

JANUARY 2022

APPLIED PSYCHOLOGY AND HUMAN FACTORS GROUP

School of Psychology, University of Aberdeen

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New co-lead for the APHF

The APHF has three strands of research and, up until last month, had two co-leads for the group (Dr Irwin and Dr Trevethan). We are pleased to announce that long-time member Dr Joy Pekins has agreed to be our third co-lead for the group!

The structure of the group is now as follows:

Human Factors lead: Dr Amy Irwin

Clinical Psychology lead: Dr Ceri Trevethan

Pedagogical lead: Dr Joy Perkins

For further details on the core APHF team members, academic and industrial associates check out the APHF website: <https://research.abdn.ac.uk/applied-psych-hf/>

The quarterly APHF newsletter presents an activity summary of the research, industrial and clinical members. If you would like to receive the newsletter direct via email contact a.irwin@abdn.ac.uk.





New **SNAPSHOT** feature - get insight into the daily lives of Human Factors, Clinical and Pedagogical professionals.

On the line

David Howell, Able and Rush

The image was taken at HMAS Gannet at Prestwick December 11th 2013 after I took a crew and aircraft from Central Counties Air Operations Unit up to assist Police Scotland. This deployment was conducted following the tragic events of the EC135 police helicopter crashing in Glasgow on the Clutha public house, killing 9 people. The image holds many emotions and memories whilst highlighting the work that I now conduct with regards to human factors and crew resource management in an effort to prevent such tragic incidents ever occurring again.



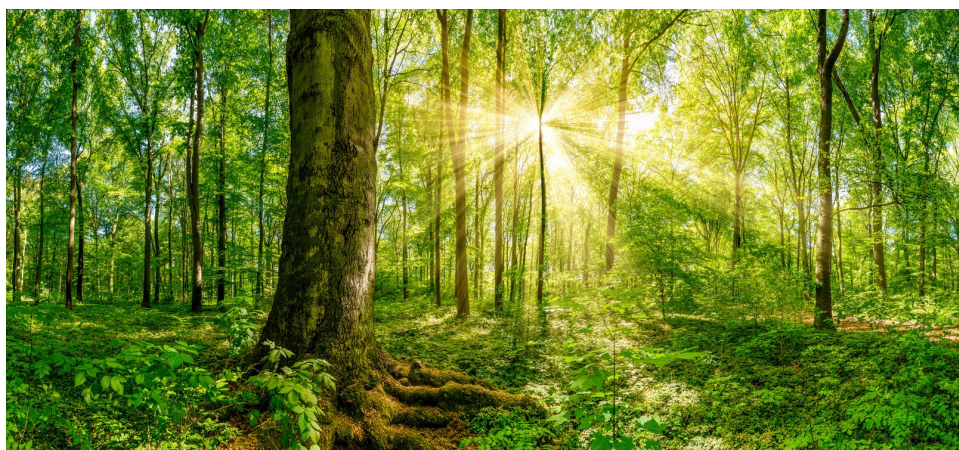
Block of snow

James Thacker, Mountain Assurance

Working for Scottish Avalanche Information Service (SAIS), this block of windslab was sensitive to release in a stability test in the Cairngorms. This represents a small but consistent part of every forecasting day, that of providing a snow profile for the historical record. This also gives an insight into stability in specific locations to prepare the forecast for the next day. The weather however, is unusually good in this case!



SGSSS ESRC collaborative studentship funding with Forestry Land Scotland



Project title: **Staying safe in the forest: Evaluating forestry worker non-technical skills and associated influencing factors.**

Academic supervisors: Dr Amy Irwin, Dr Ceri Trevethan, Prof Rhona Flin (University of Aberdeen, RGU)

Industrial supervisor: Dr Jason Liggins (Forestry Land Scotland)

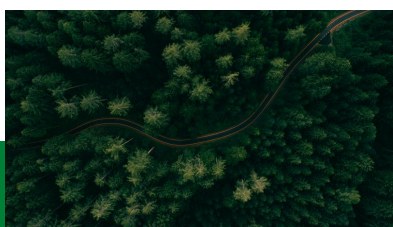
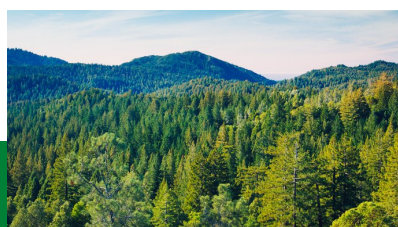
Forestry operations can encompass working on steep ground, felling trees, operating a range of forestry machinery, aerial tree work and planting. Due to the range of hazards present within the forestry environment, and a persistent record of fatalities and injuries each year, forestry is considered a high-risk industry. The industrial partner for this project, Forestry and Land Scotland (FLS), emphasise the dangers of forestry work and are exploring methods of enhancing safety for forestry workers. Within other high-risk industries such as aviation and agriculture there has been a focus on non-technical skills, the cognitive and social skills required for safe and effective work performance. However, to date, there has not been any research examining these skills within forestry.

The proposed PhD project will aim to develop a non-technical skill behavioural marker system for forestry workers, in addition to exploring the factors that may enhance or adversely impact non-technical skill performance. The project will produce evidence-based guidance for future training interventions designed to support non-technical skills, enhance safety and reduce the current fatality and injury rate of forestry workers in the UK.

PhD project aims:

- Develop a behavioural marker system for forestry worker non-technical skills.
- Evaluate factors that may influence forestry worker non-technical skill performance.
- Develop appropriate training guidance to support the development of non-technical skills.

We will be looking for a new PhD student to take up this exciting project and will advertise the fully-funded (fees and stipend) studentship later this year!



Three new Learning and Teaching Enhancement Projects funded! (University of Aberdeen)

Developing resilience of advanced entry students through peer and academic support.

Dr Heather Brannigan, Dr Jacqui Hutchinson, Dr Sally Middleton.

This project aims to enhance the academic resilience of advanced entry students.

We seek to support this group of students by:

1. Exploring existing support across the university through a staff survey
2. Developing student-led content to provide peer support for advanced entry students

A main outcome of this project will be the development of support materials, by students for students. These support materials will be multi-modal, to provide choice and encompass the varied experiences of advanced entry students. Another key outcome from this project is to develop examples of best practice from the existing support structures throughout the UoA. Findings from the staff survey will be communicated with central and support services as appropriate.

Steps towards resilience.

Dr Ceri Trevethan, Dr Amy Irwin, Dr Joy Perkins, Dr Heather Brannigan.

Although resilience has elements linked to internal characteristics, (e.g., self-confidence, optimism), it is also a dynamic capability – one which includes ways of thinking and acting that can be learnt and supported. Universities can facilitate resilience learning through the curriculum and through informal activities designed to encourage student participation and community building.

This project will build a bank of student-generated content relevant to the concept of resilience in a variety of accessible formats (podcasts, vlog, blog, testimonial, images) to explain resilience and illustrate activities designed to support resilience.

The project will also produce a series of student-led “Resilience Walks” as a distinct activity designed to enable students to form small groups, take part in a guided activity and form connections with both peers and the city of Aberdeen.

Developing a reflective practice toolkit: a scoping study to enhance the resilience of staff and students within diverse communities of learning.

Dr Ceri Trevethan, Dr Evelyn Jannetta.

Reflecting on the experience of learning has been shown to enhance individual learning, peer learning (through sharing multiple perspectives), the relationship between educator and students as well as the quality of learning. Reflective practice has also been demonstrated to enhance the wellbeing of educators and students.

Working with a group of educators currently using reflective practice in their courses (across a wide range of Schools), this project aims to develop an online toolkit designed to enhance reflective practice in educators at the University, including: models of reflective practice, examples of practice, self-assessment tasks and exercises to exchange practice. The toolkit will guide educators through a series of practical activities, providing them with the opportunity to practice reflective practice for themselves.

NEVER STOP LEARNING



Articles

The Ergonomist article

Jill Poots (Leeds Beckett University) & Ilinca-Ruxandra Tone (University of Aberdeen)

Jill and Ilinca produced an article for The Ergonomist, the flagship magazine of the Chartered Institute for Ergonomics and Human Factors, discussing the past five years of farm safety research from the APHF and NTSaG groups. The article highlights the high risk nature of farming, the work carried out to explore human factors aspects and the resultant tools.

Read the article [HERE](#)



LINKEDIN

Anna Kaminska is now entering her third (and final) year of a SGSSS ESRC collaborative PhD studentship with CHC helicopters, investigating the impact of cultural variation with helicopter pilots. Anna has already completed two studies and is collecting data for a third.

In a recent LinkedIn article Anna discusses culture - what is it? why is it important? and provides an overview of her research findings thus far.

You can read the full article [HERE](#).



Mind Your Head, Farm Safety Foundation

Dealing with Farming's Mental Health Issues Head On

2020 and 2021 have proved incredibly challenging for the farming industry. There have been extreme weather conditions, poor harvests, supply chain shortages and a global pandemic to contend with but, through it all, farming has endured as it always does. Over the past nearly two years, agricultural workers have been recognised as key workers, playing an essential role in producing food for the country.

Sadly, the commitment of our farmers and crofters comes at a price... So, in an industry with the poorest safety record of any occupation in the UK, making sure we are all looking after our physical and mental wellbeing has never been more relevant.

With Christmas firmly behind us, the shops are adorned with hearts and flowers as we approach 14th February - a day when many show their affection by sending cards, flowers or chocolates and this Valentine's Day, our friends at leading farm safety charity, the Farm Safety Foundation will be reminding farmers that self-love is important too with their 5th annual Mind Your Head campaign. A day like Valentine's Day which celebrates love and togetherness can often highlight how different, alone or low we feel so it is important to check in with yourself and others and reach out to those who may be feeling down, lonely or struggling. Whatever it is that you choose to do, just know that your mental health should never be ignored and you are not alone.

Sadly, as we know, the stigma around mental health often prevents those who need help from seeking it so, for five days, key farming organisations from five countries will support the Foundation's Mind Your Head campaign and try to dispel the myths and tackle the stigma around poor mental health in the industry and highlight the wealth of support available to those living and working in farming.

According to the Foundation's research published in October 2021, an incredible 92% of the UK's young farmers say mental health is one of the biggest hidden problems faced by farmers today. In addition, the recent R.A.B.I Big Farming Survey revealed that 36% of the farming community in the UK are 'probably' or 'possibly' depressed.

It is encouraging to see more discussions about mental wellbeing, more awareness of the various mental health conditions and more emphasis on the support available to the farming community. In the last 12 months, calls to farming charities have increased so we need to

stay vigilant of the numbers of people in our industry feeling high levels of distress and anxiety and we need to keep driving to ensure people know that help is available and encourage them to ask for it.

The 5th annual Mind Your Head campaign takes place from 14-18 February 2022. To get involved please visit www.yellowwellies.org or follow @yellowwelliesUK on Facebook / Instagram / Twitter using the hashtag #MindYourHead



THE VETERINARY HUMAN FACTORS CONFERENCE 2022



HIGH PERFORMING TEAMS

THURS 24TH - FRI 25TH FEBRUARY 2022



VetLed Veterinary Human Factors Conference: High Performing Teams

After a tough 18 months of COVID lockdowns, the veterinary profession is looking to move forward towards a more positive future. It might seem obvious, however it can be easy to overlook the very (human!) factors that best support our teams to deliver safe patient care, to find satisfaction in their roles, and to provide the very best workplace environment.

It is time to recognise the importance of working on our non-technical skills (situational awareness, stress and fatigue, communication tools, and much more!). We must strategically develop ways to keep our people well and facilitate them being at their best. We must also understand and design systems and processes (such as safety reporting, checklists and QI tools) which enable our teams to consistently and reliably do the best job they can. Human Factors bridges the gap between our clinical skills and being able to deliver them most effectively. Increasingly the most talked about topic in veterinary practice, the field of Human Factors is demonstrating itself to be as essential in our own profession as it is within human healthcare, and numerous other safety-critical sectors. To perform at our best the veterinary profession must take the science of Human Factors seriously.

This February 24th and 25th, The Veterinary Human Factors Conference will return with the theme - High Performing Teams. The conference is being run by VetLed, who are the profession's only dedicated Human Factors training organisation. The event offers a huge number of expert speakers from across the profession and beyond. Embracing a truly one health approach, where else would you see veterinary teams, human healthcare experts, an Olympian, and more all mingling in the same (virtual) space?! The conference programme is jam-packed with nearly 24 hours of CPD, and provides something for everyone, from those with an early interest in the subject, through to those with an established understanding in Human Factors and experts in the field.

VetLed's Cat Auden said, *"We all want to do a great job at work, but our clinical skills and knowledge are only one part of the picture of high performance in veterinary practice. Research has shown that adverse events in practice are rarely due to lack of technical ability. That's why I'm so excited about our conference theme this year, "High-Performing Teams". We think of performance in terms of winning a race, or being a high-flying executive... but what does a High Performing veterinary team look like, and how do we grow one?"* The conference will be run virtually to ensure widest reach and opportunity for all delegates to interact on the day, and also to catch up on sessions at a later date.

APHF members Dr Amy Irwin and Helen Silver-MacMahon will both be presenting at the conference.

Tickets can be purchased at <https://the-veterinary-human-factors-conference-2022.heysummit.com/>



Research

Veterinary nurse non-technical skills

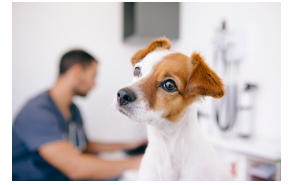
*By Helen Silver Mac-Mahon, PhD student,
University of Lincoln*

Unlike other safety critical industries such as aviation and healthcare very little research has been conducted into the behavioural components which may affect clinical veterinary practice. There is a lack of research into non-technical skills in veterinary medicine particularly in the field of veterinary nursing and consequently no non-technical skill's frameworks or behavioural rating systems exist within this field.

The aim of my research is to explore and identify the non-technical skills required for safe and effective performance of veterinary nurses when monitoring anaesthesia, during surgery; from patient induction to recovery. This research project will begin with three initial phases:

- Phase one: A scoping review will be undertaken to provide an overview of the scientific literature which currently relates to the use of non-technical skills by veterinary nurses when monitoring anaesthesia.
- Phase two: Semi-structured interviews using open questions and critical incident interview technique (CIT) will be used to elicit the veterinary nurse's or consultant veterinary anaesthetists perception of non-technical skills used and their importance
- Phase three: A cross-sectional, online survey to explore a broader view of the attitudes of veterinary nurses towards non-technical skills will be conducted.

This research project will provide a vital first step in recognising and understanding the non-technical skills used within the role of the veterinary nurse whilst monitoring anaesthesia and offer a knowledge base on which a behavioural rating system could be developed for the veterinary anaesthesia nurse which would facilitate training and assessment in this area and represent a significant step in improving veterinary patient safety and quality of care.



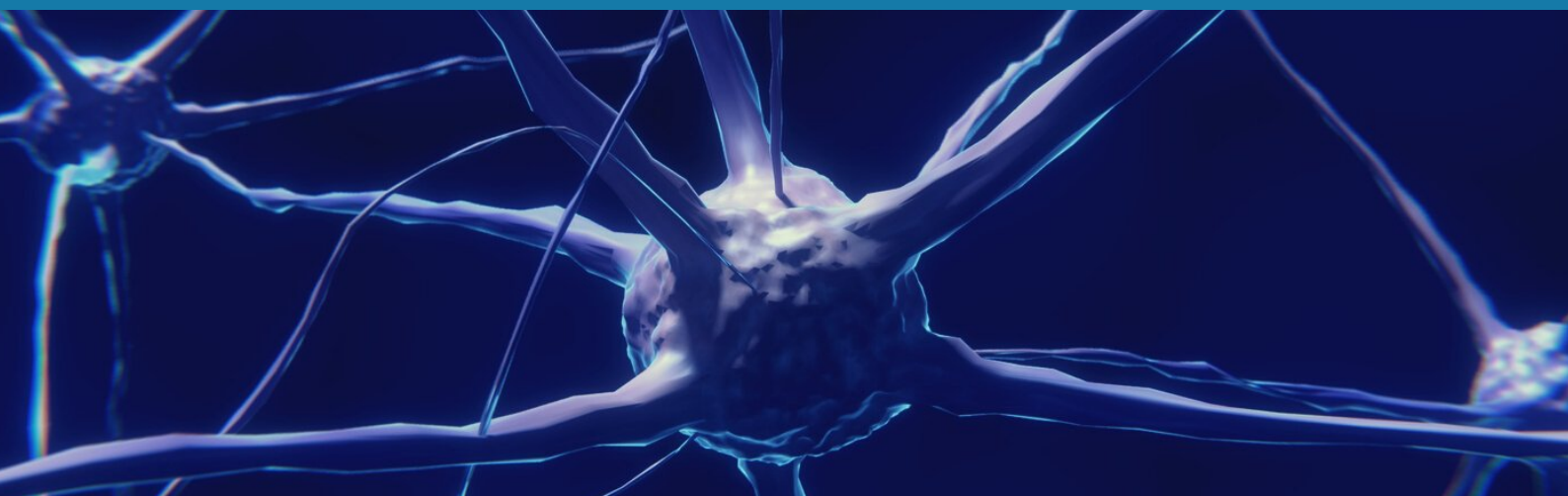
Veterinary surgeon non-technical skills - an undergraduate thesis project

By Milla Hakala, University of Aberdeen

Non-technical skills are the social, cognitive and personal management skills that alongside with technical knowledge and skills enable working in a safe and successful manner. Non-technical skills have been found to be extremely important within various high-risk industries such as agriculture, aviation and healthcare. While many non-technical skill categories are essential across industries, the behaviours and elements related to each category are context and role specific. The use of non-technical skills among veterinary surgeons has not yet been investigated.

I am currently conducting a study exploring the use of non-technical skills among surgical veterinary teams. We are using semi-structured online interviews based on the critical incident technique. I have interviewed 10 vets so far with an ideal sample size being 12 interviews in total.

What made me decide to do an applied Psychology thesis project was the practicality of applied Psychology. I felt like my research on this topic could have practical implications and could directly be of interest and use for veterinary practitioners. So far, the project has been challenging but rewarding. The interviews have been interesting, and I have enjoyed talking to vets around the UK and hearing about their thoughts and experiences.



The utility of the DClinpsychol thesis in clinical practice: A new patient pathway for Functional Neurological Disorder (FND) in NHS Grampian

By Dr Pauline Insch, Clinical Neuropsychology, NHS Grampian

I qualified as a Clinical Psychologist in October 2020 and now work in the Department of Clinical Neuropsychology in NHS Grampian. Part of my role came about from the feasibility work I did for my third year thesis project which designed, ran and evaluated the clinical and economic feasibility of a brief group intervention for people with Functional Neurological Disorder (FND) in NHS Grampian.

I first heard about FND during a discussion with Dr Fiona Summers around potential thesis projects. I have always been passionate about Neuropsychology, having come to clinical training in my 40's and unfortunately having had experience of family members managing the results of stroke, dementia and head injury so bringing a first-hand awareness of the difficulties and challenges families face of finding the way forward after diagnosis.

Dr Summers talked about work that she, and others, had been hoping to introduce into NHS Grampian for those with FND. She arranged for me to sit in on clinics with neurology so I could get a feel for the variety of symptoms patients presented with. During the clinics I saw the neurologists support patients with many different conditions, however, several of the patients attending these clinics had FND. After learning of their diagnosis patients were given details of websites and, unlike the other neurological conditions, there was no treatment pathway for the neurologists to refer patients too. I felt for the patients, these people with symptoms that resembled other neurological conditions and who experienced a parallel level of disability but left the consultation with a piece of paper with 2 websites to find out more. I also felt for the neurologists who had no follow up pathway of care to offer ongoing care..

I learned from Dr Summers that a stepped care approach has been recommended as an appropriate model of treatment for FND (Health Improvement Scotland, 2012). For FND the recommendations for lower level interventions included a robust diagnosis of FND by the clinician augmented with high quality patient information (HIS, 2012). In order to meet the needs of patients with more moderate physical and/or psychological disabilities a brief intervention programme was recommended (HIS, 2012). Despite the recommendation for stepped care there was a lack of information on how patients would be matched to the level of care that best reflected their needs despite the high personal costs to patients in terms of reduced physical function and quality of life experienced due to clinical needs not being met effectively. However the psychological impact of living with the diagnosis of FND was beginning to be recognized (BPS Division of Neuropsychology, 2013).



As I had experience of research having completed a PhD in 2013 and was keen to make a difference for those patients with FND, I worked with Dr Summers to design a brief intervention that reflected the complexity of an individual with FND's presentation and included variables such as cognitive function, mood, health beliefs and quality of life. In addition to being recommended as domains being particularly relevant to FND, cognitive function, mood and health beliefs have all been found to impact negatively on quality of life for those with FND in previous research

The research project aimed to evaluate the feasibility of running of a brief two session intervention. The selected outcome measures were completed by participants at four timepoints; a baseline appointment prior to the first group session, at the start of group session 1; at the end of group session 2; Final data collection was at follow up 3 months later. Ninety-eight people were identified and invited to participate; 29 responses were received who then went on to complete baseline measures. As a result of these numbers, four group were scheduled to take place, however, 13 people (45%) did not attend.

Results showed that people NOT attending the group reported:

- Poorer quality of life with greater limitations in their physical health perceived to be because of their FND.
- The health beliefs questionnaire showed those who did not attend demonstrated lower perceptions of their personal levels of control over their FND symptoms.

Results at 3 month follow up showed that people who attended both sessions:

- Had a significantly higher level of knowledge about their condition after group session 2.
- Reported significantly less fatigue - post group 63% reported improvements in their overall health
- The greatest improvements at follow up were seen in participating in day to day activities (45%), less anxiety and depression (45%) and improved personal care (36%). Some reported less pain (18%) and better mobility (9%).

Overall results suggested that participants attending this group found it useful after receiving a diagnosis of FND within NHS Grampian. Participants felt the group allowed them not only to access to more information about FND and their symptoms but also peer support which alleviated the feeling of managing alone.

I was delighted to secure the position working with Dr Summers to develop this group from the feasibility research project. I feel very proud of the work we have begun to change clinical practice for those people with FND in NHS Grampian and look forward to seeing what comes from the work we have been doing. Please feel free to get in touch if this is an area you are also working in. It would be great to hear what other areas are doing for those with FND or equally drop me a line if you want to know more about the research.

Research

Evaluation of the Mental Health First Aider (MHFA) role at the University of Aberdeen

By Katja Fredriksson, student intern, University of Aberdeen

Mental Health First Aiders can be found across the University's schools and professional services, and their function is to provide support to staff colleagues in situations where the member of staff might need mental health information or support and do not wish to speak directly to their line manager. The MHFA role is a signposting role and therefore one of the key functions is to provide information on the resources available.

I have been involved in a project evaluating the MHFA role, working alongside Dr Ceri Trevethan, Jacquie Nicholson (former University Mental Health Policy Advisor), Bekah Walker (Wellbeing Advisor) and Garry Fisher (Head of Health, Safety and Wellbeing).

After familiarising myself with the MHFA role at the University we worked together to create an online evaluation survey. We collected data via a survey and two online focus groups with staff trained in the MFHA role.

MHFAs reported that based on feedback from staff who were in contact with them, university staff were primarily reporting being affected by workload/burnout (46%), anxiety (25%) and low mood/ depression (14%). The majority of MHFAs reported feeling confident in their role (100%) and confident dealing with crises (80%), with 86% reporting feeling satisfied in their role.

In relation to experience of being in the MHFA role, three key themes emerged – (1) the value of resources, especially regular MHFA network meetings, (2) tensions relating to lack of services to support staff and ongoing challenges linked to workload and covid-19, as well as (3) ongoing needs – further training, improving awareness of the role and ongoing evaluation.



Cyber incivility - an undergraduate thesis project

By Sophie Westhead, University of Aberdeen

The stay at home order during the pandemic led to a huge shift in the working landscape for many individuals, with an exponential rise in the use of videoconferencing software in the workplace. However, cyber incivility research, which investigates rudeness in a virtual environment, has yet to catch up with this shift as the majority of studies focus on incivility in emails. In light of the shift created through homeworking, I decided to focus my thesis on videoconferencing, creating a survey that aimed to explore the behaviours people consider to be rude in the context of virtual meetings, and whether these differ from rude behaviours in in-person meetings. A link to this survey can be found [HERE](#) if you would like to participate in this study.

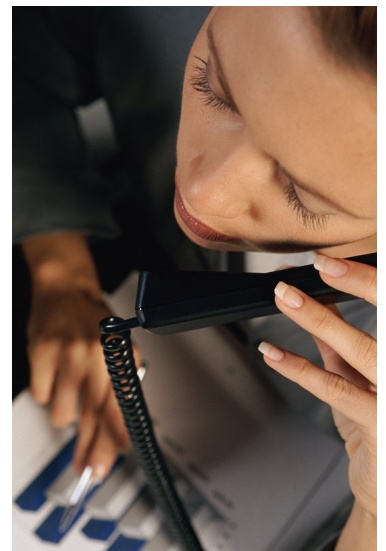
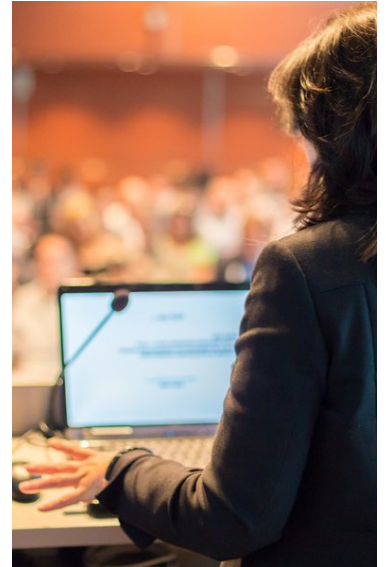
I wanted to do a thesis project based in applied psychology as this was something I enjoyed studying during my second year. During that time, I found myself particularly intrigued by industrial psychology, and the positive impact psychological research can ultimately have on a creating strong workplaces. I wanted to use my thesis as a way to explore industrial psychology. I have really enjoyed the research and I am excited to delve deeper into the psychology of incivility and to contribute to increasing our knowledge of how we can use our work to help create positive workplace dynamics for the future.

Before undertaking the Human Factors course, I never thought I would be able to identify a wide range of factors that influence human performance and can help mitigate workplace errors at my own workplace. The engaging lectures and real-life scenario assessments brought by Dr. Amy Irwin helped me become more appreciative of the mental and physical health of my colleagues, understanding the difference of realities based on individual experiences and how others deal with stressful situations. Not only did I learn about the key skills that can maximize excellence, but I could further integrate this knowledge into my practice at Childline.

Finishing my training as a volunteer counsellor, I could identify key factors that influence my and other counsellors' behaviour. These can include being emotionally drained after training due to the high mental effort, and fatigue, as most of the volunteers come to work after studying or working for several hours. Childline focuses on reducing and managing stress by offering further training on wellbeing and debrief sessions after each shift, where we can further discuss our feelings and also increase social interaction. These practices help us volunteers engage in better situation awareness and decision-making procedures, essential in effectively safeguarding young people.

Key skills: situation awareness, risk perception, decision-making

Key abilities: cognitive flexibility and mental readiness



CONTACT DETAILS

If you would like further information about any of the projects featured in the newsletter, would like to join the APHF as an associate member, or would like to explore a potential collaboration with the team please contact Dr Amy Irwin (overall APHF lead) in the first instance:

Email: a.irwin@abdn.ac.uk

Alternatively take a look at the APHF website: <https://research.abdn.ac.uk/applied-psych-hf/>



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