

Healthy disclosure

Daryl O'Connor talks to Gail Kinman about being a twin, stress and health, and the influence of conscientiousness

Understand that psychology was not your first career choice.

Correct. I originally studied town and country planning but quickly got interested in psychology. The main driver was that I am an identical twin. In fact, I am a 'mirror' twin, where the egg split sometime between week one and two after fertilisation. Mirror twins have opposite features: Rory (my twin) is right handed and I'm left handed. Anyway, the classes I started taking in introductory psychology focused heavily on twin studies and, as a twin myself, I was intrigued and excited by their implications. Rory and I were together constantly (in a good way!) until we were 18 and then we were separated when we went off to university in different parts of the UK. However, things turned full circle when we both decided to pursue a career in psychology, as it felt like we became twins again. Rory is now Professor of Psychology at Glasgow University and I am Professor of Psychology at Leeds.

There are very many different perspectives in psychology yet you and Rory both ended up specialising in health psychology. How much was this a reflection of your twin status?

It was completely coincidental. Tom Cox inspired my interest in health psychology. When I was doing my undergraduate degree at Liverpool, one of the core health psychology texts was Tom's seminal book on stress. After my degree, I was lucky enough to work for him as a research assistant for the summer. After that, I did my PhD which explored the effects of stress and the psychosocial work environment on psychological and physiological outcomes in general practitioners. Next I was awarded a World Health Organization funded postdoctoral position looking at the effects of testosterone on behaviour, cognition and sexual function in men, but I continued to be interested in stress and health. Rory became interested in depression and suicide and went down that route, albeit

conceptualising suicide as a 'health' behaviour and drawing upon theories and constructs from health psychology. Since 1999, we have published many papers together on various topics of common interest, but also have our own professional identities. Rory and I work well together – your twin can be your best critic and say things that other people couldn't get away with!

You are particularly well known for your work on stress, health and individual differences. Why are some people more vulnerable to the negative effects of stress than others?

This question has fundamentally driven my career. Virtually every paper I have published has examined the role of some form of individual difference in predicting health and/or disease, whether it is eating style, cortisol reactivity to stress, the cortisol awakening response or, most recently, trait rumination and perseverative cognition.

I am particularly fascinated by the role of personality; Howard Friedman's research on the implications of conscientiousness for health and longevity has been a great influence on me. After controlling for many confounding variables, Friedman found that conscientiousness measured in childhood (in 1921) predicted survival 60 years later. What was even more impressive was the magnitude of this effect was comparable to the influence of cholesterol and blood pressure levels in adulthood.

Many subsequent studies have highlighted the health benefits of conscientiousness, but I am interested in exploring why conscientiousness is so protective of well-being. Health behaviours clearly have an important role to play, in that conscientious children are less likely to become heavy drinkers and smokers or excessive consumers of junk food. Nonetheless, health behaviours alone do not account for the health benefits of conscientiousness. My particular interest lies in the role played by stress. Do

conscientious people respond differently to stress? Do they tend to engage in less unhealthy behaviour when responding to stress? Does conscientiousness moderate the relationship between stress and illness? We have found evidence for all three of these mechanisms.

Individual difference constructs such as conscientiousness can be notoriously difficult to measure validly and reliably. Some are very transparent, which is a problem when a trait is socially desirable. Have measures improved?

Yes, we are realising that conscientiousness should be examined, not as a global construct, but at the facet level. Brent Roberts at the University of Illinois has done some ground-breaking research on the lower-order structure of conscientiousness which has revealed at least five replicable facets: orderliness, self-control, industriousness, responsibility and traditionalism. Other facets (such as decisiveness, punctuality and virtue) are currently under investigation. Looking at conscientiousness at the facet level has yielded very interesting findings. My own research has found that some facets have proactive effects (promoting positive health behaviours), whereas others can have inhibitory effects (encouraging negative health behaviours). Our recent work has also confirmed our earlier findings demonstrating that conscientiousness and its facets do indeed moderate the effects of daily stressors on stress-related outcomes. It seems that order, industriousness and responsibility may be most important in terms of stress. We also have very exciting emerging evidence indicating that individuals who are high and low in conscientiousness appraise stressful events differently.

You have also found that perfectionism can be a risk factor for health. Does this also benefit from a facet-level approach?

Perfectionism is a strong vulnerability factor for stress and many negative health outcomes such as depression, anorexia and suicide. For a perfectionist, a stressful encounter is typically seen as an opportunity to fail. We have found that perfectionists respond to stress with more negative health behaviours than people who are less perfectionistic. As with conscientiousness, perfectionism has been shown to be multifaceted. Most people tend to see perfectionists as having excessively high standards for themselves, but 'socially prescribed' perfectionists believe that other people have excessively

high expectations of them – and they will only be valued if they live up to these expectations. Self-oriented perfectionism is sometimes seen as adaptive, but there is a difference between the desire to excel and the need to be perfect. Rory and I have found that both self-oriented and socially prescribed perfectionism are risk factors for well-being, but the latter is more consistently damaging for health over the long term.

Individual differences in emotional expressivity also feature heavily in your work. How does this relate to health and disease?

Alexithymics have difficulty in identifying and expressing their own emotions and appreciating those of others. It is a risk factor for a wide range of mental and physical disorders, including depression, social phobia, asthma and hypertension. There is evidence that alexithymics may engage in negative health behaviours, such as binge eating and substance abuse, as a way of discharging tension arising from unpleasant emotional states that are not consciously appraised. It is a difficult disorder to manage, as alexithymics do not respond well to psychological therapies.

For several years now, I have been looking at the advantages of written emotional disclosure for health. The extraordinary and wide-ranging benefits of emotional writing for well-being were first highlighted by Pennebaker in the 1980s, and there is now little doubt that the technique can improve health and certain health behaviours. It seems, however, that it only works for some people for some of the time. We have been trying to find out who will find written emotional disclosure most beneficial and the circumstances in which

it is most effective. It might be assumed that emotional writing would help alexithymics engage with their emotions and therefore enhance their well-being. Nonetheless, our research findings indicate that the technique tends to be generally ineffective for these people, as alexithymics do not have the insight or emotional vocabulary to meaningfully engage with the task.

So how does written emotional disclosure work? Why is it so beneficial?

It is likely to work differently for every single person who uses it. There are many possible mechanisms to explain the observed health gains, such as emotional self-regulation, habituation, catharsis and meaning-making. Disclosing emotional reactions in writing could also be a proxy for social support, which would benefit people who are unable or unwilling to disclose their feelings to others. I think exposure therapy is the most likely explanation – written emotional disclosure works because people spend a lot of time and psychological resources trying to repress traumatic memories, thoughts and feelings. Through the writing task, people are encouraged to reflect on these feelings, learn from them and slowly extinguish them. This then frees up cognitive, psychological and behavioural resources.

Written emotional disclosure has been found to have many benefits for people with chronic health problems, but it may have particular promise for people with serious illnesses such as cancer. A key benefit may be via self-affirmation, where people focus on positive outcomes of their cancer experience; for example, ‘Having cancer has made me realise that I have a great marriage, good friends etc.’ or they may have re-evaluated the importance of work in their lives and focused more on family.

Sharing personal experiences of trauma and illness via blogs, Facebook and Twitter has become much more common. Might the benefits of guided emotional writing decrease as people are more likely to disclose such feelings publicly anyway?

Good question. I think more research is needed to explore this and the implications of social media for other key health issues. People commonly post their health behaviour goals on Twitter and Facebook – this then brings one’s intentions into the public domain. How this then impacts on health behaviour change and maintenance is as yet unknown, but ought to be carefully evaluated. For

instance, it would be interesting to explore whether behavioural intentions declared on social media are stronger, more stable and better formulated than privately formulated intentions and the implications of success and failure.

You have recently published a paper with Suzanne Segerstrom that issues four challenges for stress research that have the potential to lead to major advances in the field of health psychology. What are they?

The first relates to the need to review and refine the way stress is defined and measured. Stress has been conceptualised as a stimulus, an outcome and a transaction – it can be located in the environment, in physiological and psychological response, and in individual appraisal. Careful conceptualisation and assessment can differentiate among these locales, as well as reveal interactions amongst them. Second, coping is one of the most modelled constructs within health psychology, but more insight is required into coping as a transaction between the person and the stress. In other words, which coping styles and strategies moderate the effects of stress under which conditions? Third, more knowledge is needed about the effects of stress over the lifespan – there is a wealth of data that is publicly available to track these effects over time and detect differences within and between subjects. Finally, most published research on stress and health tends to be cross-sectional, and more innovative techniques and technologies are needed. Daily diaries, ecological momentary assessments and multilevel modelling techniques have particular potential in capturing the cascading effects of stressful events.

To conclude, if you could choose one individual difference construct that has the potential to enhance knowledge of stress and health what would it be?

Tricky... I don’t think one particular individual difference construct holds the key to enhancing knowledge in the stress and health area. However, I’d go with conscientiousness (and its facets) due to its sheer power in predicting health and longevity. Two recent large-scale, longitudinal studies showed that conscientiousness was the only personality factor to predict all-cause mortality and brain ageing. That said, related constructs such as self-control and executive control function have emerged as incredibly important individual difference variables. Ignore the role of personality and individual differences at your peril.



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