FASSTEST Final Project Report

Section 1: General Information

Project Lead Name:	Gina Di Malta and Naomi Moller
Title of Project:	University connectedness, relational depth, wellbeing, anxiety and academic achievement in FASS students
Report submission date:	11/10/2021

Other key staff associated with the project:

Name:	Job role:	Role in this project:	Faculty/School/ Organisation
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Section 2: Executive Summary

Our mixed-methods research was designed to explore whether and how positive university relationships with staff and other students, and connectedness to the university influence OU students' mental health and academic achievement. The study was motivated by the idea that university relationships might be an overlooked resource that the university could promote to support the wellbeing of students.

In this project, we collected quantitative and qualitative data from a sample of 208 FASS students about their wellbeing and anxiety, their university relationships (with peers and staff) and university connectedness as well as general relationship functioning, and their academic achievement. The quantitative analysis suggests that, as predicted, student mental health (specifically anxiety) influenced academic achievement but that so did student relationship functioning (specifically loneliness). Further, mediation analyses suggest that university connectedness, that is students' sense of being connected to the institution, mediated the relationship between academic performance and well-being and between loneliness and well-being.

The qualitative analysis sheds further light on these findings. Students' experiences of connectedness and disconnection were collected using free response questions in our survey. Clusters of connectedness experiences included in OU tutorials, via the student community, relationships with tutors and staff, and via forums. With regards to disconnection, students also reported on the impact of the pandemic, poor relationships with tutors, limited forum engagement and personal circumstances. Cases were split between self-rated high academic satisfaction and neutral/low satisfaction. We found that:

- Students are less likely to have had significant moments of connection at University when they feel less satisfied with their academic performance

- Students who are less satisfied with their academic performance experience less connection via tutorials, student communities, and through forums but tend to rely more on connection via their tutor relationships than students who are satisfied with their academic performance

- Students are more likely to experience a general disconnection with the university and poorer interactions with their tutors when less satisfied with their academic performance

The last part of this study asked students to offer their views and suggestions on what they felt would improve their sense of connection at the OU.

This small scale study provides preliminary evidence about the potential value of university connectedness as something that can buffer students experiencing wellbeing challenges and loneliness, supporting their academic performance. In addition, the study synthesises concrete suggestions from students to improve their experience of connectedness at the OU, which could consequently support their wellbeing and academic achievement. Authors of this study are currently engaged in setting up a larger sample, longitudinal research study to further explore these connections.

Section 3: Full project report

Please provide your final project report using either the box below or in a separate document.

Final FASSTEST Scholarship Report:
University connectedness, relational depth, wellbeing, anxiety and
academic achievement in FASS students

Project aims and scope
This project aimed to support the following institutional priorities:
- enable more students to achieve their study goals
- improve and enhance the learning experience of students
- promote equality, diversity and inclusion.

More specifically the project aimed to support the work of the university to meet the challenge of student mental health. Across the university there are multiple initiatives seeking to support student mental health and wellbeing which are led/coordinated by the university-wide *Student Mental Health Working Group* (convened in 2019). The focus of this project was on examining the connections between student wellbeing and mental health, academic achievement and relationships at the university.

Through a project focussed on a cohort of FASS students the research aimed to contribute to understanding about:
- levels of anxiety and wellbeing in OU students
- the extent to which anxiety/wellbeing and academic performance are correlated
- the extent to which personal relationships, anxiety/wellbeing and academic performance are correlated
- the impact of university connectedness and relational depth on anxiety/wellbeing and academic performance.
- Aspects of connectedness that can be improved to support wellbeing and academic achievement

Through its focus on university connectedness and relational depth with regard to university-based relationships, the project also aimed to promote understanding that will inform:
- peer-to-peer mentoring and support initiatives at the OU
- consideration of how ALs/SSTs and other parts of the university can best support students.
- Interventions that will increase connectedness to support wellbeing and academic achievement

Prior research
Student mental health: There has been widespread media and empirical focus in the last few years on concerning levels of mental health problems in British university students (e.g. Thorley, 2017). This is particularly relevant for the Open University, as the institution has the highest number of students with a declared mental health need in the UK. Moreover, the pandemic-effect is likely to have worsened the situation: there have been multiple reports of pandemic-related rising mental health concerns among university students from an international body of literature (Cao et al., 2020; Grubic et al., 2020). For example, research suggests that around 25% of student reported anxiety-related symptoms and that reported anxiety was correlated with student concerns about academic progress during the pandemic period (Cao et al., 2020).

Research testifying to an increase in mental health difficulties in students *during* the pandemic comes on the back of *pre-pandemic* political and institutional concern around rising levels of mental health difficulties in UK students. A Higher Education Policy Institute report in 2015 for example highlighted the frequency of poor mental health in university students (Brown, 2016), while a 2020 parliamentary report (based on pre-pandemic data) found a six-fold increase in rates of students with mental health concerns since 2010 (Hubble & Bolton, 2020).

Mental health and academic outcomes: Poor mental health of students clearly matters in-and-of-itself but also due to its academic consequences. Both depression and anxiety (e.g. Richardson, Abraham and Bond, 2012; DeRoma, Leech & Leverett, 2009) have been found to negatively impact the academic performance of university students. A report from the UK Office for Students (2019) found worrying evidence of a statistically significant difference in awarding outcomes for students with mental health disabilities compared to students with no disabilities. Mental health difficulties have been found to negatively impact module/unit level attainment and progression (Thorley, 2017; Hughes and Spanner, 2019) and whether students complete individual courses/modules (Mojtabai et al., 2015); as well as their degrees (Institute for Public Policy Research, 2017). The limited literature suggests that the negative impact of mental health difficulties on academic attainment, progression and retention also holds true for distance learning students with a declared mental health difficulty (Richardson, 2015; 2014; see also Lister et al., 2021). It has also been found that mental health interventions improve academic outcomes for university and college students (Bolinski et al., 2020).

Mental health and social relationships
There is a longstanding research literature on the impact of relationships and social support (or their lack) on physical and mental health (e.g. Holt-Lunstad et al., 2015; Uchino, 2009). A 2018 systematic review for example found evidence for prospective links between poorer perceived social support and worse depression symptomology (Wang, Mann, Lloyd-Evans, Ma and Johnson, 2018). This research evidences the value of interventions that aim to promote social relationships and has led to programmes like 'social prescribing' (Tierney et al, 2020) which is an NHS initiative where GPs 'prescribe' social contact as a way of improving health outcomes.

The limited research on university-based relationships suggests a similar health impact for students. For example, peer mentoring schemes have been found to improve student wellbeing (Collings, Swanson and Watkins, 2012) while good relationships with their first-year personal tutors were also found to positively impact the wellbeing of students (Woolhouse and Nicholson, 2020). Institutional connectedness was also found to moderate the relationship between experience of stress and depression (Pidgeon, McGrath, Magya, Stapleton & Lo, 2014).

University relationships and academic outcomes: There is also evidence that relational factors impact academic achievement. For example, a large meta-analytic study found that students' emotional engagement, including their feelings about staff and peers as well as their sense of belonging in the educational institution, impacted their academic achievement (Lei, Cui & Zhou, 2018). Students with high levels of connectedness to the university have been found to be more likely to complete their college degree than are students with low levels of university connectedness (Wilson and Gore, 2013). Student retention is related to successfully making friends who provide emotional support (Wilcox, Winn and Fyvie-Gauld, 2006) and peer relationships and a broader sense of institutional belonging and social integration promote adjustment to university and student retention (Swenson, Nordstrom, and Hiester, 2008; Thomas, 2000). There is some limited evidence that the positive impacts of relationships with(in) the university carry over into distance/online learning contexts. For example, a study examining student's sense of institutional connectedness and student community in online learning content found that it impacted student persistence in an online collaborative learning environment. (Laux, Luse and Mennecke, 2016).

<u>Project Activities</u>

The project involved the staff named on the form plus a sample of FASS students who completed an online survey.
Data collection: Data was collected online through the survey software system *Qualtrics*, for which the School of Psychology and Counselling has a licence; the platform meets requirements for data security and GDPR.
The following variables were collected (note that all chosen instruments are widely used; references can be supplied if needed):

University Connectedness
1. University Connectedness Scale – 8 items

Relationship variables at the OU:
2. Relational Depth Scale-S (in a single relationship- with OU person who has been important in the past academic year) – 6 items
3. Emotional Intimacy Scale (in a single relationship- with OU person who has been important in the past academic year) – 5 items
4. Relational Depth Scale-g (overall sense of relational connectedness with people within the OU community in the past academic year) – 6 items
5. DeJong Gierveld Loneliness scale – 6 items
6. Qualitative questions on connectedness at the OU:
   a) Can you recall particular events (1-3 things that have happened over the past year) that have made you feel connected to other people at the OU or to the university?
   b) Can you recall events (1-3 things that have happened over the past year that have made you feel disconnected or alone?
   c) What do you suggest would improve your feelings of being connected at the Open University?

Student mental health:
7. World Health Organization 5 Wellbeing Index (WHO-5) – 5 items
8. Generalized Anxiety Disorder scale (GAD7 over the last year) – 7 items

Data quality check
9. Brief Social Desirability Scale (BSDS) – 5 items

Academic achievement
10. Are you a full-time or part-time student?
11. How many modules did you take in the last academic year?
12. What grade did you get in your module(s) last year? (Distinction, Grade 1, 2, 3, 4 Pass, Fail)
13. Qualitative item: In your own opinion did you do well academically in the last academic year? (Please explain your answer.)

Students were also asked basic **demographic information** (age, gender, ethnicity, disability and declared learning need). They were asked if they have any learning needs, any condition that impacts their ability to engage in their studies (e.g. being dyslexic or having a mental health condition). If they clicked "yes" they were asked if they have notified the university of these learning needs and if not, why not.

Recruitment and student sample: Emails were sent to a pool of approximately 2000 students who were randomly selected for the study by the SRRP. Of these, 382 responded and accessed the survey and 208 completed it. The final sample consisted of 208 individuals aged 18-84 years comprising 144 women (*M.Age* = 41.9 years, SD = 13.61, range = 18—84), 60 men (*M.Age* = 50.5 years, SD = 15.8, range = 23—77) and three non-binary individuals (*M.Age* = 46.3 years, SD = 5.8, range = 43—53). Most participants self-identified as White British (78%, N = 163). Most students had studied one module (n = 155, 77.5%) in the last academic year. Where students had studied two modules (n=44, 21.2%) or three modules (n=3, 1.3%), average cross-module achieved scores were calculated.

Data analysis: Quantitative and qualitative methods were used to analyse the findings, principally multiple regression and mediation analysis (quantitative data) and content analysis (qualitative data).

Findings

Inspection of descriptive statistics suggested strong links between connectedness, well-being and academic achievement. Greater connectedness was associated with better mental health outcomes and better academic performance. To explore these links, we ran initial multiple regression models to establish whether (and how well) connectedness variables, when controlling for demographic and mental health variables, predicted academic achievement. We found loneliness was a statistically

significant independent predictor of academic achievement (b = -0.24, p < .05) and
that loneliness and anxiety were statistically significant independent predictors of academic
achievement ($b = \leq$ -0.21, ps < .05).

Mediation analyses were conducted to further explore evidence of relations between study variables. Loneliness was found to mediate the relationship between mean academic grade in the previous year and recent well-being (95% CI -.02, -.01) and the relationship between mean academic grade and recent anxiety (95% CI -.01, -.00). Loneliness also mediated the relationship between self-rated academic performance and recent well-being (95% CI .11, .40). In addition, university connectedness mediated the relationship between self-rated academic performance and recent well-being (95% CI .00, .14). We also found evidence that university connectedness (but not other connectedness variables) mediated the relationship between loneliness and well-being (95% CI -.26, -.01).

The Content Analysis resulted in 17 variables or main themes within three overarching domains: moments of connection; moments of disconnection/loneliness; students' suggestions to improve connection at University. A comparison of students who were satisfied with their academic achievement (n = 115) with those who were ambivalent/dissatisfied (n = 88) suggested the following:

- Students are less likely to have had significant moments of connection at University when less satisfied with their academic performance
- Students less satisfied with their academic performance experience less connection via tutorials, student communities, and through forums but tend to rely more on connection via their tutor relationships than students who are satisfied with their academic performance
- Students are more likely to experience a general disconnection with the university and poorer interactions with their tutors when less satisfied with their academic performance

Impact

Planned next study: The statistical and qualitative analysis for the current study suggests that university based relationships – specifically university connectedness, as well as more general relational functioning (e.g. loneliness) - do impact both the mental health and the academic achievement of OU students. However, since the initial study was small (just over 200 students) and had a cross-sectional design (meaning we were not able to evidence causal relationships) it is important to conduct further research. For this reason we have successfully sought additional FASSTEST funding for (hopefully) a much bigger study this year, involving data collection at more than one point. The aim with this study will be to examine whether we can find impact over time of relational factors on both OU student mental health and student achievement.

Our longer term aims with this study are to inform university initiatives around supporting mental health, leading to changes in university practice or policy (Reed's criterion a) as well as raising awareness (criterion b) and prompting attitudinal change (criterion d) about the importance of the university promoting staff and peer relationships, including programmes like the FASS mentoring programme and the university-wide student PLAs, as well as better supporting ALs and SST staff to leverage the positive benefits of relationships for students. It also means encouraging the university to proactively better promote students' sense of institutional connectedness.

Deliverables

This scholarship project is currently being written up by the project team for the academic journal *Distance Education* (aim to submit before Christmas)
If the paper abstract is accepted, the project will also be presented internally at the university mental health conference December 1st and 2nd 2021.

Statement of ethical review

An ethical review was obtained according to the Open University's code of practice and procedures before embarking on this project: *Reference number HREC/3751/Moller*. The project also received favourable review from SRRP and DPIA.