

University students' everyday negotiations of (un)healthy practices

Eleanor L. Procter^a (0009-0000-1321-5463), Ruth M. James^a (0000-0002-7119-3159), Matthew J. Savage^a (0000-0003-2922-3681), Charlie J. Roberts^b (0000-0002-4683-4006), Jack Hardwicke^a (0000-0002-1152-0920)

^aSport, Health and Performance Enhancement Research Centre, Nottingham Trent University, Nottingham, United Kingdom ^bFaculty of Health, Education and Life Sciences, Birmingham City University, Birmingham, United Kingdom.

Abstract

Whilst it is well documented that there is a high prevalence of potentially detrimental health-related behaviors amongst university students, the social circumstances in which such behaviors manifest are not so well understood. Without this understanding, the effectiveness and impact of health promotion efforts within university settings may be reduced. This paper therefore explores how the social context of university influences students' negotiations of (un)healthy practices by drawing on data from qualitative interviews with 24 undergraduates from the United Kingdom. We show how students' manage significant contextual changes as they move through university, balance competing interests, and encounter various social, economic and environmental constraints when trying to engage in healthy practices during their everyday lives. The empirical findings lend support to the necessity of a 'healthy settings' approach to health promotion at universities which considers the specific social context and realities of human behaviors as they relate to health. To that end, implications for health-promoting initiatives that are sensitive to both the university context and to students' lives are discussed, and suggestions are given for embedding health promotion into university structures and organization to create environments that best enable healthy lifestyles.

Keywords: Public Health; Healthy Settings; University; Higher Education; Health-related Behaviors

Introduction

The transition to university is often characterized by significant changes to a young person's lifeworld. This includes increased levels of independence and less direct social or institutional support; it is expected that many university students are responsible for managing their domestic and academic lifestyles, with 62% of full-time students in the United Kingdom (UK) living away from home during the academic year (Hubble et al., 2020). This also means they often have to develop new social and support networks (Thompson et al., 2021). During this life stage it is commonly assumed that university students engage in various behaviors that may be detrimental to their overall health and wellbeing, such as physical inactivity, sedentarism, poor diet quality, excessive alcohol consumption, smoking and poor sleep, all of which are strongly associated with the development of non-communicable diseases. Given that such diseases are the leading cause of mortality and morbidity globally (Cecchini et al., 2010; World Health Organization (WHO), 2023), working to reduce the prevalence is of major importance.

Current literature suggests university students often do not meet public health guidelines for physical activity (Roberts et al., 2024). A recent review reported that large proportions of university students had levels of sedentary time associated with an increased risk for detrimental health outcomes and were more sedentary than the general young adult population

(Castro et al., 2020). Unhealthy dietary patterns and elevated alcohol consumption are also frequently reported amongst student populations (Sharma et al., 2009; Tanton et al., 2015; Hilger-Kolb & Diehl, 2019; Davoren et al., 2016; Pengpid & Peltzer., 2020). Furthermore, both sleep quantity and quality are known to be problematic (Driller et al., 2021; Foulkes et al., 2019). Whilst an exhaustive review is beyond the scope of this paper, there is extensive literature highlighting university students as a unique ‘at risk’ population for detrimental health-related behaviors.

The purpose of this paper, then, is not to add further evidence as to the existence or prevalence of unhealthy practices amongst students, but rather to consider how they may manifest and how the specific context of university may constrain or enable health-related behaviors within everyday life. Such a focus has been somewhat overlooked in the literature to date; previous research captures individual-level data on university students, but very few studies have sought to locate and account for the circumstances in which these practices occur, and even fewer take a sociological approach to consider the forces which may shape individual health-related behaviors.

Without this broader understanding of how context shapes behaviors, there is limited evidence that policymakers can draw upon when seeking to promote student health and well-being in higher education. By focusing on university students’ everyday experiences of negotiating health-related behaviors, we aim to contribute to this evidence base with a particular focus on the implications for health promotion within higher education. We begin our work in this direction with a more detailed explanation of the theoretical approach to health-related behaviors we have taken.

The negotiation of ‘health’ in everyday life

Our approach to understanding ‘health’ aligns with that of the World Health Organization in the 1986 Ottawa Charter: ‘Health is created and lived by people within the settings of their everyday life; where they learn, work, play, and love’. Such an approach understands human behaviour as being the outcome of a complex interplay between biological, psychological and socio-cultural factors. The focus of this paper is primarily the latter; considering how social context and socio-cultural factors may shape behaviors.

There is a long history within the sociology of health that considers the various ways in which complex relational and dynamic factors, beyond just the ‘individual’, influence health-related behaviors. The necessity to incorporate structures (how behaviors are shaped by social and cultural forces) and agency (the scope individuals have for determining their own lives) into health research has long been recognized. This moves us beyond the overly individualized and reductionist perspectives of health-related behaviors that have, to date, dominated much public health research and policymaking (Blue et al., 2016; Kelly & Barker, 2016; Kriznik et al., 2018; Maller, 2015).

We understand health-related behaviors as being ‘social practices’ which denote what people actively ‘do’ in their day-to-day, shaped by both structure(s) and agency, without giving primacy to either (Shove et al., 2012). Within everyday life, various social dynamics related to structure(s) and agency can work to constrain or enable certain social practices. For example, economic pressures (structural), such as the cost of ‘healthy’ food, or a person’s knowledge and capabilities for cooking ‘healthy’ food (agency), may constrain practices that could then manifest in unhealthy eating patterns.

Therefore, we are interested in how students *negotiate* the complex of influences at play in regard to health-related social practices. Archer’s (2007) discussion of human reflexivity in explaining how people ‘make their way’ through social life is particularly useful, given her

discussion of how ‘contexts’ (the situation and environment a person is in) and ‘concerns’ (what is important to a person and motivates them to act) shape social practices. We draw broadly from this work in that we assume people have agency to make choices, such as should one take part in exercise, what should one eat, how much should one drink or smoke as a few examples. But such choices are the result of a process involving people reflexively negotiating what matters to them (their concerns), their context and the social and cultural forces they encounter which may constrain or enable certain actions. Such an understanding of health-related behaviors broadly aligns with a ‘social practice theory’ perspective which has seen much interest in recent years for its utility in public health research (Blue et al., 2016; Hennell et al., 2020; Kelly & Baker, 2016).

Healthy Universities

Universities are key settings for public health promotion on account of a few significant factors (Heeren et al., 2013). The first is because of the large proportion of young adults that pass through them nationally (50% in the UK; Leaker 2024) and globally, outlining the wide reach that health promotion policies have in this setting (Dooris et al., 2018). Secondly, and related, is that while many health-related behavioral changes in students may be transient, often risky behaviors can continue into adulthood and thus have long-term health implications for general populations (Haas et al., 2018). And thirdly is universities general duty of care, given the documented prevalence of detrimental health-related behaviors amongst student populations (Savage et al., 2024).

Indeed, international recognition of universities’ responsibility to promote health has been established for over two decades now, with the World Health Organization’s Health Promoting Universities (Tsouros et al., 1998) and the 2015 Okanagan Charter. Both provided guidance for the implementation of health promoting initiatives in higher education settings. More recently,

the World Health Organization Global Action Plan of Physical Activity 2018–2030 (WHO, 2018) included a specific call to action for higher education institutions to strengthen their implementation of initiatives to ‘demonstrate a whole campus approach to the promotion of physical activity and reduction of sedentary behaviour to all students, staff, and visitors’.

We earlier outlined that the prevalence of various unhealthy behaviors are relatively high amongst university students. Previous research provides some insight into the environmental factors that are thought to contribute to enabling such behaviors. For example, Foulkes and colleagues (2019) discuss the social disruptions and unstructured lifestyles typical of many students university experiences as contributing to poorer sleep hygiene. Alcohol consumption has long been known as a central feature to much of the social (e.g. societies, sport teams, friendship groups) and physical (e.g. Student Union bars and student-targeted nightclub events) environment in which students go about their daily lives (Supski et al., 2017). Access and availability of what universities offer has been shown to influence health behaviors, for example lack of provision for physical activity programs (Malagodi et al., 2024) or limited choices for affordable and healthy food options on campus (Aceijas et al., 2017). Moreover, following wider trends across Western societies of rising economic pressures, increasing research is shining a light on how ‘money anxiety’ and financial constraints are shaping student experiences and behaviors (Dabrowski et al., 2024).

Given these factors within the university setting known to influence health-related practices, and aligning with our theoretical orientations, we see much merit in the ‘Healthy Settings’ model of health promotion. This model understands health as being the product of everyday practices that are shaped by the structures, cultures and routines of a given setting (Dooris, 2013; WHO, 1986). As such, any intervention or policy hoping to encourage healthy practices must take a whole-system approach that considers the social context that people engage in daily

activities in which environmental, organizational, and personal factors interact to affect health and wellbeing (WHO, 1986).

Because of the success of a healthy settings approach in other areas (e.g., the WHO Healthy Cities program), there has been increasing interest in the adoption of the ‘Healthy Universities’ concept (See Dooris et al., 2010, 2020; Suárez-Reyes & Van den Broucke, 2016). However, to date, the adoption of a Healthy Universities approach to health promotion has been slow; it remains underdeveloped due to various constraints such as the complexity of university systems, difficulties in evaluating effectiveness and broader structural issues tied to the economy (Pathare, 2021).

Of particular concern to this paper is the general dearth of research that is theoretically aligned with the Healthy Universities underlying assumptions (Newton et al., 2016). As noted earlier, much of the research on student health-related behaviors report individual-level data and use quantitative methodologies. Whilst providing a useful broad overview, such data are not well suited to a healthy settings approach to understanding and promoting health. Without attempting to grasp something of the highly nuanced features of the ‘micro-social structures’ of specific settings (i.e. a university), any health promotion policy may be misguided and lacking in empirical rationale (Kelly & Barker, 2016).

Therefore, the purpose of this study was to explore how university students actually, and actively, negotiate ‘health’ within their everyday lives in order to better understand any constraints and/or enablers of (un)healthy practices. In doing so, we implicitly add empirical support for the need for Healthy Universities approaches, but more explicitly we contribute novel, sociologically informed, qualitative insights into university student life which carry implications for settings-based health promotion in this space.

Methodology

We approached this project with the knowledge that, a) university students appear to be a unique ‘at risk’ group for engaging in potentially detrimental health-related behaviors, b) that previous research has mostly focused on prevalence and individual-level analysis, rather than social context and sociological factors, and c) there is a general dearth of qualitative work on this topic. Between us, we also share motivations to do research that helps contribute to improving student health and creating health-promoting university environments (for various previous works see Hardwicke & Roberts, 2025; Roberts et al., 2024; Savage et al., 2024). This a priori knowledge and experience, alongside our axiological commitments, outlines the broader rationale for the research discussed in this paper.

Each authors backgrounds will have shaped the conception and design of this research. Given the first authors central role in the data collection and delivery of the research, we provide a more detailed consideration of their positionality in this process, before a briefer discussion of the rest of the authorship team. The first author is a White British woman in her mid-20s, living in rented accommodation with a friend in the Midlands of England. She is broadly ‘healthy’, physically active and is currently undertaking a PhD focused on student health and wellbeing. Her position as a PhD student at the university was useful for conducting this research as it is likely that students would more readily develop rapport and speak to university experiences with a fellow student as opposed to university staff. Moreover, having completed her undergraduate and masters in recent years, she was well positioned to draw on her experiences of contemporary UK university student life to facilitate mutual understanding and discussions within the interviews.

Whilst such ‘closeness’ afforded the first author somewhat unique access to rich insights, this had to be balanced with not allowing taken-for-granted assumptions to unduly influence the research and analysis. Here, co-authors acted as ‘critical friends’ by encouraging reflection and dialogue throughout the research design, data collection and analysis phases of the project as a

core process to ensure rigor (Appleton, 2011). The authorship team includes researchers with a mix of academic backgrounds which contributed to a varied and rigorous research process.

Briefly, the second author has an academic background in physiology, nutrition and exercise, is the primary supervisor for [first author] PhD and she was a full-time member of staff at the university when the research was undertaken. The third author recently completed his PhD focused on student health at the university studied here, and has a background in exercise and health physiology. The fourth author's research background is broadly in public health with a particular focus on nutrition, has previously led on a project exploring student health and well-being in university students, and he is a full-time member of staff at a separate institution. The last author is a social scientist with a background in the sociology of health, he is a full-time member of staff at the university researched and oversaw this project as the main advisor to [first author] due his expertise in qualitative research. None of the authorship team had any prior relations to the participants, and all data collection was led and conducted by the first author.

Research procedures

We decided that semi-structured interviews were an appropriate method to explore how students negotiate 'health' within their everyday lives in the university setting. This was on account of the method's flexibility and capacity to facilitate in-depth conversations (Gray, 2022). Whilst originally planning to hold focus groups, early piloting of this found that students were less open to talk freely when in groups and we deemed one-to-one interviews would allow students to feel more comfortable.

Following institutional ethical approval, 24 university students from one post-1992 university in the Midlands, England, were recruited and interviewed by the first author. Participants were offered the option to do the interviews in person or online using video conferencing software:

9 were online and 15 were in person. With informed participant consent, all interviews were recorded and subsequently transcribed verbatim for later analysis. Interviewees were recruited through email as they had previously taken part in a Student Health Survey at the institution and indicated their interest in participating in follow-up research. A £10 gift card was offered as remuneration for the student's time.

Participants were emailed and then purposefully sampled to try and ensure a somewhat even representation of genders, ethnicities, courses, year of study and living arrangements. All data were anonymized, with pseudonyms used when reporting the findings. Basic biographical information is provided in **Table 1**. While our sample is not fully representative on account of the demographics and the research being at a single institution, we maintain that the participants and data do provide insights that, when sensitized to existing literature, make highly valuable contributions to advancing understandings of student health-related behaviors and health promotion in universities.

**** Insert Table 1 here ****

The interviews ranged in length from 26 to 50 minutes (median duration: 35 minutes). A semi-structured interview schedule was constructed amongst the research team which broadly focused on students' experiences with adopting healthy lifestyles whilst at university, with a more specific focus on 'modifiable' health-related behaviors such as physical (in)activity, (un)healthy diet, sleep and alcohol consumption. Importantly, the semi-structured design was fully utilized, as the first author developed a conversational style with each participant whereby the 'flow' of discussions was prioritized over strict adherence to the schedule. This allowed for a more organic conversation and perhaps un-foreseen topics to be explored in more depth should they come up (Gray, 2022).

Analytical process

Our process for analyzing the interview transcripts was broadly guided by the reflexive thematic analysis approach outlined by Braun and Clarke (2022). The first level of analysis involved the first author familiarizing themselves with the data and conducting the initial coding of transcripts guided by the broad research aims. Regular meetings and conversations amongst authors 1, 2 and 5 were had throughout this phase as we discussed initial thoughts and observed patterns across the dataset, with the first author encouraged to reflect and justify initial data groupings. At this point, several key empirical details were clear across the data which included: deadlines, workload and general academic work; university schedules and timetables; accommodation and experiences with flat mates; drinking alcohol as normal social practice; adjusting to greater autonomy, responsibilities and time management; economic pressures, managing part-time work alongside studies; changes throughout years of study; access and availability of services such as physical activity programs and healthy food outlets; desires to socialize and fears of missing out; daily routines whilst at university associated with unhealthy behaviors.

Based on these topics, the first and last author worked together to develop an analytical frame which captured the meaningful patterns apparent across the data as well as making a contribution to advance knowledge on student health. This was achieved through an iterative process of synthesis involving continuous dialogue between the data, existing literature and our interpretations as we sought a coherent and reality-congruent analysis. Subsequently, three empirically and theoretical salient themes were generated: 1) Changing contexts and competing concerns in student life, 2) Being healthy in a cost-of-living crisis, and 3) Structural determinants in the university environment. These were then shared with all authors for discussion and refinement, with those not involved in the early phases of analysis checking for clarity and, where needed, suggesting further clarification over the use of concepts and data. What follows is the final product of this analytical process. Whilst the themes overlap in parts, they also have distinctive elements that, when taken together, help identify important ways in which university students negotiated (un)healthy practices in everyday life.

Findings

Changing contexts and competing concerns in student life

Many changes occur to young people's lives when they transition to university. From those we spoke to these included, but are not limited to: geographical mobility, first-time independent living, greater autonomy over everyday decisions, economic precarity, managing competing priorities, changing relations with family and prior friendship groups, and the necessity to form new social bonds. Izzy's comment captures much of the experience of change shared by the students:

University is very different from what I think it's described to be because there's so many different elements at one time that are new... it's just a combination of so many things. It's not just like you're moving to a new city or you're forming a friendship group or

you're doing a new course. It's literally everything at once. You're also kind of in transition where you're learning to be an adult. So like, I don't know, I hadn't really done like a big food shop before or like my own laundry really which is embarrassing or washing up or just anything and you're kind of given all of it at once. And, freshers week you're supposed to be going out every night. Also, you know, kind of doing all these new things because you've just turned 18. So everyone's going out, but you've not got much money. It's just a combination of all these things at once I think is probably the biggest challenge to students.

With such significant life changes came various competing concerns over what mattered to the young people, and these appeared to shape students' actions in relation to their health-related behaviors. As Ben put it, *'Lots of things get in the way [to being healthy]. You've got social lives, you've got jobs, you've got uni. You've got home life'*. The following insights serve to shed some light on the practicalities, complexities and tensions students face as they negotiate 'health' alongside their competing personal concerns within everyday life.

Firstly, the necessity to form new social networks was a key concern for many, particularly in the first year of university. This understandably led to most of the students engaging in various practices which most commonly constrained healthy behaviors, but also enabled them in only a few cases. We'll start with perhaps the most predictable finding in that several students spoke about social events, largely oriented around alcohol consumption, that impacted their health-related behaviors. There were cultural pressures to drink and socialize late into the night as normal practice in student lifestyles because, as Gracie suggested, *'that's literally what everyone's doing'*.

Of course, these are not surprising findings. But for the present analysis, we highlight that for many of the students, drinking alcohol was embedded within a wider practice of building social

networks, which can bring with them various well-being benefits. Many of the students reflected on this, balancing their desires for sociality alongside aspects of their health. Robyn, for example, explained this balancing act:

Also like, I guess, missing out on stuff, cause in first year, if I had a great sleep schedule, I would've missed out on a lot of nights out and good things I did and I definitely don't regret them, so I think it's difficult to find a compromise because people don't want to give up like the fresher lifestyle.

Invariably, when drinking was involved, several of the students spoke to the knock-on effect on their sleep quality and quantity, physical activity in the following days, food choices, and general productivity. As such, a cluster of unhealthy behaviors were associated with drinking alcohol and its place in building social connections in this environment. The concern for, and practices related to, sociality also impacted health-related behaviors through mechanisms beyond just drinking. Luke described how his desire to socialize and the people around him could lead to unhealthy food choices:

I think lots of people around me not eating well makes it hard for me to eat well. I think a lot of the social things involve not eating well too, like oh "We're just gonna go out on a walk to McDonald's. You wanna come with us?" I'm like yes I wanna come, but I don't wanna go to McDonald's, can we do anything else?

Sophia, as well as several other students, found sleep may be disrupted because of wanting to socialize with others:

I didn't sleep too well because didn't want to miss out on things. So, I'd like hear a flat party going on or something happening and wish I was there, but I knew I wanted to sleep. So it's a bit of fear of missing out. Also just going to the kitchen to fill my water

bottle up and like all my flatmates would be in there and so we'd all just like sit in there till like 3 o'clock in the morning and talk.

Alongside concern for sociality, academic study and university assessments were understandably a notable priority for students. Particularly towards the end of their studies, most of the students said they would prioritize academic work above, or alongside, their health and most commonly above socializing. Gracie, for example, commented '*I feel like because you are maturing more as well [throughout the years], and you've got loads of work to do, so you sort of like have to stop the partying as much like you just have to do it in moderation I guess*'.

For a lot of the students, there was a tendency towards unhealthy practices during particularly busy periods of the academic year. Here, whilst drinking was often said to be reduced to prioritize studying, students reported that poorer sleeping and eating behaviors continued. Lucy, for example, described how around deadlines she tends '*to not worry about what I'm eating as much, I just like eat whatever I can find*' as well as often disrupting usual sleep routine by working late into the night. Such cases were frequent across the students, with Ben sharing:

I'm just not sleeping, I mean, last time I had a deadline, I mean, I tell myself I'm getting better with my time management, but on my last deadline I worked from 7 in the morning till 7 in the morning the following day, passed out on my sofa, woke up at 9 and carried on working, and I did not eat, all I had was coffee.

However, for some, health was maintained as a priority in such periods. Destiny commented that '*it's important to eat as well as studying because like, my brain just doesn't work when I don't have food*' and '*I'm trying to prioritize like my work and then feeding myself well so it can like work hand in hand*'. Others made similar comments, with Renelle explaining how she

would budget in order to buy salmon where possible, with the understanding it is *‘really good for the brain’* and should help with assessments.

Across all the students interviewed, concerns for sociality and their studies were frequently discussed which, in many instances, constrained ‘healthy’ behaviors. As Archer (2007) notes, contexts and concerns are not static but often shifting, and this pattern was seen amongst the students’ university experience. The first year presented the most contextual discontinuity to the young people as they adapted to university life, with their primary concern being for forming social relationships. But students in later years commented on how their priorities shifted toward their studies. What was constant across the years, however, was an underlying concern with economic precarity which sat alongside sociality and studying. Given the centrality of economic constraints to healthy lifestyles across the interviews, our next section of analysis details how this shaped students’ everyday practices.

Being healthy in a cost-of-living crisis

The students we spoke with discussed how economic pressures constrained everyday decisions whilst at university. This is unsurprising given that the UK, much like other late capitalist Western societies, is in the midst of an ongoing cost-of-living ‘crisis’ (Francis-Devine et al, 2024). Students spoke to the lived experiences of trying to adopt healthy practices with such economic pressures acting upon them, which shaped their health-related behaviors in various ways.

For example, dietary habits and food choices were impacted, with most students referencing difficulties in making ‘healthy’ food choices whilst on a tight financial budget. April, for example, explained how *‘healthier options for food are also more expensive. Say vegan options, I do want to start eating more like plant-based stuff because of like my health...But then it's really expensive’*. Gracie’s and Veronica’s comments also resonate with this:

Erm, I feel like healthier food can sometimes be more expensive, which doesn't make any sense like you'd think it would be the other way round, so I suppose that could be like a barrier, like cooking things from scratch, you have to buy all the ingredients, like all the spices and stuff. So I guess like, that is more expensive, so people just want to go for like a cheaper option, I think that is like one thing that can stop you from being healthy (Gracie)

I think it's one thing about like just being at uni, like trying to stick to a budget, some things that I would consider incorporating into like a healthy diet is sometimes too expensive. Or you know how, like this is a silly example, but you know like salad bags. Anywhere I go to do my food shop, they never have little salad bags. So, I don't want to buy something knowing it's just going to go out date in like a few days before I get through it, it's just a waste (Veronica)

Veronica's concern with food and money waste when only cooking for themselves was recurrent across students. Lucy, for example, shared:

I sometimes struggle to find healthy snacks. When I go to the shops I can only find apples in packs of 6 or large punnets of grapes which I don't really want to carry around all day. Buying a whole packet of something I might not be able to get through individually also seems like a waste. If shops sold loose fruit individually then it would be easier to eat healthily at uni.

Basic necessity appeared to be one of the main drivers for students' food choices; students would make decisions based on what they deemed would 'fill them up' as opposed to what may be the 'healthiest' choice. For example, Izzy shared that, 'I feel like as students, it's like I just want it to be as cheap as possible and fill me up rather than, you know, like be good for me'.

All students were impacted in their food choices by economic pressures to varying degrees, which was a source of frustration for many. The following exchange with Nathan captures some of the collective feelings we gained insight into:

Nathan: *Well now it's more expensive [food shopping] because inflation has gone up.*

First author: *Yeah, have you noticed?*

Nathan: *Yeah its awful. It's so bad yeah. Chicken is the worst one because it's so stupidly expensive. Ughh. I don't even want to talk about it.*

First author: *Gets you annoyed?*

Nathan: *Yeah, it's really irritating.*

Conversely, economic pressures also enabled more 'healthy' food choices for some. This was primarily observed through some students mentioning they would not get fast-food takeaways, or had reduced the frequency in which they do, because of the rising costs. For example, Lucy mentioned how they '*never eat out and never get takeaway*' preferring to prepare meals at home because it is cheaper. As well as diet, another example of reducing unhealthy behaviors due to cost was evidenced by Robyn, who heavily reduced her smoking of cigarettes because she did not want to '*waste my money of that sort of stuff*'.

Most of the students also spoke to economic factors constraining physical activity opportunities. Robyn shared that they '*don't any more [go to the gym] just because it was getting quite expensive. But I did go to gym most of the first year*'. Similarly, Izzy commented on how she prioritized what was deemed 'essential' due to costs of some physical activity opportunities:

But I think at the moment the limit is money...Like a lot of my friends are doing like spin classes or yoga and Pilates, but it's like that all is a lot of money that I don't have to put into something that's not kind of like essential, like a food shop or something.

This sentiment was evident across many participants, with other comments including:

It's a lot of money to like, sign up to a society or get a membership and a gym membership, so that's a deterrent, if I'm not like fully in it, I won't pay for it anymore.

(Sophia)

Because at the start of the year, I did like a dance taster session. Which was good, but then it was so expensive to like join. So that's stopped me from doing it because I thought, well, I go to the gym, so I'll just keep doing that. (Eliza)

Several participants spoke to how these economic negotiations contributed to increased feelings of pressure and worry, with Destiny sharing that ‘*we're all struggling out here*’ with regard to money. Robyn explained to the first author, ‘*I was stressed about money...I just was like, when I would go to bed I would just be tossing and turning for like an hour which made my sleep a lot worse*’. Matty also shared such concerns, commenting that ‘*You shouldn't be at university and be worrying about money, especially if you're having to borrow from student finance*’. And similarly, Ben explained how he had little option but to seek out work alongside his studies, ‘*This is supposed to be our full-time job being a student but I can't afford life*’.

Much like large proportions of the UK population then, many of the students we spoke to reported being constrained in various ways by economic pressures when trying to engage in healthy practices within their everyday lives. Our final section considers the broader determinants of behaviors within the university environment.

Structural determinants in the university environment

As stated previously, universities are a unique social environment in which health-related behaviors may be shaped and structured into students' everyday practices. Indeed, this is one of the reasons they have received increasing attention as a site for public health interventions. In this final section we focus on the various university-specific structural determinants of everyday health-related behaviors the students discussed. Constraints are mostly discussed, as only few students referred to enabling structures within the university context with regard to healthy practices.

A clear finding from across all interviews was that sedentary behaviors are often structured into the daily life of students. Whilst previous research using quantitative measurements suggest that university students have higher levels of sedentary time compared to general young adult populations (Castro et al., 2020; Edelman et al., 2022), there has been limited research on the social context in which such behaviors are practiced in students actual day-to-day living. Here, we show that students mostly attribute elevated sedentary time to the requirement to be seated throughout their lectures and seminars, as well as when doing their academic work outside of taught sessions.

Jessica, for example, commented, *'Even when you think about like an eight-hour school day, you have like your movements and you're up and they ask you to do things in class. It's very different, like even when you're in a seminar, it's two hours of sitting down'*. Such comments were common across the students we spoke to whereby elevated sitting time and sedentariness was built into their routines. Further examples came from Luke and Lucy:

Although I'm spending more time exercising the time that I'm not exercising, I'm sitting down a lot more. Because I'll go to lectures and I'll be in the lecture and then I'll sit

down obviously at the lecture, most of the time, and then I'll come back and I'll usually just sit down and do my work and I'll just be sitting in my chair the whole time. (Luke)

Because erm, now I'm an animation student. At the moment I'm currently going in from like 8:30, 9 till like 5, 5:30 every day and that whole time period I'm like sat at a desk working on a computer. (Lucy)

Related to the routinised sedentariness that came with the students' teaching schedules, was how their weekly timetable often influenced health-related behaviors. For example, Nathan explained that, *'It's the timetabling for me. I can't structure my day around the way I want because the lectures are just really annoying. Especially now because they keep changing all the time. They keep getting cancelled and rescheduled'*. He went onto explain how this unpredictability and changing schedules impacted his ability and motivation to keep up a routine of exercising. For Sophia, having low contact hours would enable more sedentary time:

I'm definitely more sedentary at uni and like I'll do work in bed or sit at my desk and I feel like, I'm very rarely walking around anymore unless I'm in uni and we've got low contact hours at the moment, so that's not very often.

On the opposite end of the spectrum however, Matty spoke to his experience of a contact-heavy course which constrained his ability to eat at certain times and often led him to just try *'survive till the end of the day so I can eat at home'*. He explained, *'I think it's eat when you can ... We don't really have much freedom when it comes to when we want to eat. It's just sometimes lectures go on for like 5 hours in a row.'*

Another structural constraint concerns student living arrangements. Typically, first-year undergraduate students will live in shared accommodation, where the compatibility of people is unpredictable. These living conditions were highlighted as impacting health-related behaviors, namely eating and sleep. The primary way in which the living arrangements

constrained 'healthy' food choices was through participants saying they wanted to avoid using the shared cooking spaces as they were unhygienic and unclear. Amelia detailed how she would favor getting a takeaway as it meant she did not have to cook in the '*disgusting*' space which she went on to explain, '*At one point we had no roof in our kitchen. And yeah, there had been a leak from the bathroom. So I had no roof. There was mould everywhere. I ended up having to chuck away like half of my kitchenware because of the mold*'.

Others shared similar experiences. Gracie '*struggled*' as she wanted to cook in the kitchen but, '*the people I lived with used to just leave it in a right state. It just didn't feel very hygienic to be cooking in there*'. She went on to comment, '*I did try and like keep up in the first year but because of like how dirty it was in the kitchen like I just wanted to put a pizza in the oven and be done with it. Like I don't want to be, yeah, I don't want to be like messing around like cooking things and like chopping things up*'. These selected extracts represent a recurrent pattern across the discussions with students on how the shared kitchen spaces, particularly during first year, often constrained their eating behaviors.

Sleep was also impacted by student living arrangements. Whilst some students' reported having respectful housemates and getting along with their peers, others were not so fortunate with several students' detailing how their sleeping was disrupted. Lucy commented the following:

Its noisy, that's always been the biggest issue, like in every single year, in first year in the halls, there were people like partying, like just outside your door.... And like even now, like down my street is mainly student street. So there's always like people shouting outside... My flatmates will have friends over and I can hear screaming and stuff downstairs.

Gracie recalled her experiences of living in university-provided accommodation in first year and how this impacted her sleep:

Because when I think back to 1st year, I wasn't really sleeping much. So it definitely affected me, like my mental health because like, I just couldn't sleep because people I was living with, you know how you don't really know the people you're living with. Well I got, like, very unlucky with the people and they were very selfish. They used to, like, after a night out they used to literally invite all their friends into our flat, and they'll be playing music for, like, hours and hours, like, till 7am. It was ridiculous, so it was really tough.

The final structural constraint addresses some of our previous discussions on food costs more broadly. The students spoke to the food options, availability and prices specifically within the university context as being expensive, unhealthy and limited. For example, Luke stated that, *'The availability of really healthy food is a barrier... there's so much unhealthy food on campus [referring to on campus shop]. I think I find all of the vegetables and stuff quite limited and really hard to find and the quality quite poor, I don't really see the reason for that'*. Tommy recalled similar experiences concerning food choices:

Probably what's available to you when you're on campus. The food here is not healthy. I'd say it's quite expensive for, like a meal deal. Unless you wanted to walk to Tesco's or something. But when I've eaten here sometimes, just to be a bit cheaper, I've got, like a sausage roll or something. So it's not so good for you.

As outlined earlier, economic decisions appeared to be the driving factor in food choices. Aaron talked through a typical day when such decisions may be made. He explained, *'I mean, if let's say for example on a Monday, I have two lectures. After the first one, I'm a bit hungry. So I go to the [University cafe] to get something. Yes, it can be cheap but there's a heavy emphasis on like chocolate and stuff like that, though. So I get a chocolate bar'*. He went on to discuss how the availability of healthier options in general that were affordable was an issue that constrained their food decisions, something that was a recurrent pattern across the interviews.

Overall, our findings outline how certain unhealthy practices appeared to be structured into the everyday lives of the students we spoke to. In various ways, certain university-specific structures worked to constrain choices and health-related behaviors of students. Thus, the remainder of this paper will outline key targets for intervention from a university organizational perspective.

Discussion

By focusing on university students' negotiation of (un)healthy practices within their everyday lives, we have provided some insights to the 'social context' in which people engage in daily activities in which environmental, organizational, and personal factors interact to affect health and wellbeing' (WHO, 1986). Such insights show how the well documented detrimental health-related behaviors of university students may manifest and become normalized in students' daily lives.

A key finding from this research was the changing contexts and competing concerns in students' lives being an influential determinant of engagement in (un)healthy practices. Longitudinal quantitative data collected across the transition from high school through to the second year of university in 291 students in Belgium affirms that transitioning to the university context has measurable impacts on health. Significant decreases in active transport and sport participation, along with reduced fruit, vegetable, fibre and calcium intakes were reported alongside increases in Body Mass Index, alcohol consumption, and sedentary behaviors (Deforche et al., 2015). The challenges associated with adjusting to new contexts, and managing competing concerns such as working, sociality and academic study, are likely significant constraining factors to engagement in 'healthy' lifestyle decisions, that then result in impacts on health markers (Aceijas et al, 2017). Furthermore, interviews with undergraduates living in campus accommodation revealed similar issues to the present study.

Students highlighted that living with flatmates and friends, working late to meet deadlines and living an unstructured lifestyle are unique barriers factors for healthy sleep hygiene and quality (Foulkes et al., 2019).

The majority of students expressed concerns regarding the economic pressures they faced, accentuated by the on-going cost-of-living crisis, consistent with findings from other universities across the UK (Freeman, 2023). Food and non-alcoholic beverage prices were 16.2% higher in the year to October 2022 compared to the previous year in the UK (Francis-Devine et al, 2022). From 2018 to 2022, university students in the UK reported 55% greater chance of experiencing financial stress (Bennett et al., 2023), and a recent Office for National Statistics report (2023) stated that 91% of students surveyed were either ‘somewhat’ or ‘very’ worried about the rising cost of living. Furthermore, 49% reported feeling they had financial difficulties, 58% said their loans do not cover living costs, and 65% cut back on food spending or other essentials. Given that government support in the form of loans and grants in the UK is unlikely to fully cover living costs for a university student (GOV.UK, 2024), our findings that economic pressures constrained ‘healthy’ decisions is unsurprising.

Although universities have limited control over such a macro structural constraint, it is crucial to highlight the growing economic difficulties that constrain students’ agency to sustain healthy practices. As many participants explained, they could not afford to participate in organized physical activity, or access ‘healthy’ foods, and several students felt compelled to seek part-time employment rather than solely focusing on their studies and their health. This is a national issue (Duncan, 2024), with finances influencing UK university students’ ability to access university gyms due to high annual fees, and the higher cost of campus food options compared to cheaper, off-campus fast-food provision encouraging unhealthy eating (Aceijas et al., 2017). Future research should seek to explore the potentially unequal impact of this constraint, given

that it will vary depending on students' socio-economic backgrounds and thus may act as a mechanism that widens societal inequalities across higher education.

A further concern to many of the students was that of sociality, particularly during the first year of university. We showed how this impacted various health-related behaviors that were embedded within the wider practice of seeking to form and maintain social connections. Such insights provide greater context as to how health-related behaviors manifest amongst students; many compromised their diets, sleep, and physical activity levels to prioritize sociality. Alcohol consumption was a clear example of this, with our findings supporting previous research by Supski et al. (2017) that drinking was part of a wider social practice within the routine life of students at university.

Another consideration for how (un)healthy practices manifest was the impact of the specific structural constraints in the university context. Domestic and academic life in university is organized in a manner that may encourage unhealthy practices. Transitioning from secondary school to university resulted in significant increases in sedentary behaviors related to studying (writing, reading, computer use), using the internet for non-academic purposes, or when socializing in previous research (Deforche et al, 2015). In our study, students reported sedentary behaviors being structured into their daily routines through inactive lectures/seminars, increased periods of sitting to study and work on assessments. Additionally, students shared that unpredictable schedules make planning healthy routines difficult and that many of their social activities are sedentary in nature. Given these findings, it appears that the university context may be both institutionally and personally organized, in large part, around sedentariness.

Systematic review data has highlighted that there may be poor availability of healthy food options on university campuses and that students may struggle to identify appropriate food

choices, thereby leading to low intakes of fruit and vegetables in university students (Li et al., 2022). The limited number of studies available, which are mostly individual-level and cross-sectional in design, means that further research is needed to better understand dietary behaviour determinants in university environments. The present study not only confirms previous findings but also extends the current understanding of constraints to healthy eating that students encounter. These include unhygienic and unsafe kitchen spaces in university accommodation being a deterrent for home cooking, as well as difficulties in buying appropriate (smaller) quantities of fresh fruit and vegetables in order to avoid food (and therefore also economic) waste.

While a wider range of health-related behaviors could have been addressed in these interviews, we chose to focus mostly on the ‘modifiable’ health-related behaviors of physical (in)activity, (un)healthy diet, sleep and alcohol consumption due to a) their well-documented prevalence in student populations, b) their well-established impact on overall health outcomes, and c) the focus of the first authors PhD and related work. We do acknowledge ‘health’ extends to far more behaviors and domains than our focus here, sexual and spiritual health being important examples, and suggest future research would be well placed to build on our work through a focus on other aspects of health.

It is also worth noting that our findings may not speak to the wide range of people that attend university. Whilst our sample was varied, we note that we did not speak to international students or specifically focus on the experiences of minoritized groups that are known to suffer health disparities (e.g. see Hardwicke & Roberts, 2025; Savage et al., 2024). This must be considered when interpreting our findings and future research would be well placed to build on our work by focusing more explicitly on how negotiating ‘health’ may differ across student sub-populations.

Implications for interventions and health promotion

The above findings point to key targets for intervention in working towards a Healthy Universities approach that seeks to create environments in which healthy behaviors can be more readily enabled (Dooris et al., 2014). Based on these insights some implications for interventions and health promotion come forth.

Clearly, any interventions within universities that seek to reduce economic pressures and cost barriers would likely see a positive impact on enabling healthy practices and reducing personal strain. Although universities have little control over wider economic constraints, students highlighted that food provision on campus was expensive, unhealthy and limited, thereby demonstrating a clear opportunity for intervention. The auditing of food provision on university campuses, closer control over the price and nutritional value of food options and initiatives that increase access to affordable healthy foods are imperatives for creating healthy ‘foodscapes’ at universities (Doherty et al., 2011).

Recognizing that universities themselves face economic pressures, some of our findings provide a basis for pragmatic economic interventions, to enable healthy choices at more impactful times of the year. We showed how students’ priorities fluctuate not only throughout a single university year, but across the duration of their course. For instance, during university assessment periods (e.g. examinations) health-promoting behaviors were not often prioritized. Similar findings have been discussed previously in UK university students, with a shift away from home-cooked meals to pre-prepared and convenience foods, and an abandonment of both typical eating patterns and attempts to consume a nutrient-rich diet during assessment periods (Sprake, 2016). Moreover, students suggested that maintaining healthy practices was easier in later years when their concerns shifted from socializing to focusing on studies and greater

stability came from established friendship groups and not living in university-provided student accommodation.

Of course, providing a range of free organized physical activity opportunities, access to affordable ‘healthy’ foods, cheaper student accommodation, reduced course fees and the like are all aspirational but maybe not realistic given the limited financial resources available to many universities. As such, rather than implementing costly interventions throughout the entire academic year, universities could target specific periods, such as during assessments, or specific student sub-populations, such as those from lower-socioeconomic backgrounds, to provide economic-based support for enabling healthy behaviors. For example, many universities around the UK have implemented a free breakfast initiative to help students during the cost-of-living crisis (Duncan, 2024). Similar economic interventions would likely help contribute towards enabling healthy practices amongst student populations.

A recent service mapping study indicated that only 36% of UK universities currently offer physical activity programmes to students (Malagodi et al., 2024). Greater provision and advertisement of physical activity programmes, beyond traditional competitive sports (Roberts et al., 2024), should be a priority for health-promoting interventions, with universities placing greater emphasis on structuring physical activity into student routines. In agreement with suggestions from Deliens et al. (2015), this could be achieved by encouraging university teaching staff to embed movement into lectures/seminars, provision of standing desks in study areas and first-year residential bedrooms, and ensuring students’ timetables do not schedule multiple sessions in one room/location to enable greater routinized daily movement.

With regard to environmental factors influencing eating and sleeping behaviors, interventions to alleviate constraints here are warranted. For example, given students pay significant amounts for university-provided accommodation, shared kitchen spaces should always be safe, clean

and encouraging of home-cooking. Greater university monitoring of shared spaces would likely ensure this. Additionally, to address common concerns about noise from housemates and city center disturbances, universities could provide ear plugs, eye masks and blackout blinds, with newer accommodations ideally featuring sound-proofing, especially in city center locations. Along with the implications for sleep quality and quantity, chronic exposure to environmental noise is known to negatively affect health and well-being in adults (Muzet, 2007).

Low fruit and vegetable intake is commonly reported in university students (Tanton et al., 2015; Hilger-Kolb & Diehl, 2019) and our findings show that two key contributing factors are cost and the lack of provision for single persons. University investment in providing affordable loose fruits and vegetables appropriate for one person, perhaps by working with local greengrocers, would likely help with changing eating behaviors. Indeed, a university intervention with Dutch students which provided free fruit and vegetables to students found increased consumption amongst those with previously low habitual intake (Bogerd et al., 2020). More research evaluating such interventions is therefore warranted to provide confidence to universities on the return of such economic investments.

Conclusions

Our empirical findings contribute to global health promotion efforts to reduce the prevalence of health-related behaviors associated with non-communicable diseases, by stressing the need for interventions that are sensitive and responsive to social context. Given the wide reach of universities, they offer a key setting for public health intervention and promotion. Based on the present findings, we contend that a healthy settings approach to health promotion at universities, that considers the specific social context and realities of day-to-day choices that relate to health would be most effective (Dooris et al., 2010, 2020; Suárez-Reyes & Van den Broucke, 2016). Healthy University approaches to health promotion across the UK Higher

Education sector have seen limited progress (Pathare, 2021), and despite calls to action and proposed frameworks by the World Health Organization (Tsouros et al., 1998; WHO, 2015, 2018), there is limited universal guidance for UK universities in adopting healthy-settings approaches.

It is worth noting that there has been a greater focus on mental health policy, with a specific duty of care rightfully in place for UK universities (Lewis & Bolton, 2023). However, to our knowledge, there is no general duty of care regarding the physical health of students or frameworks in place to direct resources into creating health-promoting university campuses and there ought to be. Given the existing evidence of the links between physical and mental health, and the impact of health-related behaviors on both, a holistic approach is likely to be more effective than a compartmentalized one. It should therefore be an imperative for universities to embed holistic health promotion into their structures and organization to create environments whereby students are best enabled to live healthy lifestyles alongside their studies.

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Table 1. Overview of participants

Pseudonym	Age	Year	Course	Self-described ethnicity and gender	Living situation	Part-time job status
Aaron	21	3	History and Politics	White British Male	Lives at home with his parents.	Not currently in, nor seeking, part-time work.
Amelia	25	3	Sociology	White British Female	Lives in private rented accommodation with her partner.	Has a part-time job in a pharmacy working on her feet for most of the shift.
April	19	2	English, Film and TV	White British Non-binary	Lives in private rented accommodation with friends.	Not currently in, nor seeking, part-time work.
Ben	19	2	Architectural technology	White British Male	Lives in private rented accommodation with others.	Doesn't have a part-time job but is actively looking and applying for one due to financial pressures.
Destiny	21	3	Fashion Communication	Black African Female	Lives in private rented accommodation with friends.	Not currently in, nor seeking, part-time work.
Eliza	19	1	Psychology	White British Female	Lives in university halls accommodation.	Has a part-time job in a night club working ~2 shifts a week

Gracie	21	2	Psychology and Criminology	White British Female	Lives in private rented accommodation with friends.	Doesn't work whilst at university but has an active part-time job at home during the holidays.
Izzy	21	2	Psychology	White British Female	Lives in private rented accommodation with friends.	Not currently in, nor seeking, part-time work.
James	22	3	Real Estate	Black African Male	Lives in private rented accommodation with friends.	Not currently in, nor seeking, part-time work.
Jemma	21	2	Psychology	Mixed White and Asian Female	Lives in private rented accommodation with friends.	Not currently in, nor seeking, part-time work.
Jessica	23	3	Business Management	White British Female	Lives in rented accommodation with friends.	Has a part-time job in a night club working ~2 shifts a week.
Kristof	22	2	Criminology	White Other Male	Lives in private rented accommodation with friends.	Doesn't have a part-time job but actively looking for one due to financial pressures.
Lucas	20	2	Computing	White British Non-binary	Lives in university halls accommodation.	Not currently in, nor seeking, part-time work.

Lucy	21	3	Animation	White British Female	Lives in private rented accommodation with friends.	Not currently in, nor seeking, part-time work.
Luke	19	1	Aerospace Engineering	White British Male	Lives in university halls accommodation.	Not currently in, nor seeking, part-time work.
Matty	20	2	Computing	White Other Male	Lives in private rented accommodation with friends.	Not currently in, nor seeking, part-time work.
Nathan	23	4	Law	White British Male	Lives in private rented accommodation with friends.	Not currently in, nor seeking, part-time work.
Pryia	24	1	International Law	Asian Indian Female	Lives at home with her parents, commuting over an hour to university.	Not currently in, nor seeking, part-time work.
Renelle	23	3	Law	Black Caribbean Female	Lives in private rented accommodation with friends.	Has 2 part-time jobs. One sedentary in an office, the other as a waitress.
Robyn	20	2	Journalism	White British Female	Lives in private rented accommodation with friends.	Has 2 active part-time jobs as waitress and bar staff.
Scarlett	23	1	Marketing	White British Female	Lives in university halls accommodation.	Not currently in, nor seeking, part-time work.

Sophia	22	4	Product Design	White Other Female	Lives in private rented accommodation with friends.	Not currently in, nor seeking, part-time work.
Tommy	21	3	Sport and Exercise Science	White British Male	Lives in private rented accommodation with friends.	Not currently in, nor seeking, part-time work.
Veronica	21	2	Fashion Marketing and Branding	Mixed White and Black African Female	Lives in private rented accommodation with friends.	Not currently in, nor seeking, part-time work.