

The mental health support needs of university students with long-term physical health conditions.

Abstract

Purpose: Supporting the mental health of university students is a key priority for higher education. Students living with long-term health conditions are at increased risk of poor mental health; yet little work has focused on their particular mental health needs or indeed, the implications for health education in the university setting. This study sought to identify the mental health support needs of students with long-term conditions, including best ways for universities to support these students.

Design/methodology/approach: A UK national online survey of 200 university students living with long-term physical health conditions (e.g. asthma, endometriosis, epilepsy) was conducted in 2019. *Findings:* 95% of respondents reported that their long-term condition/s had at least a moderate impact on their mental wellbeing, with 81% reporting that they felt depressed and anxious at least once a month because of their health. The most common suggestion for how universities can better support their mental wellbeing was to raise awareness about long-term conditions on campuses, with many reporting a lack of understanding about long-term conditions from academic and support services staff members – with negative impacts on their mental health. Because of this, some respondents reported a reluctance to come forward and seek help from university services, with 25% not formally disclosing their conditions. *Originality:* These reported concerns underscore the need to develop health education amongst university staff about long-term conditions and to ensure these students are supported with their health at university.

Keywords: chronic illness; disability; long-term conditions; mental health; university students; wellbeing.

Article Classification: Original article.

Introduction

Supporting the mental health of university students is a key priority for the UK higher education sector (e.g. Universities UK, 2015; Department of Health/Department for Education, 2017). For many young adults, beginning university represents an important transition point with significant changes to personal, family and social relationships and living situations. Coupled with academic demands, such changes have triggered concerns about the impacts on students' mental health at university (Wilcox *et al.*, 2005) and there are increasing calls to develop new forms of health education and mental health promotion to better support students.

Despite an increasing focus on mental health, relatively little attention has been directed towards students with a long-term physical health condition and how this may affect their mental wellbeing or the additional forms of support these students might need. Indeed, there is a paucity of research that focuses specifically on the mental health of students living with chronic conditions (some exceptions are discussed shortly). Long-term conditions (LTCs), such as epilepsy, diabetes, autoimmune disorders and asthma, often require management of complex symptoms and treatments (Department of Health: DH 2012). Research with young adults has found that living with LTCs can lead to poorer mental wellbeing due to pain, fear for the future, stigma, social isolation, and struggling to adapt to changes to lifestyle and

identity (e.g. Tunnicliffe *et al.*, 2016; Wilson and Stock, 2019). The added stresses and pressures of university life may well have greater impacts on the mental health of young adults with LTCs and there is a need for universities to consider how health education might be enhanced to better support the needs of these students.

In the UK, one-in-five young people aged 16-24 years live with at least one LTC (Shah *et al.*, 2019). The Higher Education Student Statistics Agency (HESA, 2019) reported that in 2018/19, 14% of UK students declared that they had a disability. Yet, evidence suggests that this is likely to be a gross underrepresentation of the numbers of students with LTCs because of complex issues tied to disclosure and the term ‘disability’, which many students with chronic conditions do not see as being relevant to them (Grimes *et al.*, 2019, Spencer *et al.*, 2018, 2019). Under reporting of LTCs is likely to mean that many students do not receive appropriate support for their health. Other research indicates how fear of stigma and labelling as ‘different’ deters students with LTCs from disclosing their conditions and seeking support (e.g. Hill *et al.*, 2013; Sheridan *et al.*, 2016; Habenicht *et al.*, 2018; Thompson-Ebanks and Jarman, 2018). Indeed, a recent survey found that 91% of 584 students with Type 1 diabetes had never or rarely contacted university support services (Kellett *et al.*, 2018).

A small body of research has explored the prevalence of mental health difficulties amongst students living with LTCs. Studies have shown that university students with LTCs have increased feelings of loneliness, depression and anxiety, decreased quality of life, and are less likely to graduate compared to healthy peers (Maslow *et al.*, 2011; Herts *et al.*, 2014; Mullins *et al.*, 2017). Research specifically with students living with asthma also indicates that these students have lower quality of life, lower social

functioning, greater anxiety and distress, and have more missed university days compared to healthy peers (Carpentier *et al.*, 2007; Fedele *et al.*, 2009). Additionally, students with Irritable Bowel Syndrome (IBS) have been found to experience increased mental strain and chronic stress compared to healthy peers (Gulewitsch *et al.*, 2013). Other research with students with Type 1 diabetes highlights the lack of awareness about LTCs, resulting in increased anxiety (Kellet *et al.* 2018). For these students, not being believed or having their conditions taken seriously adds to the struggles they experience, all the while trying to navigate academic demands and inflexible university environments and processes (Spencer *et al.*, 2018, 2019; Spencer and Almack, 2022). Access to a university support network (e.g. friends/peers, lecturers, disability services) is critical to their success at university (Balfe 2007, 2009a, 2009b; Hill *et al.*, 2013; Fredette *et al.*, 2016; Spencer *et al.*, 2018, 2019; Saylor *et al.*, 2019). A recent report from the UK's Association of Young People's Health (AYPH) calls for, "a greater understanding...across...the Higher Education sector of the challenges that students face when managing a long-term condition" (AYPH 2019 p.8). Here, we see an important opportunity for university-based health education to enhance the support offered to these students.

Against these concerns, this paper reports survey findings from a mixed-methods study that aimed to examine the mental health needs of university students living with LTCs and to identify relevant forms of support for these students whilst at university. Data were collected prior to the Covid-19 pandemic.

Materials and methods

In March 2019, we launched a national survey targeting current UK university students (undergraduate and postgraduate) with LTCs. Follow-up individual interviews were conducted with 12 participants; findings from these are reported elsewhere (*under review*). The survey was open for three months and was advertised via UK university and student unions' social media accounts (e.g. Facebook, Twitter), as well as by a number of UK charities supporting individuals with LTCs.

The study was approved by a university Research Ethics Panel and participants were provided with information at the beginning of the online survey to explain the aims of the study and what the survey would involve. Information about data protection requirements and storage of anonymised data was provided. Consent was ascertained at the start of the survey and before the participant was able to proceed with the questions. Respondents were free to skip any questions they did not want to answer, and at the end of the survey a list of organisations that support young people with LTCs were provided. All data were anonymised and stored electronically in line with General Data Protection Regulation (GDPR) requirements.

The survey comprised both closed-ended and open/free-text response questions, divided into three sections: 'about you' (demographic questions: age, gender, year of study, level of study, i.e. undergraduate or postgraduate, region of study, course subject, any breaks from their course), 'about your LTC/s' (questions asking which LTCs they had been diagnosed with, symptoms that had significant impacts on their lives, lifestyle adjustments made, frequency of contact with healthcare professionals, and impacts on their mental wellbeing – see below for full details), and support for

your LTC/s' (questions about disclosure, types of support received, strategies used to promote their mental wellbeing, what they would like to see available at universities to support students with LTCs, examples of how their university had supported them in living with their LTCs, and examples where their university could have improved how they supported them).

Impacts on mental wellbeing were identified via four questions, which we developed based on our previous research in this area (references removed for blind review).

Our intention was not to measure levels of anxiety/depression through a standardised tool, but rather to identify the impacts of their LTCs on their mental wellbeing. As such, participants were first asked to rate on a scale of 1-10 (with 1 indicating no impact, 5 indicating a moderate impact, and 10 indicating a very large impact), how much of an impact does their LTC/s generally have on their mental wellbeing. The following three questions asked, on average, how often they felt down or depressed, anxious, and stressed, as a result of their LTC/s. Available responses included: none of the time (1), rarely e.g. once a year (2), some of the time e.g. a few times a year (3), often e.g. once a month (4), usually e.g. once a week (5) and all of the time e.g. every day (6). Cronbach's alpha for these three items was .854, indicating high internal consistency.

Closed-ended questions were analysed using simple descriptive statistics. Inferential statistics were used to assess any significant differences in reported mental wellbeing impacts between undergraduate and postgraduate students, and between students who had formally disclosed their LTC/s and those who had not. Due to non-normally distributed data, Mann Whitney U-tests using SPSS version 27 were conducted to

compare undergraduate and postgraduate students, and those who had and had not disclosed their LTC/s. The significance level was adjusted to account for carrying out multiple tests. We divided the typical alpha level of 0.5 by the number of tests (four) for each group comparison, leading to a significance level of .0125.

Free-text responses were analysed using a combination of content and thematic analysis. Content analysis involved identifying the presence of words, phrases and meanings and the relationship between them. To enable a deeper understanding of responses, a thematic analysis (following Braun & Clarke, 2006) was also conducted. The first author read and then re-read all responses for each open-response question, making notes about potential themes. Initial codes were discussed with the second author and codes were then grouped into emergent themes by the first author. Both authors reviewed the themes by re-reading the open-response data to reach consensus on the core themes. These identified themes aided our explanations and understandings of the closed-ended responses.

Results

Participant demographics

The survey was completed by 200 students, of which 198 were female (reasons for this are explored in the discussion). Participants ranged between 18 to 67 years, with a mean age of 26.87. The majority of respondents (71%) were aged between 18 and 28 years. Most respondents were undergraduate students ($n=130$: 65%), were studying full-time ($n=154$: 77%), and were in their first ($n=74$: 37%), second ($n=55$: 28%) or third year ($n=49$: 25%) of study. Out of those participants who were studying part-time, the majority were postgraduates (58.7%). Respondents studied across a range of

disciplines (e.g. Politics, History, Geography, Law, Philosophy, English, Chemistry, Nursing, Computer Technology). Respondents were relatively equally spread across all regions of the UK, except for low representation from the North East of England ($n=2$). See Table I for participant demographics.

[INSERT TABLE I NEAR HERE]

Conditions and related symptoms

75 different LTC/s were reported by participants, with many reporting more than one condition (for this reason the total percentages combined in Table II exceed 100% as participants reported multiple conditions). The most commonly stated condition was endometriosis, with 162 respondents (81%) having been diagnosed with this condition (most likely due to the largely female sample), with 96 (60%) of those respondents having also been diagnosed with at least one other LTC (such as asthma, IBS, or Chronic Fatigue Syndrome [CFS]). The second most commonly reported conditions were IBS and chronic pain, both reported by 42 participants each (21%). The next most commonly reported condition was asthma (35 respondents: 18%), followed by polycystic ovary syndrome (25 respondents: 13%). See Table II for details of conditions reported by five or more participants.

[INSERT TABLE II NEAR HERE]

Despite the variety of conditions reported, the most commonly reported symptoms with a significant impact on their everyday life were pain (91%) and fatigue (85%). The most commonly reported lifestyle adjustments included: dietary changes (34%) (e.g. reducing or excluding gluten, dairy, sugar, caffeine, alcohol); reduced physical activity/exercise (24%); reduced/adjusted work/study hours (21%) (including later

starts, regular breaks, missing some classes); more sleep/rest and ‘pacing’ (21%); and engaging in less social activities (14%). 57% of respondents reported they had taken a short break from their course (e.g. one term), 39% reported having a long break from their course (e.g. one year), 21% reported having changed their course, and 11% reported having repeated a year of their course – with 92% reporting that this was due to health reasons.

University support

As part of the survey, we also aimed to capture students’ experiences of support for their LTC/s. The most common response to the question, ‘Where do you get support from for managing your LTC/s?’ (See Figure 1) was family members ($n=141$: 70.5%). This was followed by General Practitioners (GPs) ($n=125$: 62.5%).

University services was selected by 46 respondents (23%). A follow-up question asked those who selected ‘university services’ as a source of support to specify the nature of this support. The most common source of support was from the university disability services ($n=36$: 76.6%), followed by a university staff member such as a personal tutor ($n=28$: 59.6%). Only seven respondents (14.9%) reported receiving support from university counselling services, and only three (6.4%) cited receiving support from their student’s union.

When asked whether they had any good examples of how their university had supported them in living with their LTC/s, 59 out of 140 (42%) respondents said ‘no’ or ‘not applicable’. Of the remaining respondents, the most common responses included: the university granting extensions for academic work ($n=26$); individual staff members (e.g. personal tutors, dissertation supervisors, lecturers, disability

advisors) being understanding and supportive ($n=22$); the university allowing for short-term absences ($n=14$); the university allowing for special examination accommodations, such as rest breaks or extra time ($n=11$); student support plans being put in place ($n=6$); and having access to free university counselling services ($n=5$). Open-ended responses provided insights into how students valued these forms of support:

The student disability services team have been great this year - allowing me to have extensions, special exam arrangements and allowances for absences.

My lecturer is very helpful when it comes to understanding my condition. She allows me to link into lectures from home and keep in contact through email as and when it's needed.

My department has been excellent at allowing me time to recover, extending deadlines, and supporting me in my course. When I needed it, I was also fast tracked on the university counselling services.

My university designs Learning Support Programmes which are tailored to each student and sent to departments/lecturers...mine has a section specifically on the result of absences and how this isn't my fault, a section on assessments giving me access to extensions without having to provide medical proof...and advice on fieldwork and how I may not be able to do anything/everything so lecturers should have contingency plans in place.

As suggested, accessing university-based support is usually dependent on disclosure. When asked whether they had disclosed their LTC/s to their university, 147 participants (75%) said 'yes'. Reasons for disclosure included: the impact of their condition/s on their attendance and performance (36%), having specific needs and requiring adjustments to their course or assessment (e.g. requiring extensions to deadlines or needing specialised equipment) (21%), needing time off (e.g. for operations, appointments, tests/procedures) (17%), and needing general support (16%). Reasons for non-disclosure from the remaining 48 respondents (25%) included fear of stigma/lack of understanding (22%), not envisioning getting any help/support (20%), not seeing the need to disclose (20%), the word 'disability' (7%) – a term that has been previously reported as not seeming relevant to students with chronic conditions and because they do not see themselves as being 'disabled' (see Grimes *et al.*, 2019, Spencer *et al.*, 2018, 2019), not knowing how to disclose (7%) and not having been asked about their health (7%).

We also asked respondents to provide examples of how their university could have improved how they had supported them in living with their LTC/s. Responses to this question highlighted the issues students encountered at university to illustrate areas that needed improvement. For example, many cited being inadequately supported and reported a lack of understanding/sensitivity and/or not being believed by staff members (e.g. lecturers/tutors, professional services) ($n=20$). The second most commonly provided examples related to the university's approach to poor attendance due to their LTC/s (e.g. being penalised for absence) ($n=10$). Other responses included staff not 'checking-in' on students with LTCs ($n=7$); delays accessing support ($n=6$); a lack of support with catching up with work ($n=4$); a need for better

communication between disability services and other university services/staff members ($n=4$); a lack of financial support ($n=4$); a general lack of support from disability services for invisible LTCs ($n=3$); experiencing only short-term and or infrequent support (from disability and counselling services) ($n=3$); and difficulties related to the need to provide ongoing medical evidence ($n=2$):

They [staff] could be more understanding and sensitive. My tutor wasn't professional when it came to talking about my medical conditions. She made me talk about it out in the open with other students and staff around and made me feel so humiliated and judged. Definitely more staff is needed at the student services department too. A lot of conversations got miscommunicated or lost and payments and situations delayed a lot because of the lack of educated/knowledgeable staff in that particular area.

The university gave me an awful reference for my postgraduate job due to my attendance surrounding sickness. They failed to mention this was due to a long-term condition and could have affected my future employment.

Not loading disabled students with more labour or providing 'evidence' via never-ending cycles of paperwork...

My university initially sent me to student services who sent me to disability services but...it was a waste of time and the lady at disability services wasn't very supportive at all and started to question my condition.

Mental wellbeing

Perhaps unsurprisingly, survey responses revealed important impacts on respondents' mental health. When asked to rate on a scale of 1-10 how much of an impact their LTC/s generally have on their mental wellbeing, 95% of respondents ($n=190$) reported experiencing at least a moderate impact on their mental wellbeing (i.e. a score of 5 or more). The maximum impact was reported by 24.5% of respondents ($n=49$) (see Figure 2). The mean score overall was 7.79 ($SD=1.86$). A Mann-Whitney U Test revealed that undergraduate students reported a significantly larger impact on their mental wellbeing than postgraduate students: $z=-3.115$, $p=.002$. There was no significant difference between students who had or had not formally disclosed their LTCs: $z=-1.699$, $p=.089$.

80.5% ($n=161$) of respondents reported feeling down or depressed at least once a month because of their LTC, with 21.5% feeling this way every day (see Figure 3). Undergraduate students reported feeling down or depressed significantly more frequently than postgraduate students: $z=-2.653$, $p=.008$. Again, there was no significant difference between students who had or had not formally disclosed their LTCs: $z=-1.428$, $p=.153$. 81% of participants ($n=162$) reported feeling anxious as a result of their LTC/s at least once a month, with 26.5% reporting feeling anxious every day (see Figure 4). Undergraduate students reported feeling anxious more frequently than postgraduate students, but this was non-significant: $z=-2.011$, $p=.044$. There was no significant difference between those who had or had not disclosed their LTC: $z=-1.629$, $p=.103$. Finally, 88.5% ($n=177$) reported feeling stressed as a result of their LTC/s at least once a month, with 30.2% feeling stressed every day (see Figure 5). Undergraduate students again reported feeling more stressed than

postgraduate students, but this only approached significance: $z=-2.349$, $p=.019$.

Again, there was no statistically significant difference between students who did or did not disclose their condition/s: $z=-1.161$, $p=.246$.

In addition to asking students about the support they receive for their physical health, the survey also asked questions about support for mental health. When asked, 'Do you seek any support to promote your mental wellbeing?' 55% of respondents said 'yes'. The most common source of support received was psychological therapies (58%). Other forms of support included family members (46%), peers/friends (41%), GPs (35%) and the use of antidepressants (35%). Twenty-four respondents (21%) cited receiving support for their mental wellbeing from university services. When asked to specify which aspect of university services they received support from, the majority ($n=15$: 56%) cited university disability services, followed by individual university staff members such as a personal tutor ($n=12$: 44%), and university counselling services ($n=10$: 37%).

When asked what strategies they used to help promote their mental wellbeing, 98 (61%) said they engaged in exercise/sport, 79 (49%) said they engaged in meditation/mindfulness, 76 (47%) made dietary changes, 51 (32%) engaged in arts and cultural activities, and 32 (20%) engaged in alternative and complementary therapies. When given the option to expand on how these strategies promoted their mental wellbeing, 31 respondents elaborated on the impact of exercise on their wellbeing. Exercise was typically described as providing a stress relief ($n=16$), distraction/escapism ($n=7$), some relief from pain ($n=6$), and a sense of accomplishment ($n=2$):

...clears my mind and reduces stress which is the main trigger for flare ups.

Exercise makes me feel better about myself and provides a lengthy distraction.

I play sport as often as I can as it really helps with stress and unwinding from uni as well as it is something I have always enjoyed.

However, 11 respondents explained that exercise was not always possible due to their condition/s:

I find it hard to exercise regularly because of physical issues but when I do, my mental wellbeing improves.

...now can't exercise due to hip condition, even walking is a challenge. Used to do yoga and Pilates as a way to connect with my body in a positive way and feel in control but can't even do that now.

Exercise does [*help my mental wellbeing*] but when the pain sets in from the endometriosis I can't do anything for 10+ days and it gets me out of the habit of it.

Thirty-two respondents explained how arts and cultural activities such as knitting, dancing, colouring, singing, writing, and going to art galleries, promoted their wellbeing through providing: escapism and distraction from their problems ($n=10$),

calm and relaxation ($n=6$), a sense of achievement and productivity ($n=4$), enjoyment/improved mood ($n=3$), time to think, reflect and work through emotions ($n=2$), and social networks ($n=2$). These types of activities were also emphasised as activities that were manageable within the constraints imposed by their condition/s (in contrast to the previous descriptions of exercise):

I use crafts e.g. knitting to give me a sense of calm and productivity when too tired to leave the house or work.

... I attend a dance class as this...gives me a chance to escape.

Art and craft activities gave me something I could be good at and achieve that did not require physical skills that I no longer possess. I still had full capabilities with these activities so was not faced with constant reminder of what I 'used to be able to do'.

Means I engage with other people, which prevents from shutting myself away and improves my mood a lot.

We also asked, 'What would you like to see available at universities to support the mental wellbeing of students living with LTC/s?' and received 170 responses. The most common response was raising awareness, reducing stigma, and increasing the understanding of various LTCs within universities (for example through staff training) – suggested by 45 participants (26.5%). The second most common response ($n=30$: 17.6%), was for universities to facilitate quicker and easier access to talking therapies

such as counselling. Twenty-seven respondents (15.9%) suggested peer support groups would be helpful, including meeting other students with LTCs to provide mutual support. Other suggestions included more support from university staff to work from home, including less penalties when classes are missed due to ill health ($n=11$, 6.5%). Eight respondents (4.7%) suggested that it would be useful for university staff to 'check-in' with students to see how they are managing. Six respondents (3.5%) suggested that universities should introduce a support system to help students catch up with their studies after a period of illness, and another six (3.5%) suggested having a health-specific personal tutor/mentor who could be a key point of contact.

Discussion

The main aim of this study was to examine the mental health needs of university students living with LTCs and to identify the forms of support they see as being most needed. To our knowledge, this is the first UK national survey exploring the mental health needs of university students living with LTCs. Our findings highlight the significant difficulties these students can face (particularly undergraduate students), with important implications for higher education and the development of relevant forms of health education and support for these students.

Of particular concern is the number of students reporting the impacts of their LTCs on their mental health and wellbeing. The pressures and stresses reported by these students warrants careful attention, including how the transition to university affects

these students' wellbeing and academic studies. In particular, it seems that inflexible university processes, including timetabling and assessments, can exacerbate the difficulties these students encounter (Kellet *et al.*, 2018, Spencer *et al.*, 2018, AYPH, 2019). In keeping with a healthy settings approach to health education (WHO n.d.), developing flexible modes of study – perhaps similar to those offered by postgraduate programmes – may offer one way to help better support undergraduates with LTCs.

Yet changes to academic processes provide only a partial response to some of the issues raised by our results and the particular challenges these students face. The impacts of stigma, and how this affects students' willingness to come forward for help, appears highly relevant to the development of effective responses from universities and reflects some of the more socially located aspects of (ill) health that are important to effective health education responses (Spencer *et al.*, 2018). Reports of negative reactions from staff members and other students may account for the low disclosure rates found in other research (Grimes *et al.*, 2019) but also need to be understood within the context of being seen as a 'normal' healthy student (Balfe, 2007, Spencer *et al.*, 2018, Spencer and Almack 2022). Research to date documents the complex interplays between students' preferred outward normal student identities and the tricky issues of disclosing a health condition that sets them apart from their peers (Spencer *et al.*, 2018, Spencer and Almack 2022). These identities, in turn, guide health practices and students' broader engagement (or lack of) in university life (Balfe, 2007, 2009b; Saunders, 2011, Spencer *et al.*, 2018, 2019) – sometimes with adverse consequences for their physical, mental and social health (Spencer *et al.*, 2019, Spencer and Almack 2022).

Complex issues of disclosure can mean many students do not access appropriate support. We found that students who had disclosed their condition/s to their university experienced comparable negative mental health and wellbeing impacts to those who had not disclosed their condition/s, perhaps signalling that disclosure did not lead to effective university support. This may be illuminated by our other findings which suggest that when students do come forward, the services offered are not well tailored to their specific needs, or available to them in a timely way (e.g. reports of long waiting times for counselling services). In this study, just 23% reported that they received support from university-based services; with only 18% reporting support from specific disability services (see also Kellett *et al.*, 2018). Whilst enhancing access to relevant health and wellbeing services, including support for mental health, has been called for as part of broader university-based health education and promotion strategies (Universities UK, 2015), it seems much more work is needed to ensure students with LTCs can access the types of help they need. A deeper understanding of the different types of relevant support for both undergraduate and postgraduates is much needed. The latter group may be juggling family commitments, working part-time and have prior experiences of university. These factors may influence how they manage and negotiate their health conditions – as well as the types of support available to them. However, because our sample were largely undergraduate (65%), full-time students (77%) we are cautious about making specific suggestions about the distinct support needs and services relevant for different groups of students.

Furthermore, clear improvements are required in terms of developing broader forms of health education to promote awareness and an appreciation of chronic health conditions by others – especially university staff. Reports of a lack of understanding

and not being believed by university staff is reflected in other research (Hill *et al.*, 2013, Spencer *et al.*, 2018, AYPH, 2019). Not being believed as genuinely ill can result in students being penalised for non-attendance or late submission of work and may mean students are not sufficiently supported to catch-up on their studies following periods of ill health (Spencer *et al.*, 2018, 2019). Of concern are reports of students working through lengthy bureaucratic processes in an effort to evidence ill health (and at the difficult time of ill health) in order to access appropriate support (Spencer *et al.*, 2018, AYPH, 2019).

Despite facing clear struggles, some positive responses from the survey highlight important clues for how best to develop forms of health education in the university setting to better support students with LTCs. This might include granting extensions for assessments but also through the development of empathy and understanding by staff including lecturers, personal tutors and disability service advisors. Broader forms of health promotion may also offer alternative opportunities to support these students' wellbeing. For example, exercise and other activities seemed to help with the day-to-day management of symptoms as well as promoting general mental wellbeing.

Extending opportunities for participation in tailored exercise programmes or arts-based 'therapies', for example, may offer important ways for these students to manage their health on campus – as well as engage socially with their peers. Although more work is needed to assess the direct benefits of these activities to the physical and mental health of young people with LTCs, especially in light of some students reporting difficulties with particular activities because of their health, our findings do point to the possible relevance of enhancing behavioural activation therapies and the development of individual, tailored health and academic plans.

Despite these opportunities for health education, some caution is needed with respect to their broader relevance to other students with LTCs. Indeed, our survey yielded a significant response from women with endometriosis, which was unexpected.

Reasons for this are not readily apparent, although the tendency for women, compared to men, to come forward and discuss health-related issues may, in part, account for this response (Curtin *et al.*, 2000; Kwak and Radler, 2002; Markanday *et al.*, 2013). Furthermore, endometriosis has received more attention in the media and again the topical nature of this condition may have encouraged these individuals to come forward.

Just as health conditions differ, so do university environments and systems. Our results suggest some universities may be more able to accommodate the needs of students with LTCs, whilst others are less adapting. This may be due to differences between modes of study and/or flexibility offered by postgraduate courses compared to undergraduate programmes (e.g. some require full-time contact hours, placements, opportunities for independent or online learning), but also the size and locality of campuses and university buildings, which may have different effects on students. These issues remind us of the importance of taking a settings-based approach to health education (WHO n.d.) in order to understand better the range of socio-contextual influences on health and wellbeing. Adapting the university environment may be challenging but our results highlight the importance of this setting for the enhancement of student health.

Based on findings reported here, and supported by other work, there is a clear identifiable need to enhance appropriate support mechanisms for students with LTCs. More can be done to ensure these students are not unduly disadvantaged at university and through ensuring systems and processes are in place to support flexible modes of study/assessments (including removal of penalties for non-attendance, offering extensions). Supporting these students to come forward and seek out help necessitates a greater understanding and awareness of chronic conditions to ensure these students do not feel unduly different or stigmatised because of their health. Without such efforts, these students may be at greater risk of poorer mental health with significant impacts on their academic and social lives and overall health.

Declarations of interest: None.

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