were no remarkable features or signs, except that she did have dark circles under her eyes.

N.M. led a relatively modest lifestyle and rarely drank too much alcohol and did not engage in soft drugs, as some of her peers did.

Timeline. *Create a timeline that includes specific dates and times (table, figure, or graphic).*

In her gap year, N.M. had worked in Africa for 6 months and then returned to work locally for 3-4 months. She had no health issues to report after this gap year. She commenced her University aged 19, and found that the bigger world of a city based university was a slight culture shock to her, in spite of some travel the year before, having attended a relatively small school.

In the first year exams she had felt she had not performed as well as she might, but she was a diligent worker. She had resolved to work harder in the next year, she told me.

In the second year, her living accommodation had changed and she was living with University friends in a house they all shared. She felt slightly out of control and out of her depth, she admitted, but she was not sure if this was related in any way to what she was experiencing now.

The pressure was applied by the lecturers at the start of year two, and she recalls steeling herself to do her best this year after disappointing results in the first end of year exams. In this way, the pressure was both external and internal. Then, in early December when she sat some pre-mock exams, it was the first time she had ever felt so nervous. Within a week or two around this time she found that her sleep became disrupted, her mood dropped and she stated she felt depressed, she began worrying about things much more than she ever had. Energy became an issue, she really felt irritable like a magnification of the worst PMT that she had ever felt, but it did not go away.

She became unable to concentrate on her work and could not focus. The anxiety effectively interrupted her life. She could not sustain this state of being and after the exams came home for the holidays and collapsed exhausted. In conversation with her parents, they suggested that she re-visit myself, since they themselves had benefited in terms of stress tolerance from nutritional advice.

N.M. embarked on the nutritional changes at once in January 2014 and followed them all the way through until June 2014 when she completed her exams. Although we had agreed to meet at Easter time, because she was travelling abroad and because she felt so much better, this appointment was not kept.

Diagnostic Focus and Assessment. *Provide an assessment of the (1) diagnostic methods (eg, PE, laboratory testing, imaging, questionnaires, referral); (2) diagnostic challenges (eg, financial, patient availability, cultural); (3) diagnostic reasoning including other diagnoses considered, and (4) prognostic characteristics (eg, staging) where applicable.*

As N.M. relayed her story to me I felt a strong sense that her nervous system and adrenals were in a state of imbalance. The questionnaires that she completed reinforced the aspects of health that were most of need of help, but no lab tests were conducted.

The Adrenal Stress Index test was the obvious one to consider, but the timing of her return to university and the need to engage in something that would have an effect very soon demanded that action be taken as opposed to testing. She scored highly in the sections devoted to stress, the adrenals, blood glucose balance, and vitamin need where the questions related to the nervous system and mood.

Therapeutic Focus and Assessment. *Describe: (1) the type(s) of intervention (eg, preventive, pharmacologic, surgical, lifestyle, self-care) and (2) the administration and intensity of the intervention (eg, dosage, strength, duration, frequency).*

The nutritional changes were minimal, albeit important and revolved around regularity of food consumption to support blood glucose levels, to ensure a high biological value protein at each meal, to relax before eating and chew food well. She also found that the listening to classical music (Mozart, Chopin) for 5 mins via her iPhone helped her to find a calmer space.

She applied herself with her characteristic determination to the few nutritional changes she had been recommended.

In addition to the improved structure of her meal, three supplements were recommended, which she took daily, without fail.

1. Stabilium (ARG) - 4 soft gels with breakfast
2. Super Adrenal Stress Formula (Dr W) - 2 with each meal
3. Zen (ARG) - 1 caps midafternoon and before bed (on empty stomach)

Information about these supplements

[Stabilium \(ARG\)](#) - an ancient North-Western Europe remedy derived from a ling fish called Garum Armoricum. It has been clinically trialled in USA Medical students and been found to reduce anxiety, improve sleep and improve resilience.

Super Adrenal Stress Formula (Dr W) - this is a multi vit & min that provides many nutrients that support adrenal function. It supports a healthy blood glucose balance.

[200 mf of Zen \(ARG\)](#) - this natural, non-addictive, non-sedative supplement provides L-theanine and GABA, and helps to support a healthy response to anxiety.

Follow-up and Outcomes. *Please describe the clinical course of this case including all follow-up visits as well as (1) intervention modification, interruption, or discontinuation, and the reasons; (2) adherence to the intervention and how this was assessed; and (3) adverse effects or unanticipated events. Please describe (1) patient-reported outcomes, (2) clinician-assessed and -reported outcomes, and (3) important positive and negative test results.*

In email communications in January and February I learned that N.M. had experienced a definite improvement in the way she felt. This communication was with N.M. directly and her mother, whom I had also met as a patient. N.M.'s parents also served as a good support unit for N.M. to help keep her application of her nutritional programme. Her mother ensured that her daughter had a stock of the supplements since it was apparent from the early weeks that they really made a positive difference.

There were no adverse effects of the recommendations, and N.M. if anything developed a mild O.C.D. (obsessive compulsive disorder) attitude towards her nutritional intake (in part this reflects a need to feel in control). However, since she felt so much better overall, we agreed (N.M. and her parents and I) that this may be no adverse event at least in the short term.

N.M. continued her training and rowing during her second year and managed to compete in the 2nd boat for the university in her weight category, and enjoyed the 'release' of this physical endeavour. She reported, in an email, that she felt she was more able to maintain her strength and stamina because she felt better and that the supplements were definitely helping.

Unlike the vast majority of patients who return for follow up appointments, due to the nature of her life as a student in a far off city - some 200 miles away - and her travels during the Easter holidays, we did not meet again. This may have been quite a different thing had the outcome not been favourable.

All of the outcomes discussed here are self-reported, because the patient only had one consultation in person.

Discussion. *Please describe (1) the strengths and limitations of this case report including case management, (2) the literature relevant to this case report (the scientific and clinical context), (3) the rationale for your conclusions (eg, potential causal links and generalizability), and (4) the main findings of this case report: What are the take-away messages?*

This case was most certainly limited in terms of contact with the patient, with only one appointment. In this instance, the patient, N.M., was able to follow the nutritional recommendations for a period of six months and the specific eating & lifestyle habits and supplements were suitable to be followed for this length of time, without the necessity of changing them.

Patient Perspective. The patient should share his or her experience or perspective of the care in a narrative that accompanies the case report whenever appropriate.

As has been said before, the positive outcome was undoubtedly responsible for the relative lack of contact with this 20 year old student, although her mother was ready at any moment to seek my advices had there been a change, I was told. N.M. was so thrilled that she had felt so much better in terms of her anxiety, fear and so on that she felt no need to have any formal ongoing support, since she realised that she needed to keep focused on doing the right things and eating in the way that has been described.

She wrote about how she felt after 4 weeks of following the programme. "I am sticking to the eating pattern, and taking time out before I eat, listening to music to help remind me to be calm when I eat, and relax. I am taking the supplements and I noticed from the first week that my mood was better, my energy was better and more balanced, not edgy. I was sleeping better within 7-10 days and overall I felt confident again, and this was so important for me. I managed to get through the mock exams without nearly so much nervousness, without my tummy doing somersaults".

Clinically speaking I have experience with the use of these natural supplements, and they have often helped produce the benefits that are witnessed here. An eight week, double blind, placebo controlled study showed Stabilium® 200 to be effective in reducing the discomfort experienced by college students before and during examinations. It was also effective in another double blind, placebo controlled study, concerning cognitive function, memory and fatigue in adults.

The use of l-theanine and GABA has also been found to be of benefit in reducing anxiety. L-Theanine is one of the predominant amino acids ordinarily found in green tea, and historically has been used as a relaxing agent.

- Lu K, Gray MA, Oliver C, Liley DT, Harrison BJ, Bartholomeusz CF, Phan KL, & Nathan PJ. The acute effects of L-theanine in comparison with alprazolam on anticipatory anxiety in humans. Hum Psychopharmacol, October 1, 2004; 19(7): 457-65. <http://tinyurl.com/pwzzxc9>
- Kalueff AV & Nutt DJ. Role of GABA in anxiety and depression. Depress Anxiety, January 1, 2007; 24(7): 495-517. <http://tinyurl.com/q3nfwc3>

It would appear that the reasons why N.M. felt better was the combination of supporting her blood glucose balance and taking remedially effective supplements. The benefits persisted whilst this young woman continued to implement them, and in the face of hard study and exams.

She was literally thrilled to look back and report that she was in such a different state of functioning in the months after Christmas compared to the weeks beforehand. Her cognitive function and physical fitness benefited from the programme she followed.

The main lessons to learn from this is that simple dietary advice can sometimes be the best advice, that a limited number of recommendations allow for optimal compliance and that there are some very effective supplements that can positively influence health. These specific supplements, as with the vast majority of natural, safe food supplements, can be taken in the long term if needed and support physiological function and improve stress tolerance in a number of different ways. It also shows that when under duress, that the human body can benefit from additional therapeutic nutritional intervention to bring balance to metabolism and the stress response.

On a wider or global level, the potential impact of such therapeutic, safe, non-addictive nutritional intervention could have far reaching ramifications.

Informed Consent. *Did the patient give the author of this case report informed consent? Provide if requested.*

The patient is not aware her case history is being used, and all identifiable data has been removed. N.M. are not her real initials.

Case Report Submission Requirements for Authors

1. Competing interests. *Are there any competing interests?*

None Known

2. Ethics Approval. *Did an ethics committee or Institutional Review Board give approval? If yes, please provide if requested.*

This case was not presented to an ethics committee.

3. De-Identification. *Has all patient related data been de-identified?*

All patient data has been re-identified

4. Author. *Name of Author and practice*

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