Resilience Characteristics of Healthcare Students During a Pandemic

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The SHS evidence-based[1] strategy for Resilience[2] training

- **Aim: to provide a supportive and educational environment to promote resilience in students**
- Evaluate student's resilience related characteristics as they progress through their degree programmes
- Use small interactive learning groups – reflection, stress management, EI, sharing of challenging experiences
- Provide a supportive environment

1. Rogers D, (2016) Which educational interventions improve healthcare professionals' resilience? Medical Teacher, 38:12 1236-1241
2. Walker C, Gleaves A, Grey J, (2006), Can students within higher education learn to be resilient and, educationally speaking, does it matter? Educ Stud 32, pp251-264

Evaluation of Resilience

- Set up a longitudinal, exploratory, observational study
- To benchmark and explore any changes over time using specific outcome measures
- Individual Questionnaires
  - Using measures of Resilience[1], Emotional Intelligence[2], Perceived Stress[3] and Well-being[4]
- Annual 'focus group' to evaluate the student experience
- Measure at the start of year 1 & 3
- Ethical approval granted by UoL

1. Davidson JRT and Connor KM. Connor-Davidson Resilience Scale (CD-RISC) Manual. Unpublished. 06-01-2018and partly accessible at www.cd-risc.com
2. Cooper, A.; Petrides, K. V. (2010) A Psychometric Analysis of the Trait E. I. Questionnaire -Short Form (TEIQue-SF) Using Item Response Theory J of pers assessment 92(5) pp449-457
3. Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. Journal of Health and Social Behaviour, 24, 385-396.
4. Pontin, Schwannauer, Tai and Kinderman1(2013) A UK validation of a general measure of subjective well-being: the modified BBC subjective well-being scale (BBC-SWB), Health and Quality of Life Outcomes, 11:150

Methods

- Total no. of SHS students in cohort (n=311)
- Programmes contributing
  - BN Nursing, BSc (Hons) Diagnostic Radiography, Occupational Therapy, Orthoptics, Physiotherapy, Therapeutic Radiography and Oncology
- Response rate –Year 1 84% (n=262)

Pandemic!

- Response rate – Year 3 32% (n=129)
- Paired sample T-tests

Emotional Intelligence:

Score [scale 1-7]	*1st Year*	*3rd Year*	*Significance*
Global EI Mean (STDev)	**5.05(0.60)**	**5.03(0.63)**	**P=0.84[1]**
Well-being Mean (STDev)	5.46(0.92)	5.27(0.77)	P=0.10[1]
Self-control Mean (STDev)	4.43(0.99)	5.13(0.89)	P<0.001[1]
Emotionality Mean (STDev)	5.34(0.64)	5.31(0.81)	P=0.81[1]
Sociability Mean (STDev)	4.85(0.80)	4.61(0.85)	P=0.04[1]

Trait EI was Not expected to change

[1] paired T test

Increased Self control: Why?

Adaptability	flexible and willing to adapt to new conditions
Emotion regulation	capable of controlling their emotions
Impulsiveness (low)	reflective and less likely to give in to their urges
Self-motivation	driven and unlikely to give up in the face of adversity
Stress management	capable of withstanding pressure and regulating stress

What was the impact of the pandemic and particularly their clinical placement experience?

- **Have they become more adaptable?**
- **Are they better at stress management?**

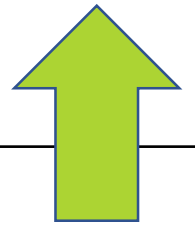
Decreased Sociability: why?

Social awareness	accomplished networkers with excellent social skills
Self-esteem	successful and self-confident
Assertiveness	forthright, frank and willing to stand up for their rights
Emotion management (others)	capable of influencing other people's feelings

What was the impact of the pandemic and particularly their clinical placements experience?

- **Has their self-esteem and/or assertiveness decreased, and their confidence been knocked by seeing such a challenging clinical environment?**

Perceived Stress:

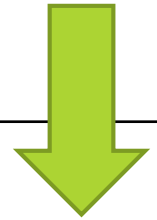
	Year 1	Year 3	Significance	expectation
Perceived stress (N=67)				
Total score. Mean(st.dev.)	23.83(8.33)	25.01(8.06)	P=0.41[1]	

- Scores ranging from 0-13 would be considered low stress
- **Scores ranging from 14-26 would be considered moderate stress**
- Scores ranging from 27-40 would be considered high stress

https://das.nh.gov/wellness/docs/percieved%20stress%20scale.pdf

So in a pandemic they are not registering any higher stress levels than in normal times in year 1 of the programme!

BBC Well-being:

	Year 1	Year 3	Significance	expectation
BBC Well-being (N=94) [scale 1-120]				
Total score Mean(st.dev.)	90.94 (10.39)	89.05 (13.90)	P=0.15[1]	

Students feel as positive now as they did at the start of the programme.

- **Is this due to the appreciated clinical practice experience?**

Resilience Scores:

	Year 1	Year 3	Significance	expectation
Resilience (N=96) [scale 0-100]				
Total score. Mean(st.dev.)	70.04 (12.28)	71.94 (11.62)	P=0.19[1]	

Fairly high resilience c.f. Comparable Group Mean = 75.09 (n=1,534) Sports Science freshmen[1]

No increase in resilience from year 1, an increase was expected pre-pandemic.

- **Was this the impact of the pandemic?**
- **NB…. Well-being scores didn't reduce.**

1. Allan J, McKenna J, Dominey S, (2014) Degrees of resilience: profiling psychological resilience and prospective academic achievement in university inductees, British Journal of Guidance & Counselling, 2014 Vol. 42, No. 1, 9-25, http://dx.doi.org/10.1080/03069885.2013.793784

Conclusion

UoL Healthcare Cohort 2018 students, after experiencing most of a pandemic, report..

- No sig diffs in their Well-being, Perceived Stress levels, Resilience or Global EI from year 1 to 3 so …
- The pandemic did not impact on the students resilience characteristics
- They remain as resilient as they were when they started the programme

NB small numbers of respondents in 3rd year might have introduced type I and/or II errors so further research with larger numbers recommended..