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COVID-19:
AN UNEQUAL IMPACT?

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INTRODUCTION

Over the past year or so the Covid 19 pandemic has brought immense challenges to us all, but University based research into treatments, protection, and now vaccines has given us some hope for the future. However, we have all seen the impact has been unequal with some groups of people more severely affected than others. These inequalities have always been there, but the Covid situation has shone a light on them like never before.

BCU staff have, of course, risen to this global challenge of fighting and understanding the impact of Covid across a wide range of topics, including winning a number of major externally funded projects. In July 2021, we ran an online conference to share and discuss our Covid linked research to date, look at the implications of our findings and consider what they mean for the future as we look towards a 'new normal'. We had a wide range of speakers from all over BCU and learned about the challenges faced by the Police, the way the NHS set up the vaccination system, changes to way we taught, the way our students learned, the kinds of stress the situation caused and much, much more.

As we reflected on the day, the organising committee felt we could do more to share the outcomes of the research beyond just that one day, which has led to the creation of this publication. A number of presenters were invited to write in more detail and a less formal manner about their work, and I hope you find the mix of narratives presented here interesting, engaging and challenging. It is an important snapshot of how we are responding, coping, and investigating one of the most significantly disruptive times in any of our lives. It starts to explore what have we learned about ourselves, our students, our practice, our communities, our businesses, our wider society, and maybe where we go next.



I hope you enjoy reading it.

**Professor Maxine Lintern, Associate Dean for Research and Enterprise
Faculty of Business, Law and Social Sciences
September 2021.**

COVID-19: SAME VIRUS, DIFFERENT OUTCOMES

Professor Mark Radford, Chief Nurse, Health Education England

The start of 2020 felt like the start of any other year. The world continued to grapple with a wide range of existing challenges and issues and the media was dominated by the usual stories that seem to pervade each new year. Gradually during this period, however, a growing public health emergency in China started to become apparent; at this stage just early reports with limited information about a new pathogen and the impact it was having in Wuhan. Despite being reminded of previous outbreaks, such as SARS, swine flu and Ebola, back then, very few of us predicted the enormous impact that this novel coronavirus would create, both across the UK and across the globe.

By early February, it was soon clear that the containment approaches that had worked for previous pandemics were starting to be breached; the interconnected nature of the global world meant that outbreaks were now occurring frequently across the world. Many of us will always remember where we were and what we were doing when it became apparent that community transmission was occurring in the UK and we headed for our first lockdown.

History is littered with examples of previous pandemics, where serious structural pressure has been placed on health and social care systems and humanity has been faced with a potential for devastating loss of life. The new nature of this virus meant that information was being generated each day from multiple data points and countries. We will be learning about the significant consequences of this pandemic on every part of society, and its deep impact on societal approaches in the United Kingdom, for many years to come. In those early days, we saw a collective spirit across the UK which ebbed and flowed many times during those months. A defining feature of this early phase was a focus and recognition of the role of our health service and the staff that work within it.

Health and social care workers – in hospitals, care homes and people's homes – including the academic community, students, learners and trainees - all stepped up and made



important contributions to preserve life and protect their communities. People gave them thanks and this was something they took comfort in as they headed out each day to face the pandemic. Despite multiple challenges, our academic community has shown enormous drive to make a difference. Many academics stepped into work in clinical services, others supported the thousands of students that formulated part of the NHS response during the pandemic as well as those who continued with their studies.

Some people lost loved ones and others lost jobs and livelihoods. For many of those at home there was little they could do themselves but sit and wait, while playing their part through their own actions to try and protect themselves and their loved ones as much as possible. Some people drove their energy into community projects or found other ways to support the pandemic response, inspiring a societal response to look after the most vulnerable.

The health service has been challenged many times with serious events in the past, and devastating as they have been, we have been able to gain insight into the response of health systems and the impact on staff that work within them. What is clear from events like the 9/11 terrorist attacks is the bond and purpose that teams have in these situations, coupled with an overwhelming desire to help. This example from rescuers and responders on 9/11 about why they went in has resonance with the NHS Staff in the pandemic:

I wasn't too concerned about safety at the start, I was sheltered from the debris where we were standing, but when the South Tower came down, I was getting myself out of there...you can't help anyone if you are dead...

*Protocols went out the window, there was a job to do, and we did the best we could, and we lost a lot of good guys in the process, but I reckon you could ask any NYC cop, fire-fighter, or medic if they would do it again, and they would all answer yes in a heart-beat...it was our city, our people, yeah it was dangerous, but it was our job and we did it, and we would do it again...*¹

Such an impact had serious but physical and psychological effects on those workers at the World Trade Centre² as it does now on our staff throughout the NHS and social care system.

The pandemic has also amplified existing structural issues and inequality within our society, with implications for many of our communities. Data shows increasing mortality and risk for those from Black, Asian and minority ethnic backgrounds and those from the most deprived areas in this country³. The Office of National Statistics highlights the largest reduction in life expectancy in this country since the Second World War⁴. While there is a clear impact on physical health, there is also a psychological impact, including anxiety and stress, and wider social implications such as loss of work and employment, and associated increases in domestic violence.

We asked a great deal from our health and social care staff, changing their work, responding to different needs and placing them in environments with limited training and familiarity to help save lives. This has undoubtedly had an impact on them; a recent paper by Greenburg et al has highlighted the rate and scale of mental sequelae with those who have been redeployed to work in intensive care units during this time⁵ is similar to that of combat veterans. We know from the data experiences of responders to 9/11 that impacts on mental health can occur years down the line and have long-term implications, not just for individuals but also for the social networks that exist around them.

There are now other emerging issues facing staff and communities as a result of the pandemic, one of which is Long Covid. From recent reports that this will have an enduring legacy of the COVID-19 pandemic the scale of which estimates up to 740,000 people reporting symptoms for over 6 months and 384,000 for over 12 months (reflecting the maturation of

wave one infections)⁶. There are a multitude of presentations, issues and challenges for which those with long Covid will require access to future health and social care services. A significant proportion of these will be staff working in health and social care exposed throughout the pandemic. Recent reports from Dr Elaine Maxwell, from the National Institute of Health Research have highlighted some of the issues and challenges that long Covid will bring to health service⁷.

I wanted to share with you a key moment from the pandemic that occurred here in the West Midlands, in Coventry to be precise; the injection of a new mRNA vaccine to Margaret Keenan by nurse May Parsons University Hospitals Coventry and Warwickshire NHS trust on 8 December 2020. Preceding these months was a collective scientific endeavour utilising knowledge skills and expertise from around the globe centred on a few scientists and their teams to produce a safe and effective vaccine at breathtaking speed. While its design and manufacture is a marvel, beside this sat an operational system being designed across the country to scale up a vaccination programme the like of which this country has never seen.

Led by Dr Emily Lawson, this programme of work sought to build an infrastructure from family practices through to large-scale vaccination hubs utilising hundreds of thousands of volunteers, existing NHS staff, recruited volunteer clinicians and military personnel. At its peak, the UK's vaccination programme was vaccinating millions per day on its quest to safely vaccinate a population and save lives. Recent estimates from Public Health England have highlighted that the vaccination programme has likely saved over 100,000 lives since its inception, prevented millions of infections and importantly lead to a cautious, but hopefully permanent, reopening of society to focusing on wider public health needs.

The last 18 months has taught us a lot about what we value in society, what is important and what we must do to deal with the inequalities that existed prior to this pandemic. While there are many issues and challenges in a pandemic, there has also been hope, resilience and inspiration and many people have shown the best side of humanity. We now face the herculean task of recovering from the pandemic and restarting many of the services that were paused during the pandemic itself. Reports highlight the huge backlog faced by the NHS, once again it will need to rely on the many staff who work in its services.

The pandemic may be never experienced again in our lifetime or may appear again in another guise. What is certain is that many decades from now, books, documentaries and reports will review what we did as a society during the pandemic. People will revisit what we did as a result of this pandemic and assess whether we have achieved in rectifying some of those things which needed improving. Like many other significant major events in our history, those of us who are part of it will be asked what we did and we will have our own stories to share.

¹ Willingness to work during a terrorist attack: A case-study of first responders during the 9/11 World Trade Centre terrorist attacks Journal of Emergency Primary Health Care (JEPHC), Vol. 6, Issue 1, 2008

² Short-term and medium-term health effects of 9/11 - The Lancet, Volume 378, Issue 9794, 3-9 September 2011, Pages 850

³ Suleman M, Sonthalia S, Webb C, Tinson A, Kane M, Bunbury S, Finch D, Bibby J. Unequal pandemic, fairer recovery: The COVID-19 impact inquiry report. The Health Foundation; 2021 (<https://doi.org/10.37829/HF-2021-HL12>)

⁴ <https://blog.ons.gov.uk/2021/09/23/has-the-coronavirus-pandemic-caused-life-expectancy-in-the-uk-to-fall/>

⁵ Greenberg N, Weston D, Hall C, Caulfield T, Williamson V, Fong K. Mental health of staff working in intensive care during Covid-19. Occup Med (Lond). 2021 Apr 9;71(2):62-67. doi: 10.1093/occmed/kqaa220. PMID: 33434920; PMCID: PMC7928568.

⁶ <https://www.ons.gov.uk/peoplepopulationandcommunityhealthandsocialcare/conditionsanddiseases/bulletins/prevalenceofongoingsymptomsfollowingcoronaviruscovid19infectionintheuk/2september2021>.

⁷ <https://www.nihr.ac.uk/news/nihr-publishes-second-themed-review-on-long-covid/27232>

POLICING IN A PANDEMIC AND FUTURE OPERATIONAL CHALLENGES

Superintendent Hannah Wheeler QPM

A global pandemic on the scale of Covid-19 has not been seen for over a century and very quickly presented an unprecedented challenge for the police service to continue to keep communities safe, whilst also protecting its own workforce. Prior to this, Personal Protective Equipment (PPE) had been used in comparatively small quantities and was not in widescale everyday use. Within days, that presumption changed and our working environment remains focused on the regular wearing of gloves, masks and coveralls, as part of highly sophisticated infection prevention and control measures.

At the outset of the pandemic, there was no police national lead for PPE of this type, which also meant there was no specific guidance or specification to ensure consistency in the wearing and type of products supplied. The National Policing Coordination Centre (NPoCC) stepped forward to guide the response to the pandemic across forces in the UK and its dependent territories. Officers and staff were kindly loaned and re-deployed to NPoCC to dynamically form a team to deal with the issue of PPE.

Items such as masks and gloves were in high demand globally. This was reflected in spiralling prices and the need to procure from outside of Europe. Tenacity was needed to ensure that supplies into the health service and social care sectors were not impeded or undermined.



I assembled a small virtual team with expertise in procurement, contracts and finance with a clear mission to save lives. We bid for military logistics expertise to help set up a national PPE distribution/supply hub large enough to support all forces and overseas territories. Sourcing and procuring high quality PPE at best value was challenging in a complex and fast-moving environment. My team developed a national digital performance dashboard to understand patterns of usage and consumption rates across forces and ensure they remained fully supplied.

Practical guidance was developed to convey to officers and staff how to use the PPE, alongside standardised product specifications to ensure consistency of supply. This was developed utilising a range of expertise including Public Health England (PHE), Health and Safety Executive (HSE), Home Office, Defence Science Technology Laboratory (Dstl) NPCC and key leaders within the Met. Additional focus groups were held with thematic leads, that included stop and search, custody and public order, to develop specific sections within the guidance. This led to a broader emphasis on protecting members of the public who perceive there to be a risk of becoming infected with Covid-19 through close contact with police officers or staff during processes such as arrest, custody or searching.

Given the volatility and over-subscribed supply of PPE, conventional procurement processes needed to be temporarily suspended in favour of making 'spot purchases'. This required the immediate need for large amounts of money, as opposed to conventional routes of delayed invoicing or accounts. With the carefully negotiated support of 15 forces, over £30 million was raised in order to purchase PPE until a single national supply route could be reliably established. These forces have since been reimbursed. There is so much to be proud of in policing, not least the transformative way that officers and staff responded to frequent changes in legislation and guidance. The operational clarity that the 'engage, explain, encourage, enforce' process enabled is being incorporated into everyday communication.

There are challenges ahead for policing: ensuring that all the excellent processes, guidance, learning and new ways of working are being morphed into 'business as usual', leading to swift recovery and reform. We now have a national pandemic PPE strategic reserve so that we never find ourselves in the position we were in March 2020. Finance is being reviewed to ensure we have access to a funding stream for 'in extremis' circumstances. We now have a blueprint for any future requirement to quickly stand up a national strategic hub. Policing should be rightly proud of itself and in respect of PPE being an example of a large national, public facing organisation that was able to consistently offer protection to all of its staff, all the way through the pandemic.

DIARIES OF A PANDEMIC: USING DIARY RESEARCH TO CONSIDER IMPLICATIONS FOR GENDER EQUALITY IN ACADEMIA

Dr Kate Carruthers Thomas, Faculty of Business, Law and Social Sciences

The research project: *Dear Diary: Equality implications for female academics' of changes to working practices in lockdown and beyond*, explores UK female academics' experiences of living and working throughout the pandemic and implications for productivity, career and gender equality. Since the start of the pandemic, there has been increasing evidence (Connolly et al 2020; Donegan 2020 *inter alia*) that pressures of working from home, homeschooling, caring and restrictive measures such as shielding and self-isolation, particularly disadvantage working women.

The pandemic wrought sudden and profound shifts in academic working practices, not least necessitating an extended period of working from home. A rapidly emerging literature (Boncori 2020; Fazackerly 2020; Kitchener 2020 *inter alia*) documents disadvantages female academics face in sustaining academic research and writing for publication, among other core practices. Yet the machinery with which UK institutions and academics are judged include the Research Excellence Framework and National Student Survey. Both represent a significant 'moment of promotion or inspection' (Ball 2003) and their metrics drive and define career progression and 'success'. Meanwhile, women are under-represented in higher education (HE) sector senior academic and leadership roles (Jarboe 2018, Advance HE 2020) and over-represented in the academic precariat (O'Keefe and Courtois 2019). Institutional and sector-wide initiatives, including the Athena SWAN Charter, continue to struggle with longstanding gender inequalities, exacerbated by intersectional factors such as ethnicity, class, age and disability. The coronavirus pandemic threw these inequalities into even sharper relief. Against a backdrop of deeply uncertain times for the sector and the global economy, Kitchener (2020) argues: 'The coronavirus is skewing a playing field that wasn't ever level in the first place'.

Previous research (Carruthers Thomas 2020) found that during lockdown (March 2020-June 2020) female staff in one post-1992 university were less likely to have access to dedicated working space at home; more likely to take primary or sole responsibility for homeschooling, household tasks and others' care needs and more likely to report that working from home in lockdown had impacted on their capacity to maintain work-life balance and work/home boundaries. It is this project's intention to foreground the voices of female academics reaching for 'sweaty concepts, generated by trying to describe something that is difficult, that resists being fully comprehended in the present ... a description of not being accommodated by a world' (Ahmed 2017 p.12). The project's hybrid methodology combines diary research and semi-structured interviews; the 'diary: diary-interview method' or DDIM (Zimmerman and Weider 1977; Kenten 2010; Spowart and Nairn 2014 *inter alia*). Twenty eight female academics at diverse career stages in UK universities submitted two diary entries: the first (May 2021) being retrospective, reflecting



on experiences of living and working during the pandemic since March 2020; the second, (July/August 2021) contemporaneous, focusing primarily on working practices. Diaries 'provide a record of an ever-changing present; they are vehicles for participants to observe situations which researchers cannot access' (Elliot 1997). Participants submitted their entries in text, image, audio and video formats. A subsequent individual (online) interview revisited the entries for clarification and contextualisation and probed emerging themes and issues. In combination, these methods elicited singular and particular stories within a complex social context (Creswell and Poth 2007).

The data collected is currently being analysed through organising concepts of space, gender and power, mobilising Massey's concept of power geometry (1993; 2005) through which she argues that socio-spatial processes that help shape and define places do not operate evenly; social groups and individuals are placed in very distinct ways in relation to flows and interconnections. Data analysis also employs Massey's heuristic and multiscalar device of activity space: 'the network of activities, connections and locations within which individuals operate' (2005:55). The device of activity space challenges the idea of place as stable and coherent and foregrounds relationships of power in space; 'within each activity space is a geography of power' (ibid.). Thus the analysis interrogates the distinct positioning of female academics within a sector in flux; highlighting the operation of gender as a geography of power within the university and the sector as a whole, but also within the home as a site of paid work.

The first set of participants' diary entries strongly reflected the blurring of work/home boundaries and roles caused by pandemic lockdown and the sudden move to remote working. As anticipated, there were references to binaries of tangible/digital space in relation to work and communications. However, being attentive to other aspects of the 'spatial' revealed participants' experiences of space(s) as repurposed, disrupted, elastic and therapeutic, with implications for gender and power relations. For example, the organisation of the home as a site of work and for many, in tandem with the repurposing of the home as a site of schooling, involved complex negotiations, tacit or otherwise, as to the 'right' to quiet space, to a door that could be closed. These negotiations were underpinned by conflicts around social roles and division of labour, including emotional labour, within the space of the home. For some participants, repurposing space for work meant the loss of separate or cherished spaces within the home; those strongly identified with privacy, non-work and creative pursuits and aspects of individual identity. Both physical space and established relationships within it, could be disrupted by the demands of self-isolation, ill-health and homeschooling. Distances were both stretched and neutralised during the pandemic. Technology meant that work could be done from different cities and even continents. Contact could be kept, indeed enhanced, with family, friends and colleagues (although this required significant emotional labour which was unequally shared). However, limitations on physical and geographical movement inhibited significant routines, relationships and rituals to detrimental effect on mental and emotional health. As widely acknowledged in media coverage of the pandemic, the experience of outdoor space, of nature and seasons, was largely experienced as therapeutic. Diary entries commonly noted appreciation of the micro: vegetation, birdsong, sunlight through glass - and in one entry, recourse to particular and powerful memories of 'elsewhere' as a means of enduring difficult circumstances.

Subsequent diary entries and interview data continue to provide potential to 'read the spatial' and in so doing, explore in rich and sometimes painful detail, the implications for female academics' productivity, careers and identity.

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INVESTIGATING GUN SALES, FIREARMS REGULATIONS AND MASS SHOOTING FATALITIES AND CASUALTIES DURING THE US COVID-19 PANDEMIC.

Professor Craig Jackson, Faculty of Business, Law and Social Sciences

CONTEXT

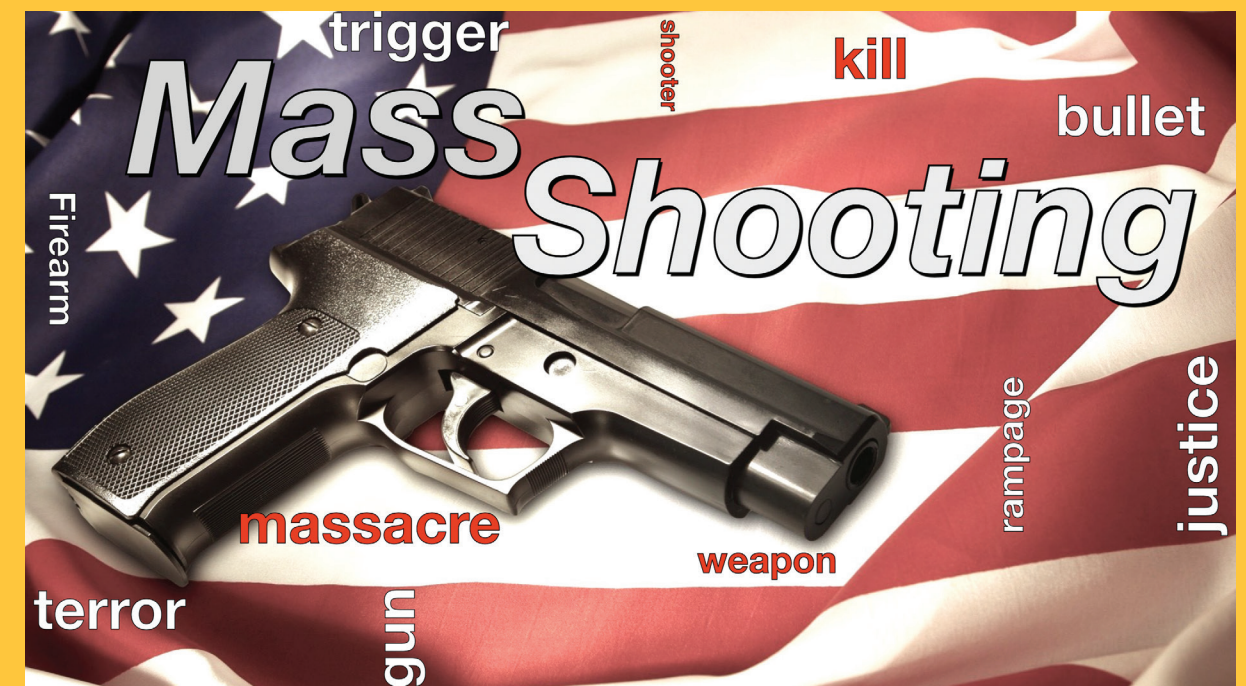
March 2020 saw the tenth covid-related death in the US, followed with a state of National Emergency and Stay at Home orders. In April this increased to 10,000 covid-deaths and over 1 million covid cases nationwide. May saw the murder of George Floyd and widespread social protests about his death and the Black Lives Matters movement followed for months. Ahead of the Presidential elections in September, the FBI warned of domestic threats by groups such as the Proud Boys and Boogaloo Boys. Stay at home orders and wider concerns about personal safety in March seemed to fuel the beginning of a firearms spending spree continuing throughout the US for the rest of 2020. By Summer 2020, firearms sales were higher than the same time in 2019 (FBI 2020), and by August 2020 the number of mass shootings in the US had surpassed the previous year-end totals for each year from 2014-2018. Fifty-three percent of mass shooting incidents occurred on weekends in both 2019 and 2020, and no significant weekend / weekday trends were observed.

Firearm ownership

The Small Arms Survey (2017) showed 1 in 3 adults legally owning a firearm; while 1 in 10 adults lived with someone who did, and 42% lived with a gun in their home. Gun ownership tended to be higher in rural areas (46%) than suburbs (28%) and urban areas (19%). Between January to April 2020, the National Shooting Sports Foundation (2020) survey of firearms dealers found 40% of purchasers were first time buyers, and 40% of those were females. In 2020 there were 53,262 federal firearms dealers in the US plus another 21,000 other outlets (gun pawnbrokers, importers and manufacturers). This equated to 4.5 firearms retailers for every McDonalds restaurant in the US (15,729). On average, there were 1494 gun outlets and 36 ammo manufacturers per state, compared with 316 McDonalds per State. Texas alone had the most firearms dealers (4814), with the fewest being in Rhode Island (81).

Background checks

Accompanying the firearms trade is the FBI National Instant Criminal Background Checks System (NICS), completed by computer or phone at the point of purchase, after customer completion of the ATFF4473 form. NICS checking typically takes a few minutes to return an answer and is the best estimate of gun sales in the US. The FBI and ATF have 3 business days to complete and report back to the firearms dealer with one of three responses: "green" (OK to sell); "red" (do NOT sell to the applicant); or "amber"



(inconclusive - the dealer may use discretion). Some states also have more robust checks at point of purchase but this varies widely. There was an upsurge of more than 11 million background checks in 2020 than the year before (39.7 million and 28.4 million respectively), and the NICS could not cope with increased demand upon the system. This resulted in more amber returns to firearms dealers, allowing for more discretionary sales. This meant that many more people who would not legally be permitted firearms were able to purchase guns. Historically gun sales in the US (measured by background checks) have traditionally increased, even if not year-on-year. November 1999 was the first month since records began in 1998 when monthly background checks exceeded 1 million. November 2012 was the first time checks exceeded 2 million, with checks exceeding 3 million for the first time in December 2015, and exceeding 4 million by January 2021. Anecdotally it is often acknowledged that gun sales / background checks increase slightly more whenever there is a Presidential election year. Across all states in 2020, the average number of gun sales was 1 per 22 of the population.

Stand Your Ground laws

“Stand your ground” laws allow civilians to use deadly force in public if they feel in danger from somebody, even if they know they could safely avoid any need for violence by stepping away from the incident (“retreating”). These laws place no legal compulsion on any individual to “avoid” violence and using deadly force, and 60% of US states have now adopted “stand your ground” laws.

Concealed and Open Carry Laws

Under the US Gun Control Act (1968), “concealed carry” and “open carry” laws vary from state to state: most states require a permit to carry handguns, but some states allow residents to carry handguns without permits, and most states allow residents to carry rifles and shotguns without permits. There are 18 million concealed carry of weapon (CCW) permits issued in the US, and these can include self-defence non-firearm weapons, such as small size pepper spray. There are no federal laws on CCW permits, and all 50 states (as well as Washington DC) allow qualified people (mostly uniformed services and prior military service) to concealed carry with/without permits, with some states requiring CCW permit holders to have training (1 day mostly). Twenty-one states do not require a permit to carry a loaded concealed firearm for any person of age, who is not prohibited from owning a firearm, and comparisons of mass shootings between those states are shown in table 4. A further 29 states allow permissive Open Carry of firearms for anyone and the remainder do not.

SUMMARY

Although the pandemic response and civil unrest were associated with a significant increase in background checks, national firearm purchases did not increase significantly and this may be due to variations in states.

Mass shooting incidents increased significantly from 2019 to 2020, as well as the number of injured victims, but not the number of fatalities. Total carnage (injuries plus fatalities) from incidents in 2020 was significantly higher than 2019.

The 10 states with over 1 million background checks in 2020 had significantly fewer mass shooting incidents, fatalities, and injuries than those states with fewer than 1 million background checks. This may represent that “gun-friendly” states somehow possess ‘protective factors’ against conflicts leading mass shootings.

However, when mass shooting incidents did occur, those states with over 1 million background checks had significantly higher mean rates of incidents, mean fatalities and mean injuries than those states with fewer than 1 million background checks.

States with ‘stand your ground’ laws were observed to have significantly more mass shooting incidents, fatalities, and injuries, than those states not using ‘stand your ground’, and it could be argued that such laws perhaps encourage more conflicts that may escalate to mass shootings.

However, states allowing concealed / constitutional carry of weapons for any eligible citizen had significantly fewer incidents, fatalities and injuries than those states not allowing constitutional concealed carrying of firearms. This could possibly reflect that conflicts may be suppressed from starting and escalating if citizens acknowledge there is a likely chance that fellow citizens in conflict situations may be armed.



Similarly, those 29 states allowing citizens open carry of weapons also had significantly lower levels of mass shooting incidents, fatalities and injuries than those states prohibiting open carry, and this may also represent a possible de-escalating nature of parties being armed in conflict situations.

Mass shooting incidents and the number of victims involved increased significantly from 2019, but variations in firearms laws between states such as ‘concealed carry’, ‘open carry’ and ‘stand your ground laws’ seem to account for much of the variation observed in mass shootings in 2020 in the US.

Mass shooting incidents remain high in the US and are on a trajectory to be even higher in 2022.

Given the massive increase in first-time purchases of firearms bought for protection during the pandemic, it seems sensible to anticipate that many of those guns will become superfluous after the pandemic and they will inevitably be sold on at garage sales or gun-shows.

Caution needs to be applied in the attempt to understand this complex human behaviour by using state data and the limitations contained within: correlation between US mass shooting incidents and the number of estimated gun sales is at $r=0.68$ ($P<0.000$). However correlation between mass shootings and the number of McDonald restaurants per state is $r=0.76$ ($P<0.000$)

UNEQUAL IMPACTS OF COVID-19 ON RESEARCH PROJECTS: A BCU CASE STUDY

Dr James Williams, Faculty of Business, Law and Social Sciences

INTRODUCTION

The Covid-19 pandemic caught everyone unawares in the research community as in every other field of work. Few, if any, risk assessments would have included the word 'pandemic' or any related issues. The focus of risk assessments tends to be on participant and researcher security rather than health safety. The key issues facing any activities due to the Covid-19 pandemic were travel and meeting people face-to-face. These had serious implications for many research projects which, particularly those in social sciences using qualitative methods, rely on face-to-face contact with research participants and on travelling to meet participants for interviews and other research activities.

Much of the focus of work on the pandemic and higher education has been on learning and teaching. There has been much work that explores the impact of transitioning to an entirely online teaching environment. This work has explored practicalities of the transition and it has also engaged with mental health impacts. However, there appears to have been little work on the impact of the pandemic on research projects, on researchers and participants. This paper reflects on the implications of the pandemic and how we managed three research projects at Birmingham City University. Each project was in a different stage of development when the pandemic hit. One had only just begun; one was at a mid-way point; the other was nearing its end. Each project had a range of different activities but they all included activities that engaged with the communities that were their core focus; each project was an international collaboration involving partners from more than five different countries.



The paper identifies that lessons can be learnt from the experience. There were key commonalities and differences between the projects in their experience of the pandemic but each was adversely impacted and we had to rethink or build in mitigation. However, adverse impacts were not always adverse and in some cases had positive outcomes. The paper uses Balbir Barn's (2020) 'digitalisation' framework as a useful reference point. Barn's notion that digitalisation has three stages: 'substitution' of one activity with another; 'extension', or the enhancement of one activity with another; and of 'breakthrough', or radical change to an activity, is useful in the discussion of higher education. For research, it appears to be equally applicable.

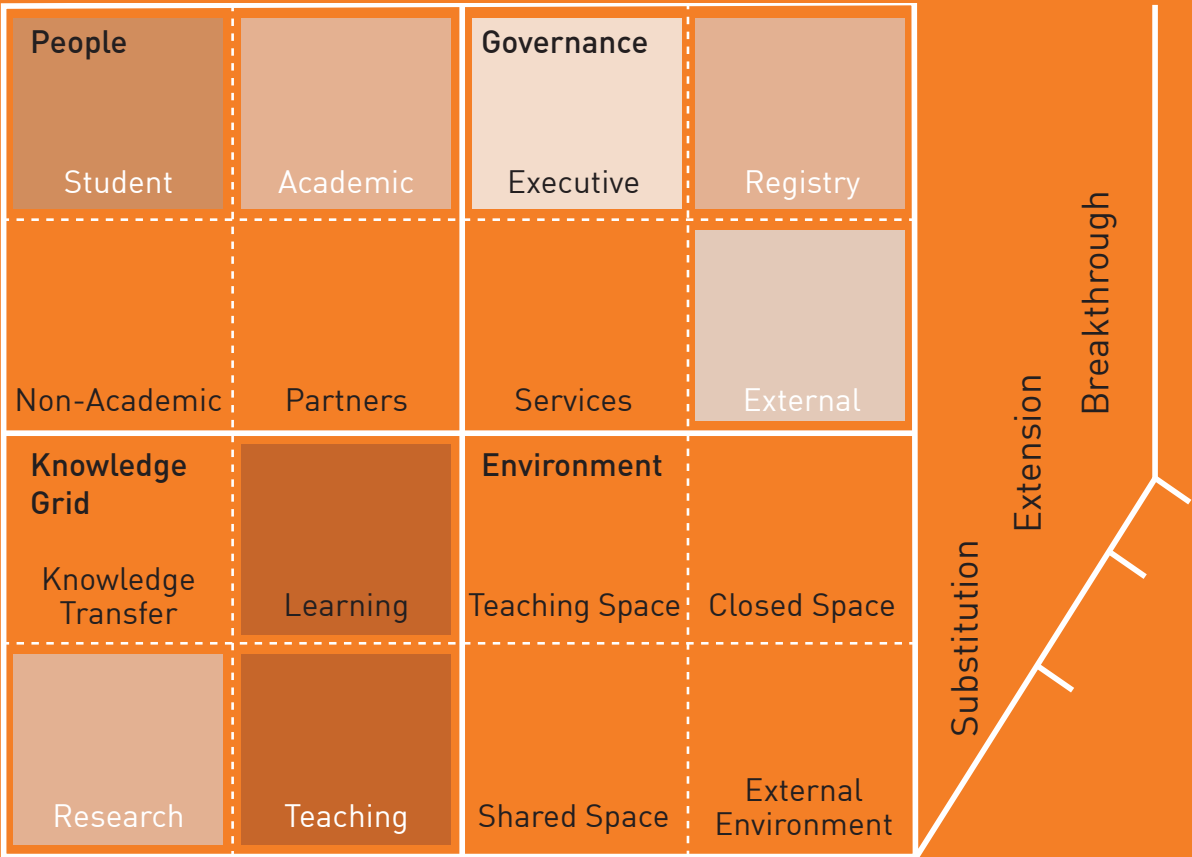
CURRENT RESEARCH

There has been surprisingly little research on the impact of the pandemic on research projects. The focus of research has been on the immediate impact of the pandemic on teaching and learning. Of the work on the impact of the pandemic, the focus has been on its impact on medical research. This has explored challenges facing researchers undertaking medical work on the Covid-19 virus and its impact. One article has found that 'research unrelated to COVID-19 has slowed' (Bishr-Omary et al. 2020). Research funding streams clearly have a Covid-19 focus.

Some research has reflected on the future. Short-term issues have been explored and longer term challenges and sustainability have been reflected on by researchers such as Beech and Anseel (2020). Some research has highlighted that travel, social and funding restrictions have taken a toll on research projects and on researchers (Harper et al., 2020). One article has highlighted that research-related hiring has been 'suspended', at least in the United States (Harper et al., 2020).

One article has highlighted the huge increase in number of publications: 20,000 papers published (Harper et al., 2020). This is a phenomenon that has been observed by journal editors and appears to relate particularly to research on medical aspects of Covid-19 (Ioannidis et al., 2021). However, it also applies to direct social impacts of the pandemic. An area of particular concern is the impact of the pandemic on women's research production (Pinho-Gomes et al., 2020). Whilst there has been a growth in male-authored publications, there has been a reduction in the number of those authored by women academics. This has been presented as the result of such activities as home-schooling being undertaken mainly by women.

Digitalisation



There has been no doubt that universities have been forced to transfer most of their normal face-to face activity online and much of the discussion about issues such as student experience relates to this shift. However, authors such as Komljenovic (2020) argue that the shift has been more fundamental: universities have in fact speeded up digitalisation of their operations due to Covid-19 but have not introduced anything particularly new. Balbir Barn (2020) argues that ‘digitalisation’ can be viewed as three stages. The first stage is ‘substitution’, where one mode is replaced with another; the second stage is ‘extension’, where existing practice is enhanced with new modal affordances; stage three is ‘breakthrough’, where practice undergoes a radical change.

APPROACH

This paper is a reflection on the experiences of working on three different research projects during the Covid-19 pandemic. The projects are: *Learning and Teaching Spaces in Higher Education (LTSHE)*, *Families: Social Exclusion in Places of Safety (FSEPS)*; and *Sustainable Quality in Higher Education Learning and Teaching (SQELT)*. The projects were running in parallel but were at different stages. The FSEPS project began in November 2018 and was planned to last for two years; the SQELT project began in November 2018 and was planned to last for three years; the LTSHE project began in December 2019 and was planned to last for two years. Running a range of projects with different deadlines can be challenging but the advent of Covid-19 added further challenges.

Each project engaged with different participants and involved different contexts and activities. FSEPS aimed at creating and implementing a pilot programme, called ‘Our Time’, in places of safety for women and their children who had fled from situations of domestic violence. SQELT aimed at developing a comprehensive set of performance indicators for learning and teaching, involving interviews and focus groups with institutions to explore the development of data strategies relating to learning and teaching. LTSHE aimed at developing a set of guidelines for the development of learning and teaching spaces and involves exploring the use of learning and teaching space in partner institutions and partner visits to other institutions. Each project faced various challenges as a result of the Covid-19 restrictions.

Each project is an international project, involving several partners, including Birmingham City University (BCU), represented by the Social Research and Evaluation Unit (SREU). The FSEPS and LTSHE projects were led by BCU whilst the SQELT project was led by the German partner, Evalag. Across the projects, eleven partners represented came from Germany, Austria, Belgium, Bulgaria, Italy, Kosovo, Poland, Portugal, Romania and Spain. Partner projects involved working together on project outputs and working directly with research participants as well as a great deal of international travel. Whilst partner countries developed their own Covid-19 responses, each was underpinned by approaches that heavily restricted movement and face-to-face contact and these had a huge impact on project activities.

FUNDERS RESPONSIVE

The initial response of the project teams was to communicate directly with the project funders to determine what course of action was permissible. This was a vital first step as it became clear that serious restrictions on movement and human contact were imposed across the partner countries.

As the funder of the three projects discussed here, the EU has been responsive to our concerns and requests. The EU, as the Imperial College Research Office noted, is one of those funders which has been ‘pragmatic’ (Imperial College, 2021). Extensions appear to have been granted with little explanation required and our experience has been positive. FSEPS and SQELT were close to their end and were granted extensions of three months whereas the LTSHE project, which had only just started when the pandemic began, was awarded a year’s extension.

Funders such as the EU appear to have acted reasonably and flexibly. These extensions have proved positive and helpful in the short-term. In the longer term, in addition to extensions, funders have been positive about allowing partnerships to exchange face-to-face activities for online versions. However, it is not clear how some of the positive changes, particularly in areas such as travel and communication will become accepted practice.

IMPACT ON PARTNER MEETINGS

The initial change that was implemented rapidly was to transfer face-to-face partner meetings to an online setting. This was urgent because there was a partner meeting due in two of the projects shortly after the pandemic began to have an impact. The first partner meeting to be affected was the SQELT meeting in Milan in February 2020. Although the meeting was held, BCU held a moratorium on international travel in early February, which led to a decision being taken by the BCU team not to attend the Milan meeting: the team attended online instead. The second upcoming meeting was the FSEPS partner meeting in Pamplona and this was cancelled for all partners as a result of the increasing lockdowns. This meeting was held online instead.

Thereafter, all partner meetings were held online and this is possibly one of biggest impacts on European projects. European partner projects have a requirement to hold regular, scheduled, physical partner meetings throughout their lifetimes. Commonly, there is at least one partner meeting per year and some have many more. LTSHE and FSEPS had four scheduled partner meetings over their lifetimes; SQELT had six meetings.

Partner meetings were transferred online relatively smoothly. Partners in our three projects appear to have been comfortable with meeting in this format. The move allowed regular, more frequent partner meetings. Meetings were also able to be shorter and more focused.

The software used to hold online meetings proved to be a challenge initially. BCU does not support the use of Zoom for online meetings but most partners were keen to use this software. BCU's preferred option was MS Teams but this was not available to all partners. In practice, Teams was used for all partner meetings in the LTSHE project; Zoom was used in the FSEPS project meetings but arranged by the Austrian partner. SQELT partner meetings were managed by the German project manager. Despite initial challenges, meetings worked effectively and none of the partners were excluded.

In general, the transition to online meetings was positive. Practically, the shift was useful in saving money on travel, subsistence and accommodation and clearly has potential for the future. It must be noted, however, that in most cases, partners were already well known to each other although whether this has had any impact on developing relationships is not clear. In some cases, visiting the meeting host's country has particular benefits because it is possible to see the different contexts in which partners are working. In addition, the EU has long encouraged travel between partner countries as part of an attempt to integrate European partners so may be less willing to encourage such a transition.

IMPACT ON THE PROJECT ACTIVITIES

The onset of the pandemic and restrictions not only had an immediate impact on key activities such as partner meetings. It affected all activities that involved an element of face-to-face contact and travel. In the case of the three projects under review, this involved a range of activities: research and development and implementation of a key activity. In the case of the FSEPS and SQELT projects, the underpinning research stages had been completed long before the onset of the pandemic; in the LTSHE project, the primary research phase was still due to be undertaken when the pandemic began. Still, the pandemic had an impact on the way in which each project progressed.

In the LTSHE project, alternatives for Outputs 2 and 3 have been discussed and the outcomes have yet to be seen. Output 2 involved speaking with stakeholders about their experiences of studying and working in different spaces; there was an obvious shift to online engagement but we also considered the use of 'walking interviews' when restrictions were relaxed. Output 3 involved site visits: in practice, we considered a shift to online tours; more online tours may be a possibility. In addition, these may be more accessible for wider audiences and may also be used as the basis for further research relating to comparison over time.

In the case of the FSEPS project, the team was able to refine the 'Our Time' programme because it was unable, because of lockdowns across the partnership countries, to implement the programme in places of safety according to the original schedule. This was particularly challenging as the 'Our Time' programme was intended as a face-to-face activity: it was designed as a flexible set of activities to help women and their children living in places of safety to live happily together. The original intention was to pilot the programme in at least two places of safety in each partner country but this was not possible owing to local restrictions. In Romania, it could not be undertaken at all; in Italy, the programme was piloted virtually.

The Covid-19 pandemic had an impact on the subject matter in each case. In the case of the FSEPS project, the pandemic forced the team to consider the challenges facing families living in places of safety, situations that are difficult enough without additional restrictions imposed by a pandemic. The LTSHE project focuses on space and its use: the pandemic forced the team to think differently about how and what space is actually being used. The SQELT project was exploring the progress made towards managing digital data, an issue that became central to discussions of higher education during the pandemic.

The pandemic has had an impact on stakeholder experience. The impact on the women and children in the FSEPS project is perhaps the most obvious. The take-up of the 'Our Time' programme by mothers and children was lower than hoped because of the pandemic restrictions. Each partner country had different restrictions which led to varied take-up. In Romania, for example, it was simply not possible to implement the programme face-to-face. In some cases, Italy, for example, the programme was implemented online.

Some key work had to be postponed. The FSEPS 'Our Time' programme was implemented face-to-face in most of the partner countries but involved limited numbers given the necessity to comply with local rules. In the LTSHE project, planned site visits proved to be problematic and were postponed. The main activities of the SQELT project had largely been completed by the time the pandemic began and the key challenge was to develop and implement a range of dissemination events. It is important to note that few activities were actually cancelled: partners attempted to postpone activities or transfer them to an online format.

The project partners needed to be aware of potential 'windows of opportunity' in which to take appropriate action. In the FSEPS, the 'Our Time' programme generally ran in the early Autumn rather than earlier in the summer because, in most of the partners' countries, restrictions were generally relaxed in this short period. In the LTSHE project, site visits were postponed because they were planned to take place at times when international travel was disrupted. The project team considered the possibility of replacing these visits with 'virtual' visits.

Owing to time lags relating to project outputs, the funders were understanding of the difficulties posed by the pandemic and allowed extensions. As we have seen, extra time enabled partners to spend more time refining the 'Our Time' programme. In the case of the LTSHE project, the team was able to spend more time developing Output 1, the literature review. This element in the project was much bigger than anticipated and provided an opportunity to understand the issues more deeply.

Impact of shift to online dissemination events

The second major impact of the pandemic has been to shift to online events. Again, this has proved relatively unproblematic practically. The EU requires substantial presence through dissemination activity. The preferred option has always been that events are face-to-face. Clearly, physical presence has been impossible and the pandemic has encouraged participants to shift to online events.

The dissemination events for the three projects were seminars, 'multiplier events' and conferences. The transition was generally smooth although the final SQELT conference in Ghent was cancelled. It was relatively easy to change these events to online events. The shift to online dissemination events in the UK was unproblematic and these attracted reasonable numbers. The events proved to be successful networking opportunities.

The number of attendees varied but overall was reasonable and did not seem to reflect challenges related to Covid-19. One online event held by the Spanish partner in FSEPS attracted 70 participants. Prior to the pandemic, multiplier events have not attracted large numbers. The events were positively received: participants were visible and there was a sense of community. Such events provide a surprisingly effective networking opportunity. The major positives of shifting to online events were that they were more convenient in a range of ways. They required no travel, they were clearly defined and could be joined and left efficiently.

CONCLUSIONS

The Covid-19 pandemic was unexpected and researchers, as everyone else, faced initial uncertainties. However, the pandemic forced researchers to reflect on every aspect of the three projects in this study. First, it was essential to be in close contact with the project funders at every stage to ensure that we were aware of what they required and that they were in agreement with any adaptations that we suggested to the programme. Second, whilst there were some adverse impacts, there were also some positive outcomes. The shift to online activities has generally been smooth. In general, the shift has been positive and some of the outcomes have been particularly valuable. In the case of international projects, there has been a significant reduction in the scale of travel to meetings.

For projects where partnerships are well established, this was a benefit both in terms of financial cost, disruption and environmental impact. Covid forced us to think about alternative approaches where planned project activities could not be realised. In the FSEPS project, different partners' national restrictions led to the implementation of slightly different versions of the 'Our Time' programme, as this was intended as a face-to-face programme to help families work together better. For example, in Italy, the programme was run entirely online with women and their children; in Spain, windows of opportunity allowed the partner to run the programme face-to-face.

In all cases, however, partners were positive about the outcome. Overall, flexibility on the part of project leads, partners and funders has been essential. Different contexts and restrictions have led to differing approaches. Finally, Covid-19 and its impact has been a focus of much research and discussion. However, the research has, inevitably, focused on the short-term impacts. Much more research needs to be done on the longer term impact of the pandemic on research projects and the way in which we approach international, multi-partner working. In the longer term, we will all need to reflect on whether there has been, to use Barn's (2020) typology, enhancement, substitution or breakthrough.



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COVID-19 AND THE COST OF VACCINE NATIONALISM

Dr Erez Yerushalmi, Faculty of Business, Law and Social Sciences with Marco Hafner, Clement Fays, Eliane Dufresne and Christian Van Stolk

COVID-19 has killed millions, infected hundreds of millions, and caused unparalleled costs to the global economy. Currently, there are various vaccines available. However, not all countries will have equitable access to these vaccines. Experience from the current pandemic and the 2009 H1N1 pandemic suggests that in responding to such events, national governments tend to follow their own self-interest rather than pursuing a globally coordinated approach. This is known as “Vaccine nationalism”, where countries push to get first access to vaccines and potentially hoard key inputs for vaccine production.

In this study, we examined some of the negative consequences that vaccine nationalism could have on managing the pandemic (see full publication)². We quantified the economic cost of vaccine nationalism when a limited number of countries have access to the vaccine by developing a multi-country Computable General Equilibrium (CGE) model which we calibrated to the real-world. Vaccine nationalism affects the modelled economy by creating trade frictions of goods and services, disruptions to the supply chain, and negative spill-overs from one country to the other. We simulated a reduction in activity level due to physical distancing and changes in consumer behaviour in the following high-contact intensive service sectors: hospitality; recreation; retail and wholesale; transportation; and health and social care. We simulated a range of scenarios from no vaccine developed, to only certain “vaccine developing nations” immunising their own populations, to nearly all countries excluding the poorest nations (see figure). Our benchmark for comparison is when no COVID-19 is present.

The scenarios we test in our model

- 1 No COVID vaccine is developed
- 2 Only USA, EU, UK, China, India and Russia have the vaccine
- 3 All high-income, China, India and Russia have the vaccine
- 4 All high- and middle-income nations have the vaccine



Table 1 below presents our main results for mid-range scenarios (Read full report for all scenarios). Our results are clear: even if all high- and middle-income nations, plus vaccine developing nations have access to the vaccine (scenario 4), countries continue to lose GDP because the poorest countries haven’t been vaccinated. E.g., the USA loses 16 \$bn a year, and China loses 15 \$bn.

Table 1: Change in real annual GDP in \$bn relative from baseline (per year)

SCENARIO	WORLD	USA	EU-27	UK	CHINA	INDIA	RUSSIA	HIGH	MIDDLE	LOW
Scenario 1 - World without vaccine	-3,449	-480	-983	-145	-356	-88	-52	-997	-147	-200
Scenario 2 - Vaccine nations have access	-1,232	-127	-311	-41	-110	-26	-18	-453	-65	-82
Scenario 3 - All high-income and vaccine nations have access	-292	-30	-76	-10	-27	-7	-5	-73	-30	-35
Scenario 4 - All high and middle income plus vaccine nations have access	-153	-16	-40	-5	-14	-3	-2	-39	-6	-28

Note: entries report changes in real annual GDP (US \$bn, 2019 values) relative to the baseline scenario where all countries have full access to a COVID-19 vaccine and can sufficiently inoculate their population. These are our mid-range scenarios.

Based on our estimates, combining the losses of the US, the UK, the EU, and other high-income countries would reach \$119 billion a year if the poorest countries are denied vaccine supply. If these high-income countries paid for the supply of vaccines, which Oxfam International estimated in 2020 to be around \$25 billion, the benefit-to-cost ratio would be around 4.8 to 1. In other words, for every \$1 spent on vaccines, high-income countries would get back about \$4.80 of economic outcome.

Providing equitable access to vaccines and healthcare in general thus makes economic/business sense. The international effort to support vaccination distribution needs to have a long-term view that extends far beyond the short-run political cycles. We need to develop systems of sharing and mutual support not only for the current COVID-19 crisis, but also for other future crises on the horizon, such as Anti-Microbial Resistance (AMR).³

To read the full RAND Corporation research report, please see www.rand.org/pubs/research_reports/RRA769-1.html.

¹ This piece is based on our RAND Corporation report. See link to full report at the end of the article.

² Read our research report here: https://www.rand.org/pubs/research_reports/RRA769-1.html.

³ For example report, see: <https://www.bcu.ac.uk/business-school/research/projects/the-potential-socio-economic-impacts-of-antimicrobial-resistance-in-canada>

SEEING BEYOND THE STORM: A PERSONAL REFLECTION AS A | PHD STUDENT'

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Public health became personal in the Spring of 2020. As the pandemic came over us, and everything changed, I already knew something of how unequal things were. I already realised they were likely to get worse. But what became clear to me was that seeking to understand and learn was the best hope for all of us. The best way of living beyond the pandemic, for those lucky enough to have lived through it. This was how research and universities made a difference. This was how we needed to act. This is why the work described in this document offers hope.

My own PhD looks at what people think about aspects of their health, and the health of others, and what they think might be a better way of improving these, of reducing health inequality. When I started my PhD, back in what seems a different world now in 2017, there was already an ocean of evidence explaining that the causes for health inequality were multiple: social, material, environmental, political, psychological as well as about personal behaviour. What was lacking was much understanding about why the public seemed not to grasp the link between these many forces at work, on every single life in the UK, and what people can and should do to stop more of us dying younger, or getting ill more often. I learned that the public understand the links between poverty and ill health very well – what wasn't clear was why they seemed to fail to grasp what the 'experts' and policy after failed policy said should be done about that. That was where I needed to look next. Spring 2020.

Then the pandemic was here. Suddenly, public health was about how we all lived. '20/20 vision' always used to be a metaphor for foresight, clarity and determination. 2020 the year proved to be a disaster movie in slow motion, with the virus prising open existing inequalities with almost surgical precision as it took lives, and kept taking. Livelihoods followed. I put my own studies on hold, realising people needed time to adapt to what in most cases was a complete change to their way of life. As the months passed and the first wave – then the second – came and went, I could gauge what the pandemic was doing to the NHS, to many of our colleagues, to the politics of health.

That told me what I really already knew: this changes everything. It has completely overturned the public health landscape. It became most people's first interest.

It also became apparent that this was affecting health inequalities as a 'syndemic': amplifying and intertwining with existing inequalities to make them – ALL of them – far worse.

We know that the poor, those living in crowded housing, those with insecure jobs that cannot be done from home, all suffered and are suffering worse.

The mental health effects and the effects of prolonged school absences cannot yet be seen clearly, but they will be staggering in their amplitude and breadth. The economic effects are far from over. The effects on the NHS itself and the health prospects of people who have had to wait for treatment, who will still have to wait, because of Covid-19 are just beginning to be discerned. My PhD study had shifted along with all of that.

You can expect to change course a few times in your PhD. But this was not so much a change of course as a complete overhaul of what the PhD now had to be about. On return to my studies, I re-framed it to reflect the effects of Covid-19, both on health inequalities and likely perceptions about solutions. Expert and non-expert alike: this had affected all.

There was one silver lining. I now had data from before the pandemic to compare with data gathered after it. Here, maybe, was a chance to offer an insight into what people think could be done, in the light of the pandemic, to make the searing health inequalities better.

That's what I am now doing. This pandemic changed what my PhD was about, how I did my research, and what I hope to get out of it. At least one of those things must be true, now, for any PhD. The early signs are promising. People seem more aware of how inequalities affect them, why something should be done (after decades of health inequalities worsening), and what they might consider doing about it which goes beyond the narrowness of diet and personal behaviour. I might even dare hope that people are starting to feel for a greater sense of community – though there's far from a unified voice and a host of differences in opinion. That matters far less than what is looking to be like the chance of people waking up to the realities of health inequality, and wanting to end it as best they may. Early days yet – but hope.

As I came to the (long delayed) final few months of my PhD study, I was encouraged by how many others have shared the same journey, and were responding by changing their research, adapting their methods, trying to understand more. Which was why I was happy to help organise a conference on Covid-19 and inequalities across the university. It was heartening to see how many researchers came forward, to see the multiple ways in which people were lending their best efforts to trying to understand more, and overcome what this pandemic has done to us, to give us a better future – all of us. Research always has a purpose. In contributing to this conference, and seeing what others were doing, I glimpsed the wider purpose. People trying to make what they did, in their research, in their struggle to know why and how, make a difference beyond the immediate circles of academic work to help us move beyond the pandemic and towards a more equitable future.

UNDERSTANDING THE INEQUALITIES OF CORONAVIRUS CAPITALISM THROUGH COUNTERHEGEMONIC READINGS OF CONTEMPORARY FILMS

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In March of 2020, Madonna filmed herself in a luxurious bathtub surrounded by flower petals discussing SARS-COV-2 as a virus that ignored hierarchy and social conditions.

“It doesn’t care about how rich you are, how famous you are, how funny you are, how smart you are, where you live, how old you are, what amazing stories you can tell. It’s the great equalizer. And what’s terrible about it is what’s great about it. And what’s terrible about it is it’s made us all equal in many ways.”

Nothing, however, could be further from the truth. The outcomes of the pandemic map onto existing inequalities in near perfect fashion. Instead of ignoring inequalities, the virus exacerbates and articulates our social differences in a stark manner. Class and race, two interlinked social categories that are important dividers of life chances, have become critical to our understanding of COVID inequalities in no small part because of a rarely discussed variable: housing.

In our neoliberal landscape, housing is largely market-driven and this, along with a history of racist policies, have led to poor housing conditions and overcrowded living space for those on the lowest rungs of the economy and non-white populations. Overcrowded housing means the conditions for transmission of the virus within a household are ripe and making self-isolation or working from home nearly impossible.

While housing seems to play less of a role in our cultural awareness of how disparities play out, two important films released in 2019 shortly before the discovery of the novel coronavirus focused on just that issue. The Oscar winning Korean film *Parasite* and the independent award winning film *The Last Black Man in San Francisco* explore housing in their cinematic attempts of addressing class and race-based inequalities, respectively.

Parasite is a film that shows the divergent lives of two families in starkly different economic positions. The Kim family is poor but cleverly and deceptively trick a rich family, the Parks, into getting themselves jobs as the Parks’ servants. While the Parks are away, the Kims take over their living room, eat the food, and drink the liquor of their rich employers. The name of the film and its etymological origins is clear in its intention, but director Bong Joon-ho expands on this interpretation.

“...if you look at it the other way, you can say that rich family, they’re also parasites in terms of labour. They can’t even wash dishes, they can’t drive themselves, so they leech off the poor family’s labour. So both are parasites.”

Housing plays a huge role in the story between this poor family and the rich family. The Kims live in a semi-basement apartment. Their internet signal is poor; cockroaches frequently infest their cramped living space; strangers, after a night out drinking, will urinate on their windows. Their living conditions are less than ideal. The Park home, however, is a luxurious space made up of several stories, a large garden space, and beautiful design. This distinction in lifestyles is not simply a background feature of the film.

It drives the motivations of the characters and signals the ebbs and flows of their story arcs. We see the importance of this inequality when a rainstorm hits. The Park son excitedly sets up a tent outside and enjoys the storm in comfort. The Kims however, must go to a refuge as their semi-basement home becomes flooded. The Park home sits atop a hill, perfectly protected from any threat. But the Kims live on the bottom of that hill and as the water rolls down it floods the Kims’ already hardly inhabitable halfway underground home. In *Parasite*, the class hierarchy is presented vertically and the housing differences between classes are shown as a determinant of safety and security. But the flood itself is not at fault. As historian Peter Linebaugh distinguished: there are microparasites, like COVID-19, and there are macroparasites like the people who have established inequalities that lead to differential outcomes from these types of diseases².

The Last Black Man in San Francisco tells the story of two best friends who are also living in cramped conditions. Jimmie and Mont live in Mont’s grandfather’s house in the poor neighbourhood of Hunters Point in San Francisco. Mont and Jimmie, both fully-grown adults, share a makeshift room that was converted from a garage so small that Jimmie is forced to sleep on the floor. The plot of the film surrounds the issue of housing as Jimmie seeks to find his way into a multi-million dollar home where he once lived. The film depicts the processes of gentrification through his interactions, stories of landlords burning down affordable housing, and white men in hazmat suits cleaning up Hunters Point to drive up real estate prices.

The Last Black Man in San Francisco artfully demonstrates the layers of housing inequality and the options available to the systemically oppressed residents. As the political economist Albert O. Hirschman famously argued, the options of unhappy consumers are voice and exit³. Jimmie voices his concerns to banks, real estate agents, friends, and family. Jimmie encounters others who chose to exit the city. But Jimmie tries his luck at a third option: direct action. He squats the house he wants to live in after the tenants move out as an individualistic attempt at restoring housing justice.

COVID is not the great equalizer. Nor is it bringing about inequality on its own. COVID is transmitting itself within the social world and institutions of our construction. Both films bring cultural awareness to the importance of housing within the discussion of inequality and give us insight into how the inequalities brought out by the pandemic are social, rather than biological. The two films discussed here predate the pandemic but demonstrate clearly how the pre-existing inequalities in housing can lead to differential outcomes from the virus.

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COVID-19 IN DETENTION

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It is of little surprise that prisons and places of detention have been affected badly by the COVID-19 pandemic; difficulties stem from known problems, overcrowding in particular, and additional factors such as the hesitancy of governments to act decisively, perhaps as a result of a desire not to be seen as treating those in detention more favourably than those in the community. Prisoners have suffered from the pandemic in the majority of countries on all continents, including prison administrations that are relatively better resourced. Dealing with the pandemic is hindered in prison systems where there is a lack of staffing, poor health care provision, overcrowding, poor sanitation and hygiene. All these factors make it difficult to introduce infection prevention and control mechanisms that are demanded in order to control COVID-19 and, indeed, any future pandemic.

The punishment for prisoners is curtailment of their freedom and while detained, according to the principle of equivalence, they should have the same access to healthcare as those in the community. This concept is often overlooked when the issue of prisoner access to COVID safety measures such as social distancing, provision of PPE and, ultimately, vaccination is debated. It is also important to remember that those in prison come from communities and return to communities on release. As such, there is a risk of transmission back into the community and the effective management of COVID-19 in prisons is necessary to manage the spread of the virus. This means that the process of transition back into the community for released prisoners needs to be carefully managed and collaboration with agencies in the community is necessary to facilitate compliance with any restrictions in force at the time of release. It can be argued that the pandemic is highlighting long-standing deficiencies in the transition process. Ensuring continuity of care upon release and attending to the problematic issue of locating suitable accommodation, for example, have taken on greater importance, but are increasingly complex given the restrictions necessary to safeguard public health.

Prisons are high-risk environments in which to work and prison employees, as well as detainees, are at risk of infection. Implementing an effective response to outbreaks that develop within the prison setting is problematic, given that the primary objective of correctional facilities is security. Further, the construction of prisons is often not conducive to the principles of infection control. Although the prison population can be categorised as highly vulnerable, there are inherent difficulties in implementing effective treatment of infectious diseases: maintaining social distancing and reducing mobility, for example, is challenging in view of the large amount of time spent in cells and the issue of crowding in communal areas.

Early in the pandemic, many prisons introduced a number of measures designed to minimise the risk of infection to both prisoners and correctional staff. These included, for example, suspending prisoner visitation, a measure aimed at reducing the flow of individuals entering and leaving the institution, together with restricted movement of detainees between facilities. Decarceration was a further measure aimed at reducing the number of people in prison: it is however, unclear how successful this strategy was, given



that release was only considered for those close to the end of their sentence and/or on medical or compassionate grounds. Other measures introduced included the screening of both detainees and health workers to identify asymptomatic patients, followed by isolation of positive cases within dedicated areas in the prison.

The introduction of such measures are necessary to combat risk of transmission within the estate. They can, however, pose risks of a different nature. Isolation, for example, has the potential to result in psychological distress and lead to long-term trauma or self-harm. It is also possible that at a time when prison resources are directed toward COVID-19 concerns, access to psychiatric and other health services in prison could well be limited. This is a concern when it is recognised that, as a result of the pandemic, those in the community, with greater access to resources than detainees, are suffering with mental health issues.

Examples of good practice have emerged resulting from actions within prisons to limit the spread of infection. Innovations that could be adapted to the prison context as we move beyond the pandemic include telemedicine and other services that use communication technologies. The use of virtual visitation with family members is another practice that could be implemented on an ongoing basis to supplement, but not replace, face-to-face visits. It should be noted, however, that while the benefits of this were apparent during a period when physical visits were curtailed, introducing a technical solution does present its own difficulties, including access to the required technology and issues of security.

It is clear that responding to the pandemic in prisons has proven challenging, but has resulted in collaboration and innovative practice that should form the basis of a robust strategy to combat any future epidemics of this nature. The involvement of public health departments, in particular, has been valuable and should be supplemented by input from other experts including epidemiologists. It has also demonstrated that prisons can react quickly and implement new procedures that help to safeguard the health of prisoners. It is hoped that the political will, innovative practice and collaboration exhibited during this time continues and begins to address other long-standing prison issues such as overcrowding and diversion from custody.

THE IMPACT OF COVID-19 ON AN INTERNATIONAL HEALTH PARTNERSHIP WITH ZAMBIA

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BACKGROUND

Global health partnerships between higher education organisations in low- and high-income countries are an important way to facilitate sustainable strengthening of health systems (Mormina and Pinder, 2018). Since 2015, Birmingham City University has sustained a health research partnership with the Ministry of Health, and other key stakeholders in Zambia. This summary presents the first results from a study designed to explore and enhance the knowledge, expertise, and experiences of Zambian critical care and emergency nurses working in the front line of the Covid-19 pandemic.

Zambia is a land-locked country in sub-Saharan Africa, with a population of approximately 16 million, and ranked 146 out of 189 countries in the Human Development Index (UN Human Development Reports, 2021). At the time of writing, Zambia has had over 206,884 reported cases, and reported 3,611 deaths from COVID-19 (Worldometer, 2021). However, many more cases and deaths may have occurred but not been reported as test records are incomplete.

The need for this project was initially identified during a Tropical Health and Education Trust grant, then designed and implemented through a UKRI / Newton Covid-19 Agile Response project.



Professor Joy Notter, Chris Carter and their team in Zambia

UKRI/NEWTON PROJECT AIMS:

- Scale up of nursing personnel to enable them to respond to the COVID-19 pandemic in the short medium and long term.
- Enhance policies and strategies to enable the transformation and focus of current practice while maintaining an ongoing service provision at all levels.
- Develop recommendations for community engagement to prevent the spread of COVID-19 and other infectious disease outbreaks.

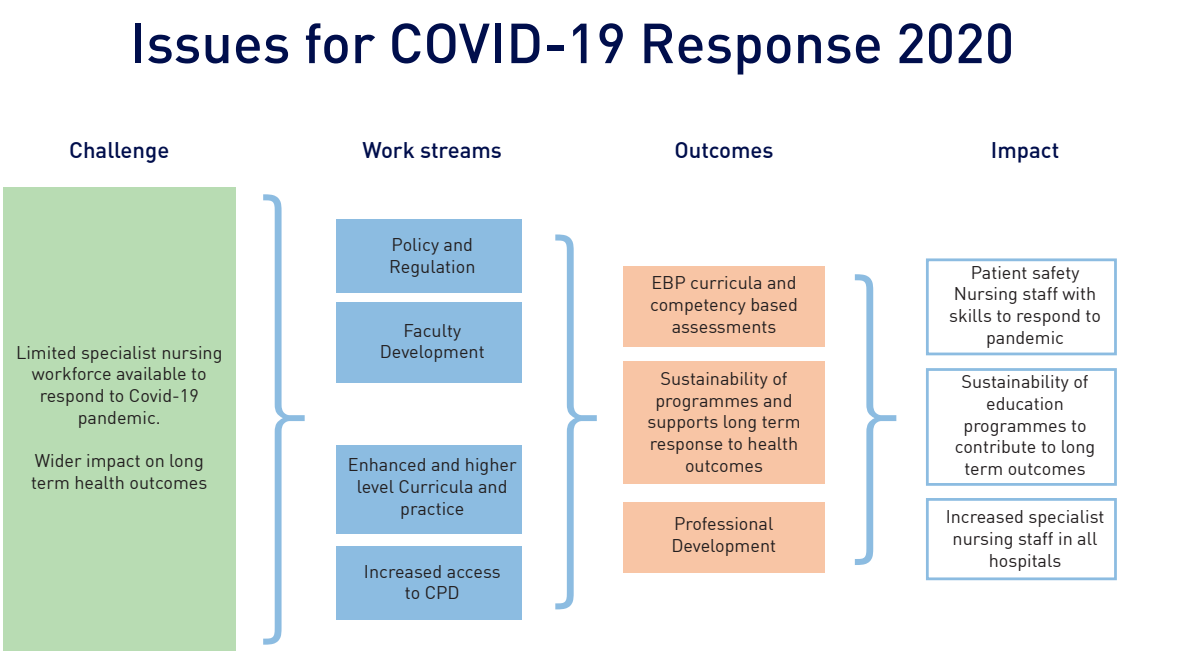
METHODOLOGY:

This is a mixed methods study with multiple activities; each one with an independent remit which then interlinked with other activities to support the overall project aims (Bressan et al., 2017; Cresswell and Cresswell, 2018). Among the first was an observation in practice to provide a baseline identifying areas for change (Twycross and Shorten, 2016; Patton 2014; Johnson and Christensen 2019). This was followed by two short anonymous surveys. The first, a paper based survey to student nurses 3 months following a local blended learning training package for students at one education provider in Zambia. The second was a national e-survey to ascertain nurses' experiences of the Covid-19 pandemic.

RESULTS

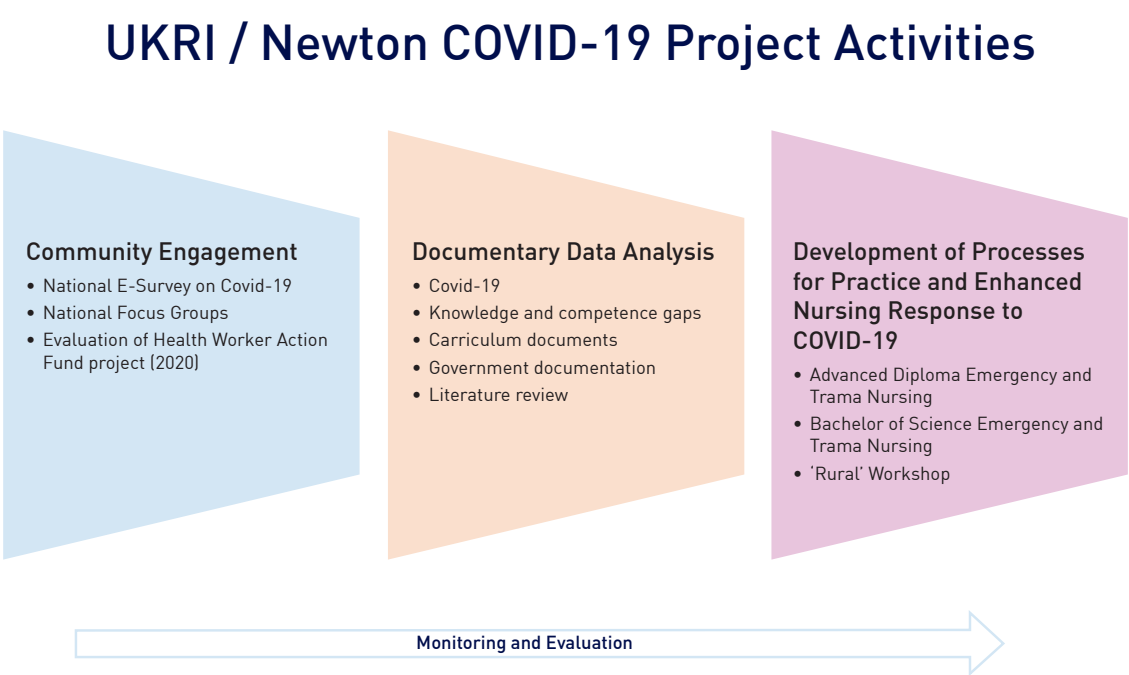
The initial practice observation yielded baseline findings of challenges in oxygen delivery, oxygen safety, equipment and patient safety, Covid-19 clinical management and infection prevention control practice. Experience, gained from responding to a Cholera outbreak in 2018, identified preparation and education of nursing staff as key to controlling the spread of disease (Sinyange et al., 2018). Therefore, using the direct observation data sets, a strategic partnership research workshop (Yurdakul, et al., 2012; Baran, et al., 2014), identified a series of challenges, work streams and outcomes necessary for scaling up the nursing response to Covid-19 (figure 1).

Figure 1: Nursing Covid-19 Response



Using these, activities were developed for community engagement, documentary data review and analysis and development of processes for practice, which would lead to the requisite enhanced nursing response to Covid-19 (figure 2).

Figure 2: Project Activities



THE TWO SURVEYS

The first survey involved 479 pre and post-registration nursing students, with a 61.5% (n=295) response rate. This revealed nurses had a good theoretical understanding of Covid-19, however, a severe lack of knowledge of practical strategies to reduce infection including hand-hygiene, with only 39 (13%) giving correct answers (Table 1).

Table 1: Numbers and frequencies of responses from completed blended learning package

NO.	QUESTION		N	%
1	How is Covid-19 transmitted?	Correct	263	89.2%
		Incorrect	32	10.8%
2	Correctly identified symptoms	Correct	263	89.2%
		Incorrect	32	10.8%
3	Correct identification of individuals with Covid-19	Correct	241	81.7%
		Incorrect	54	18.3%
4	Correct identification of stages of hand hygiene	Correct	175	59.3%
		Incorrect	120	40.7%
5	Knowledge of time needed to wash hands with soap and water.	Correct	39	13.2%
		Incorrect	256	86.8%
6	Knowledge of time needed when using alcohol hand rub	Correct	35	12.0%
		Incorrect	260	88.0%
7	Knowledge of wearing gloves while caring for a patient and washing hands.	Correct	35	12.0%
		Incorrect	260	88.0%

The second survey, a national e-survey of 432 nurses, revealed that while the majority had nursed confirmed cases of Covid-19 (303 / 79.3%), only 67.9% (264) had been trained in using personal protective equipment (PPE). However, only 54.5% (212) were confident in the donning and doffing of PPE. The open-ended questions were analysed using content analysis. which revealed just how difficult and traumatic the experiences had been. The emerging themes included nursing practice in a pandemic, the realities and the personal and professional impact (Table 2).

Table 2: Open ended questions

Nursing Practice in a Pandemic:

‘The experience of Covid has been a hands on job training [for nurses] ... through the day to day taking care of patients’

‘Nurse/patient ratios were out of scale, it was difficult to care for so many critically ill patients with few specialised nurses’

Realities

‘Survival rate for the very critically ill and intubated was quite slim’

‘It’s depressing to see the life leave a person whose battling for breath in a second’

‘Covid-19 is real’

Personal and Professional Impact

‘Lots of doctors and nurses have died due to nursing patients with Covid-19’

‘During the Covid-19 pandemic nursing has been a challenge ... it needs nurses with a heart’

‘Been a difficult time for nurses ... worked very hard to save lives’

DISCUSSION

Prior to the pandemic most teaching had been face-to-face. A wealth of theoretical information emerging during the pandemic, which suggested that virtual learning could be used instead of face-to-face (Camilleri et al., 2020). However, the findings from this study suggest while virtual learning can provide good theoretical knowledge, it does not compensate for the absence of practical clinical skills training, as competency cannot be fully assessed virtually. This outcome is supported by evidence from a Cochrane Review (Vaona et al., 2018) and by the qualified nurses in practice, who identified the practical aspects of their role as ‘on the job training’. The need for rapid targeted clinical input led to the purchase of a commercial hand hygiene trainer, which helped bridge the gap between theory and practice. The input also led to formalised clinical assessments using OSCEs (Objective Structured Clinical Examinations).

Nurses completing the national survey shared the realities and impact they still face on a daily basis, with the quotes in table 2 just a few of the many in each theme. They had struggled, watching colleagues and family die, but worked on, seeing the risks as part of their responsibilities. Their challenges were exacerbated by the limited confidence in donning and doffing PPE a finding, not uncommon amongst healthcare workers in sub-Saharan Africa (Chersich et al., 2020). To redress this and help nurses integrate theory and practice, the project has included the introduction of an app with clinical resources, publication of a practical based skills textbook, and CPD workshops nationally.

CONCLUSION:

Internationally, the pandemic has revealed that additional and extraordinary efforts are needed to strengthen and enhance the nursing response, and as this study shows, Zambia is no exception. While the theoretical cascade of Covid-19 information has taken place, there remains an urgent need for clinical management. Therefore, the remaining phases of this project are focusing on enhancing clinical practice, which includes strengthening the emergency and critical care nursing response to the Covid-19 and continued scaling-up training in competence.

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MULTICULTURAL EMBEDDEDNESS OF CHINESE MIGRANT ENTREPRENEURS IN BIRMINGHAM: THE SOCIAL DIMENSION OF ENTREPRENEURIAL ‘BREAKOUT’ IN THE ERA OF COVID-19

Xiping Shinnie, Dr Thomas Domboka and Dr Charlotte Carey, Faculty of Business, Law and Social Sciences

By combining theories from migrant entrepreneurship, organizational diversity and hybrid organization in a crisis context, the purpose of this study is to develop a deeper understanding on the social dimension of entrepreneurial breakout in response to COVID-19 crisis. In particular, through comparisons between two groups of Birmingham based Chinese migrant entrepreneurs, it demonstrates the unequal impact of COVID-19 crisis to different groups of Chinese migrant entrepreneurs in Birmingham as well as their divergent responses in reaction to the crisis.

This study has proposed the conceptual framework of Multicultural Embeddedness based on migrant entrepreneurship theory of Mixed Embeddedness (Kloosterman, 2006) and Diversification Process (Lassalle and Scott, 2018), Multicultural Hybridism (Arrighetti et al, 2014) from a perspective of organizational diversity and the concept of Degree of Hybridity (Shepherd et al, 2019) on hybrid organization in a crisis context. Through the lens of Multicultural Embeddedness, data collected using qualitative semi-structured interviews from 24 Birmingham-based Chinese migrant entrepreneurs during the COVID-19 pandemic were grounded to explore social and economic values created by migrant entrepreneurs with prosocial motivations in a crisis context.

Empirical and theoretical groundings revealed three dimensions of findings. First of all, in a COVID-19 crisis context, transnational migrant entrepreneurs were mixed embedded in the multicultural breakout opportunity structure, with access to markets and resources becoming ethnically divided. Secondly, opportunity recognition on economic and social goals of entrepreneurial breakout were mixed embedded in multicultural diaspora, with increasing emphasis on entrepreneurial social value creation to achieve both economic and social gains in a crisis context. Finally, multicultural embeddedness of entrepreneurial prosocial motivations resulted in superdiversity of future breakout destinations, with the social goal of serving the communities as a whole capable of transforming ethnically divided opportunity structure in the era of COVID-19.

To conclude, this paper makes three theoretical contributions. First, this paper contributes to the literature on migrant entrepreneurs breaking out of ethnic niche markets into mainstream economies, with a focus on social value creation in a multicultural crisis context. It provides a contextual understanding of Chinese migrant entrepreneurs breaking out of their enclaved markets into mainstream industries to fulfil their social and economic goals during the COVID-19 crisis. Second, this research adds to Mixed Embeddedness theory a social dimension through integration of Multicultural Hybridism (Arrighetti et al, 2014) from a perspective of organizational diversity and the concept of Degree of Hybridity (Shepherd et al, 2019) on hybrid organization in a crisis context. It presents contextualised meanings to the social dimension of breakout, with the entrepreneurial social goals to serve all the communities as a whole capable of transforming the ethnically divided opportunity structure in a crisis context. Third, this study enriches Mixed Embeddedness theory with categorizations of transnational entrepreneurs on the basis of Diversification Process (Lassalle and Scott, 2018), from a perspective of crisis and opportunity to achieve both economic growth and social integration. It extends Mixed Embeddedness theory into a crisis context through deconstruction of the breakout process from the perspectives of crisis and opportunity as well as social and economic dimensions of breakout.

KEYWORDS

COVID-19 Crisis; Mixed Embeddedness; Degree of Hybridity; Multicultural Embeddedness; Breakout

PERIODS IN A PANDEMIC — HOW THE UK CONTINUES TO SUPPORT THOSE EXPERIENCING PERIOD POVERTY DURING COVID-19

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ABSTRACT:

Background:

Period poverty is widely recognised as the difficulty people may experience accessing period products, often as a result of financial constraints. It also includes a poverty of education, resources, rights and freedom from stigma for women, girls and those who menstruate.

Period poverty remains a challenge in the UK, as highlighted by research, news and social media. In March 2020, Plan International UK's *The State of Girls' Rights in the UK: Early insights into the impact of the coronavirus pandemic on girls report* provided figures on how period poverty was affecting girls during Covid-19 lockdown: 11% of girls aged 14-21 had not been able to afford period products, instead using makeshift products (e.g. toilet roll) and 22% of girls who could afford period products were struggling to access them, mostly because they could not find them in the shops (64%).

This ESRC funded project (as part of UKRI's rapid response to Covid) aims to examine how UK organisations mitigate Covid-19 related challenges as they continue to support those experiencing period poverty. The project is divided into two phases to capture data from those providing support services and those that have experienced period poverty during lockdown. Phase 1 (Sept 20 – Feb 21) focused on collecting data from those providing support services, via interviews and an online survey.

Methods:

During phase 1, interviews were conducted with 17 organisations, covering England, Scotland and Wales. An online survey was additionally sent to key support organisations across the UK, with a further 17 organisations submitting responses from England, Scotland and Wales. Findings were thematically analysed, identifying 5 key areas of support that have been significantly impacted during the pandemic: product accessibility, menstrual health education (MHE), menstrual health, inclusion within period poverty support and UK policy and strategy.

Findings:

- **Product accessibility**

All organisations reported a significant increase in requests for period products since March 2020, not solely attributed to financial issues. Stockpiling/hoarding behaviours limited the accessibility of products, combined with restrictions being placed on the number of products that could be bought. In addition to this, organisations that provide products to food banks, community centres and schools faced additional challenges linked

to public health restrictions. Access to volunteers that would usually assist with the packing and distribution of products proved difficult due to social distancing, shielding, travel restrictions, lockdowns and changes in work/childcare demands.

For schools that provide free products to pupils, repeated closures led to an increase in requests for product and changes in distribution. Schools in Scotland and Wales used lockdown as an opportunity to educate pupils on reusable product options which were sent to them via post/dropped off to homes. Online support videos and guides for pupils to access were created, along with online reusable pad making workshops for pupils and parents.

- **Menstrual health education**

The shift to online MHE proved successful within school settings for staff required to deliver MHE to pupils. Benefits of online delivery included greater flexibility in time and ability to deliver training to larger numbers across a geographical area (instead of on a school-by-school basis). However, with the shift in school priorities as a result of remote learning, MHE for pupils remained low priority despite being mandatory in some parts of the UK. Organisations involved in delivering training to staff did not know whether schools had been able to deliver any MHE sessions to pupils during lockdown, or since schools had returned to face-to-face teaching.

Where organisations provide MHE within the communities they support, they reported difficulties in engaging in a virtual environment during lockdown particularly where people did not have access to the necessary technologies to 'attend' sessions and/or did not have access to private spaces to talk about their menstrual health. Loss of 'human connection', lack of safe spaces to discuss a 'taboo' subject, and reduction in peer support that often continues after in-person sessions were mentioned as barriers to online provision by a number of organisations.

- **Menstrual health**

Organisations reported an increase in requests for menstrual health support linked to the deprioritisation of reproductive healthcare, problems accessing GP appointments, and fear of attending in-person appointments due to Covid-19. As with community MHE provision, a lack of safe spaces to be able to 'attend' telephone or online medical appointments was mentioned as being a further barrier to accessing menstrual health support during lockdown.

- **Inclusivity within period poverty**

An increase in general awareness of period poverty was described as a positive of the pandemic, with organisations seeing an increase in awareness of their own work amongst those who need support, forging new links with communities that they had not worked with previously. This sits alongside the increase in demand, with organisations receiving requests from new groups that had been impacted by the pandemic in different ways: NHS/frontline staff, university students, clinically extremely vulnerable people, furloughed people, and those that had become unemployed during the pandemic. Organisations were pleased that they had been able to continue to support people within such challenging times, but were worried over the lack of central government support available and how previous local authority support had been deprioritised leading to uncertainty in funding and prior arrangements.

- **UK policy and strategy**

Pre-pandemic, the menstrual activism/advocacy world was rapidly gaining momentum with the UK government pledging to 'end period poverty by 2030', introducing policies around free product provision and mandatory MHE in some parts of the UK. Organisations expressed concerns that such progress has since been 'lost' in the ongoing pandemic situation, despite the increase in demand for support and how much all aspects of period poverty have been impacted during this time.

CONCLUSION:

Phase 1 demonstrates how the pandemic has increased the need for support in all aspects of period poverty and how UK organisations have mitigated some of the associated challenges. However, there is a risk that the increase in period poverty during this time could negatively impact the UK government strategy to 'end period poverty by 2030'.



SMALL STEPS AND STRONGER RELATIONSHIPS: PARENTS EXPERIENCES OF HOME SCHOOLING CHILDREN WITH SPECIAL EDUCATIONAL NEEDS AND DISABILITIES (SEND)

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INTRODUCTION

During the pandemic parents across the UK were asked by the Government to home-school their child/ren and a plethora of resources have been produced and made available to assist with this. Under normal circumstances many parents (especially parents of children with SEND) choose to home school their child and home schooling encompasses a broad spectrum of educational philosophies, methods, curricula, styles and approaches. It includes everything from 'unschooling' – a philosophy of repositioning life, family relationships and learning to respond to children's interests and needs without curriculum – right through to structured formal home-tutoring and every approach in between.

The perceived detrimental effects of being absent from school has been a driver for the Government in ensuring that schools remain open for as long as possible and the pandemic situation is replete with narratives of 'loss'. Little attention has been paid to any potential benefits for children and families of home schooling or the opportunities it provides.



POLITICAL NARRATIVES OF LOSS

The Government is keen for children to 'catch up' with lost learning during school closures and to this end, the Prime Minister has appointed Sir Kevan Collins as the education recovery commissioner to oversee the Government's catch-up programme for children whose learning has been disrupted by Covid-19. Educational psychologists are urging the Government to reconsider its focus on the idea that children and young people need to "catch up" on their education following school closures due to the pandemic (The Telegraph, 22.02.21 Telling children they need to 'catch up' creates added pressure, warns psychological society (telegraph.co.uk).

This article challenges the Government's catch-up narrative drawing on findings from an online survey that aimed to explore parents' experiences of home schooling their child/ren with Special Educational Needs and Disabilities during the Covid-19 pandemic. 70 parents responded to the survey and data were analysed thematically. The Faculty of HELS Academic Ethics Committee (FAEC) provided ethical approval.

The findings revealed that despite acknowledged challenges of home schooling (for example insufficient access to specialist resources, children missing their friends and the demands of balancing multiple family priorities), there were benefits and success stories emerged from the data. Out of 70 responses, 59 reported unexpected positives.

FAMILY NARRATIVES OF 'GOING AT A SLOWER PACE' AND IMPROVED RELATIONSHIPS

Parents enjoyed the freedom of being able to focus on their child's own interests, take things at a 'slower pace' as well as being able to access outdoor space. This led to children learning new skills not usually focused on in formal education environments and families learning together, leading to a more relaxed pattern of family life:



We have chosen our own topics to focus on. Things they wouldn't have learnt if they had been in school and they have really enjoyed this.

We've learnt lots through play and being outdoors, our children are very outdoorsy and physical.

I have managed to teach life skills and be able to be creative and introduce play into learning.



We've got to know each other better without the pressures of school or health appointments getting in the way. We've all learnt to relax and not to be on edge waiting for the next meltdown.

Parents also noticed that children were manifestly more relaxed in their home environment leading to improved engagement with learning and subsequently educational and personal development:

Youngest less anxious about school, more positive interaction at home... actually worked better as he felt safer. Also I have a better idea of what academic work my children do and are capable of

Children becoming more confident in their learning abilities and school work

My eldest son is autistic and suffers from anxiety. He's more relaxed and is blossoming without the pressures to go socialise out of the house.



The ultimate result was decreased family stress, improved emotional wellbeing for children and fewer critical incidents of emotional meltdowns. The benefits reported by parents need to be considered as the Government re-opens schools and ploughs on with its narrative of loss and catch up to the potential disadvantage of many children and their families. We must consider how future policies are developed that take into account the ways in which children are learning at home and challenge perspectives on alternative education practices. We have challenged the idea of home schooling in this paper by offering new ways of viewing this practice. It is essential that the narratives surrounding home learning and teacher roles are disrupted so that more accepting and inclusive practices of learning at home can now be celebrated and encouraged.

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ONLINE INTERACTION IN THE COVID ERA – THE ELEPHANT IN THE VIRTUAL ROOM

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The global Covid-19 crisis has forced millions of people to transfer to remote, home or hybrid working. But this discussion will highlight how social distance can risk emotional and intuitive distance.

Simply providing an online repository, website, blog or area where a person can passively look for information is no longer good enough for today's diverse and active learning community. People need more. We need the ability to see each other, to speak to each other and share not only documents and resources, but more crucially, emotive conversations.

Home working has brought about challenges, gains and losses on all sides. However, whilst many people are lucky enough to call their home their 'safe place', 'special place', or 'castle' we must acknowledge and understand that for countless others this is not the case. For some, home may be an unsafe place, a place of sadness; a prison. For

others, their home may be a place of great privacy, fiercely guarded and kept sacrosanct, deliberately detached from the trials and tribulations of work. So how do we nurture an appropriate balance when one's virtual door into their private life needs to be opened to more comers? For the academic community, our duty to fully appreciate and understand people's circumstances in an emotionally intelligent fashion has never been more critical.

As with any dramatic event that calls the world to action in seemingly one big sway, the global coronavirus pandemic of 2020 prompted many people to consider inclusivity in a different way, with both wonderful and dreadful consequences.

Whenever our emotions are rocked to the core we are empathetically ignited, pulled from the malaise of the 'normal' we once knew, and challenged in every conceivable way. We almost immediately become experts, or at least people with particularly strong views. News platforms change overnight and there is a palpable sense of urgency. This re-focuses our minds and brings us up sharp. We are drawn to consider our own mortality and place in the world. Kind people become kinder, some selfish people become more so, but generally and with a sense of camaraderie, 'keeping on' becomes the mantra to which most people subscribe.

Whilst this can be positive and empowering, it can also be particularly terrifying if one's mechanism of keeping on is removed without warning or prospect of return. Such an occurrence hit England on 26th March 2020 when the Health Protection (Coronavirus, Restrictions) (England) Regulations 2020 (SI 350) came into force and the country was thrust into a full national lockdown.

For many people liberty, autonomy and identity disappeared in that instant; like turning off a light as you leave a room. A room which you neither know when nor whether you will ever enter again. Darkness is a powerful analogy for anyone, but for so many people the world over, the world went dark.

So, how does a huge provider such as University keep on keeping on? How do we innovate overnight and keep in touch with the countless thousands of stakeholders we interact with on a daily basis? Where might there be gaps in our net, and how do we minimise people falling through them? Well, the first line of action, as for many suitably equipped organisations was to go online.

Huge strides were made overnight and before long IT infrastructure and working practices were rolled out en bloc, in some cases with almost seamless success. However, time, research and experience has taught us that there are many pitfalls of expecting to be allowed or welcomed into someone's personal space and living environment.

In pursuing an effective work-life balance and to protect privacy and identity, many people like to keep work-life and home-life separate. So we need to appreciate the magnitude of merging these aspects of our lives and the impact this can have on vulnerable people.

SOCIO-ECONOMIC DATA GATHERED DURING PANDEMIC

- 1.9 million UK households had no access to the internet as of March 2020. Of households that do have internet access, an estimated 30% experience connectivity and throughput which is not sufficient to access today's modern online platforms (ONS 2020).
- An estimated 9% of families in the UK do not have a laptop, desktop or tablet at home (Children's Commissioners Office 2020).
- There were 2.9 million lone parents in 2020, which accounts for 14.7% of families in the UK.
- During the first lockdown of 2020 an estimated 80% of families with children under 16 had no access to childcare for at least 6 months (childcare bubbles were not legally introduced until Septemebr 2020).
- In 2020 690,000 houses were over occupancy and 278,800 houses were occupied by more than one family)ONS 2020).

For many people, home working has translated to decommissioning of the dining room, spare room, or even kitchen or bedroom. Consider waking up in your nightclothes in your office or place of study. In fact, it is well known that many people have nightmares about this very situation. (McNamara 2019). Couple this with other challenging socio-economic factors and we have a powder keg ready to ignite.

Being forced either explicitly or implicitly to share these circumstances with the world can be incredibly damaging, heightening anxiety and increasing stress, sometimes leading to depression and a feeling of inadequacy or failure.

Some mechanisms to maintain privacy such as the option to turn cameras off, blur on-screen backgrounds, select virtual backdrops, and cancel background noise do exist. However, some organisations have insisted that people turn their cameras on, or do not apply such background effects. This can be a problem, however there are justifiable instances where organisations have reasonable need to be certain they (only) are speaking to the person they think they are speaking to. However, a further problem can arise if a person is not in a safe or supportive place and they are being watched, listened in on, or controlled. In these cases the virtual background provides a veil under which such treatment can go undetected, particularly to the untrained eye.

A SIGNIFICANT INCREASE IN DOMESTIC ABUSE WAS RECOGNISED DURING THE PANDEMIC

An estimated 2.3 million adults aged 16 to 74 years experienced domestic abuse in the last year (1.6 million women and 757,000 men)* although this figure is estimated by some to be significantly higher due to difficulties in reporting durning lockdown).

So what best practice initiatives could be considered in our online activities to meet our Equality Act duty to be anticipatory (EA 2010)

- Offer multiple modes of delivery
- Consider using the chat box at the start of any online meeting inviting people to use the direct message facility to let you know all is not as it seems.
- Consider promoting schemes such as the 'black dot' (showing a black dot on the palm of one's hand) or devise another mechanism locally for your students which would not be known externally.

Ensure all activities are designed in such a way as to promote engagement of people with protected characteristics, or who are disadvantaged.

- Listen, but more importantly hear. Look, but more importantly see. Try not to pass judgement, but open a door.... You might be surprised how many people will come through it.

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TRUST AND COMMUNICATION: CORONAVIRUS ONLINE VIRTUAL DASHBOARD (TRAC:COVID)

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Social media sites like Twitter have come to play a crucial role in charting public sentiment towards COVID-19 and the introduction of a range of public health interventions. Across millions of tweets, journalists, politicians, doctors, nurses, and members of the general public shared their thoughts about lockdown, furlough, quarantine, testing, masks, vaccination, social distancing, recovery, and, in the worst cases, loss and bereavement. Each tweet offers a window into the lived experiences of the local communities dealing with the day-to-day effects of the pandemic, the health services struggling to keep on top of the increasing number of positive cases, and the government officials trying to reassure everyone that it's all under control.

These millions of tweets ultimately represent an important cultural archive, a collective memory and multi-authored diary of the pandemic. But how can we start to make sense of this stream of data? How can we organise the tweets in such a way that they become a useful resource for researchers, policy makers, healthcare officials, journalists, and others seeking to better understand the kinds of conversations people were having about COVID-19?

To address this issue, our team at Birmingham City University launched the Trust and Communication: Coronavirus Online Visual Dashboard (TRAC:COVID) in May 2021. Based on a database of 84 million UK tweets collected from January 2020 through to April 2021, the dashboard is a free and open-access platform aimed at journalists, policy makers, public health officials, and members of the public to help them investigate how Twitter users talked about COVID-19 and the pandemic. On the dashboard, users can look at how many times a particular search term occurs, what words appear alongside that search term, and what its surrounding context is, as well as plotting the search term against key events over the course of the pandemic. Users can also look at hashtags and the kinds of links users share, such as newspaper articles, YouTube videos, and blog posts. In doing so, we can reach deeper insights into what people talked during the pandemic and how these discussions shifted in response to major pandemic-related events over the course of the past 18 months.

USING TRAC:COVID TO EXAMINE HEALTH COMMUNICATIONS

To illustrate the kinds of insights that the dashboard can offer, the project team authored two cases studies looking at different aspects of language use during the pandemic. The first case study examined public perception of the UK government's management of the pandemic, a particularly important issue given the challenges in encouraging public compliance with healthcare rules and regulations, as well as the difficulties in ensuring clarity in public health messaging. By tracking the prevalence of diverse opinions and changes in public perceptions, the dashboard offers us a way of examining public reception of the UK-wide government restrictions, as well as people's views on how clear official messaging was. For example, our analysis showed that there was widespread support for the main measures used to contain the COVID-19 virus outbreak. In fact, a considerable number of tweets supported the introduction of even stronger measures than those imposed by the government, as indicated by the high number of hashtags like *#lockdownnow*, *#lockdownextension*, *#lockdownuknow*, *#keepthelockdown*. Moreover, many tweets criticised non-compliance as a sign of selfish behaviour (e.g. high occurrence of hashtags *#covidots*, *#antimaskers*). The analysis also highlighted existing tensions in public

sentiment towards preventative measures such as mask wearing, represented in hashtags like *#maskup*, *#wearadamnmask*, *#maskssavelives*, *#wearamasksavealife*, *#nomasks*, *#nomask*, *#covidhoax*, and *#covidsnitch*. Using the dashboard to uncover people's views of public health advice, we can home in on how public health advice has been received and improve future public healthcare interventions.

The second case study looked at the language patterns of COVID-19 misinformation and how this dovetails with anti-vaccination discourses. Given that vaccine uptake is the linchpin of the UK Government's strategy for tackling COVID-19, vaccine hesitancy and fears around vaccine misinformation have become heightened during the rollout of the vaccine programme across the UK. Methods and resources for monitoring and investigating online vaccine misinformation are therefore vital not only for understanding the narratives and mechanisms that enable false information to spread, but also in helping to safeguard the time and energy of healthcare professionals working hard to conserve the stretched resources of our healthcare service without the additional pressure of attacks on their profession.

TRAC:COVID is one such resource for exploring the language of vaccine misinformation in the context of the COVID pandemic. To get an idea of the potential scale and spread of anti-vax stances on Twitter, we examined the use of hashtags that made some mention of vaccines in relation to COVID-19. While the most frequent hashtags were generally positive in sentiment (*#vaccineswork*, *#getvaccinated*), we found a number of tweets which used hashtags linked with vaccine hesitancy and/or anti-vaccination stances (e.g. *#notovaccine*, *#novaccine*, *#novaccineforme*, *#novaccines*, *#novax*, *#rejectthevaccine*, *#vaxx*, *#vaxxed*), as well as tweets which used hashtags associated with broader conspiracy theories about clandestine organisations who planned the pandemic to impose a new world order (e.g. *#nwo*, *#nonwo*, *#plandemic*, *#covidhoax*). There were also hashtags which indicated opposition to government pandemic management strategies (e.g. *#nomasks*, *#nolockdown*, *#nohealthpassport*), including hashtags associated with anti-government protests (e.g. *#keepbritainfree*, *#kbf*). Since TRAC:COVID can help identify some of the main misinformation discourses, these results can potentially inform the kinds of official interventions developed to combat misinformation.

BUILDING BRIDGES AND WORKING ACROSS SECTORS

These two case studies show that language is a powerful means of persuading, manipulating, and convincing people. In the midst of a pandemic, understanding these strategies is an important part of improving public health communications and outreach policies. The case studies also demonstrate how the dashboard might be of use to a range of stakeholders and end users. For example, policy makers could investigate the kinds of discourses surrounding public compliance with lockdown measures, attitudes towards public health advice, and how people talk about the psychological effects of lockdown, while health care professionals might want to examine levels of trust in public health advice and views about inequalities of health care provision across the UK. Ultimately, the main aim of the TRAC:COVID project is to encourage people to explore the kinds of COVID-19 talk that has preoccupied UK Twitter users since the start of the pandemic. By providing tools to investigate these tweets in an easy and accessible way, it is our hope that we strengthen our collective understanding of the conversations had by the millions of people affected by COVID-19.



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