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# The impact of psychological distress and university counselling on academic outcomes: Analysis of a routine practice-based dataset

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## Abstract

Whole university approaches to student mental health and well-being increasingly involve university counselling and mental health services (UCMHSs) as key stakeholders in higher education and the fulfilment of good academic outcomes. However, previous research using routine outcome measures has focussed on psychological distress only. Research is needed to demonstrate the value of university counselling on academic outcomes. This study aimed at profiling the psychological distress of a student sample according to the Clinical Outcomes in Routine Evaluation—Outcome Measure (CORE-OM); measuring the change in perceived impact of problems on academic outcomes, and measuring the perceived impact of counselling on academic outcomes. Students from two UK university counselling services completed the CORE-OM and the Counselling Impact on Academic Outcomes (CIAO) questionnaire as part of routine practice. After counselling, 67.4% ( $n=323$ ) of students with planned endings to counselling showed at least reliable improvement on the CORE-OM. Significant reductions in the perceived impact of problems on all academic outcomes were also found. On average, 83% ( $n=398$ ) of students found counselling helpful for academic outcomes to at least a limited extent. University counselling was found to reduce psychological distress and the impact of problems on academic outcomes. Psychometric examination of the CIAO tool is warranted to strengthen its use. The need for robust data across UCMHSs is demonstrated by both the strengths and limitations of this study.

## KEYWORDS

academic outcomes, counselling, higher education, psychotherapy, student mental health

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## 1 | INTRODUCTION

Year-on-year, students report increasing levels of mental illness (AdvanceHE, 2020; UCAS, 2021) and reaching elevated levels of psychological distress (Bewick et al., 2010; Knapstad et al., 2021). A UK survey comprising 1135 university students found that 21% met the criteria for severe anxiety, 11% for severe depression and 9% met the criteria for both (McIntyre et al., 2018). The authors also reported that both loneliness and assessment stress were primary predictors of depression and anxiety, demonstrating the critical link between academic and mental health factors. In response, university counselling services (UCS) have been found to be effective in reducing psychological distress both in the UK (e.g., Broglia, Ryan, et al., 2021; Murray et al., 2016) and internationally (Biasi et al., 2017; Choi et al., 2010; Monti et al., 2016). However, their impact on academic outcomes has often been overlooked.

There is a complex relationship between psychological distress and academic outcomes in which academic difficulty can be both the cause and the result of psychological distress, thereby yielding a reflexive problem (Hysenbegasi et al., 2005; Yamada et al., 2014). The result is a “downward spiral” model, where psychological distress reinforces educational difficulty which, in turn, leads to distress. This situation has been addressed in the literature for school-age children (Agnafors et al., 2021; Esch et al., 2014) and is now being addressed in higher education (Levine et al., 2020). However, it has been apparent for some time (e.g., Tinto, 1975) that our understanding of academic withdrawal, for example, is obscured because it is difficult to isolate the true cause of the withdrawal from study—nonacademic distress, academic distress, academic failure, or some combination of all three, or other factors.

Academic distress has been reported as the second highest rated problem behind social anxiety in students completing the Counseling Center Assessment of Psychological Symptoms (CCAPS) scale, a measure unique in comprising a specific scale assessing academic distress (Broglia, Millings, et al., 2021). This supports early research that found academic issues were the most common presenting issues for students (Grant, 2002). In the United States, the American College Health Association's (ACHA, 2019) National College Health Assessment found that college students ( $n = 13,594$ ) reported stress (34%), anxiety (27.8%), sleep difficulties (22.4%) and depression (20.2%) to be the four most common experiences they thought had impacted their academic performance, which included considerations of withdrawal from study. Higher rates of stress (38%), anxiety (43%) and depression (47.6%) impacted academic performance among first-year students, resulting in lower grades (Wyatt et al., 2017; see also Amirkhan et al., 2020; Hysenbegasi et al., 2005). However, these were primarily descriptive and correlational studies that only captured associations between student well-being and academic consequences.

Recent evidence and policy recommendations in the UK have focussed on holistic approaches to student well-being and view mental health as a university-wide responsibility. The University Mental Health Charter (Hughes & Spanner, 2019) and Universities UK

### Implications for practice and policy

- This research supports the need for a robust minimum dataset, including both clinical and academic data capture, and collective action across university counselling services. This should be supplemented by sound qualitative research to nuance our understanding.
- Routine outcome measures need, ideally, to be conducted more often than just pre- and postintervention, with the most robust datasets including data from every session.
- University counselling services should be stakeholders in empirical research as well as invited to inform institutional policy and practice.

(UUK) Stepchange: Mentally Healthy Universities report (de Pury & Dicks, 2020) recommend adopting a “whole university approach” to mental health, which views “mental health as foundational to all aspects of university life, for all students and all staff” (UUK, 2021). The Charter (Hughes & Spanner, 2019) sets out 18 areas, the first three of which consider the relationship between psychological well-being and (1) the transition to university; (2) learning, teaching and assessment; and (3) progression through the student journey. Specifically, learning is positioned as an additional factor affecting mental health and well-being, in addition to genetic and environmental factors. This holistic model positions students as human beings in context(s), rather than simply learners enrolled on academic courses. The whole university approach means university counselling and mental health services (UCMHSs) are uniquely placed to support not just the psychological well-being of students but also their learning journey at an institutional level.

In response, USMHSs are being increasingly encouraged to demonstrate their contribution to academic outcomes. This is not necessarily straightforward, as the mission of university counselling is argued to be helping students “make the decision that is most suitable for them” (Choi et al., 2010, p. 298), which might include, for example, deciding to leave university (e.g., Benjamin, 2014). Wallace (2014) recognised that UCSs are required to provide evidence of “value added”, and posited that the counselling impact on academic outcomes may be one way to demonstrate that value (Wallace, 2012). Wallace (2012) developed and conducted the first counselling impact on academic outcomes (CIAO) survey, which asked respondents to rate how much of a factor counselling had been in helping or improving four academic outcomes: retention, achievement, student experience and employability. The survey, along with some accompanying qualitative questions, aimed at capturing the student perspective of counselling impact.

Wallace (2012) found 80.2% of 5537 students from 85 UK universities considered counselling to have been “helpful” (responses in which counselling was the most significant factor, an important factor or one of many factors) on each academic

outcome. However, only one peer-reviewed article using the CIAO exists (McKenzie et al., 2015), in which the CIAO was used only to generate a grouping variable of students with or without academic issues. The CIAO survey has proved popular with UCSs as a questionnaire for service evaluation, as it demonstrates the impact university counselling services have on institutional goals, going beyond clinical support and reducing psychological distress. Alternative providers, such as private therapists and third-party organisations, are unlikely to have the contextual expertise of the student experience deemed essential for work in university and college counselling services by the British Association for Counselling and Psychotherapy competency framework for work in further and higher education (BACP, 2016).

In the absence of published reports on the CIAO, the current article presents analyses of an archival practice-based dataset in which students completed a measure of psychological distress, as well as the CIAO measure, in order to address three aims: first, to characterise the sample in line with recent studies (i.e., Broglia, Ryan, et al., 2021) to assess representativeness; second, to determine whether there is a change in the impact of problems on academic outcomes following a university counselling intervention; and third, to summarise students' ratings of the impact of counselling on academic outcomes.

## 2 | METHODS

### 2.1 | Study dataset

Data were derived from two UCSs in England who were subsequently part of the SCORE consortium (<http://www.scoreconsortium.group.shef.ac.uk>). Data were collected from clients referred to services between 1 August 2017 and 31 July 2018 (N=1985). Data were collected as part of routine practice and were not generated specifically for this study. Data were collected and stored using the Clinical Outcomes in Routine Evaluation—Information Management Systems (CORE-IMS; <http://www.coreims.co.uk>) software and contributed to this study as part of the SCORE consortium collective dataset (Barkham et al., 2019; Broglia, Ryan, et al., 2021; SCORE, 2022). Whilst demographic data were available in the larger SCORE consortium dataset, this anonymous subdataset did not include demographic data and is therefore not included in this report. Ethics approval was provided from each institution for anonymised data to be shared with researchers at the British Association for Counselling and Psychotherapy (BACP) for subsequent analysis (see Broglia, Ryan, et al., 2021).

### 2.2 | Measures

#### 2.2.1 | Counselling Impact on Academic Outcomes (CIAO)

The CIAO is a quantitative questionnaire comprising two parts measuring (1) the perceived impact of problems on academic

outcomes and (2) the perceived impact of counselling on academic outcomes. Part 1 comprises three questions asked at pre- and postintervention on which the respondent rates the impact of their problems on (1) thoughts of leaving their course (referred to in this paper as CIAO1), (2) their ability to study (CIAO2) and (3) their overall student experience (CIAO3). Ratings range from 1 (not at all) to 5 (most of the time). Part 2 is completed postintervention only and comprises six questions (CIAO4–9) that ask respondents to rate the extent to which counselling has “helped you stay on at university,” “do better in your academic work,” “improved your overall experience of university,” “develop skills...in obtaining future employment...,” “improved your self-esteem” and “helped you feel more positive about the future.” Ratings range from 1 (not at all) to 5 (the most significant factor), plus n/a (this was not an issue for me). Whilst the CIAO survey is used by counselling services to generate evaluative data, its reliability and validity have never been assessed. Whilst a full factor analysis is beyond the scope of this paper, preliminary reliability analyses found satisfactory Cronbach's alpha levels for each section of the CIAO survey: pre-CIAO Q1, 2, and 3,  $\alpha=0.72$ ; post-CIAO Q1, 2, and 3,  $\alpha=0.84$ ; and post-CIAO Q4–9,  $\alpha=0.87$ .

#### 2.2.2 | Clinical outcomes in routine evaluation—outcome measure (CORE-OM)

The CORE-OM (Evans et al., 2002) is a 34-item measure of psychological distress covering four domains: well-being, symptoms, functioning and risk. Each question is rated on a 5-point Likert scale (0=not at all, 4=most or all of the time), with higher scores indicating higher distress. It was administered at the start and end of therapy and asked respondents to consider their responses in the context of the previous week. The measure has good internal reliability, convergent validity, test–retest stability and sensitivity to change (Barkham et al., 2010). The CORE-OM has been used in the general population and has been validated in student populations (Connell et al., 2007). Item-level data were unavailable for this study; only the total CORE-OM clinical scores (0–40, equal to mean item score multiplied by 10) for clients with planned endings are reported.

### 2.3 | Missing data

A total of 1501 (75.6%) clients were missing 1 or more CIAO scores, and a further five (0.2%) were missing either or both CORE-OM scores, leaving a final sample of 479, representing 24.1% of students who received counselling. Whilst routine outcome monitoring (ROM) had been implemented in these services, the CIAO survey was used only pre- and post-therapy (see Broglia, Ryan, et al., 2021 for full details). Therefore, missing data were most likely due to unplanned endings with students who were therefore not present to complete postintervention measures.

## 2.4 | Intervention

The counselling intervention was provided by qualified counsellors, most of whom held accredited status with the BACP or the United Kingdom Council for Psychotherapy (UKCP). Counsellors provided a variety of modalities, including humanistic, cognitive behavioural, psychodynamic and integrative approaches. Counselling was short-term/time-limited therapy conducted in person, with a minimum of two sessions (see Broglia, Ryan, et al., 2021).

## 2.5 | Analytic strategy

Analyses were carried out using IBM® SPSS® version 25 and JASP version 0.16.0 (JASP Team, 2022). CORE-OM results were constructed into two outputs: severity categories and change categories. Severity consists of six categories, characterising respondents' psychological distress as either healthy (a score < 6), low-level (6–9), mild (10–14), moderate (15–19), moderate–severe (20–24) or severe (a score > 24). Change categories were determined using the Jacobson and Truax (1991) method, resulting in four clinical change categories: reliable and clinically significant improvement (a reduction of 5 points or more and crossing a clinical cut-off score of 10 and thereby entering the nonclinical range), reliable improvement (a reduction of 5 points or more), reliable deterioration (an increase of 5 or more) and no reliable change (a change of 4 or less in either direction).

For repeated measures ANOVA, the assumption of sphericity was tested, and where the assumption of sphericity was violated, and the Greenhouse–Geisser estimate of sphericity was less than 0.75, a Greenhouse–Geisser correction was applied. Otherwise, the Huynh–Feldt correction was applied. *p* values for post hoc analyses were determined using Bonferroni corrections.

The CIAO was considered in terms of ranking of item means, and cumulative percentages of the impact of counselling ratings were calculated in line with Wallace (2012).

## 3 | RESULTS

### 3.1 | Profiling psychological distress using CORE-OM

Students presented to counselling with a mean CORE-OM score of 20.59 ( $SD=5.45$ ), which decreased to 13.12 ( $SD=6.87$ ) at postintervention, yielding a pre-post change of 7.47 points ( $SD=6.59$ ; pre-post effect size = 1.37). Changes in the distributions of severity categories between pre- and postintervention are presented in Figure 1.

The frequency of change categories (reliable and clinically significant improvement; reliable improvement; no reliable change; and reliable deterioration) is presented in Table 1. These show three-quarters (67.4%) of students met the criterion of reliable improvement.

### 3.2 | Changes in the impact of problems on academic outcomes

Figure 2a-c shows the pre-post changes for CIAO Q1, Q2 and Q3, respectively. In rank order, these data show students perceive their problems to have a larger impact on their overall experience at university (CIAO Q3;  $M=3.05$ ,  $SD=0.94$ ) than on their study (CIAO Q2;  $M=2.89$ ,  $SD=1.04$ ) and their considerations to leave university (CIAO Q1;  $M=1.50$ ,  $SD=1.23$ ). This pattern was consistent after counselling (CIAO Q3:  $M=2.17$ ,  $SD=1.21$ ; CIAO Q2:  $M=2.10$ ,  $SD=1.21$ ; and CIAO Q1:  $M=0.91$ ,  $SD=1.12$ ).

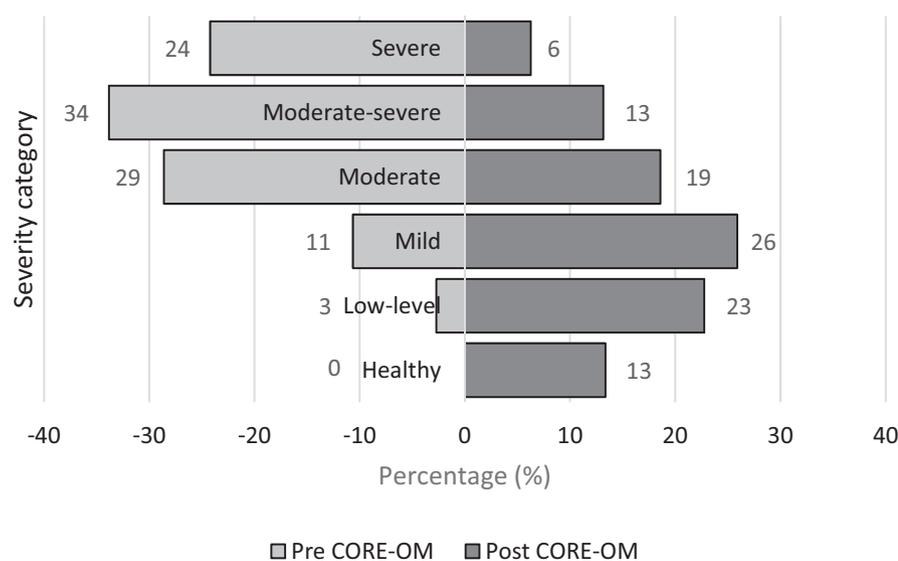


FIGURE 1 Distribution of CORE-OM severity categories before and after the counselling intervention ( $n=479$ ).

**TABLE 1** Percentages of reliable change after counselling according to the CORE-OM ( $n=479$ ).

Category of change after counselling	<i>n</i>	%
Reliable and clinically significant improvement (RCSI) <sup>a</sup>	158	33.0
Reliable improvement (RI) <sup>b</sup>	165	34.4
No reliable change (NRC) <sup>c</sup>	140	29.2
Reliable deterioration (RD) <sup>d</sup>	16	3.3

<sup>a</sup>RCSI=pre-post decrease  $\geq 5$  plus pre- to postscore crosses clinical cut-off score of 10.

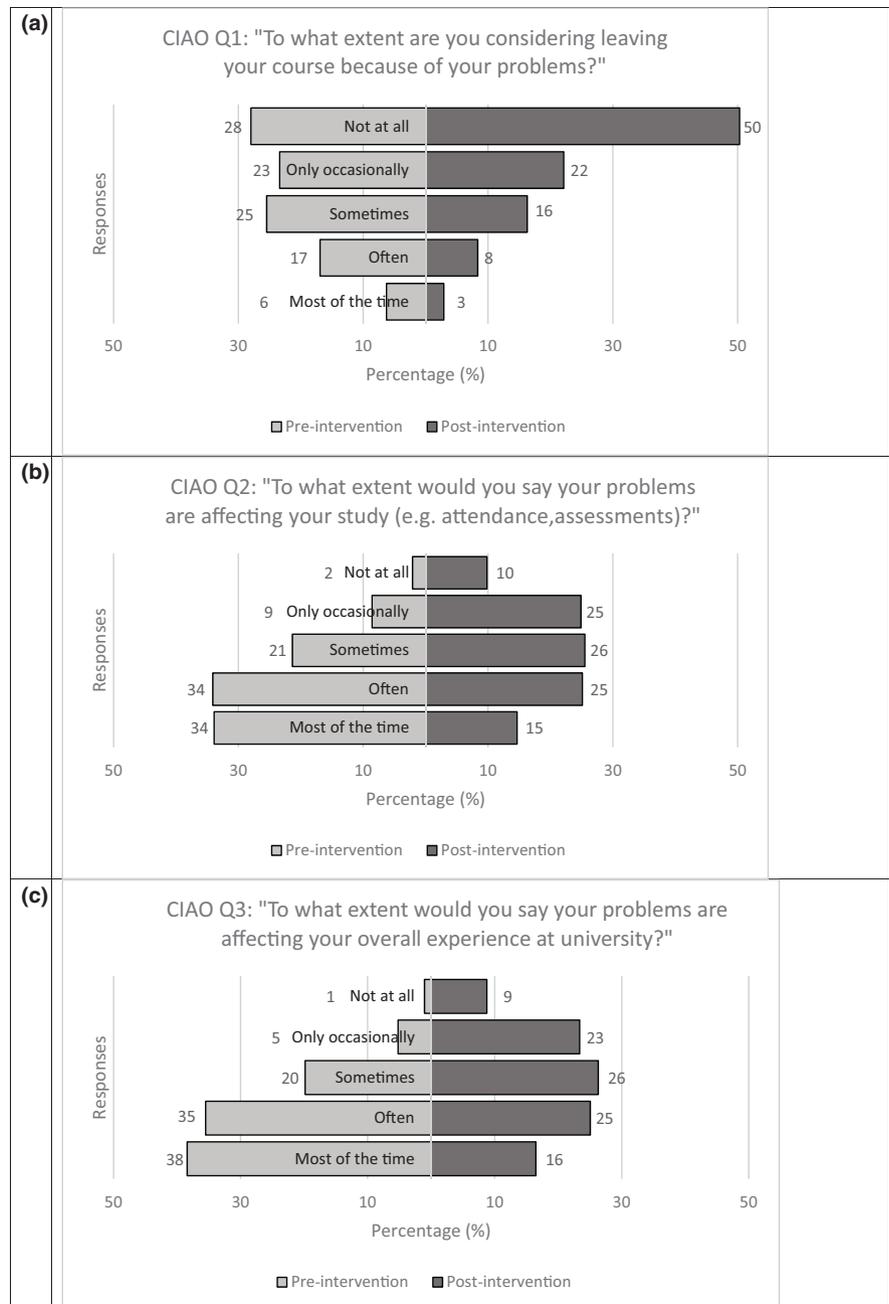
<sup>b</sup>RI=pre-post decrease  $\geq 5$ .

<sup>c</sup>NRC=did not satisfy any other criteria.

<sup>d</sup>RD=pre-post increase  $\geq 5$ .

A repeated measures ANOVA showed mean ratings on CIAO Q1-3 to differ significantly between time points ( $F[1.767, 824.620]=12.979, p<0.001, \eta^2=0.026$ ). Post hoc analyses with a Huynh-Feldt correction revealed that all impact of problems on academic outcomes ratings significantly decreased from pre- to postintervention. A greater mean difference was found for the impact of problems on students' overall experience (CIAO Q3;  $M_{diff}=0.88, SE=0.06, p<0.001$ ), followed by the impact on their study (CIAO Q2;  $M_{diff}=0.80, SE=0.06, p<0.001$ ), and on their considerations to leave university (CIAO Q1;  $M_{diff}=0.59, SE=0.06, p<0.001$ ).

Precounselling, the impact of problems was greater for students' considerations to leave university (CIAO Q1) than on their ability to study (CIAO Q2;  $M_{diff}=-1.39, SE=0.05, p<0.001$ ). Similarly, the



**FIGURE 2** Pre- and postintervention distributions of responses by area of academic impact ( $n=479$ ).

impact of problems was great for students' overall experience (CIAO Q3;  $M_{diff} = -0.16$ ,  $SE = 0.05$ ,  $p < 0.001$ ). Postcounselling, the impact of problems on students' considerations to leave university (CIAO Q1) was lower than the impact on their study (CIAO Q2;  $M_{diff} = -1.18$ ,  $SE = 0.05$ ,  $p < 0.001$ ). There were no significant differences between the impact of problems on students' study (CIAO Q2) and their overall experience (CIAO Q3;  $M_{diff} = -0.07$ ,  $SE = 0.05$ , n. s.).

### 3.3 | Student ratings of counselling impact on academic outcomes

Most students rated counselling to have had an impact, to a limited extent, across all areas, with an overall average of 43.2% (range 37.8%–48.2%). The next most common response was that counselling was one of many factors that helped students (23.8%), except in two areas: developing employability skills (22.1%) and feeling more positive about the future (18.0%), for both of which "Not at all" was the next most common response. Full results are shown in Table 2.

Cumulative percentages of the impact of counselling ratings were calculated in line with Wallace (2012), in which the cumulative percentage from *The most important factor*, *An important factor* and *One of many factors* were considered to indicate that counselling had helped or improved an academic outcome. Given this, 42.2% of students felt that counselling had helped them stay at university, 48.2% said counselling had helped them do better in academic work, 36.5% said that it had improved their overall student experience and 38.0% responded that it had helped them develop employability skills.

## 4 | DISCUSSION

The results show the present student sample to be broadly similar to that reported in previous studies from UK universities (e.g., Broglio, Ryan, et al., 2021). In addition, we found that academic concerns reduced following a counselling intervention. There was, however, greater variability in how students rated the impact of counselling

compared with the previous report by Wallace (2012). Overall, our results are consistent with the view that university counselling services support the whole student journey rather than solely focussing on reducing psychological distress.

In terms of academic impact, we found that students perceived, on average, lower impact of problems on thoughts of leaving university than their ability to study or overall student experience. The impact of student continuation/retention at university has been a pivotal argument in support of university counselling services (Amirkhan et al., 2020; AMOSSHE, 2017; Brown, 2016; Royal College of Psychiatrists, 2011). Hence, it is surprising that this impact was of least concern. By contrast, problems, and counselling, had greater perceived impacts on the overall student experience and ability to study.

Focussing on psychological distress, the results from the CORE-OM were consistent with findings from a larger sample involving multiple university counselling services, including outcomes for clients with planned and unplanned endings (Broglio, Ryan, et al., 2021). Indeed, when we considered changes in severity bands between the current and reported results, these differed by no more than 5 percentage points. In addition, the distributions of severity categories pre- and postintervention also showed a difference of no more than 5 percentage points on any given category for students with planned endings (see Figure 3 in Broglio, Ryan, et al., 2021), suggesting that this sample is representative of users of UCSs more broadly within the UK. Accordingly, it is reasonable to suppose that the findings regarding the association between clinical and academic outcomes might generalise to other university student samples.

In the light of these findings, it would be premature to suggest that a change in focus away from issues of retention is necessary, as extensive research is needed to help understand how the student experience and study affect withdrawal (i.e., as a mediator/moderator). Conversely, it is unsurprising that the overall student experience appeared the most impacted by problems. Overall student experience might conflate several important sociopsychological experiences such as relationships with others (Dogan, 2018; Grant, 2002) and loneliness (McIntyre et al., 2018). This also calls

TABLE 2 Proportion of responses to counselling impact on academic outcomes questions ( $n = 479$ ).

To what extent would you say counselling has helped you... <sup>a</sup>	Not at all		To a limited extent		One of many factors		An important factor		The most important factor	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
...stay at university	61	12.7	216	45.1	133	27.8	49	10.2	20	4.2
...do better in academic work	45	9.4	203	42.4	140	29.2	71	14.8	20	4.2
...improve student experience	73	15.2	231	48.2	111	23.2	58	12.1	6	1.3
...develop employability skills	116	24.2	181	37.8	106	22.1	63	13.2	13	2.7
...improve self-esteem	91	19.0	184	38.4	108	22.5	80	16.7	16	3.3
...feel more positive about the future	103	21.5	227	47.4	86	18.0	56	11.7	7	1.5
Mean impact of counselling		17.0		43.2		23.8		13.1		2.9

<sup>a</sup>Questions are paraphrased for brevity.

into question whether the CIAO is measuring academic outcomes, and as such, the construct validity of the CIAO questionnaire should be examined in future research.

Whilst the current study acts to refocus the attention on the academic components of the student experience, there are limitations. First, the timing of counselling was not included in this anonymised dataset, meaning that variability in scores was collapsed into one time point. Students who approached counselling at a critical point (e.g., coursework deadline or exam season) may have felt their academic outcomes improved after the critical point had passed. Further, our data did not include presenting issues, and data from students who responded that an academic outcome was “not an issue” were omitted from the dataset. We would expect students who present to counselling with an academic issue to rate the impact of counselling on academic outcomes higher than students who did not. Second, the CIAO would benefit from robust psychometric examination. The current preliminary findings, however, suggest that the CIAO questionnaire has something to offer that popular routine outcome measures used in counselling, such as CORE-OM, do not—we are able to see changes in the extent to which problems affect occupationally relevant outcomes (i.e., academia). Third, many students were removed from the present study because data were incomplete on one or more variables. As most missing values were found in postintervention variables, a likely explanation is that students with missing variables were those with unplanned endings and, therefore, were not present for postintervention data collection. As such, the present study uses data from students with planned endings only. Students with planned endings might have a particular psychological profile that could be related to the way problems affect academic outcomes, thereby skewing results.

Additionally, the current research is unable to answer some questions about the relationship between problems, psychological distress, academic outcomes and the effect of counselling on all three of these constructs. As discussed previously, the interplay between academic outcomes and psychological distress is more complicated than simple, unidirectional relationships and both robust quantitative and qualitative data are needed to develop a solid theory to explain the relationship between psychological well-being/distress and academic outcomes, and vice versa. Although the results of the current study demonstrate that counselling is associated with improved academic outcomes, this research alone is insufficient evidence to suggest that university counselling services be held accountable for improving academic outcomes. A next step for CIAO development is a qualitative validation of what expected or intended academic outcomes there might be following counselling, engaging stakeholders at multiple levels.

In conclusion, the current research suggests that university leadership should carefully consider and recognise the potential impact of university counselling services on student outcomes. The findings demonstrate that, after counselling, students feel less impacted by their problems and more able to achieve better academic outcomes.

UCMHSs require appropriate funding and resource to conduct routine session-by-session monitoring and to contribute to whole university approaches in which student well-being is recognised as pivotal in the educational journey (de Pury & Dicks, 2020; Hughes & Spanner, 2019).

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## CONFLICT OF INTEREST STATEMENT

RS discloses that they are an employee of the British Association for Counselling and Psychotherapy (BACP), which supports this research in the form of researcher time.

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