

# Enhancing emotional self-regulation through peer counselling: Insights from health science students

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**Background.** Globally, undergraduate students face challenges, such as anxiety, that affect academic success. This is a major cause for concern, especially among health science students. The present study aligns with existing research on academic anxiety in higher education. Using Gross's Process Model on Emotional Self-Regulation (tPMER) as a theoretical framework, the study aims to investigate the role of peer counselling in promoting emotional self-regulation (ESR) among health science students, specifically to address academic anxiety.

**Method.** Against the background of a constructivist-interpretivist paradigm, 32 second-year health science students at a multi-campus South African university voluntarily consented to participate in the qualitative study. Ethics approval was obtained after which data were collected during a series of online workshops using open-ended questions and group discussions. ATLAS.ti 9 was used for the thematic analysis of data.

**Results.** Maladaptive strategies, such as avoidance behaviour and procrastination, came to light as participants identified the sources of anxiety owing to academic demands. Although perceptions about ESR varied, the effectiveness of peer counselling sessions ranked among the most important because participants viewed ESR strategies as beneficial for anxiety reduction. This research highlights the prevalence of anxiety among health science students and the significance of ESR. In addition, peer counselling is discussed as a valuable tool in promoting ESR and effective anxiety management, while further investigation into the use of peer counselling structures in undergraduate health education is recommended to promote support for students' emotional well-being.

**Keywords.** Higher education, health science students, academic anxiety, emotional self-regulation, peer counselling.

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Undergraduate students worldwide experience various challenges that hinder academic success. This is also a reality in South African higher education (HE).<sup>[1-4]</sup> One of the biggest challenges that students face is anxiety related to academic success. Academic success, which includes grades, planning, critical thinking, and self-regulation skills,<sup>[5-7]</sup> is defined in the present study as the achievement of minimum module requirements, which include planning, strategising and the application of self-regulation. Self-regulation, i.e. the conscious guidance and monitoring of behaviour across domains,<sup>[8]</sup> involves principles such as self-monitoring, self-evaluation, self-reflection and self-reactions.<sup>[8-11]</sup> The use of self-regulation strategies in an academic setting increases success regardless of the delivery mode.<sup>[9,12,13]</sup> Specifically, emotional self-regulation (ESR) – a form of self-control managing emotional experiences – is crucial to anxiety management.<sup>[14,15]</sup>

Gross's Process Model of Emotional Regulation (tPMER)<sup>[16]</sup> emphasises ESR by focusing on goal, strategy and outcome. Gross's tPMER corresponds to emotion generation points – situation, attention, appraisal and response – that provide opportunities for antecedent-focused and response-focused responses.

In the present study, the work of Gross<sup>[16]</sup> on ESR and the author's tPMER model were used as the foundation for this study. The tPMER provides a framework for understanding the sequence of emotion generation and offers antecedent-focused and response-focused strategies. Fig. 1 provides a visual overview of the tPMER model, whereafter a discussion of the model follows.<sup>[17]</sup>

Antecedent-focused strategies, applied before an emotional peak, include situation selection, situation modification, attentional deployment and cognitive change, which have been shown to be effective in anxiety management.<sup>[15,16]</sup> Situation selection simply refers to an individual's choice to place themselves in a situation, whereas situation modification involves altering what happens once in a situation.<sup>[16]</sup> Although situation selection and situation modification fall within the scope of antecedent-focused strategies, the study works from the assumption that students may already be in a possible anxiety-inducing situation and would then need to manage the anxiety that they experience. Hence, this study focuses on attentional deployment and cognitive change. Attentional deployment involves shifting attention away from emotionally inducing information, using distraction and concentration.<sup>[15]</sup> Cognitive change, which modifies the interpretation of a situation, includes awareness, reappraisal of response and reappraisal of stimulus.<sup>[15,17]</sup> Awareness, within the concept of emotional regulation as presented in the tPMER, involves the conscious attending to bodily signals.<sup>[18,19]</sup> Student awareness of emotional responses helped regulate anxiety associated with academic success.

Anxiety, a negative future-oriented state, has an influence on cognitive function that hinders academic success.<sup>[20]</sup> Consequently, effective anxiety management strategies are invaluable for health science students prone to anxiety<sup>[21,22]</sup> to fulfil their role as future healthcare practitioners.<sup>[10]</sup>

Despite the wide variety of support provided to students, peer counselling as a form of support in academia, is viewed favourably by students owing

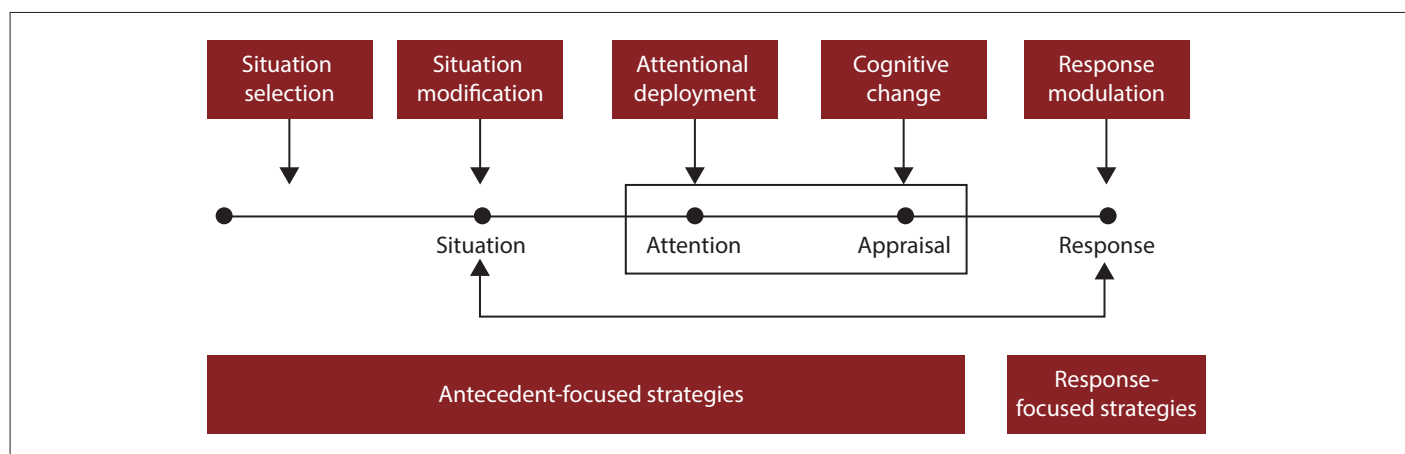


Fig. 1. Process model of emotional regulation (tPMER).

to its informal, influential nature.<sup>[23,24]</sup> Peer counselling is a paraprofessional service that focuses on the individual's emotional well-being, and has proven benefits in terms of academic achievement, self-awareness, and anxiety reduction.<sup>[25-27]</sup> Furthermore, in this study, peer counselling occurs in a group setting. A peer counsellor, with a degree in psychology or studying towards a degree in psychology, receives further training in the specialised field of Gross's tPMER model. Therefore, the peer counsellor works as a vehicle that facilitates a supportive space to create awareness of ESR and related strategies that students can utilise to manage the anxiety that they may experience. Hence, the purpose of this study is to investigate the use of peer counselling within an undergraduate module, to make health science students aware of ESR so that they may cope better with anxiety associated with academic success.

## Method

Rooted in a constructivist-interpretivist paradigm, this qualitative study aimed to investigate how peer counselling within an undergraduate module can be used to foster ESR in health science students with the aim to better cope with anxiety associated with academic success. The North-West University Health Research Ethics Committee (NWU-HREC: NWU-00075-23-A1) and the North-West University Research Data Gatekeepers Committee (NWU-GK-23-148) granted ethical approval for this research conducted in 2023. The study population consisted of registered second-year students for a compulsory module at the Faculty of Health Sciences in a multi-campus at a public research university in South Africa.

All second-year students were invited and had the opportunity to participate in this study. No exclusion criteria were applied and, after attending a research-information session and the call by a neutral and independent person to participate, 32 participants indicated their willingness to participate by voluntarily signing a hard copy of the informed consent form. The age range of the participants was between 18 and 21 years old; however, this study focuses on anxiety experienced as a result of academic demands relevant to the student's year of study.

A series of three, one-hour-long consecutive structured online workshops was the main source for data collection using open-ended reflection posts on Padlet. The latter is a collaborative online tool that enables postings on a virtual wall.<sup>[28,29]</sup> The researcher facilitated the workshops. Each workshop comprised three sections: Section 1: Introduction; Section 2: Reflection and Discussion; and Section 3: Closing. At the beginning of each workshop, the researcher introduced herself and welcomed

participants to the workshop. After the introduction, the researcher outlined the workshop structure. This was followed by the researcher posting an open-ended question related to ESR on the virtual wall. After posting the question, participants were requested to reflect and, during the quiet time, post their response(s) anonymously on the virtual wall. Using the anonymous responses as a point of departure, the researcher facilitated the group discussion and posed follow-up questions where needed. At the end of the workshop, the researcher provided participants with more information about, and strategies for, enhancing their ESR to manage their anxiety associated with achieving academic success. The workshops specifically focused on conveying strategies for attentional deployment and cognitive change, as described in the introduction.

Collected data were downloaded, and any identifying information was removed to ensure anonymity and confidentiality of participants. The data analysis software ATLAS.ti 9 was used to thematically analyse the anonymised data set using the six steps by Creswell and Clark<sup>[30]</sup> as well as Tesch's approach.<sup>[31]</sup> Using both deductive and inductive coding, participants' comments were linked to codes, sub-themes, themes and patterns, and data were analysed until data saturation was reached. Co-coding was used to improve the rigour, validity and reliability of the research. All signed informed consent forms, and raw and cleaned data sets in hard and electronic format were stored according to institutional requirements in a password-protected folder behind the institutional firewall.

## Findings and discussion

During the data analysis, the researchers identified three main themes: Theme 1: Situation Selection and Situation Modification; Theme 2: Attentional Deployment and Cognitive Change; and Theme 3: Effectiveness of Peer Counselling.

The next section discusses the three themes with supporting quotes to elucidate the findings. The date of each workshop is indicated as year, month, day, e.g. 2023/08/21.

### Theme 1: Situation selection and situation modification

As previously mentioned, this study works from the assumption that participants are presently in anxiety-inducing situations and may therefore require additional assistance to manage their experienced anxiety. Furthermore, the anxiety-inducing situations pose a threat to academic achievement.

During the workshops, participant responses confirmed the above-mentioned assumption and are represented in the following two subthemes: Subtheme 1.1: Sources of anxiety, and Subtheme 1.2: Impact of anxiety on academic success.

## Subtheme 1.1: Sources of anxiety

According to participants, their anxiety stemmed from various sources that were particularly related to academic demands, such as workload, deadlines, group work, class attendance and the requirements to master subject content. Time management and study skills were among the shortcomings raised by students:

I get so anxious about my marks that I get scared to start doing the work (2023/08/22).

Having a study schedule to accommodate all my workloads and perform on my best level (2023/08/22) was a significant anxiety trigger. Additionally, personal circumstances and internet connectivity also triggered anxiety.

## Subtheme 1.2: Impact of anxiety on academic success

Avoidance behaviour, slowed pace, difficulty focusing, feelings of isolation, and physiological/psychological symptoms were among the outcomes owing to such anxiety, participants stated:

I get so anxious about my marks that I get scared to start doing the work (2023/08/21).

I 'avoid everything', 'slack off' (2023/08/21) and 'lose hope' (2023/08/22).

## Theme 2: Attentional deployment and cognitive change

The workshop data revealed that students presently made use of strategies associated with attentional deployment. Moreover, only two participants displayed strategies of cognitive change while others made use of maladaptive strategies. Furthermore, during the workshops, strategies of attentional deployment and cognitive change were shared with participants.

The following subthemes came to the forefront: Subtheme 2.1: Existing strategies of attentional deployment; Subtheme 2.2: Existing strategies of cognitive change; and Subtheme 2.3: Maladaptive strategies.

### Subtheme 2.1: Existing strategies of attentional deployment

Some participants displayed strategies associated with distraction as they either actively or passively attempted to reduce their anxiety by directing their attention to something else. Participants were asked to describe what they do or use when they feel anxious about their studies:

Listen to gospel music (2023/08/29).

I usually go for a walk/take time out. I used to shut down and not do anything at all but I think walking helps or taking a few minutes off (2023/08/29).

Furthermore, two participants' responses draw on the concept of mindfulness by drawing attention to their current state of anxiety stating:

I cry just to let everything out and then look at what's really giving me anxiety (2023/08/29).

I'm all about spirituality, so I do meditate and read self-help books, to soothe down my anxiety (2023/08/28).

### Subtheme 2.2: Existing strategies of cognitive change

Only one participant made use of cognitive change, as they directed their behaviour in a way that allowed them to see their anxiety as nonthreatening.

Furthermore, owing to this reappraisal of anxiety, the participant even mentioned how they use it to their advantage.

I plan how I can order and divide my workload and try to stay to the plan I made. When I am anxious, I tend to work harder, and it motivates me (2023/08/29).

### Subtheme 2.3: Maladaptive strategies

In contrast to the above-mentioned adaptive strategies, participants displayed maladaptive strategies of dealing with their anxiety such as indulgence in emotions, turning to food, self-criticism and avoidance of their emotions by attempting to escape anxious feelings, as indicated by the responses below:

Watching animations for me is a way of leaving my own reality and exploring a different one where I can be a hero (2023/08/28).

I delay the task by occupying myself with something else and engage in self-criticism and self-doubt talks (2023/08/29).

## Theme 3: Peer counselling

The use of peer counselling was deemed effective in creating a space to cultivate awareness of ESR. Furthermore, participants in the workshop commented on the effectiveness of the peer counselling space and provided suggestions for future peer counsellors.

The findings are reflected in the following subthemes: Subtheme 3.1: Perceptions of emotional self-regulation; Subtheme 3.2: Effectiveness of peer counselling; Subtheme 3.3: Recommendations for future peer counsellors.

### Subtheme 3.1: Perceptions of emotional self-regulation

Participants initially showed varied perceptions of ESR, ranging from uncertainty and misunderstandings to clear comprehension.

I don't really know much about it (2023/08/22).

Think it has something to do with self-awareness (2023/08/21).

It is the way that you identify and work through your emotions (2023/08/21).

As the workshops progressed, participants developed a more nuanced understanding of ESR, as responses were saturated with a concise comprehension of ESR. Hence, there is a slight shift in perceptions from a view of ESR as mere emotion control to a better understanding as holistic awareness, and an effective strategy to manage anxiety associated with academic success:

Emotional self-regulation is the ability to respond to ongoing demands in a manner that is socially flexible, this can be used as a strategy to bounce back whenever you are facing challenges (2023/09/05).

It is very effective, because when you feel overwhelmed with schoolwork, you are able to manage your anxiety by taking time to yourself and by knowing how to deal with the emotions that make you feel anxious (2023/09/04).

Workshops, characterised by peer counselling, played a crucial role in enhancing participants' comprehension of ESR.

### Subtheme 3.2: Effectiveness of peer counselling

Participants confirmed that peer counselling contributed to the improvement of self-knowledge, self-awareness and emotional management skills as the peer counselling space provided alternative coping mechanisms for anxiety,

which was responsible for a feeling of support and validation within an academic environment:

It helps you understand your emotions in dept and develop higher emotional control and gain the power to remain calm in stressful situations and under pressure (2023/09/05).

Continue doing this because it's really helpful to us as students and I think everyone needs that chance to get guidance from them (2023/09/04).

### Subtheme 3.3: Recommendations for future peer counsellors

Recommendations for future peer counselling sessions included increasing frequency, consistency and structure, providing resources, and incorporating interactive activities. Participants also suggested a shift from online to in-person sessions. However, some participants felt a need for more personal presence of peer counsellors in faculty-specific spaces, suggesting that they:

Work under student support unit A perhaps and actually be free, unlike the 'free' therapists at student support unit A that are in fact not free (2023/09/05). [Name of student support unit replaced with a code to protect the identity of the support unit and to avoid any reputational harm.]

## Discussion

The findings of this study are consistent with the broader body of literature on anxiety experienced by undergraduate health science students. The general association between anxiety and academic demands is especially strengthened by the weight of academic workload. Teixeira *et al.*<sup>[1]</sup> confirm that health science students face an increased risk of negative mental health symptoms owing to the academic demands placed on them. This highlights the universal challenges within health science education and the necessity for targeted interventions that take students' mental well-being seriously.<sup>[3,4,32]</sup> The present study emphasises the necessity for introducing intervention mechanisms within the immediate academic environments of students, as findings reveal the lack of support concerning academic anxiety, expressed by students.

Additionally, the study highlights a spectrum of coping mechanisms employed by participants, ranging from maladaptive to adaptive strategies. The identification of maladaptive strategies in response to anxiety, such as avoidance of academic activities (procrastination and class skipping), is also consistent with the assertion of Zarrin *et al.*<sup>[33]</sup> that academic performance is negatively affected by academic procrastination. The consequences of procrastination, as well as late submission of assignments and insufficient exam preparation, increased the experience of anxiety, providing empirical evidence for the counterproductive nature of certain anxiety management strategies.<sup>[33]</sup>

While some participants engaged in anxiety-exacerbating behaviour, such as avoidance, others employed adaptive strategies associated with attentional deployment and cognitive change, such as taking breaks and going for walks. This dichotomy is in line with existing literature that emphasises the importance of distinguishing between adaptive and maladaptive coping mechanisms to understand their impact on mental health and academic outcomes fully.<sup>[34,35]</sup>

It is important to point out the knowledge gap among participants regarding ESR strategies, despite some employing adaptation mechanisms that resemble attentional deployment and cognitive change as aspects of ESR. This is consistent with Cassidy's<sup>[10]</sup> assertion that self-regulation, including ESR, is a multifaceted skill that students may not fully grasp without explicit education and support. The lack of awareness of ESR strategies among

health science students highlights the need for interventions (such as peer counselling in this study) that explicitly introduce and cultivate these skills to improve emotional well-being and academic success.<sup>[9,12]</sup>

The positive recognition of ESR strategies, especially attentional deployment and cognitive change, by participants, once introduced through the peer counselling workshops, is consistent with literature emphasising the effectiveness of such strategies in anxiety management. This is consistent with Gross<sup>[16]</sup> tPMER, which claims that strategies such as attentional deployment and cognitive change can effectively modulate emotional responses. Findings from this research add to the growing body of evidence supporting the integration of ESR strategies in educational settings to promote emotional well-being and improve academic outcomes.<sup>[12,13,36]</sup> The use of peer counselling was effective in conveying the concept of ESR and assuring students of a supportive academic space. Hence the study provides evidence that students benefit from creating awareness of ESR and strategies of attentional deployment and cognitive change within a supportive peer counselling environment, highlighting the successful collaboration between peer counselling and ESR.

Participants felt that they learned from those around them and found new ways to cope with the anxiety they experienced, reflecting the benefits of a peer counselling environment characterised by listening to others and problem-solving.<sup>[26]</sup>

Although many higher education institutions provide a wide variety of services to help students develop skills related to ESR, the present study uncovered the alarming situation of ineffective and unavailable services. In addition, peer counselling within an academic environment, in collaboration with other institutional support services, was needed to provide training for peer counsellors who support students within their academic environment.

## Limitations

Despite careful planning, rigorous data collection, and careful analysis, several limitations remain to be detected in this study. Firstly, participation in the research was voluntary, which meant that not all participants gave consent for the use of their anonymous posts, leading to selection bias as the views and experiences of those who did not consent may differ from those which are included in the analysis. Only answers from students who consented could, therefore, influence the diversity of responses and themes explored in this study.

Another limitation could be the exclusive reliance on open-ended question reflections and group discussions for data collection. The absence of additional tools, such as individual interviews, may have had a negative effect on the depth of data. Individual interviews could have established a more nuanced exploration of participants' experiences, which would have enabled the interviewer to pick up on non-verbal cues and ask follow-up questions to clarify and enrich the overall understanding of ESR as well as anxiety management among health science students.

Finally, participants' responses were brief owing to the nature of and duration of online workshops. This brevity can be attributed to various unknown factors, which gave rise to incomplete or less well-thought-out answers. If reasons for the concise answers were indeed known, this would have contributed to a more valuable context and richer interpretative findings. These limitations therefore require careful interpretation and result in generalisation of the study's results. Despite these limitations, the aim of this study is still that university teachers, faculty management

and other stakeholders interested in introducing peer counselling in an undergraduate health science module will use the findings and recommendations to improve ESR so that academic-related anxiety can be dealt with.

## Conclusion

This article investigated the use of peer counselling to improve ESR of undergraduate health science students to better cope with academic-related anxiety. The concept of ESR was viewed through the lens of Gross's tPMER model. More specifically, strategies of attentional deployment and cognitive change from the tPMER model were used as a guiding factor in this research study. Findings showed that students find themselves in anxiety-inducing situations. Furthermore, students also display ways in which they manage anxiety, some of which are strategies associated with ESR, specifically attentional deployment and cognitive change. However, the study found that there was a greater awareness among students regarding their anxiety and that they gained a better understanding of the concept of ESR and strategies of attentional deployment and cognitive change. Furthermore, the peer counselling environment was rated as successful and beneficial as far as the main concepts of ESR were concerned. It became apparent that students not only benefited from the workshops, but also that there was a need for such a support space.

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**Authorship.** All authors significantly contributed to conceptualising the study, analysing data, and interpreting findings. Working collaboratively, all authors participated in drafting the outline of the manuscript, and writing, critical reading, and revision of the manuscript. Consent for submission to the *African Journal of Health Professions Education*, with the possibility of acceptance and publication, was unanimously granted by all authors.

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**Data availability.** Datasets are not publicly available owing to confidentiality concerns but are available from the corresponding author upon reasonable request.

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