

## A welcome from our Faculty Research and Enterprise Lead, Dr Helen Poole.



Welcome to the second edition of the Faculty Research and Innovation Newsletter, designed to provide updates, information and contacts for all Faculty staff, PGR students, service users, PPI participants and external stakeholders.

Research is central to the strategic direction of the University with the Strategic Plan 2020 and Beyond citing research as integral to the three key strategic aims: Future Focused, Super Supportive and Social Impact.

The Faculty of Health and Society, in collaboration with our partners, is well placed to deliver research and enterprise activities that contribute to the 2020 and Beyond strategy, and already has a significant record in this respect.

We can only feature a small selection of our activity in the newsletter, but I hope you enjoy this edition and that it widens your understanding of the breadth of research our Faculty is engaged with.

## In this edition...

### Research Grants and Projects

**Clare Bramer:** Exploring Adult Pre-Registration Nursing Students' experiences of Online Learning

**Alison Ward:** Developing Research Collaborations to Enhance our Understanding of the Impact of Lifelong Learning for People with Dementia

### Events

**David Young:** Could it be Sepsis?

### Public and Patient Involvement

**Melissa Symonds**

### FHS Research Support Funding

**Evgenia Volkovyskaya** and **Karishma Jivraj:** Stroke Neuropsychological Rehabilitation.

**Karen Anthony:** Building Capacity in Tissue Culture

**Karen Anthony:** A New Role for Dystrophin in the Brain

**Mike Curran:** Do Changes Occur in Human Gait when Listening to Music?

**Alison Ward:** Exploring the Use of Drama with People with Young Onset Dementia

**Kim Woodbridge-Dodd:** Town Centre Project

**Jamal Nasir:** Genetics of Cardiovascular Disease

### In the News

**Wanda McCormick, The One Show:** Dog Diets

**Charlotte Dann, Radio Northampton:** Women's Meaning Making of their Tattoos

### In Print

A selection of recent publications from the Faculty

### PhD Successes

**David Agom:** Palliative Care in a Nigerian Hospital

### On Tour

A selection of conference presentations by FHS staff

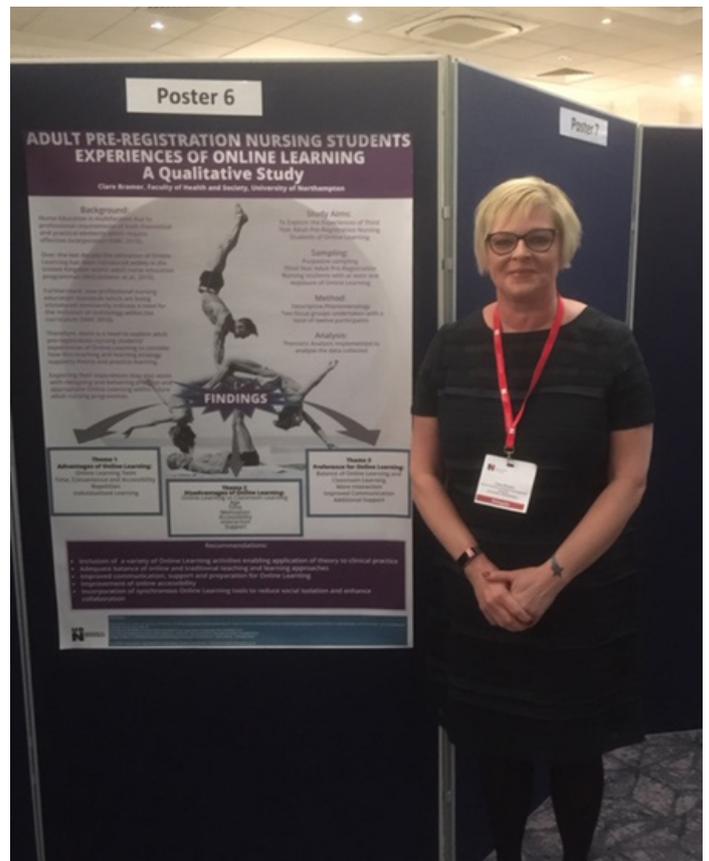
# Research Grants and Projects

## Exploring Adult Pre-Registration Nursing Students' experiences of Online Learning: A Qualitative Study Clare Bramer

Nurse Education is multi-faceted due to professional requirements of both theoretical and practical elements, which require effective incorporation. Over the last decade online learning (OL) has been introduced widely in the United Kingdom within adult nurse education programmes and new professional nursing education standards indicate more inclusion of technology within the curriculum. Therefore, there was a need to explore adult pre-registration nursing students' experiences of OL to consider how this teaching and learning strategy supports theory and practice learning. Exploring student experiences may also assist with designing and delivering effective OL within future adult nursing programmes.

The study sought to explore third year adult pre-registration nursing students' experiences of OL. A qualitative descriptive phenomenological methodology was utilised. Twelve pre-registration third year adult nursing students were recruited to two focus groups. Data collected was analysed using thematic analysis.

Three main themes emerged: advantages, disadvantages and preferences of OL. OL's main benefits included time, accessibility and convenience. The ability to revisit OL was beneficial, differing varieties of OL were favourable, with a preference for the virtual classroom. Participants were able to link theory to practice with several OL tools. Disadvantages of OL included lack of communication, support and interaction. Barriers to OL included age, lack of communication, support and interaction



and access with participants preferring a balance of OL and traditional approaches. More communication, preparation and support were suggested as ways to enhance OL with synchronous OL tools considered as ways of promoting more interaction.

OL is not a new initiative moreover it is being more widely included within higher and nurse education. OL is valuable to adult nursing students providing convenience and flexibility. Despite several OL advantages, the disadvantages and preferences considered require addressing to ensure future programmes are effective, meeting student requirements.

## Developing Research Collaborations to Enhance our Understanding of the Impact of Lifelong Learning for People with Dementia

**Dr Alison Ward**

Understanding how to support people with dementia is increasingly important, as the focus of research begins to shift from finding a cure to ensuring people can live as positively as possible with a diagnosis of dementia.

A collaboration between the University of Northampton, University College of Northern Denmark (UCN) and VUK, a Danish school for people with dementia, is developing research into the impact of lifelong learning for people with dementia. This project is being undertaken by Alison Ward, Professor Jackie Campbell, Diana Schack Thoft and Ann Lykkegaard Sorenson (both senior lecturers at UCN).

The project, jointly funded by Santander and UCN, is exploring the impact of attending

lifelong learning classes specifically designed for people with dementia to support their cognition, decision making and wellbeing. Using validated measures, the team are doing pre and post tests on a cohort of students who attend the school and a control group who attend care as usual.

Alongside this, the team will be looking at the role of validated measures with people with dementia and understanding how these are perceived by the individual. The team are currently collecting data and are due to have initial findings available later this year. The aim is to develop an evidence base for the work of VUK, with a view to informing dementia intervention strategies both in Denmark and in the UK.

# 'COULD IT BE SEPSIS?'

## David Young

Another cross collaboration for Human Biosciences in the Faculty of Health & Society.

David Young from Human Bioscience and Rachel Evenden from Psychology are collaborating once more to raise awareness of sepsis (below).



David, a lecturer in Biochemistry at the University, is also working on his PhD in the field of immuno and evolutionary genetics and

biochemistry, and has driven the project heavily toward collaborations with Northampton General Hospital and the UK Sepsis Trust.

David has secured a link with Dr Jon Hardwick, Lead Clinician in the intensive care unit at Northampton General Hospital (NGH) to identify possible associations between specific DNA number variations and susceptibility to contracting the autoimmune disease 'sepsis'.

After the pair used their connections to cast the net further, they now have the UK Sepsis Trust on board with the project and additional departments within NGH such as Head of Pathology, Gus Lusack and Susan May from the Maxillofacial Unit to act as sepsis champions.

The University of Northampton and NGH collaborated to hold the first annual sepsis roadshow event with speakers ranging from Gus Lusack (below)



# Events

to researcher David Young and UK Sepsis Trust CEO Dr Ron Daniels (below).



However, as great as these talks were, everyone was blown away with our special guest speaker with a lived experience, John McCarthy (below).



John is a sepsis amputee survivor who shared his experience.

What was truly great about this event was not only the fantastic turn out from NHS staff (below) and their willingness to get a better understanding of sepsis and raise awareness, but also meeting sepsis survivors who offered their time to help set up a 'post sepsis support group' which will be led by psychologist and Integrative Counsellor Rachel Evenden and Jess O'Sullivan from ITC at NGH.

This is a very hot topic in the medical world and the University is working closely with NGH to support the local community and develop means of supporting wellbeing and changing futures.



## Public and Patient Involvement

### Melissa Symonds

Service user engagement at the University was first formalised in 2004, initially within the then School of Health and now within our current Faculty. The School of Health Community Engagement and Research Forum (CERF) was formed later, with a focus on embedding patient and public involvement within our research and enterprise activity.

These two groups have recently been brought together to form the Faculty of Health and Society's Patient and Public Involvement (PPI) group, which was initiated as many members belonged to both groups. The combining of the groups has enabled us to develop a much clearer remit, and to align to the Faculty's research agenda. We have also been able to streamline the payment process for members.

Members of the PPI group have a wealth of experience of various sectors across health and social care, and all have a desire to improve and innovate services through their involvement in working with, and educating, the workforce of the future.

If you would like to engage a PPI group member (or members) please contact the FHS PPI group lead **Melissa Symonds** for further information. Members would be delighted to be involved in conferences, help you develop a research bid, or be a participant in your research studies.

FHS actively encourages its staff and students to consult patients or the public when developing your research projects. Evidencing this as part of your ethical application process or funding bid adds value and credibility to your study, and is a requirement of many funders.

Whilst you are not obliged to consult with the FHS PPI group members, as there may be a specific group of service users that would be more appropriate to engage with in relation to your study, members are more than happy to be contacted to discuss if and how they could help.

# FHS Research Support Funding

## Project: Stroke Neuropsychological Rehabilitation

**Evgenia Volkovyskaya and Karishma Jivraj**

The aim of the proposed research is to create and evaluate a rehabilitation programme for stroke survivors with emotional difficulties, such as alexithymia (e.g. the subclinical inability to identify and describe emotions in the self and others). Research output leading to further recognition within the scientific community, and an interdisciplinary collaborative research with colleagues at Northampton General Hospital and the research team at the University of Northampton.

## Project: Building Capacity in Tissue Culture

**Karen Anthony**

The funding will build capacity in tissue culture (cell biology) at the University of Northampton. The money enables us to automate essential activities such as cell counting that we currently perform manually. The investment will ensure we remain efficient and productive as our bioscience team expands and will benefit many members of the **Molecular Bioscience Research Group**.

## Project: Roles for Dystrophin in the Brain

**Karen Anthony**

We have identified a new role for a muscle protein, dystrophin, in the brain. Seed corn funds will be used to hire an undergraduate

research assistant to further characterise this function and its relevance for Duchenne muscular dystrophy. The project will contribute data for publication and grant applications, as well as enhance the future career prospects and student experience of the undergraduate.

## Project: Do Changes Occur in Human Gait When Listening to Music?

**Mike Curran**

Gait is frequently analysed as part of a clinical assessment by health care professionals. These parameters can change in response to ageing or because of systemic disorders such as Parkinson's disease or stroke. Therefore, gait can provide vital information regarding risk of falls or disease for a patient, and consequently are valuable measures to incorporate into a patient's management plan. The funding provided by this project will enable a postgraduate student to assist in the process of collecting data. If the findings from this pilot study note observational changes occur in human gait, then this may well be worth exploring further in a larger funded study such as NIHR RFPB around music and falls prevention.

## Project: Exploring the Use of Drama with People with Young Onset Dementia

**Alison Ward**

This is a scoping study to explore the use of drama and theatre practice with people with young onset dementia. The project aims to

# FHS Research Support Funding

identify the breadth of work being undertaken in this field and whether there is an interest/ need from people with young onset dementia and health professionals. There are a number of innovative projects being carried out in care homes and with older people with dementia, however, there appears to be a gap in provision for those in the younger age group. This project will seek to explore this potential gap in order to inform a potential future project

## **Project: Town Centre Collaboration Between UON and Age UK Northamptonshire**

**Kim Woodbridge-Dodd**

The Town Centre project developed from a discussion at the Research Centre for Health and Health Services, where interest was shown in the importance of Northampton town centre's potential impact on wellbeing in the county. Kim Woodbridge-Dodd followed up these discussions with a local development specialist, Laura Graham and Chief Executive of Age UK Northamptonshire, Christopher Duff. From this a project was designed to gather the experiences, thoughts and ideas of people aged over 60 about Northampton town centre, with the intention that this will form a report that can be shared with interested stakeholders. Work is due to start early summer with the report completed later this year. If you would like any additional information about the project, please contact Kim at [kim.woobridge-dodd@northampton.ac.uk](mailto:kim.woobridge-dodd@northampton.ac.uk)

## **Project: Genetics of Cardiovascular Disease**

**Jamal Nasir**

Cardiovascular disease affects seven million people in the UK. Northamptonshire has poor indicators of cardiovascular health compared to other parts of the UK. This project will look at cardiovascular related genes to identify individuals carrying mutations who would benefit from early lifestyle changes, prophylaxis and interventions. Identification of disease related genes will provide new insights into disease related mechanisms and therefore could lead to novel therapies. Data generated in this study will form the basis for future grant applications, publications and developing external collaborations and profile.

## **Project: Belief in Supernatural Concepts of Religiosity**

**Paxton Culpepper, Graham Smith, Glenn Hitchman, Chris Roe**

The research team will be investigating the relationship between evolved psychological adaptations and the propensity to believe in supernatural concepts of religiosity, e.g. supernatural agents and causation. Researchers are interested in how adaptations related to, for example, predator detection/avoidance (the fear system) and pathogen detection/avoidance (the behavioural immune system) may have led to ritualised belief in and behaviour towards unobservable agents and their subsequently presumed ability to causally affect the natural world.

### **Wanda McCormick: The One Show**

April saw the screening of the first part of a special feature that Dr Wanda McCormick had been working on for the BBC's The One Show. Pet food trends often follow human diets and with the growing rise in veganism in humans, there seems to be an increase in people wanting to feed their dogs a meat-free diet too. However, as a new area for the pet food industry, there is very little known about the long-term health consequences that could arise from this, and importantly we have no real idea of how prevalent a practice it really is. The One Show story looked to start a wider conversation about why people are moving to meat-free dog diets and ran alongside a national questionnaire open to all UK dog owners. It's hoped that by starting to understand how many people have moved to vegetarian or vegan dog diets, and their reasons for doing so, that we can develop new lines of research for the future.

To watch the segment again:

[bbc.in/2X5ip01](https://www.bbc.com/news/health-56555555)

(Wanda starts 21mins and 52secs in).

### **Dr Charlotte Dann: BBC Radio Northampton**

Psychology Lecturer Dr Charlotte Dann spoke on BBC Radio Northampton about her research into the meanings women make about their tattoos.

To listen again:

[bbc.in/2V5Jy68](https://www.bbc.com/news/health-56555555)

(Charlotte starts 12mins and 30secs in).

### **Jamal Nasir**

**'A mutation in the major autophagy gene, WIPI2, associated with global developmental abnormalities'** in *Brain: A Journal of Neurology*

**'Distinct proteomic profiles in monozygotic twins discordant for ischaemic stroke'** in *Journal of Molecular and Cellular Biochemistry*

**'De novo single-nucleotide and copy number variation in discordant monozygotic twins reveals disease-related genes'** in *European Journal of Human Genetics*

### **Sebastian Bartos**

**'LGBQ resilience: a thematic meta-synthesis of qualitative research'** in *Journal of Psychology and Sexuality*

### **John Pendleton**

**'What role does gender have in shaping knowledge that underpins the practice of midwifery?'** in *Gender Studies*

### **Mike Curran and Jackie Campbell**

**'Estimating actual foot size from a static bare foot print in a White British Population'** in *Science and Justice*

### **Mike Curran**

**'A comparison of the length and width of static inked two-dimensional bare footprints found on a hard compared to a soft surface'** in *Science and Justice*

## David Agom

David has successfully defended his thesis examining palliative care in a Nigerian hospital.

### Context:

Palliative care (PC) improves the quality of life and helps patients with serious and/or life-limiting illnesses die a 'good death' in comfort, with their social, spiritual and religious needs taken into account and often in their preferred place of death (WHO, 2018). Regardless of the increasing needs and benefits for this specialised service, evidence shows only 14% of 40 million people in need of PC worldwide receive it (WHO, 2018), implying that there is significant disparity and inequality in the world provision of PC (Connor and Gwyther, 2018). To date, PC has steadily improved in the more economically developed countries, but has continued to be less available, under-utilised and not integrated into many of the healthcare systems in low and middle-income countries, especially in the African countries (Lynch et al., 2013; EIU, 2015).

### Research approach:

Qualitative study using an ethnographical approach was conducted to understand the cultural dynamics which influenced the provision of PC, and the patients' and relatives' behaviour towards its utilisation in a Nigerian hospital. Data was collected using participant observation, ethnographic interview and documentary analysis, involving 43 participants, comprising healthcare professionals, members of the hospital management, patients and their families. Spradley (2016)'s ethnographic analytical framework guided data analysis.

### Findings and implications:

The findings show a dominant discourse of culturally-based beliefs. Specifically, most of

the patients and their families, including some healthcare professionals, perceived that cancer and other life-limiting illnesses were caused by the devil, mystical or supernatural beings. The service-users predominantly used their belief systems in decision-making leading to either non-acceptance of, or late presentation for, PC, whereas dichotomy existed amongst the professionals about using either ethno-religious knowledge or biomedical knowledge to inform practice. These findings indicate the need for a cultural shift to inculcate positive re-interpretation or reappraisal of meanings associated with terminal illness and palliation, thereby promoting its utilisation. The findings also provide knowledge that could be used to boost clinicians' cultural competence in palliative care.

### References

- Connor, S.R. and Gwyther, E. (2018) **The Worldwide Hospice Palliative Care Alliance. Journal of Pain and Symptom Management.** 55, 112-116.
- Economist Intelligence Unit (2015) **The 2015 Quality of Death Index Ranking Palliative care across the world.** (Online). Available from: [eiu.com/healthcare/2015-quality-death-index](http://eiu.com/healthcare/2015-quality-death-index) (Accessed on February 2016)
- Lynch, T., Connor, S. and Clark, D. (2013) **Mapping levels of palliative care development: a global update.** Journal of pain and symptom management. 45 (6), 1094-1106.
- Spradley, J.P. (2016) **Participant observation.** United State of America: Waveland press, Inc.
- World Health Organisation (2018a) **Palliative care: Fact sheet (Online).** Available from: [who.int/news-room/fact-sheets/detail/palliative-care](http://who.int/news-room/fact-sheets/detail/palliative-care) (Accessed on June 2018).

## Maria Morahan

I have been successful in having a paper accepted at the Advance HE Conference at the University of Northumbria in July 2019. The conference theme this year is: Teaching in the Spotlight: Innovation for Teaching Excellence.

The title of my collaborative paper is Unseen Disabilities in Undergraduates: An Invisible Opportunity for Collaborative Group Learning?

An employability strategy was designed by my co-author to be an innovative and exciting assessment of employability skills for all students of science and engineering. The model drew on the USEM model for employability skills developed by Knight and Yorke (2006). The employability initiative was aimed at “developing problem solvers, innovators and leaders of the future”. (Teesside University STEM employability strategy, 2015).

Using a collaborative approach to inclusive practice, we decided to work with students with unseen disabilities UD, to evaluate their perception of the successfulness of the project in developing group working skills. Students with UD participated in interviews to examine their perception of their input into the group work, their perceived role in the group and their ability to benefit from the group work activity to develop their capacity as problem-solvers, innovators or leaders.

Initial findings indicated that students without disabilities needed to develop more reflective practice when organising and allocating roles to the group. Furthermore, students with UD did not always feel they had agency over their own efficacy beliefs (Knight and Yorke, 2006).

## Dr Alex Woodacre

On 11 April, **Dr Alex Woodacre**, Lecturer in Molecular Bioscience from SELS, gave a talk to the Microbiology Society’s Annual Conference on how the immune system responds to infections caused by *Campylobacter* bacteria. The most common source of *Campylobacter* infection is from undercooked chicken and it causes extremely unpleasant fever, stomach cramps and bloody diarrhoea. The study was carried out with PhD student Amber Hameed and co-supervised by Associate Professor Lee Machado and identified, for the first time, one of the structures on the surface of *Campylobacter* cells (called lipooligosaccharides) that are recognised by the immune system. The long-term aim of this research is to understand more about how and why infections occur and inform prevention and treatment strategies.

The Microbiology Society is one of the largest in Europe for scientists interested in microorganisms, their effects and their practical uses. This year’s Annual Conference took place at the ICC Belfast between 8-11 April, welcoming over 1,300 delegates from around the world.

You can read the abstract for Alex’s talk here: [acmi.microbiologyresearch.org/content/journal/acmi/10.1099/acmi.ac2019.po0564](https://acmi.microbiologyresearch.org/content/journal/acmi/10.1099/acmi.ac2019.po0564)

## Liz Gulliford

### Developmental Differences in Understanding Gratitude

With generous support from the Faculty of Health and Society last term, Dr Liz Gulliford presented at the 44th Annual Association for Moral Education Conference in Barcelona.

Liz joined the Psychology Department in September 2018, having been based in the School of Education at the University of Birmingham since 2012. Her research is transdisciplinary, encompassing psychology, philosophy and education, and she has a long-standing interest in research on human strengths, human development and moral development.

Liz was delighted to be able to attend the conference, presenting her research on gratitude as part of a symposium session with Professor Jonathan and Dr Sara Etz Mendonça, both from the Human Development and Family Studies Centre at the University of North Carolina at Greensboro.

As part of the symposium 'Gratitude strengthens interpersonal connections: How it develops and how it can be encouraged', Liz presented a paper on 'Developmental differences in understanding gratitude and educational resources to promote discriminate appreciation.' Liz believes that while it is important to promote gratitude, it is essential to ensure that young people are taught what gratitude means and when it might – and indeed might not – be appropriate.

To this end, Liz highlighted the educational resources she has produced to promote a discriminate understanding of the virtues of gratitude, forgiveness, courage and hope.

The first two of these books for children aged 7 – 12 are already in print with Jessica Kingsley Publishers,

while *Can I tell you about Courage?* and *Can I tell you about Hope?* will be published later this spring. [waterstones.com/book/can-i-tell-you-about-gratitude/liz-gulliford/9781785924576](https://www.waterstones.com/book/can-i-tell-you-about-gratitude/liz-gulliford/9781785924576)

The conference was a fantastic opportunity to meet other scholars working in the field of moral education and Liz was very grateful for the opportunity to attend.



L-R: Liz Gulliford, Sara Etz Mendonça and Jonathan Tudge at the symposium on 10 November 2018