Chapter 7: The role of museums, collections and objects in supporting higher education student mental wellbeing and quality of learning

Thomas Kador, Helen Chatterjee and Linda Thomson

Introduction

Student mental health in the twenty-first century

Research in recent years has identified a global trend in rising levels of mental ill-health among higher education students, including an increase in the incidence of mental illness, mental distress, and reduced wellbeing (Hunt and Eisenberg, 2010; Robotham and Julian, 2006; Thorley, 2017). Hunt and Eisenberg's review found, for example, that mental health disorders among American college students were the same as among same age non-students and that these appeared to increase in prevalence and severity over time. Robotham and Julian (2006) reviewed the UK literature for evidence of stress in the student population which appears to indicate rising levels over time. Thorley (2017) found that 19% of young people aged 16-24 experienced a mental health condition, whereas in 2003 this figure was 15%, furthermore young women were more likely to experience mental ill-health than young men; 28% of females in this age group reporting mental health conditions compared with 10% of males. For students, the proportion of UK (not including overseas) first-year students at higher education institutions who disclosed a mental health condition in 2015/16 was five times higher than in 2006/07 (Thorley, 2017).

Additionally, Thorley found that around 75% of UK adults with a mental illness first reported experiencing the symptoms before the age of 25, though this does not necessarily imply causality as levels of mental ill-health are higher in students and in those of student age relative to other adult sectors of the population. Thorley speculated that students were at added risk of poorer mental health and wellbeing due to academic, financial and social pressures, exemplified by the high levels of mental distress reported by students, and an increase in the number of students seeking university counselling support. Robotham and Julian questioned individual differences in the perception of stress in the studies they had reviewed; they found the word 'stress' could be used as a label for a range of broader issues encountered in organisations. They also found that stress in students had been studied in a limited range of subject areas such as those with vocational elements (e.g. medicine) and considered that, as a result of expansion of the higher education population in the UK, a broader range of disciplines needed to be researched.

The 2015 Higher Education Funding Council for England (HEFCE) Report on institutional support provision for students with mental health problems identified a number of trends regarding student mental ill-health. These included a shift towards students presenting with anxiety, depression or low mood, away from the break-up of relationships, transition or homesickness. The report also found increases in:

- the total number of students on counselling services' caseloads;
- waiting times/lists for some key services such as counselling;
- staff days devoted to students with mental health problems and/or complex needs;

- complexity of cases;
- the number of students at high risk of harming themselves, or in the most serious of cases, being suicidal; and
- comorbidity of mental health problems alongside other impairments and challenges.

Several reports (e.g. HEFCE 2015; Thorley, 2017) have recommended that universities should prioritise student mental health, invest more in support services and adopt a university-wide approach to tackling student mental health challenges. It is apparent that there is considerable variation in the extent to which universities are equipped to meet these challenges, with no standardised strategy to support provision and varying levels of available services, depending on the institution. Thorley (2017) outlined a number of university-wide recommendations for developing such a strategy. In addition to the need for better resourcing of support services, these included the importance of integrating wellbeing and mental health promotion directly into the taught curriculum:

> 'Designing course content and delivery in a way which promotes positive mental health and wellbeing, while maintaining an emphasis on academic rigour. This could, for example, involve embedding accredited wellbeing modules into first-year undergraduate courses, in order to build students' resilience ahead of their transition into second and third years, where the prevalence of mental health problems is known to increase significantly.' (Thorley, 2017, p.68)

In other words, there is a strong suggestion that in order to proactively address the situation of deteriorating mental health among students, it is not sufficient for British universities to improve services responding to students with already recognised mental health difficulties. While more effective mental health service provision is clearly very important, higher education institutions should also find ways of building wellbeing into their core curricula to ensure that all students are exposed to such activities, rather than just those who already are experiencing a problem. This means that educators planning future university programmes should integrate opportunities for giving wellbeing a prominent place. It could be argued that some subjects or disciplines more naturally lend themselves to such an application, however, it should be possible to find a means to integrate wellbeing within any field of study. One possibility is to tap into the wider cultural and natural resources available at many institutions, such as outdoor and performance spaces, museums, musical and other cultural venues, and build these into the day-to-day student experience. This chapter will highlight the potential role of museums and cultural collections in facilitating student wellbeing.

Object-based learning and wellbeing at UCL

The focus of this chapter brings together the authors' previous experiences in new ways. The authors have worked for over 10 years on utilising museums and their collections outside a traditional museum context. On one hand, this involved a longstanding emphasis on object-based learning (OBL), particularly in a higher education context (Chatterjee and

Hannan, 2015; Kador et al., 2017; 2018; Sharp et al., 2015). On the other hand, this involved conducting research on engaging with cultural collections outside higher education in real world settings such as hospital wards, care homes and day centres (Thomson et al., 2018; Todd et al., 2017; Thomson and Chatterjee, 2016; Solway et al., 2015; Thomson et al., 2012a,b) where significant health and wellbeing benefits of handing and discussing museum objects were identified. However, to date there has been no explicit focus on the potential health and wellbeing benefits for university students and especially not relating to the use of objects within the formal, taught curriculum. Given the growing evidence for the role of object handing in supporting mental and physical wellbeing, reducing stress, anxiety and social isolation (Chatterjee and Noble, 2016; Chatterjee and Camic, 2015; Chatterjee and Thomson, 2015), the question addressed here will seek to understand whether university students who already partake in object handling as an element of their courses also experience these wellbeing benefits.

In order to investigate the potential relationship between object engagement and student wellbeing, several groups of students undertaking modules (courses) that involved engaging with museum objects were asked to participate in an anonymous online survey. Students on the BASc Arts and Sciences, the Bioscience BSc/MSc and the BSc Architecture and Interdisciplinary Studies, all of which had classes that involved object-based learning, were invited to participate:

BASc0004 Object Lessons: Communicating Knowledge Through Collections is a second year undergraduate BASc Arts and Sciences module taken by around 50 students per year. The module includes weekly object handling classes using collections derived from across UCL, including the Museums and Library Special Collections, seminars from academics and sector professionals, and an object-research project which requires students to work in groups to create an online virtual exhibition. Students are encouraged to analyse and interpret their objects from multiple perspectives using an interdisciplinary approach.

BASc0030 Arts Nature and Wellbeing: Non-clinical Interventions in Health is a final year undergraduate module on the BASc Arts and Sciences and taken by around 20 students annually. Among other key areas of non-clinical, wellbeing focused approaches the module also includes an element on the psychosocial role of working with objects and heritage collections. This involves a practical object handling activity and engagement with an important fine art collection (see also below).

BIOL0035 Vertebrate Life and Evolution is a third year undergraduate zoology module involving a number of object handling classes which take place in UCL's Grant Museum of Zoology, weekly seminars from academics, and a 'mystery specimen' research project. The latter requires students to identify a zoological specimen as closely as possible to species level, using the wider museum collections for comparative purposes, and writing the research up in the format of a scientific journal article. At the end of the module, students give a short presentation in the museum to members of the public.

ENVS2046 Architectural Research II is a second year module on the Architecture and Interdisciplinary Studies BSc (AIS) programme, which aims at opening the students' minds to

working and taking inspiration from fields outside of architecture itself. This involved an object-based learning workshop in the Grant Museum of Zoology, however, with objects and specimens from a range of collections including natural history, archaeology, Egyptology and the history of science and medicine.

The OBL and wellbeing student survey

Survey administration

The survey was carried out over two weeks (5 - 17 Feb 2019) and was completed by 38 students, representing a response rate of c.35%. The survey consisted of seven questions concerning which aspects of their studies the students found particularly stressful and what activities helped them to combat this stress and support their wellbeing (Table 1). Their answers to these questions were quantitatively analysed using Pearson Chi Square test for frequency data, and descriptive statistics in IBM SPSS 25, and qualitatively analysed using inductive thematic analysis in NVivo 11.

Table 1. Survey questions and response options

Survey results

For Question 1, students were required to indicate which aspect of formal learning they found to be the most stressful out of six categories (Figure 1). Two of these, assessment deadlines (32%) and formal examinations (29%), appeared to be the most stressful and showed significantly higher response rates (Chi Square = 15.05(5), $p<.01$) than the other four categories of oral presentations (18%), completing assessments (8%), group work (5%), and other (8%).

Figure 1. Key stressors for students

Question 2 asked whether students thought that wellbeing activities, such as stress busting, should be integrated into taught modules and, if so, what sorts of activities would help. Over three-quarters of respondents (76%) answered 'yes' to the first part of the question and this response was significantly greater than the 'no' response (Chi Square = 10.53(10), $p<.01$). For the second part of the question, 90% of 'yes' respondents made suggestions for activities. These suggestions separated into two themes. Firstly, the overarching theme of Extra-curricular activities representing 60% of responses received 14 suggestions. These were further divided into three sub-themes:

1. Relaxation' (30%) e.g. 'Mindfulness, yoga';
2. Creative activity (15%) e.g. 'Creative and practical activities such as drama, crafts'; and

3. Physical activity (15%) e.g. ‘Even just a stand up and shake’.

Secondly, the minor theme of module-related improvements represented 40% of responses, receiving six suggestions. These were divided into six sub-themes:

1. Time management (8%) e.g. ‘Clear time to work on activities’;
2. Checking for learning (8%) e.g. ‘Pulse checks for how class is doing/absorbing material’;
3. Building in breaks (4%) e.g. ‘Building breaks into longer classes’;
4. Smaller class sizes (4%) e.g. ‘Smaller modules are less stressful as it is easier to interact with lecturers and feels like a family’;
5. Trips and visits (8%) e.g. ‘Having field trips’; and
6. Object handling (8%) e.g. ‘Using objects to release our own stress by establishing a deeper connection with them’.

In Question 3, students were asked whether among their modules (in the current or previous academic years) there were any aspects that they felt had enhanced their wellbeing. Respondents were invited to select all that applied from a list of six categories comprising:

1. Lectures and seminars;
2. Practical workshops and object handling;
3. Visits to other organisations;
4. Group activities;
5. None; and
6. Other.

Respondents selected an average of two activities (1-4). A Goodness-of-Fit test showed a highly significant difference between student responses (Chi Square = 27.26(5), $p<.001$) where Practical workshops and object handling (33%) and Visits to other organisations (28%) were considered significantly better at enhancing wellbeing than Lectures and seminars (12%), Group activities (12%) and None (10%). In response to Other (5%), there were six suggestions and, as with Question 2, they could be divided into two themes of extra-curricular activities and module-related improvements. Extra-curricular activities consisted of Team building ‘to get to know other students’ and pub hang-outs ‘to get to know the tutors’. Module related improvements were listed as ‘Free drop-in sessions’, Field trips for a ‘change of environment’, ‘Just choosing modules that really interest me’ and ‘Teaching being clear and structured’.

Question 4 asked students to further specify how any of the activities they selected in Question 3 enhanced their wellbeing. Two-thirds of students (66%) gave explanations for the four activities (Table 2). Practical Workshops and object handling (37%) received the highest level of respondent explanations closely followed by Visits to other organisations (35%). Lectures and seminars (14%), and Group activities (14%) received lower but equal

numbers of responses. The highest number of responses was for themes: Break in routine (16%) followed by Practical handling (12%), and Stress reduction (9%),

Table 2 Themes derived from the ways in which activities enhanced wellbeing

In Question 5, students were asked to rate the impact of engaging with museum/collection objects on their learning on a 5-item scale (Very positive; Somewhat positive; No impact; Somewhat negative; or Very negative) and to briefly justify their response. Responses were overwhelmingly Very positive (58%) or Somewhat positive (39%) with negligible No impact (3%) and zero for the two negative categories. Just over half of the respondents (53%) justified their responses (Table 3). Three main themes emerged from these responses: Novelty of the learning experience (26%), Improved engagement and focus (16%) and Improved memory and learning (16%).

Table 3. Justification of impact on learning

For Question 6, students were asked to rate the impact of engaging with museum/collection objects but this time on their wellbeing, rather than on their learning, and again to briefly justify their response. Respondents rated the impact using the same five categories: Very positive (37%), Somewhat positive (42%) and No impact (21%), with zero for the two negative categories. Just under half of respondents (45%) justified their responses (Table 4) with two main themes emerging: Enhancement of positive mood (16%) and Stress reduction (11%).

Table 4. Justification of impact on personal wellbeing

Finally, Question 7 asked students to rate the following statement 'Introducing object handling and slow looking (at objects, specimens and artworks) more broadly across the UCL curriculum would have a positive effect on student wellbeing and help to reduce stress' on a 5-item scale (Strongly agree; Agree; Neither agree nor disagree; Disagree; or Strongly disagree), and were asked to briefly justify their response. Ratings showed that Strongly agree (42%) and Agree (42%) were equally high among respondents, followed by Neither agree nor disagree (11%), with Disagree (5%) and zero for Strongly disagree. Nearly half of the respondents (47%) justified their rating. The three main themes that emerged from these responses were Stress reduction (30%), Benefits of slowing things down (11%), and Novelty of learning experience (8%) (Table 5). Two minor themes were Improved engagement and focus (10%) and Improved learning (10%). There were two negative statements for the category Disagree which concerned lack of relevance of the statement to

all courses, and an explanation that lack of sleep and prolonged screen use were responsible for increased stress.

Table 5. Justification of agreement with the statement 'Introducing object handling and slow looking (at objects, specimens and artworks) more broadly across the UCL curriculum would have a positive effect on student wellbeing and help to reduce stress'

Summary of survey findings

To summarize the findings from all seven questions, it appears that over 60% of respondents found assessment deadlines and formal examinations the most stressful aspects of their university education. This corroborates Weimer's study (2002, p126) in asserting that 'students find evaluation the most stressful aspects of college life'. Therefore, it seems that some of the central issues relating to student's experiencing stress are structural. That is, they relate to how assessments are conducted, the timing of the academic cycle and in particular assessment deadlines. Hence, addressing student wellbeing needs to be carried out in conjunction with reforming university approaches to assessment to alleviate some of these structural pressures. At the same time, there is clearly also a case to be made for enhancing students' coping strategies in line with Weimer's (2002, p126) suggestion that most students would 'perform better and learn more if they constructively coped with stress'.

The UCL students who participated in the survey seemed to recognise the need to cope more effectively with stress manifested in the fact that over three-quarters of respondents thought that wellbeing activities should be incorporated into taught modules, with 30% of them proposing extra curricula relaxation techniques such as yoga, meditation and mindfulness. Such activities, if practiced on a regular and ongoing basis, have been shown to have positive impacts on stress reduction (e.g. Lemay et al., 2019; Schure et al., 2008; Rosensweig et al., 2003). Within the more formal learning environment, over 60% of students felt that the most wellbeing enhancing aspects of modules were practical workshops and object handling as well as visits to other organisations. Consequently, integrating such activities into the teaching provision could potentially bring clear wellbeing benefits for students.

Case study – Arts, Nature and Wellbeing

To illustrate the survey findings, a case study from the aforementioned final year BASc Arts and Sciences module *Arts, Nature and Wellbeing* (BASc0030) is presented. The module focuses on non-clinical interventions in health in various settings, hence students are already attuned to the idea of wellbeing. Moreover, the module combines theory-focused seminars with weekly practical workshop sessions (such as movement and art-production activities) and regular visits to off-campus locations (including parks and museums). During

week three of the module, there is an explicit focus on museums and wellbeing, which involves a seminar on the theoretical underpinnings and research context of this topic, and a 3-hour practical workshop at the Wallace Collection. The Collection represents the legacy of the Marquees of Hertford and Sir Richard Wallace, comprising internationally acclaimed masterpieces of paintings, sculpture, furniture, armour and porcelain. It is displayed in Hertford House, one of the family's grand London properties.

Students have the opportunity to engage with some of the Wallace Collection's handling objects (Figure 2) as well as explore the interior of the exhibition and gallery spaces across Hertford House (Figure 3). Students were asked (October 2018; N = 16) to pay explicit attention to how these activities impacted on their wellbeing and utilise the UCL Museum Wellbeing Measures Toolkit (Thomson and Chatterjee, 2015; 2014) to evaluate this. At the end of the session, the students were invited to reflect on the activities from a health and wellbeing perspective, taking into consideration their self-evaluations using the 'Positive Wellbeing Umbrella' from the UCL Toolkit, and record these reflections in their learning journals.

Examples of student journal entries demonstrate the personal impact of working with museum objects:

> According to the Positive Wellbeing Umbrellas I completed, the object-handling trip to The Wallace Collection inspired me in a big way. […] I found myself drawn to a small pocket-watch. This, I believe, was due to its size, air of intrigue and material. I was feeling fairly burnt out from university so instead of wallowing in the huge feeling that I have so many deadlines and things to do, I wanted to handle something small enough to fit in my hand and that would allow me to reflect carefully on something less overwhelming (BASc0030 Student).

Some students highlighted the importance of being asked to explicitly focus on their thoughts and feelings while engaging with the objects:

> I found that spending time contemplating a single object made me more curious about it and made me aware of how it was impacting me and my thought process. I would say that using the UCL [wellbeing] umbrella made me aware of my current mental state. I asked myself questions that I don't tend to - such as how alert I am feeling. Having a better understanding of self and time to reflect upon that has made me start to question how to boost that aspect (BASc0030 Student).

While others particularly identified the power of the museums space and the importance of the opportunity for social interaction that working in such an environment offers, but they equally highlighted the importance of reflecting on how they felt before, during and after these activities:

> When I first got into the session, being the end of a long day, I was considerably tired and honestly slightly reluctant on the idea of being in a museum, however, once […] I got to see the collection in all its coloured variety (and with the cheerful company that was with me) I left feeling much more energetic and content than when I arrived. This

> was measured with the UCL museum wellbeing toolkit […] and I believe that I may have not been aware of this increased feeling of activity if I hadn't been asked after the session (BASc0030 Student).

The journal entries of other students broadly echo these sentiments, all expressing how they could get absorbed in exploring an object in their hands and/or the positive impact of being in a museum setting. Students drew attention to the benefits of both, the ability of spending time quietly, by themselves with an object, and of working in a socially interactive way with others, which also involved getting to know their classmates better. Findings from the journal entries resonate with Kahu's (2013) proposal of three dimensions of engagement: affect (enthusiasm, interest, belonging), cognition (deep learning and self-regulation) and behaviour (time and effort, interaction and participation); and Kahn's (2014) conclusion that student engagement was broader than just the individual experience of the student as it was embedded within the socio-cultural context of learning and influenced by characteristics of both the student and the educational environment.

Discussion

Overall, the survey and journal entries indicate that the key elements which enhance wellbeing in object handling workshops are the practical handling aspects themselves, as exemplified by several of the students in explicitly recommending the potential of these workshops for stress reduction. Elements that enhance wellbeing for students when visiting other organisations comprised the break in routine and the different environmental context. Workshops and visits also enhance student engagement and interest, though to a slightly lesser extent than that of wellbeing.

When asked to rate the value of object engagement for learning, nearly all (97%) of responses were positive and justifications included novelty of the learning experience, improved engagement and focus, and improved memory; while around four fifths (79%) of responses rated the value of object engagement for wellbeing as positive. Their justifications included enhancement of positive mood, and stress reduction. A slightly larger proportion of respondents (84%) supported the statement that introducing object handling and slow looking more broadly across the UCL curriculum would have a positive effect on student wellbeing and help to reduce stress. Their justifications highlighted the benefits of slowing things down and the novelty of the learning experience. In addition, students commented that being asked to assess their wellbeing, within the context of an OBL-class, encouraged them to think constructively about ways to improve their mood and emotions

These outcomes relate to a broader point which is evidenced by the survey that students on the whole appreciated elements of novelty in their module. Simply doing something different, more specifically, hands on, or studying in a different environment seemed to produce benefits for creative thinking, memory and learning. It emerged, however, that students were keen to find ways of reducing stress outside of the curriculum with many suggesting that relaxation techniques should be available to them. The fact that stress was mostly associated with formal assessment is an important point and relates to Robotham and Julian's (2006) review, which found that the most significant response to stress is

reduction in academic performance. In other words, it would appear that students who are most stressed about assessment are likely to perform more poorly. The authors therefore propose that a key role for universities is to provide appropriate resources for individuals to deal with stress, such as the meditation and mindfulness techniques suggested by survey respondents. Furthermore, Robotham and Julian found that stress management often involved individual coping strategies to reduce the stressors by making changes to the environment or by minimising the effect of these stressors by an emotional change in their attitude towards them. This finding has resonance with the survey respondents who referred to improvements in focus and concentration derived from practical elements of their modules and which may have indirectly alleviated stress by providing coping skills to improve performance in assessment.

The results of the survey also align with the work of Fazey and Fazey (2001), specifically on aspects of motivation and locus of control. The authors suggested that a strategy of increasing student awareness of the range of variables within their own control would improve student engagement. As some of the survey responses and journal entries of the *Arts, Nature and Wellbeing* students demonstrate, working with objects and collections can facilitate student development of increased awareness. The hope is that these skills, if practiced repeatedly in class, will remain with the students in other, more stressful, situations, such as during examinations. There is a paradox, however, in that modules that employ object handling or similar object-based learning activities are unlikely to be assessed using exams and conversely, modules that are assessed through traditional examinations are unlikely to include approaches such as OBL. However, if in the future, all students at university could be exposed to OBL, or similar active learning strategies, as well as extracurricular stressbusting activities, then hopefully they will be able to draw on these skills for modules that do not involve such activities. If every student gets the opportunity to acquire skills to promote and maintain their personal wellbeing, then the majority of them should be protected and able to cope better when things get tough.

Conclusions

In the context of a deepening mental health crisis among university student populations in the UK and internationally, it seems vital to propose fresh approaches to proactively address the underlying issues. To tackle these problems, it is undoubtedly necessary to provide additional resources to improve mental health service provision across university campuses, so students who are already experiencing difficulties can receive effective support when they need it. However, service provision that invariably will only intervene when a problem is already manifest, cannot succeed in stemming the tide alone. In addition to essential University wellbeing and counselling services, it will be vital to help students to develop resilience and coping strategies to reduce the numbers reaching crisis point. In line with Thorley (2017), a central strand in proactively addressing mental health issues among students should be the integration of activities that promote mental health and wellbeing more generally as part of the formal curriculum. While there are many possibilities for achieving this, this chapter advocates utilising university cultural resources and more specifically, their heritage collections for this purpose.

The small-scale survey of student opinions that has accompanied this chapter highlighted the importance of both curricular and extra-curricular approaches to wellbeing. The former implies the benefits of allowing time and space for students – as part of class time – for relaxation and mindfulness exercises. The latter highlights the importance of breaks from the norm of everyday, classroom-based teaching. Clear similarities were observed between activities which involved changes in routine – i.e. doing something differently – and changes in environment – i.e. working in a different space, in that they both contain elements of novelty compared with traditional lectures. In particular, students appeared to benefit from practical, hands-on activities, such as workshops involving object handling, and excursions, field trips and visits to other locations that helped break up the run-of-the-mill aspects of academic timetables. The findings align with Bransford et al. (2000) who pointed out that traditional lectures effectively disseminate information in a one-way exchange, promoting passive and superficial learning. Further support from Ambruster et al. (2009), showed that active learning and student-centred pedagogy improved student attitudes and performance in introductory Biology classes. Consequently, it is likely that novel, non-traditional learning strategies, such as those employed for *Arts, Nature and Wellbeing* are likely to encourage two-way exchanges and deeper learning (Kahu, 2013).

One final element that came across strongly from both student responses to the survey and from student journals following an OBL workshop in a museum environment, is the importance of paying explicit attention to how students feel during and after undertaking such activities. The fact that object-based learning activities, especially when performed outside the regular classroom environment, such as in a museum or collection space, appear to meet the expressed needs of the students, by breaking from the norm and providing space for relaxation, is encouraging. Hopefully this can set a positive example for other subject areas and aspects of college life.

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