

An investigation of third year undergraduate diagnostic radiography students' perceptions of stress and coping mechanisms whilst on clinical placement.

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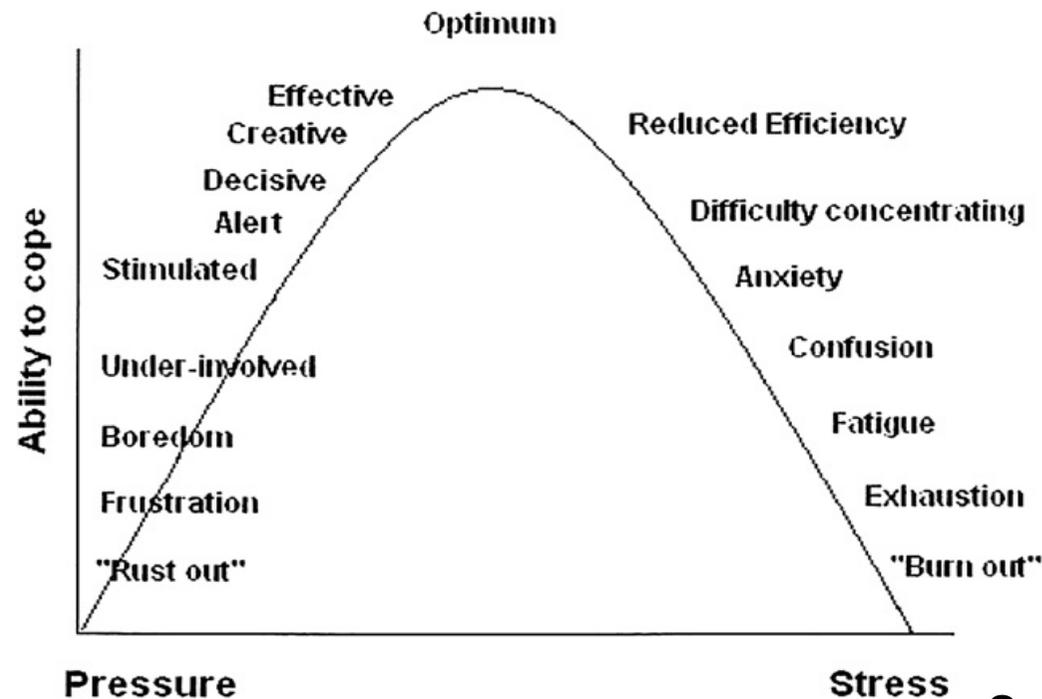
BSc Hons Diagnostic Radiography and Imaging

Rationale, Aims and Objectives

- Stress in the healthcare environment is the top reason for work-related absence (HSE, 2013).
- Studies have shown that radiographers are adversely affected by occupational stress.
- Student radiographers working in the same environment experience stress.
- No studies have investigated stress in final year students.
- This study aimed to bridge the gap in current knowledge between undergraduates and qualified radiographers.

What is stress?

- Stress occurs from an interaction between an individual and the environment where the individual interprets the situation as threatening, challenging and damaging (Spiers, 2007).



Spiers, 2007

Methodology and Methods

- Phenomenological approach taken due to subjective nature of stress.
- Cross-sectional questionnaire survey explored aspects of stress and coping using qualitative and quantitative questions.
- Questionnaire administered to undergraduate diagnostic radiography students in their final year at a UK University.
- Permission to use a previously published test tool obtained from Mason (2006).
- Relevant ethics committee approval by University.
- Data analysed using descriptive statistics and thematic analysis.

Questionnaire design

- Questionnaire modified to explore the multidimensional aspects of stress.
- Quantitative questions explored:
 - mentoring and role model behaviour
 - situations that cause stress and actions that ease stress
 - practises perceived to inhibit and promote learning
- Established if coping mechanisms used by students were emotion-focused or problem-focused.
- Qualitative questions explored positive and stressful experiences during clinical placement.

Results

Quantitative

- 40% response rate (n=42) questionnaires received

Clinical instructor characteristics (n=38)			
	No. of responses	% of responses	Relative value
Helpful	29	25.4	67
Understanding	20	17.6	39
Desire to teach	20	17.6	37

Clinical stressors (n=38)			
Intimidation by staff/instructors	13	17.1	24
Fear of making a mistake/repeat	11	14.5	14
Difficult/critical patients	9	11.8	14

Results

Quantitative

Actions that lessen stress (n=38)

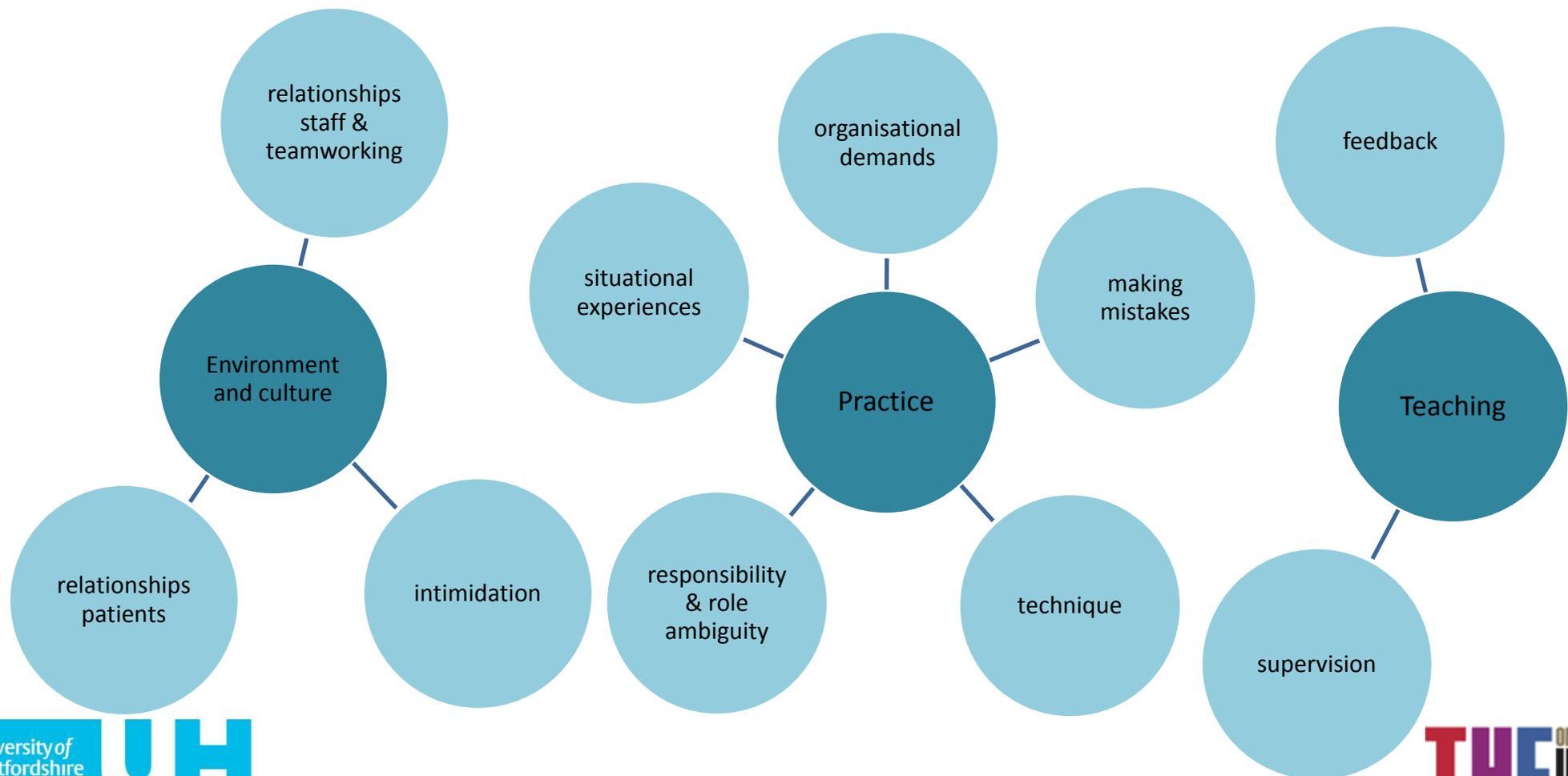
	No of responses	% of responses	Relative value
More feedback	17	22.4	25
More mentoring time	13	17.1	21
Assurance that mistakes happen	13	17.1	19

Clinical practises that promote learning (n=38)

Hands-on	24	30.8	42
Repetition	17	21.8	29
Constructive criticism/feedback	17	21.8	19

Results Qualitative

- Categories extracted from the data



Results

Positive experiences

- Given responsibility, being ‘hands on’ and adapting own technique

‘Being allowed to do the imaging in theatre (pain list) with minimal supervision.’

‘I found doing some images in other ways than usual (like thumb- standing instead of pt [patient] sitting) easier.’

- Dealing with situations successfully

‘when I was able to coax a 3 year old child into having an X-ray.’

Results

Stressful experiences

- Intimidation by staff or instructors appeared to be the top stressor

‘When a radiographer put me down during an examination saying “don’t worry she’s just a student.” This undermined me and frustrated me...’

‘Having the superintendent click at me and shout “student” as a way to get my attention.’

Results

Stressful experiences

- Lack of supervision, assumed responsibility and making mistakes considered as stressors.

‘Being left alone after taking image, pt [patient] on table but no radiographer to check.’

‘when I made a mistake in theatre my supervising radiographer shared it with all the other staff who had a good laugh about it at my expense.’

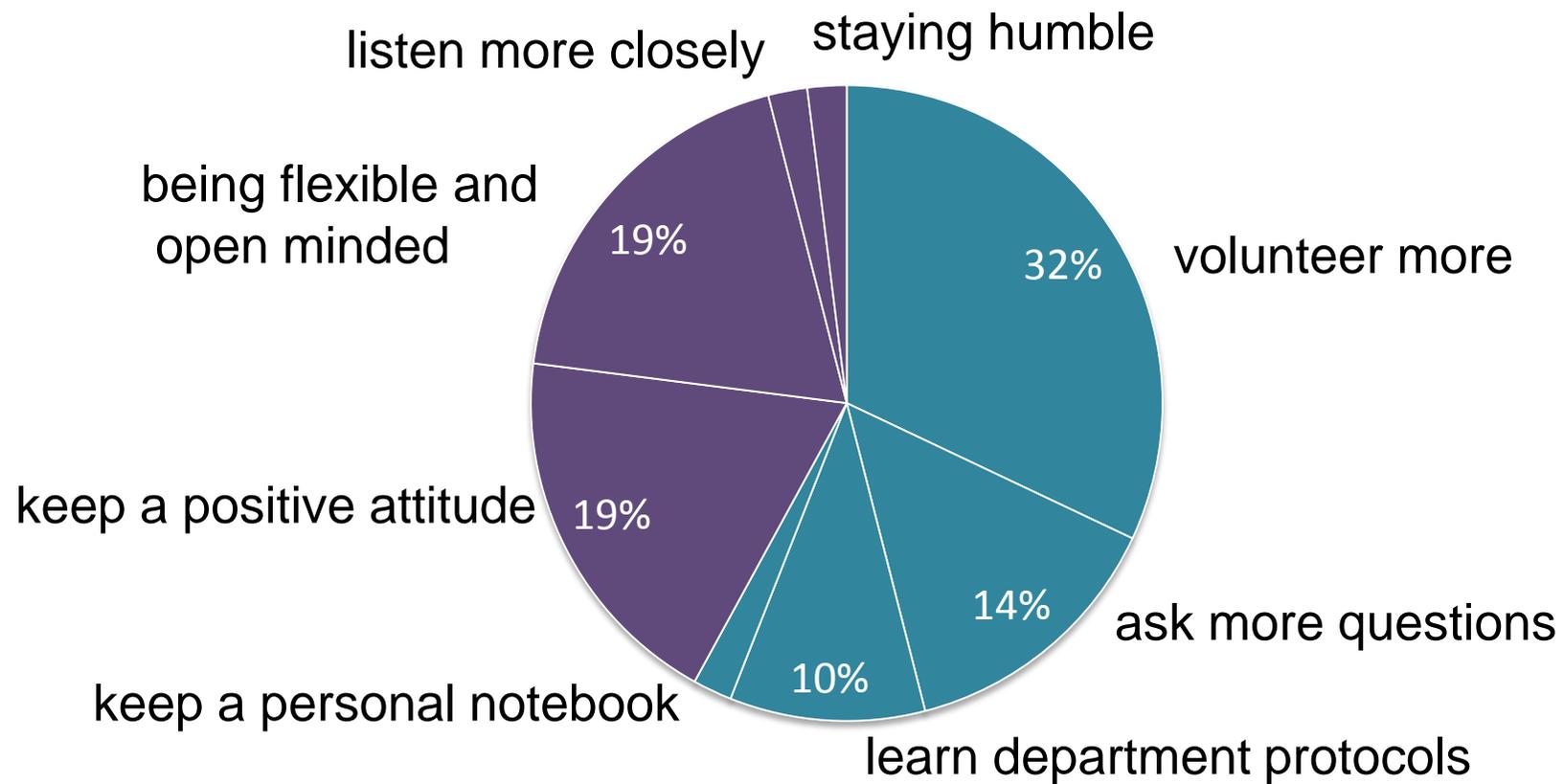
- Organisational demands such as workload were perceived as a stressor.

‘in A/E and one room is down, the waiting room is full with patients’

‘severely understaffed having to do lots of work in a rushed manner’

Results

Coping



Discussion

- Relationships with mentors, and role models are important in fostering confidence.
- Being given responsibility and 'hands-on' was valued and support appreciated in the form of feedback.
- Intimidation levels mirrored those seen in radiographers, but contrasted with radiographers in that intimidation appeared to be inter-departmental, an issue that needs to be addressed.
- Making mistakes identified as a stressor may be due to fear of repercussions.
- Students primarily use problem-focussed coping, however those using using emotion-focused coping may be susceptible to burnout.

Conclusion

- As final year students prepare for graduate practice they begin to experience the same clinical stressors as qualified radiographers do in the area of organisational demands and time management.
- Highlights the importance of role models in the clinical environment in promoting learning and building confidence.
- There is a need to address the endemic culture of intimidation of students by promoting positive relationships through teaching and constructive feedback where it is accepted that mistakes are made.
- Further longitudinal research is required on stress in newly qualified radiographers.

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References

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