



# **Public Health Institute Journal (PHIJ)**

**Celebrating Academic Work by PHI students**

Welcome, we are excited to present the first issue of the Public Health Institute Journal (PHIJ) showcasing the dissertations produced by our students on the BSc Environmental Health and BSc Public Health programmes. COVID-19 has dominated the horizon this year and our students have shown great resilience in adapting to new ways of learning and the demands of collecting their empirical data wholly online in line with university policy. Despite these challenges, the work published here is an extremely high standard, broad in its scope, thought provoking and innovative. Not surprisingly, a number of students chose to focus on the pandemic and there are timely studies on the impact of COVID-19 on international students; on people with food allergies; on diet more generally (where it appears some of us made improvements, eating more home cooked meals and fewer processed foods than before!); on the joys and pitfalls of dog ownership during lockdown; and the difficulty of using PPE in the workplace. There are also 'big picture' dissertations on how pandemics exaggerate health inequalities, polarise communities and stigmatise groups, not only in the UK, but around the world and throughout history. Even during a global pandemic, other problems don't go away and this is reflected in students' other choices, including health and safety, pollution, cannabis use, loneliness, social media, alcohol, disabilities, cosmetic procedures, food labelling, food borne illnesses, food poverty, and poor housing. Browsing these abstracts provides a rich overview of the contemporary public and environmental health issues deemed important by our students and it reassures us that they have their eyes wide open and are informed about the challenges ahead. Public and Environmental health has never been more of a priority and as they go on to further study and employment, we are enthused by their passion, intelligence and commitment to these issues. We are confident that these important disciplines are in safe hands and we want to congratulate the students on their excellent work and wish them the very best for the future.

Finally, a note on the cover image for this issue: when it came to finding something apt, we found it a challenge to sum up the last year in public health. But in the end we chose an image which will probably be familiar to all of our students after living and working in Liverpool. Antony Gormley's iron men on Crosby beach stand at perfect social distance as an apt metaphor for our experiences over the last year (local people have even put facemasks on them). They have been weathered by change, but are still standing, looking out to the horizon and ready to face whatever challenge comes next. We have every confidence that our students are ready to do the same.

Jen, Jane, Conan and Lorna

**A quantitative study to investigate student attitudes and beliefs towards cannabis use and associated drug policies in the UK**

**Abstract:** Cannabis use in the UK could be considered a cultural normality amongst adolescents and young adults with levels of use rising over the last decade. The majority of research focuses on cannabis use among students in the USA with limited studies conducted in Europe; in particular, focus has tended to centre on substance use/misuse among college students. This study assessed student attitudes and perceptions towards cannabis use and associated drug policies in the UK. In addition, it investigated the prevalence of cannabis use in the student population and identified the number of students that could potentially have cannabis use disorder (CUD), defined using the Cannabis Use Disorder Identification Test - Revised (CUDIT-R). This research set out to investigate student perceptions towards cannabis use. Using a quantitative method this study utilised an online questionnaire that measured the prevalence of cannabis use, attitudes towards cannabis and whether the drug should be legalised for recreational purposes. Sixty-three participants were recruited with the target population for the study being students from the Faculty of Health in Liverpool John Moores University (LJMU) to represent the wider student population. The questionnaire also used the CUDIT-R screening tool to assess cannabis users for possible CUD. Over a quarter (27%) of the sample studied had used cannabis in the last six months, for 47% of those there were indications of possible CUD. Almost half (49%) of participants were in favour of the drug being made legal for recreational use. Of concern is that 69.8% felt that the current drug policies offer little or no protection to the young and the vulnerable. The use of cannabis in the LJMU community is evident, however, the prevalence of the drug is lower than current stereotypes which suggests that all students partake in heavy and frequent drug use. There are concerns regarding the amount of cannabis users that could potentially have CUD and there are no strategies in place at an institutional or Governmental level to reduce the levels of drug use in this section of society. Student attitudes towards cannabis use tend to mirror that of the general population with nearly half of students supporting the legalisation of recreational cannabis. It is also apparent that the current drug policies in the UK do not protect the young and vulnerable from drug-related harms. Further research is required to better understand cannabis usage in student populations and the perceptions around the drug and associated legislation.

**Keywords:** Cannabis, recreational drug use, cannabis use disorder (CUD), drug misuse, Cannabis Use Disorder Identification Test - Revised (CUDIT-R), attitudes, perceptions

**Sylvie Allerton**

**Can community approaches like social prescribing be used to tackle the problem of loneliness and social isolation in the UK?**

**Abstract:** Loneliness is a global public health issue that impacts mental and physical health and is associated with a 26% increase in premature mortality (Cacioppo and Cacioppo, 2018a). The UK government has heavily invested in social prescribing as part of the 2018 Strategy for Tackling Loneliness (Department of Health and Social Care, 2019). Social prescribing is a holistic approach to improve wellbeing, that allows healthcare workers to refer participants to non-clinical services (The King's Fund, 2017). This literature review aims to assess whether social prescribing can be an effective way to reduce loneliness. It compiles relevant literature on social prescribing, loneliness and social isolation, and provides an overview of the critiques of the use of social prescribing for loneliness. This review defines loneliness and social isolation and identify the impacts and at-risk groups. It also defines social prescribing and discusses its limitations and strengths in relation to loneliness. This review found that, theoretically, social prescribing could be an effective way to reduce loneliness, but there is not enough high-quality evidence to support this. Some social prescribing programmes have found a reduction in loneliness to be an outcome, but we do not yet know what does and does not work (Dayson and Leather, 2020). Since loneliness is experienced in different ways, it is important to tailor social prescribing to at risk groups and individuals' needs. While the flexible nature of social prescribing allows link workers to do this, a greater knowledge of what is most effective is needed. To ensure that social prescribing is being used appropriately for loneliness, there needs to be more research. More knowledge is needed on what works and why for social prescribing, and specifically for loneliness. The social prescribing programmes provided must also be tailored to addressing loneliness, for example extending the time limit for service users to have access to link workers as loneliness is often a long-term issue. Link workers should also receive standardised training and support to ensure high quality services. Social prescribing programmes should also measure loneliness regularly to further understand what is effective for this issue. Programmes should target young people and other at-risk groups, as well as older people. Finally, there needs to be more investment in low-income areas to allow access to a range of community services.

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**Keywords:** Social prescribing, loneliness, social isolation, community development, asset-based community development

**Victoria Bell**

**To investigate adult women's perceptions and experiences of Health and Safety in the workplace during pregnancy**

**Abstract:** Previous research has shown issues relating to experiences of health and safety at work during pregnancy not only in the United Kingdom but internationally as well. In previous studies, women felt that their physical and mental health was negatively affected and one in four sustained an injury at work. Additionally, women felt they were not supported by their employer and department. This research study aims to understand women's experiences and perceptions of health and safety whilst at work during pregnancy. At present there is limited research exploring the impact of different work environments, which led the researcher to ask participants to specify their occupation in the study. The aims of this study were to look at women's experiences with health and safety during pregnancy at work and the problems that occurred, changes to working practices, and the support and care they received. Women aged 18 years and over who live and work in the UK were chosen as the target population. The study used a quantitative approach using an online anonymous questionnaire which was posted on Facebook and Mumsnet. Convenience sampling was used with 89 participants recruited. The questionnaire data was analysed using Excel and SPSS, and responses to the questions were also compared with participants demographics to see if experiences differ by age groups, using a Chi-squared statistical test. The results are presented in tables, pie charts and bar graphs. The results found show that the participants have mixed feelings relating to their experiences at work during pregnancy. Half had experienced health problems while at work, which were caused by work stress and physical demands of their job. Just over one in five (22%) felt they were unfairly treated throughout their pregnancy, e.g., through unpleasant comments from their employer, with a small proportion of the younger women stating their employer was unsupportive. The recommendations centre around giving employers further education and awareness on the matter, liaising with Environmental Health practitioners who have the powers to advise.

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**Keywords:** Pregnancy, discrimination, health, safety, work, experience, women

**Adelina Blanaru**

**A quantitative study to explore the experience of employees using Personal Protective Equipment (PPE) during the COVID-19 pandemic (March-December 2020)**

**Abstract:** This research study focused on exploring employees' experience with the use of personal protective equipment (PPE) during the COVID-19 pandemic, from March to December 2020. Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus called SARS-CoV-2, the first incidence of this new virus being recorded on 31 December 2019, following a report of a cluster of cases of 'viral pneumonia' in Wuhan, People's Republic of China (WHO, 2020). Although positive impacts such as significantly reducing the infection rates of coronavirus cases have been linked to the use of PPE, a review of the literature around workers' experience, attitude and awareness highlighted negative effects such as anxiety or depression have been associated with the use of PPE. Additional factors have also been found to have had an influence on these outcomes. To explore this further, an online survey was completed by 78 UK workers who had been using PPE since the start of the pandemic. The participants were recruited through social media (Twitter) and organisation's gatekeepers. Data was analysed using Excel for descriptive statistics and chi-squared tests were performed. The results showed that the vast majority of participants (90%) had been using additional PPE since the pandemic started and those participants who were using PPE prior to the COVID-19 pandemic were more likely to agree that PPE was important. Generally, participants had a positive attitude towards the use of PPE but expressed that there were challenges when wearing such equipment, for example the level of comfort. Finally, as found in previous research and highlighted in this study as well, it is recommended that companies should do more in regards to spreading awareness about the use of PPE in the workplace, whilst further research can be developed and enhancements could also be made in relation to the equipment itself. The findings presented in this study and the literature reviewed can be a starting point in looking at better ways to improve users' experience of using PPE.

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**Keywords:** Personal Protective Equipment (PPE), Coronavirus, COVID-19, pandemic, experiences

**Darcey Brown**

**How have pandemics exacerbated inequalities, stigmatised certain groups, and prompted social change historically?**

**Abstract:** This literature review presents a historical analysis of pandemics. The Black Death, The 'Spanish Flu' and COVID-19 are explored to identify patterns of discrimination linked to marginalised minority groups. This dissertation aims to investigate how inequalities experienced by minority groups were exacerbated by the pandemics selected. It hopes to determine the impact on social change as measured by a) shifts in attitudes and behaviour in society, and b) changes in measures imposed by governmental bodies. Chapter One entails a detailed review of The Black Death and the massacres, Anti-Semitism and scapegoating Jewish communities faced at the time. Chapter Two examines racist ideology and segregation policies to understand how these pre-existing inequalities were exacerbated because of The 'Spanish Flu'. In Chapter Three, COVID-19 is explored to understand how unequal consequences of the pandemic have been experienced by ethnic minorities. Social change is considered throughout these chapters. Learning from history is important in public health. It is hoped that such learning is used to inform policies that might protect populations that are, because of their position in society, more vulnerable during a pandemic. An analysis of the historical literature was chosen in favour of an empirical study as it allowed a comprehensive review of the experiences of minority groups across history and into the present day. A systematic review of the literature was undertaken (using electronic databases). Researching in a comprehensive and systematic manner ensured that literature found was appropriate and as unbiased as possible. Papers were critiqued against inclusion criteria as detailed further within the review. This was to ensure that reliable and credible literature was used. Themes arising from the review were analysed. The review of the literature found that history has repeated itself. COVID-19, like previous pandemics, has exacerbated health inequalities and stigma among ethnic minority group. The review found extensive patterns of stigma and discrimination across all groups analysed. Stigma was found to act as a rationale for racist, discriminatory, and violent behaviour towards marginalised groups. It was also a recurrent finding that, pre-existing inequalities (e.g. racial discrimination and poverty) were exacerbated during the pandemics studied. These issues went on to significantly disadvantage minority groups through higher rates of morbidity and mortality. When analysing social change, the review found little evidence of change in The Black Death or The 'Spanish Flu' pandemic. However, there were some indications of societal awakening and increased support of Black Lives Matter groups during COVID-19. Recommendations emerging from the dissertation include the need to address inequalities and stigma, by giving the necessary support and aid to relevant communities. This would significantly benefit both minority groups and society as a whole.

**Keywords:** Pandemics, The Black Death, health inequalities, The 'Spanish Flu', COVID-19, African Americans, Jews, racism, stigma, BAME, mortality, NCDs, inequalities

**Steven Daniels**

**What are catering staff's knowledge, attitudes, and practices regarding preventing food borne illness?**

**Abstract:** Food borne illness costs the UK's economy £1 billion annually and continues to grow each year. Despite the substantial impacts this has on public health; the food industry lacks regulation and control around food-borne illness. The aim of this research was to determine catering staff's knowledge, attitudes, and practices regarding preventing food borne illness with a view to identifying gaps in training that need addressing. An online convenience survey was completed by people aged 18+ years within the catering trade who had a recognised catering qualification. Participants were recruited via social media from various Facebook catering groups. Results highlighted that attitudes and practices around food-borne illness are of an adequate level and that knowledge is being conveyed through workplace training. However, the knowledge gathered from work-based learning needs improving, to reduce the ever-growing impact of food-borne illness on the public, employers and employees. Workplace training styles provided to caterers and lack of enforcement from local authorities on what knowledge must be included in training regarding food-borne illness are the main problems resulting in the lack of awareness of food-borne illness. Recommendations include the need to change work-based training to classroom-based qualification which would require updating frequently and a law requiring this qualification before handling any foods. The need to have a set local authority enforced work-based training throughout all food business is also recommended. This would require the aid of government, food standards agency and food businesses.

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**Keywords:** Food-borne illness, work-based training, knowledge, attitudes, practices



**Emily Dean**

**An online study assessing the impact of dog ownership on mental health during the COVID-19 pandemic.**

**Abstract:** The COVID-19 pandemic left many people unemployed, furloughed or working from home as well as enduring periods of mandated lockdown. Since the start of the pandemic, 3.2 million households in the UK have acquired a pet and there are now currently around 12 million dogs as pets. The purpose of the research is to understand and identify the impact owning a dog has had on dog owners during the recent pandemic as well as understanding the impact the pandemic has had on dogs. The method for this study was an online questionnaire, collecting qualitative and quantitative data with participants recruited via Facebook Dog Groups. In particular this study explored the relationship between the number of dogs owned per household compared with the owner's quality of life, and how the pandemic impacted upon dog owners and dogs. This study found that the lockdown did not impact on dogs in the most part although some participants noted an increase in behavioural issues during this time. For dog owners, they felt their dog contributed positively towards their mental health due to comfort and companionship owning a pet can bring. Further research is needed to see whether this is maintained long term and similarly to understand impacts on both dogs and dog owners following the lifting of lockdown. The research is one of the first of its type, there is little data on the subject due to the pandemic being so recent. Therefore, future studies can use this as a baseline on how dog ownership affects mental health during the pandemic.

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**Keywords:** Dogs, dog ownership, mental health, lockdown, COVID-19, pandemic.

**Emer Dickinson**

**Investigating the effect of food poverty on LJMU Students: A survey study.**

**Abstract:** Food poverty is a public health issue which is affecting people all over the world. There have been numerous studies looking into the effects of food poverty, the reasons behind it and who are most likely to suffer with it. Despite the ever-growing data on the topic there is limited data on student food poverty and particularly for UK students. The aim of this study was to investigate food poverty in LJMU students, identify any effects this has on their studies and if there is something that LJMU can do to help their students. The research was carried out via an online questionnaire and was filled in by LJMU students from different levels of study (n=74). These results identified that nearly half of the sample had skipped a meal because they could not afford to eat (n=48.6%) and had gone into university hungry (n=43.8%). In addition, only 14.9% of students were eating the full recommended portions of fruit and vegetables a day. These results suggest a certain level of malnutrition in students which is worthy of further investigation. Recommendations include a further university wide quantitative and qualitative study supported by the university and the Student Union. Also, to get the Student Union involved in creating solutions to food poverty identified in this research, for example, by creating a food bank or helping create sessions where students can learn how to buy a healthy shop for a week within budget, and then cook meals with the shop. The final recommendation is to further investigate the links between mental health and student food poverty and diet.

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**Keywords:** Food poverty, food insecurity, student poverty, student food poverty, University.

**Katie Foot**

### **The relationship between social media & the mental health and wellbeing of adults**

**Abstract:** A wide variety of studies have shown the relationship between social media use and individuals' mental health and wellbeing, including the effects social media can have on body image. The majority of this research focuses on the adolescent and student age range, meaning the 'adult' age range are being excluded despite mental health affecting individuals at any age. Previous studies also often focus on a specific social media platform (e.g. Facebook), which also has limitations as individuals now tend to be active across multiple social media platforms which could have a cumulative effect on mental health. This study addressed these limitations by investigating adults' social media use across all platforms. Specifically, the aim of this research study was to investigate the relationship between social media and mental wellbeing amongst adults in Merseyside. The target population was adult social media users (aged over 18 years). An online quantitative approach was taken using anonymous questionnaires. The researcher used a convenience sampling method, and the questionnaire was completed by 95 participants. The data collected was then analysed using Microsoft Excel, along with word clouds which identified common themes for open-ended questions. The results showed that the majority of individuals feel that social media can have a negative effect on their mental wellbeing, body image and self-esteem, with only a small minority claiming it was making them happy and connected to friends and family. It also found that social media was mainly used out of boredom, and was felt to be a distraction when individuals needed to be productive. There is a need for more research on issues covering broader areas including body image and if users felt addicted to social media.

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**Keywords:** Social media, mental health, mental wellbeing, adults

**‘Filling the Gaps’: The nature and extent of the beauty industry in the UK, focusing on unregulated fillers procedures - why has this become an issue for Public and Environmental Health?**

**Abstract:** Dermal/ lip fillers are growing into a major public health issue due to lack of statutory regulations allowing anybody to undertake the procedure without any prior training or understanding of dangers associated with fillers. People undergoing the procedure are often unaware that it is not regulated. This literature-based study aims to investigate and evaluate current regulations on fillers, their effects on health and the nature and extent of the problem. This dissertation will examine whether regulation could improve health and provide recommendations on how this can be implemented. The Chartered Institute of Environmental Health (CIEH) have identified concerns and risks associated with dermal fillers. The British Association of Oral and Maxillofacial Surgeons (BAOMS) has added its voice to calls from the British Association of Plastic, Reconstructive and Aesthetic Surgeons (BAPRAS) for regulation of this industry. Most of the cosmetic industry is self-regulated which means no formal training, qualifications or medical training is required, leaving the public susceptible to harm. Anybody can set up their own business doing fillers without any regulations, leaving botched treatments to the NHS to treat (Chartered Institute of Environmental Health, 2019). There is a clear link between dermal fillers and social media, with social media influencing the industry in a positive and a negative way. Social media is increasingly cited as a contributing factor to the rising public interest in cosmetic procedures (Hopkinset al, 2020). As new social media platforms emerge advertisements increase, allowing trends to develop. Social media has caused dermal fillers to become a trend with celebrities influencing the behaviour of people. People want to look like a celebrity or influencer. However, regulations in this sector have not moved on with new adaptations and cultural changes. This dissertation uses a range of sources and evidence to demonstrate that the lack of regulations on dermal fillers is impacting public health, with levels of botched treatments on the rise. Dermal fillers can cause infections, necrosis, and loss of circulation and permanent facial disfigurements, all resulting in hospital treatment/ re-correction surgery with a cost to the NHS and the taxpayer. Recommendations are for the government to take urgent action in tightening the regulations, scrapping self-regulation. This would bring a standard to the cosmetic industry and stop untrained “cowboys” from practising unsafe cosmetic treatments. There is a need for further research within this topic, with public surveys needed to examine the impact of dermal fillers under the current regulations. In addition, there should be a register and data needs to be compiled from the NHS to see how much this is affecting public health.

**Keywords:** Fillers, dermal fillers, lip filler, dangers of fillers, CIEH, hydrochloric acid, Botox, NHS fillers, Keogh report, health impacts, COVID-19, regulations on fillers.

**Emily Gray**

**A quantitative study exploring the experiences of food labelling in restaurants and food packaging among adults who have food allergies.**

**Abstract:** A food allergy is when the body's immune system reacts unusually to certain foods. This can result in a person's throat becoming itchy or swelling (NHS, 2019) and, in more serious cases, it can result in anaphylaxis. Food allergies can dictate how people live their lives because they have to avoid certain food premises if appropriate food labelling is not in place. In recent years, there have been increasing numbers of deaths in the UK due to food premises not having to list all ingredients on labelling in order to comply with UK law. Usually, food allergies that develop during adulthood are expected to be lifelong allergies (NHS, 2019). However, there is limited literature looking at adults' experience of food allergies. The aim of this research was to explore the experiences among adults (aged 18 years and over) who have allergies with food labelling and how food labelling affects their daily life. The quantitative study used an online survey which was sent out to four food allergy support groups via Facebook. In total, 69 adults with food allergies completed the survey. The data from the questionnaire was analysed using Microsoft Excel to compare the participants different experience of food labelling in different food premises. The data collected were presented throughout the study in form of bar charts and pie charts. The main findings from the study show that there is not enough adequate information on food labels and that the font type and size affected participants' ability to read the required information. The majority of participants (90%) reported they sometimes look the food labelling and a large proportion (70%) reported having had an allergic reaction (either in a restaurant or after buying food) when the food they are allergic to was not on the food label or ingredient list. As a consequence, 67% of participants reported they have avoided eating food from a take away due to concerns the food would contain the ingredient they were allergic to. Overall, the findings suggest that all the contained ingredients should be on food labels and not just the 14 food allergens currently required by UK law.

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**Keywords:** Food allergy, allergic reactions, anaphylaxis, survey

**Henry Hale**

**A quantitative study to explore the knowledge, attitudes, and behaviours of LJMU students aged 18-24, in relation to alcohol consumption, investigating the difference in prevalence of alcohol use between different student groups**

**Abstract:** Alcohol is attributable to many diseases and injury-related health conditions and is the fifth leading risk factor of premature death globally; and among people between the ages of 15-49 years, it is the first leading cause. Problematic alcohol use by university students is also an important public health issue due to its wide range of effects on physical and mental health. This study utilized a quantitative questionnaire to explore the social and environmental factors which influence high alcohol prevalence among the student population. The study also sought to determine prevalence levels among students at LJMU in different student cohorts (1st, 2nd, 3rd year students) and ascertain the level of understanding shown by students in relation to alcohol prevalence. Convenience sampling was used to recruit Liverpool John Moores students aged 18-24 years in the city of Liverpool. Participants were recruited through social media groups for LJMU students and emailing Environmental/public Health students. Convenience sampling offers certain advantages by identifying participants quickly on a voluntary basis. The questionnaire asked general questions regarding year of study, age, gender, and questions relating to the participant's alcohol use based on the AUDIT-C test. Forty-four participants aged 18-24 years took part in the anonymous quantitative questionnaire. The results from the study revealed that 3rd year students drink more than students in their 1st and 2nd year of study. Moreover, the findings indicate the majority had previously engaged in binge drinking and that drinking frequency was similar between participants in Year 1, Year 2 and Year 3. The study showed the topic needs larger studies to produce more robust findings, but the sample is useful in exploring alcohol prevalence amongst small student cohorts.

**Keywords:** Alcohol prevalence, Hazardous Alcohol Consumption (HAC), social connectedness, perceptions, influence, associations

**Matt Halsall**

**A mixed-methods study to understand how organising a work-based learning placement affected students undertaking an environmental health/public health degree module**

**Abstract:** The mental wellbeing of UK University students has been highly publicised in recent years with 80% reporting symptoms of stress and anxiety. Low wellbeing is associated with university discontinuation with a survey of 4,000 students reporting that 42% considered leaving university due to mental health issues. It is therefore in the interest of universities to understand some of the stressors experienced by students. This mixed-methods study sought to identify if students undertaking a second-year, undergraduate work-based learning module suffered stress when planning their placement. It considered the factors which may have influenced their symptoms and support they felt could have improved their experience. From a target group of 18 environmental and 6 public health students, 20 chose to participate (12 females and 8 males). Quantitative data was collected through a questionnaire. From the questionnaire sample, 2 male and 3 female students agreed to undertake a semi-structure interview to provide a deeper understanding of the subject. Participants were given an opportunity to share ideas they believed would have reduced their stress levels during the placement planning process. The study found the characteristics of those experiencing the highest symptoms of stress included being male, single, younger, unemployed, without dependents, a pre-existing stress condition or having no car. Other influencing factors were the time it took participants to find a placement, personal contacts in the professions and the response rate from the organisations they approached. The study, however, was limited by the small sample size and did not seek to measure the intensity, longevity or positive aspects of the participants' stress. It is anticipated the findings from this study might help inform the development of future work-based learning modules. An awareness of potential stress factors, and the practical suggestions offered by participants could aid tutors seeking to offer timely and targeted support to their students.

**Keywords:** university students, stress, mental wellbeing, work placements, public health, environmental health, education

**Debbie Hankin**

**A quantitative study into the impact of the COVID-19 pandemic on people with food allergy, food intolerances and food preferences.**

**Abstract:** Coronavirus (COVID-19) emerged in the UK during early 2020 and became a global pandemic in February 2020, causing the UK government to introduce a national lockdown in March. People were requested to stay home to try and control the spread of the virus and only to leave home for essential purposes, such as work or essential shopping. This saw supermarkets stripped of essential items overnight due to a high percentage of people panic buying. The media was in a frenzy reporting and social media posts went viral showing empty shelves which increased the perceived threat, not only from the virus, but of being access essential food and supplies. The number of people with a food allergy within the UK is an estimated 2 million and represents around 1-2% of the population with 1 in 100 intolerant to gluten. A national study undertaken by Wycombe Health Authority found that just over 20% of the population stated they had a food intolerance. Food preference diets are also increasing in prevalence with vegetarian diets accounting for 6% and vegan 3% of the population. People with food allergy, food intolerance or food preference require “free from” food of some description. The allergic community highlighted to campaigners that they were struggling to access food to meet their “free from” needs during the pandemic. This was caused by a lack of basic staple foods within supermarkets causing people to buy alternatives from the “free from” section. Increased signage asking shoppers not to buy from this range and leave it for those who needed it was put into stores. Requests were also made for consideration for the severely allergic to be placed within a vulnerable group for prioritised access. This online quantitative survey was created to explore the impact that COVID-19 has had on people with a food allergy, food intolerance or food preference with regards to their health and eating behaviour during the first national lockdown (March-June 2020). 72 people agreed to anonymously participate. Research findings show that before the pandemic there were no concerns around food accessibility. During the lockdown, accessibility started to become an issue for people with a food allergy, food intolerance or food preference with 53% stating that they found it harder to purchase foods to meet their needs. 63% agreed to trying different brands of food and 60% were willing to compromise their needs. 40% agreed that their variety of food decreased during the lockdown. And 71% disagreed to buying more food but did agree that people panic buying did make it harder to purchase foods to meet their needs. Behaviours around panic buying were observed through these results. The survey respondents perceived a threat from the fear of scarcity, uncertainty and coped by buying more food in case of future shortages with people panic buying impacting their decision to do this.

**Keywords:** Food allergy, food intolerance, food preference (vegetarian/vegan), Coronavirus, COVID-19 misinformation, cyberchondria, panic buying, public health, food insecurity, food shortage



**Iain Hankins**

**A quantitative research study to investigate students' experiences while renting accommodation in the private sector.**

**Abstract:** This report presents the findings of a quantitative research study to investigate students' experiences while renting in the private sector. The study sought to address four key research objectives: 1) To explore the nature and prevalence of private rented accommodation for students, 2) To gauge the overall satisfaction students have with the quality of their rented accommodation, 3) To identify any issues students have while living in rented accommodation, and 4) To investigate the impacts of poor housing on students. This dissertation seeks to critically analyse the reasons why students may be particularly vulnerable to living in poor accommodation and suggests further action to improve the student housing experience. The introduction in this paper briefly discusses what homes mean to people, the importance of housing in terms of physical and mental health and the typical problems people face when renting accommodation. This leads to the literature review which provides an in depth look at the prevalence of housing in the private sector and the typical conditions and issues that are found in housing, using past research. It also looks at how poor housing can affect health and why this is a particular issue for students, identifying factors specific to students which may make them more vulnerable to living in poor quality accommodation. Chapter 3 describes the methodology used to carry out the study, namely questionnaires, and Chapter 4 then presents the results of the study. Chapter 5 discusses the results in the context of the research objectives and the literature review. My main findings from this research project were that there is a problem with housing conditions and lack of engagement from landlords. I also found that students as a group may be uninformed about the services available to them and they are not necessarily worried about their housing affecting their health. To conclude, this study did find that students face defects and are vulnerable to poor housing conditions; it also found that landlords are not performing regular enough checks on their properties. More research may be needed in order understand how big of a problem this is, using interviews or focus groups will give a more direct and clear understanding of the situation.

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**Keywords:** Housing, renting, student accommodation, health impacts, landlords, house inspections.

**Lee Judson**

**A quantitative study exploring wellbeing amongst UK based male supporters of Manchester based premier league clubs.**

**Abstract:** Poor mental health and wellbeing is a global issue which is receiving considerable focus due to its widespread nature and the impact of the current pandemic. At present, there is a lack of research which assesses the impact that spectating football can have on wellbeing levels. This study assesses the impact spectating football has on wellbeing levels in men. In England, around one in eight men have a common mental health problem such as depression, anxiety, panic disorder or Obsessive Compulsive Disorder (OCD). An online questionnaire was distributed to Manchester City Football Club and Manchester United Football Club Facebook football fan pages and football forums gathering data from the target population which was any UK based man aged 18+ and a supporter of either Manchester City or Manchester United Football Clubs. The study gained 81 completed responses with all participants aged 18 and above. The results from this study have revealed that spectating football both in football stadia and from home can have both a positive and negative impact on wellbeing levels. Many fans aged 18-34 stated that they often become angry, aggressive, or depressed after a team loss and strongly identify with the team they support. Conversely those aged 35 and over were not as affected after a team loss and do not identify with their teams as strongly as younger fans. The same age group also identify more with their players/team and opposing players/team. The findings have highlighted that the younger fans wellbeing levels are affected more by the performances and results of their teams than older fans. The researcher has identified a number of recommendations which can be made. These include implementing more wellbeing health interventions which specifically target younger age groups, utilising online social media and football fan forums in order to promote help seeking behaviours in young men. This will support in reducing stigmas attached to poor mental health and wellbeing which could be strengthened by utilising professional footballers of the clubs to promote help seeking in order to encourage the fans to engage.

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**Keywords:** Football, spectating, mental health, men, wellbeing, stigma, help-seeking.

**Lilie Mae Martin**

**A quantitative study examining the health and safety experiences of fans at football stadiums on match days.**

**Abstract:** Increased football stadium attendances and advanced stadium structure designs means health and safety risks within stadiums are forever developing and occurring. In order to manage these risks, effective health and safety control measures need to be implemented into stadium policies and assessments. To achieve the most effective measures it is important to understand fans health and safety experiences on match days while present in stadiums. However, there is a lack of research assessing this topic or one similar, leading the researcher to conduct this study which aims to examine football fans attitudes, knowledge and awareness of health and safety in football stadiums on match days. The researcher produced an advertisement which promoted the study's online questionnaire. The advertisement was posted on LinkedIn, but also several football fans forums such as talkFootball365. The sampling method used was self-selection and the researcher received 111 questionnaires, which were analysed using Excel. Further statistical analysis, Chi-Squared tests and cross tabulation tables were completed using SPSS. The data were presented in both pie and bar charts, as well as in tables. The results indicate football fans generally have a good knowledge of health and safety practices in football grounds, as the majority accurately identified a fire exit sign and recognise what risks results in the most accidents. Nevertheless, a large proportion of respondents have a poor attitude towards health and safety when attending a football game, due to fans valuing team identification and affiliation over stadium safety. Furthermore, a significant number of participants do not always check where the emergency exits are or know where stewards are positioned in a stadium indicating a lack of awareness to their health and safety surroundings. The researcher believes this may be due to the majority of respondents believing their supported clubs want to protect fans, and can handle any health and safety issue, therefore relying on clubs too much. This then generates additional risks; one example is increased injuries and fatalities during an emergency evacuation. This research generated several recommendations. These include; sporting bodies promoting an educational campaign on issues such as the risks present, accident statistics and the consequences of breaching health and safety; enlarging and illuminating emergency exits; increasing the visibility of stewards, not just the number; and finally future qualitative studies should focus on spectator's health and safety experiences in all stadiums and not just football.

**Keywords:** Perceptions, risks, spectators, stadium, health and safety, awareness.

**Ella McCallion**

**An online survey exploring the impact of the UK Menthol Ban on Liverpool John Moores University Student's cigarette consumption**

**Abstract:** Smoking is the leading cause of premature and preventative death with 14% of the UK population currently participating in smoking, of which 900,000 are menthol smokers. Menthol cigarettes are flavoured with a menthol compound and are popular amongst young people due to the fresh taste. The Menthol Ban was implemented on the 20<sup>th</sup> May 2020 to discourage the younger population from participating in smoking and encourage those who smoke menthol cigarettes to quit. A quantitative study using an online survey with health students in Liverpool John Moores University who were 18+ years and previously smoked menthol cigarettes, was undertaken. The research assessed the impact of the menthol ban on student smoking behaviour. The main findings from the online survey were that cigarette consumption did increase with the majority of participants (35%) smoking a few more cigarettes than before the menthol ban. In addition to this, the study found that only 15.4% of participants quit smoking and the rest continued to participate in smoking with the addition of the alternatives. Almost half of participants (45%) stated feelings of anger and upset towards the menthol ban as they believed that their freedom of choice was being withdrawn from them and they were being governed by a nanny state. In addition, 63.8% of respondents felt that it was badly advertised as some were not aware of the menthol ban until it actually happened. However, a small minority (15%) believed this was appropriate stewardship and were happy with the menthol ban because it encouraged them to quit smoking. Further qualitative research is needed to gather in-depth understanding of the thoughts and feelings people displayed as a result of the menthol ban being put in to place.

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**Keywords:** Menthol ban, cigarettes, tobacco, survey

**Daniel McElhinney**

**A quantitative study on the attitudes, knowledge and experiences of university students on the consumption of processed foods during the Covid-19 lockdown**

The exponential growth of COVID-19 cases has forced governments to impose lockdowns with restrictions concerning all aspects of human life. COVID-19 may compromise maintaining a healthy and varied diet when university students are already known to participate in risky eating behaviours, such as the increased consumption of high energy and processed foods. The pandemic-related lockdown is identified as a stressful event for humanity. As a result, the pandemic has strongly impacted everyone's daily life, creating anxiety, fear, and panic. These stressful situations alter eating habits and increase the risk of overweight and obesity. The research aims to explore and assess the consumption of processed foods during the COVID-19 lockdown in university students studying within the UK. The research seeks to answer the research objectives and the principle research question; "How has the COVID-19 lockdown (2020) impacted the way university students consume processed foods?" This empirical research study used a quantitative approach to investigate university students' attitudes, knowledge, and experiences on consuming processed foods during COVID-19 lockdown. The data collection method used was an online survey which was distributed through UK university Facebook pages. The questions which comprised the online survey orientated around, 1) The consumption of processed foods, 2) Knowledge, attitudes and experiences of the consumption of processed foods during the COVID-19 lockdown. The survey was conducted from 19th November 2020 to 30th March 2021. A total of 56 respondents have been included in the study, including both women (n=45; 80.4%) and men (n=11; 19.6%). The researcher used self-selection sampling, as the study specifically focused on university students. The researcher's sampling method proved successful as the target number of responses for the online survey was 50 participants. The results show that most university students agree that processed food is less healthy than fresh food. However, the most significant barrier university students faced to eating less processed foods is the cost of fresh food. The results show that during the COVID-19 national lockdown there was a decrease in processed food consumption and an increase in homemade meals, as university students were more aware of what they were eating during this time. The researcher recommends that the UK government and policymakers promote unprocessed or minimally processed foods to reduce the risk of chronic non-communicable diseases associated with processed food within both university students and the wider public. As COVID-19 is new and current, further research is needed to better understand how the current pandemic has impacted how university students consume processed foods during the lockdown.

**Keywords:** Processed foods, university students, attitudes, knowledge, experiences, COVID-19, Coronavirus, lockdown, restrictions, eating habits, lifestyle, non-communicable diseases (NCDs).

**Katie McGee**

**A quantitative study to investigate people's awareness of plastic pollution and their preventative actions**

Abstract: As the world now produces 280 tons of plastics per year, plastic pollution is an ever-growing global problem. Plastic materials are constantly ending up in oceans from both land and sea-based sources, or in landfill. Although plastics are lightweight and durable once they enter the ocean or freshwater bodies, oceanic wildlife are at risk of entanglement or death from ingestion. As plastic does not biodegrade in nature, it is extremely difficult to eradicate. Plastic photodegrades naturally, causing plastic to split into smaller pieces which makes ingestion easier for aquatic animals. This study reports the findings of a small-scale survey to understand people's awareness of plastic pollution and their preventative actions. This study used convenience sampling with 347 participants who undertook an online questionnaire, to gather data on how many of them recycled, why they recycled and any limitations they faced. In 2018, the UK rate for recycling waste from households was 45%, according to the Department for Environment Food and Rural Affairs (2020). Study findings highlighted that as age increased so did the rate of recycling, with 100% of those aged 50+ years stating they recycle every day compared to 61% of 16–18-year-olds. Both male and female's awareness of plastic pollution was the same (85% of both were aware) which indicated there were no gender differences. This research also found that 37% of females and 31% of males strongly agreed they could recycle more which shows that although participants generally recycle there is still room for improvement. This research found that the main limitation for participants not recycling was because they were not aware of what materials could be recycled. The researcher felt that an educational approach to combat this, such as leaflets would benefit all age ranges. The study highlights the need for more research surrounding the effects plastic has on human health to fill knowledge gaps with a bigger sample, to decrease any bias.

**Keywords:** Plastic, microplastic, nano plastic, recycling, survey

**Grace Owen**

**A qualitative study to explore the impact of having a hidden physical impairment whilst attending university**

**Abstract:** The term 'hidden impairments' means that you cannot tell that someone has a condition from their outward appearance. Hidden impairments are becoming more acknowledged and openly discussed in society. There is growing awareness that increased understanding is essential due to many individuals not wanting to disclose their invisible disabilities for fear of stigma. Students with hidden impairments have been found to experience barriers related to negative social attitudes and a generalised approach to disability. The aim of this research was to explore the impact that having a hidden physical impairment has on a student's experiences during their time at university. The aim was explored by gaining an understanding of student's academic and social life, how students feel about using accessible facilities and how they feel they are perceived by others. A small-scale qualitative study was undertaken using semi-structured interviews to explore participants' university experiences when having a hidden physical impairment. There were five participants, all female, of varying age, with a variety of impairments. Two lived with Irritable Bowel Syndrome, one with hypermobility, one with chronic pain, and one with epilepsy. The findings show students' academic life can be affected due to being absent as a result of their impairment, especially when universities do not provide the appropriate means to catch up. However, students do not always disclose their impairment to the university due to reasons such as embarrassment, instead, choosing to confide in a trusted staff member. Students' social life can be affected due to their impairment including causing them difficulties consuming alcohol. Being unable to drink alcohol can cause students to feel as though they are left out or missing out on the social life at university. Students also experience negative social attitudes when using accessible facilities both at university and in everyday life. The study has shown that having a hidden physical impairment can adversely affect a student's experience at university and, in order to achieve academically, further awareness and understanding of hidden impairments both socially and institutionally is needed.

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**Keywords:** Hidden physical impairment, disability, social life, academic life, judgement

**Tom Pedley**

### **A survey study on eating habits during the COVID-19 lockdowns in the UK**

**Abstract:** The current global coronavirus pandemic (COVID-19) has forced many countries to enforce national lockdowns and periods of self-isolation in an attempt to stem the virus from being transmitted between humans, aiming for fewer deaths from the highly-infectious disease. The United Kingdom has undergone three of these national lockdown periods, during which individuals will have found themselves spending extended periods of time in their own homes, ultimately sacrificing many freedoms and potentially even their health. Participants (n=365) of this study were recruited, using social media advertisements, to self-report changes in their eating habits from the beginning of the pandemic as a result of the lockdowns and periods of self-isolation. An anonymous online questionnaire, targeting the UK adult population was completed. The results identified several positive changes made by individuals but the pandemic had mostly a detrimental impact on the population's eating habits. Over a quarter of participants reported that the pandemic had a positive effect on their diet overall; 23% reported an increase in homemade meals, 22% reported fewer takeaways consumed and 27% said they gave more nutritional consideration to their diet. Thirty-two percent reported an improvement in their own cooking ability and 16% felt they succumbed to emotional eating less often. Negative health trends appeared to be more abundant in this survey. Findings highlighted that more than a third of participants were consuming more takeaways while at home as well as more than half agreeing that it was easier to have a takeaway delivered. The study also found that 22% of participants were cooking fewer homemade meals than they did beforehand and almost a third struggled to get hold of the groceries they needed during this time. The study also found that 44% of people changed their spending habits when it came to buying groceries although there was no significant correlation between personal finances and eating habits. These findings suggest that eating habits have been affected greatly by the COVID-19 pandemic and the government-enforced lockdowns, and more often in a negative way. It may be that individuals were not aware of the effect the pandemic is having on their nutritional health and therefore more should be done from major bodies to ensure that awareness is raised and that the lockdowns have proven to be beneficial to some individual's health and the reasons for this should be broadcast nationwide.

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**Keywords:** Eating habits, lock down, pandemic, COVID-19, nutritional health



**Madeline Penning**

**The unequal health impact of Covid-19 on BAME Groups in the UK**

**Abstract:** The COVID-19 pandemic has been condemned as ‘the worst challenge for a century for international health and financial systems’ (Singer, 2020). The impact of Coronavirus disease worldwide has brought mainstream attention to the underlying issue of health inequality. Research has shown that Black, Asian and minority ethnic (BAME) groups in the UK have been impacted the hardest by COVID-19, suffering higher morbidity and mortality rates as well as increased financial hardship. Such disparity, as a result of racial inequality, is heavily interlinked with lower socioeconomic status, which is more common among BAME communities in the UK. Through the lens of COVID-19, socioeconomic and ethnic health disparity has been magnified to a greater audience than ever before. This is a significant opportunity for public health researchers and proponents to highlight the need for prioritizing health equity in all areas of policy and intervention. The aim of this research is to understand the ethnic disparity within COVID-19 health outcomes in the UK from a public health perspective and provide a grounding of data within policy and intervention strategy.

**Keywords:** Covid-19, Coronavirus, BAME, health inequality, health disparity, public health, pandemic.

**Lauren Ruddy**

**A quantitative Study into festival goer's awareness, attitudes, and behaviour in relation to the environmental impacts of UK music festivals.**

**Abstract:** With the ever-growing popularity of music festivals in the UK, it is crucial that festival organisers and attendees work together to help reduce the environmental impacts of these events. At present, there is a gap in the literature exploring festival goers' attitudes, knowledge, and behaviours towards the environmental impacts of festivals. This quantitative study used an online questionnaire which was distributed on Facebook and via email, to gather information from participants who had attended a UK music festival within the last three years. The data produced from the questionnaire was presented in the form of pie and bar charts and analysed using SPSS to compare participant responses with demographics. Chi-Squared tests were also carried out to determine significant relationships between variables. The results from this study revealed a generally positive attitude towards the environmental impacts of festivals and that festival goers had some knowledge of the subject area. The exception to this was the older age group (41+) who tended to respond negatively or neutrally more often than younger groups. A large number of festival goers displayed positive behaviour at festivals through taking part in initiatives and trying to reduce their impact whilst in attendance. However, the results show that some festival goers have bad habits, with over half of participants agreeing that their behaviour changes (at least sometimes) when at festivals compared to at home. The researcher felt that in determining their attitudes, knowledge and behaviour, some recommendations could be made. These include increased education for festival attendees on how to better reduce their impacts and to inform them on the extent of the issue, the introduction of initiatives to encourage festival goers to try their best and to push the importance of teamwork to encourage attendees to take some responsibility in ensuring festivals become a more sustainable event.

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**Keywords:** Festival, environmental impact, green, attitudes, behaviour, sustainability, events, UK music festivals, music tourism

**Tanya Sammonds**

**A survey-based study to discover the attitudes and awareness of social media users towards the environmental and social impacts of the fashion industry.**

**Abstract:** Fast fashion refers to the cheap, disposable, mass produced fashion collections sold in high street stores such as H&M and Zara. The processes used to make this clothing requires intensive labour which contributes to carbon dioxide emissions and high-water consumption. Harsh chemicals are added to fabrics to treat them, dye them, or create new ones. The health and wellbeing of textile factory workers remains compromised through poor health and safety and low wages. Sustainable fashion conversely is fashion designed from more sustainable processes including the fair treatment of its employees. Sustainable fashion is about adapting to change so fashion is adapted for longevity. Increased internet access has allowed social media to be used as a promotional tool for the apparel industry reaching millions globally and this coupled with the increase in smart phone ownership has given rise to online clothing marketing. Fashion influencers on social media apps, such as Instagram, market fast fashion brands to their thousands of followers promoting mass consumption of cheap clothing with just a couple of clicks. This study aims to discover social media user's attitudes and awareness of the impacts of fast fashion and investigate if they believe fashion influencers should be morally responsible for the promotion of sustainable fashion. Using convenience sampling, 49 participants were recruited via social media to an online survey. Their responses were analysed and then compared alongside other research to discover the similarities and differences of the issue. The dissonance between purchasing fashion and an awareness of its impacts was evident. At the core people were more concerned by cost than sustainability of clothing reflecting an intention-behaviour gap evident in areas of ethical consuming. Participants care about the welfare of factory workers more than they care about the environmental issues but despite this it is still not enough to change behaviours in consumer purchasing. The majority of participants believe fashion influencers should promote sustainable fashion indicating social media has significant influence on consumer purchases and could be used as a tool to change behaviours in the future.

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**Keywords:** Fast fashion, Instagram, environment, factory workers, sustainability

**Anisha Wagle**

**A qualitative study on the impact of lock down on mental health among Nepali students studying at Liverpool John Moores University (LJMU) during the Covid-19 pandemic**

**Abstract:** The aim of this study was to analyse the psychological impact of Covid-19 and lockdown on international Nepali students studying at Liverpool John Moores University (LJMU). A qualitative study was conducted using semi-structured interviews via Zoom. Eight participants (5 males and 3 females) were interviewed. The data collected were analysed using inductive thematic analysis. Themes and subthemes were developed. Three main themes are presented: 1) adapting to life during the pandemic and lockdown 2) lockdown, isolation, and mental health 3) coping strategies for stress and worry. This study argues that international students are a potentially vulnerable group and this population should not be overlooked when considering the mental impact of the Covid-19 lockdown. The study found the coronavirus pandemic had caused a wide range of changes for international students including lifestyle changes, reorganization of teaching and learning methods, economical changes and, impact on their long-term career prospects, which in turn have affected the mental health of international students. The findings of the study concluded that international students are facing various challenges associated with Covid-19 which have impacted their quality of life and mental health. International students in this study had adapted individual coping strategies and used social support to help them to deal with the fears and worries related to lockdown. However, the results establish a clear message that international student needs relevant support to address the problems they are facing, and specific intervention to help them overcome the impacts upon their mental wellbeing during this unprecedented situation.

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**Keywords:** Covid-19, International students, lockdown, restrictions, self-isolation, mental health