

Institution: 10007140 Birmingham City University
Unit of Assessment: 04: Psychology, Psychiatry and Neuroscience
<p>1. Unit context and structure, research and impact strategy</p> <p>Overview</p> <p>With the support from the university and its extensive investment, in the past six years we have fostered a rapid and sustainable expansion of research in Psychology. In REF2014 our UoA made no submissions as six staff from Psychology were returned to UoA3, UoA22 or UoA25. We are now in a position to return 32 staff, who represent 63% of all the staff in the Department of Psychology. This is due to our inclusive research strategy that has nurtured a strong research community that produces internationally-esteemed research in different areas of psychology. Evidence of the strengthening of our research commitment comes also from the size of our PGR community, which has grown immensely from two full-time PhD students in 2014 to its current size of 26; during the same time frame, PhD completions have increased from zero to seven. Reflecting our inclusive and supportive research ethos, we fostered numerous internal, external and interdisciplinary collaborations, which widened research impact and intensified grant-seeking activities.</p> <p>Unit structure</p> <p>The submission is based on the Department of Psychology, which is based in the School of Social Sciences within the Faculty of Business, Law and Social Sciences (BLSS) within Birmingham City University (BCU). The Department of Psychology was founded in 2008 and at the end of 2014 it successfully set up a dedicated research centre, the Centre for Applied Psychological research (henceforth CAPr). Initial internal appointments of Research Directors (Mavritsaki and Tonkin) in 2014 was followed by a re-structure of CAPr and by appointments in 2016 of CAPr Research Director (Aldrovandi) and CAPr Deputy Research Director (Rentzelas); oversight of the different UoAs across the School of Social Sciences was offered by the School of Social Sciences Director of Research (Mavritsaki).</p> <p>The diverse nature of the research activity in the Department of Psychology was captured in its organisational structure. We devised a structure that recognised six core clusters of research activity. Each cluster devised a clear strategy that was formalised by a Statement of Intent that summarised its research aims and priorities. Underpinning these six clusters was a commitment to the development and application of high-quality research that sought to make a significant contribution to the local and national economy, to society, culture and the successful functioning of different public bodies, organisations, individuals and communities:</p> <ol style="list-style-type: none"> 1. Applied Cognition and Technology (Leads: Bridger and Carter). The cluster explored how insights from the forefront of cognitive science can meaningfully be applied to understand real-world problems and environments. Core to this approach was the investigation of the role that technology plays within Psychology and human behaviour. 2. Applications and Interventions in Positive Psychology (Leads: Egan and Mantzios). The cluster was aligned to the applied nature of the department and developed research into ways into which constructs and concepts within positive psychology (e.g., mindfulness) can be applied to a broad spectrum of issues within applied psychological research. 3. Health and Well-Being (Lead: Kamal). The cluster drew on scientific processes as a means of understanding the relationship between both physiological and psychological symptomatology within healthy lifestyle behaviours, illness onset, help-seeking, illness adaptation, and health outcomes. The cluster also researched social factors and the wider environmental determinants of health such as health services and policy making. 4. Inequalities (Lead: Brown). With a view to achieve positive societal impact for all, the cluster identified inequalities in Birmingham and the UK and examined the role of inequalities within wider psychological practice. The cluster incorporated applied psychologists across specialities and sub-disciplines (e.g., health, cognition, and sexuality) to explore the relationship between psychology and inequalities for a range of outcomes (e.g., mental health and psychological intervention effectiveness).

5. **Psychological Research in Development and Education** (Lead: Harrison, Emily). The cluster investigated and developed the understanding of the psychological processes that underlie an individual's physical, cognitive, social and emotional development throughout the lifetime. Research explored how development in each of these areas applies to the fields of education, community, health and quality of life.
6. **Applied Forensic Psychology** (Leads: Pornari and Hammond). The cluster conducted high quality and impactful research that enhanced and furthered the understanding of offending behaviour, victimisation, and that contributed to the successful functioning of the Criminal Justice System at all levels, including criminal investigations, the courts, prison, probation and forensic healthcare services.

Research Strategy

- **Fostering an inclusive research community.** At early stages of developing research in the Department of Psychology, CAPr utilised an inclusive strategy. All staff actively contributed to activities that led to a whole day event organised by CAPr at the end of 2016 in order to establish its research clusters. Thus, the organisation of CAPr took advantage of the synergy between bottom-up processes and the co-ordination from the CAPr infrastructure, which led to a participative environment. Further extensive consultation amongst colleagues within each cluster led to the development of a Statement of Intent that summarised the research aims and priorities of each cluster and that led to the identification of cluster leaders. Under the oversight of the CAPr director and deputy research director, the cluster leaders were responsible for fostering research activity within their respective clusters, keeping track of ongoing work and assisting staff where they needed additional support (e.g., access to internal and external funding, identification of training needs). These processes went hand-in-hand with the ethos of the Department, which aimed to include all staff in the decision-making processes related to research, including, for example, the mechanisms to determine funding allocation for conference attendance and budget underspend (see Section 2 below).
- **Nurturing a collaborative research environment and promoting impact.** From its inception, CAPr was designed to be inclusive and to foster collaborative research that led to impact. For example, Mantzios and Egan (Applications and Interventions in Positive Psychology) collaborated with Keyte, an ECR from the Health and Well-Being cluster, thus augmenting the significance and reach of the impact relating to the application of mindfulness techniques to various health-related outcomes. Similarly, the collaboration between Harrison, Emily, a developmental psychologist, and Rentzelas, a social psychologist, explored the innovative application of findings on intrinsic and extrinsic motivation to the development of initiatives aimed at improving academic engagement and satisfaction in students attending Higher Education. Embedding research impact within current projects was also aided by the activities of CAPr, which facilitated training workshops within biannual research 'away days', where staff were encouraged to participate in directed sessions and in writing up sessions. In order to further foster the impact of our research, we are continually developing ways of engaging with research users and the community. As detailed below, we work to extend the significance and reach of our work by public engagement initiatives and by building collaborations with NHS staff, charities, and educational service providers. Public engagement initiatives include use of the print, broadcast, social media and public events (e.g., participation at Science Fairs hosted at the National Exhibition Centre, Birmingham, open day events at the university and workshops in the community, see Section 4 below). Furthermore, intra-cluster collaborations led to the development of novel research such as the application of a computational model of attention devised, amongst other scholars, by Mavritsaki, to the domain of judgment and decision-making, with the aid of the expertise from Aldrovandi and Bridger. The flexible and inter-disciplinary ethos of the research clusters facilitated the development of research collaborations with colleagues from different faculties, as exemplified by the project run by Carter in collaboration with the School of English (Faculty of Arts, Design and Media) on discourses and practices of bought sex and sexuality online, a corpus-based critical discourse analysis of conversations in online forums and communities. Additionally, Carter has recently been awarded an ESRC grant in collaboration with Professor Imran Awan (Department of Criminology and Sociology) for a project

investigating the drivers of Islamophobia on social media. Such examples demonstrate the strong interdisciplinary and collaborative focus of CAPr as generating leading research and impact.

- **Developing the research infrastructure and pursuing financial sustainability.** In order to increase the pool of highly trained researchers, we appointed a number of new research active members who complemented our existing research strengths (see Section 2). Transparent and competitive processes were set up to make strategic directorship appointments, which supported the development of research impact—as evidenced in REF3—together with the production of a high volume of research outputs (over 230 outputs during this assessment period) and an emergent activity in securing competitive external funding (see Section 3). We fostered the latter by providing additional support, including ‘away days’ for colleagues to review funding opportunities and develop ideas collaboratively, with experienced researchers facilitating these sessions. We increased external funding applications targeting funding sources that correspond with our best-rated research. In particular, across several projects, between 2015 and 2019 we sought a total of funding bid nearing £2.2 million. These objectives were achieved also by consolidating and enriching the network with external collaborators, partner institutions and external organisations (see Section 4).
- **Expanding our PGR community, retaining student research talent, and promoting sustainability of the student research community.** We consider students as co-creators of research; this principle applies to all our students, from undergraduate to PhD students. PGR are included in all research initiatives available to staff, including research centre membership, research development workshops and relevant funding calls. As such, PGRs have opportunities for involvement in bid writing, ongoing research projects, research dissemination, conference organisation and attendance at national and international conferences. The department has invested in appointing new staff and developing existing colleagues, including PGR students who are now staff members (e.g., Keyte). This reflects our sustainable approach to building our friendly and supportive research community, evidenced in our recruitment and promotions since 2014. PGR students are further supported in their academic development through the monthly Community of Practice for research students, organised by the Director of Research for PGR studies (Mavritsaki) and Deputy Director (Carter). It is also worth noting that students who have studied at undergraduate or graduate level at BCU are more frequently registering to research degrees. Since 2014, registrations have increased from zero to 34. This increase reflects our collective effort to foster a strong research environment and ethos within the department (e.g., see Careers Conference in Section 2). Similarly, all of the PhD research opportunities are advertised widely (e.g., on Jobs.ac.uk and the University jobs portal), to attract researchers from other institutions. Several initiatives are set up in order to foster participation in research activities for undergraduate and Master level students, too (see Section 2).

Building on for the future

Structure. In an effort to further capitalise on the expanding collaborative and interdisciplinary research we fostered, in December 2019 the School of Social Sciences established **five interdisciplinary research centres**. The re-structure aimed to generate more nuanced multidimensional insights into contemporary challenges through the collaboration between researchers from disciplines of psychology, sociology and criminology. The new centres build on the strong base developed by CAPr during the assessment period to encompass diverse perspectives.

Reflecting the strength of our research community, **Psychology staff are represented within the leadership** of four of the five School Research Centres as follows:

- (1) Identities and Inequalities (Deputy Research Director: Fotakopoulou). This research centre builds on the insight gathered by the Inequalities research cluster.
- (2) Crime and Society (Centre Director: Hammond). This research centre fosters collaboration between members of the Applied Forensic Psychology cluster and colleagues in the Department of Criminology and Sociology.

- (3) Health and Wellbeing (Centre Director: Wallis; Deputy Research Director: Hewett). The research that is carried in this centre encompasses the work carried out by the Applications and Interventions in Positive Psychology and the Health and Well-Being research clusters.
- (4) Lifespan and Behavioural Science (Centre Director: Wood; Deputy Research Director: Harrison, Emily). Researchers from the Applied Cognition and Technology and the Psychological Research in Development and Education collaborate within this recently established Research Centre.

Fostering sustainability and impact. At the end of 2019, the School of Social Sciences launched a programme of initiatives to foster research activities that involve colleagues and students across BCU locally as well as globally. One of these is Birmingham 2029, a transformational research programme that engages with students and communities as peer researchers to map change in the city of Birmingham. Established in 2019, the programme sits within the context of significant changes to the city during the next 10 years, including infrastructure projects such as the new HS2 Station and major events including the 2022 Commonwealth Games in the context of an increasingly ethnically diverse and youthful city facing challenges such as health and social inequalities, making community voices heard and working with the public and private sectors (see Section 4). To this end, BCU and BLSS have been providing seed funding for Birmingham 2029 from the academic year 2019-20 (c£150,000) and it has allowed for external funding to be generated from 2020-21 (e.g., EMBRACE grant, secured by an interdisciplinary team that included Rentzelas and Fotakopoulou, who will work with universities across Europe as a consortium research team), which offers a platform for academics to conduct research. In addition, a Social Sciences Data Lab was established with the aim to help organisations make sense of data to improve policy and practice, locally and globally. The project uses existing large-scale datasets which exist and work with organisations in the private and public sectors to maximise collaborative opportunities. The School has also established a Research Grant Mentorship Scheme whereby more junior and mid-career staff are paired up with more experienced staff who have a successful track record of securing external funding to increase the number of staff submitting external funding applications.

Targets. Our strategy for research thus allows us to confidently formulate measurable, attainable and realistic goals over the next REF time frame. In the next five years, the Department within which the UoA is located aims to:

- Increase the percentage of staff with Significant Responsibility for Research – from the current level of 63% to 80% in 2024-2025.
- Strengthen our financial sustainability. Hitherto, the funding we have attracted reflects our status as a young and growing department, being recently established and therefore absent from previous RAE/REFs exercises. Our specific target to attract over £300,000 by 2024-2025 represents a steady and realistic increase of funding success. We will be well-served in this activity by a fit-for-purpose infrastructure and processes. These developments will enable even a larger portion of colleagues' work to be supported across the research lifecycle at departmental and School level.
- Grow further our PGR community. We aim to have capacity to support over 50 PGR researchers by 2024-2025. This will be achieved by the enhanced funding and a year-on-year increase in PGR supervisory capacity, through training, supervision of existing PGRs and recruitment of staff who already have such experience.
- To consolidate and enhance our external links with other HEIs, organisations, agencies, and partners (see Section 4).

2. People

Staffing strategy and staff development

Our approach to staff development has created a highly trained community of researchers working across a diverse range of research topics. Our structured development strategy for researchers at all stages of their career includes mentoring, skills development and financial provision. During the REF period the department has invested in appointing new staff and

developing existing colleagues. This reflects our sustainable approach to our expanding research community, which is evidenced in our recruitment and promotion since 2014.

Recruitment and promotion. The department has invested substantially in the recruitment of research active staff during the REF period, by both appointing established and early career researchers. These include, for example, Wallis as Senior Lecturer (then promoted to Reader), who has a strong research profile in eating-related behaviour; Wood, specialist in language processing and cognition; and Mundy, Rebecca, an early career applied forensic psychologist. Research specific posts include Research Fellows Bridger, who examines cognitive and social domains to understand how these intersect to impact wellbeing, and Farooqi, whose research revolves around occupational health and health psychology. Since 2014, several colleagues have successfully applied for conferment based on their research profiles. Bridger was regraded to Senior Research Fellow, Mavritsaki to Professor, Wallis, Hammond, Egan and Mantzios to Reader. These promotions are indicative of the departments' strengths in supporting staff career progression and strengthening the research profile of Psychology.

Fostering and monitoring progress. Academics with significant responsibility for research (SRR) are allocated at the Departmental level to one of three research bandings, usually in line with their career stage, through the university's Workload Allocation Model (WAM). In addition to the 180 hours Scholarly Activity Allowance (SAA) allocated to all staff, Band 1 staff are allocated a research allowance of 226 hours, Band 2 staff are allocated 388 hours and Band 3 staff are allocated 632 hours. The discussion of career stage and negotiation of assigned research time is undertaken through the annual Personal Research Review (PRR), the outcome of which is then negotiable between staff and Line Manager (LM) at multiple points within the year during the Individual Performance Review (IPR). This flexible process allows for in-year increases in research time allocation, dependent on staff's needs. As part of the appraisal process, staff are required to report on their research activities and discuss their progress and upcoming plans with their LM at six-month intervals. Subsequent appraisals then evaluate this progress, facilitating a cycle of accountability and the identification of support needs where required.

Support and development for researchers at all stages of careers. Research time allocation is a ring-fenced entitlement recognised through the WAM framework. Additional time is allocated to externally funded research, knowledge exchange projects, pilot project awarding funding and sabbaticals. The Director of Research in the School of Social Sciences, in liaison with the Head of Department, Head of School and Research Directors, monitor this process to ensure that all allocations are transparent and form part of the IPR discussion between staff and their LM. Emergent researchers (ER) – academics without SRR – are usually staff who are completing or have recently completed their doctoral studies. They are allocated the standard SAA allowance (180 hours) to undertake activities that contribute to their field and support their professional and academic learning. An additional 162 hours may be allocated to support the completion of a part-time doctoral programme, up to a maximum of seven years of study as per University regulations. On successful completion of a doctorate, a one-year post-doc allocation of 162 hours can be negotiated to support early publication development towards becoming an independent researcher with SRR. The Faculty further supported the professional development by funding fees for staff to undertake further MSc or PhD programmes; this value totalled £36,500 from 2014 to 2020. Sabbaticals are available to all psychology staff, ranging from one month to an entire semester. These are awarded via a competitive process to between two and six members of staff per year and are funded by the Faculty. Psychology has been instrumental in the set-up of the scheme as it promoted its establishment within the Faculty Research Committee and drafted the scheme's guidelines, which were then approved by BLSS. UoA4 has received two such sabbaticals in the last three years; these have resulted in the generation of six REF outputs to date, together with considerable progress on interdisciplinary projects (e.g., Carter's work on a corpus-based critical discourse analysis of conversations in online forums, in collaboration with the School of English). Psychology has also taken the lead in additional processes that run at the Faculty level. For example, through the Chair of the Faculty Academic Ethics Committee (FAEC; Brown), the Department of Psychology played a fundamental role in updating the ethical procedures related to the conduct of research across the Faculty, in

facilitating the implementation of more accessible, multi-disciplinary, and regular review processes, and in ensuring a rigorous screening of the ethical standards of all the Faculty's research projects. Similarly, through the work Farooqi, Psychology contributed considerably to establishing robust procedures for the management of research data.

Additional support schemes offered by the Faculty each semester are wide-ranging and are available to all staff. Examples of training opportunities for Early Careers Researchers (ECRs) range from networking-facilitation workshops to training aimed at understanding research finance and developing research ideas or questions into a project. Other opportunities enable staff to understand and engage with the generation of impact, including embedding impact in research proposals and identifying and collating impact evidence. For more experienced researchers, workshops including 'Research Finance' and 'Step up to PI' aim to develop staff's ability to bid for project funding and develop skills in project governance. Further training opportunities enable staff to discuss their strategies to gain new skills and to prepare for promotion. All staff also benefit from recurring writing retreats that foster collaborations and specific activities such as grant writing. The writing retreats have been organised both at Faculty level—annual retreats at the Woodbroke study centre in Birmingham—and locally in Psychology, including bi-monthly writing retreats and occasional themed writing retreats (e.g., on grant writing, led by external advisors including Alan Dent, a professional grant writing consultant with experience working with several UK Research Councils).

Departmental engagement in the university's annual internal and interdisciplinary RESCON research conference is encouraged for all staff, including ECRs and PGRs. Psychology colleagues are strongly represented in the RESCON proceedings each year, including collaborative cross-School work (e.g., Scanlon's presentation with Dr Sarah Cooper in the School of Law at RESCON 2017).

Additional dissemination activities include frequent research seminars. The seminars are open to all staff and research students in Social Sciences and enable colleagues to present and discuss their work, providing a sounding board for ideas, practice before conference presentations and a means of facilitating collaborative work. Prominent external researchers have presented their work, including Professor Sotaro Kita (University of Warwick), Professor Ray Bull (University of Leicester), Professor Martin Hagger (University of California) and Sean Cunningham (former Head of Scotland Yard's Hostage and Crisis Negotiation Unit). Approximately 10 to 12 seminars were organised yearly by CAPr until the end of 2019, with these being now organised by the School of Social Sciences as bi-monthly interdisciplinary seminar series.

All staff can access funding to support attendance at external seminars and conferences both in the UK and internationally via the Psychology Departmental budget. Allocation of these funds are made in a transparent manner, with processes monitored by the Department of Psychology. Established mentoring processes developed by CAPr and the wider Psychology department aim to integrate junior staff into the research community whilst developing their research skills. These include the appointment of external Visiting Professors to mentor more junior staff in grant writing and provide greater collaborative opportunities for members of CAPr, including Dr Dean Burnett, Professor Hugh Koch and Professor Martin Bowles. At the departmental level, all staff are encouraged to identify another member of staff to act as their mentor. Mentors help staff with research career guidance, grant applications and publications and more general research planning. Additional mentorship in Psychology is provided via LMs, who hold a comprehensive view of each staff's progress and are responsible for the more formal yearly appraisal exercises (IPRs).

Financial support for research. The Faculty provides financial support for research in the form of annual Small Development Grants (SDGs) of up to £1,000 available to any academic member of staff. Over 90 grants of this nature were funded over the REF period and allowed staff to collect pilot data and perform background research work to foster the application for larger, external amounts. This process has yielded results in a number of occasions, including the successful external applications from Bridger (Applied Cognition and Technology) and Wyler (Applied Forensic Psychology) and the support of impact case studies (Egan, Mantzios and Keyte, Applications and Interventions in Positive Psychology).

Colleagues are also provided with support in identifying appropriate funding sources through both CAPr and the wider Faculty. A process for alerting staff to new funding calls and tenders has been set up in order leave staff with sufficient time to develop high quality bids. These processes are reinforced at University level by Research, Innovation, Enterprise and Employability (RIEE) who offer support with grant writing and applications through one-to-one support and regular workshop provision

Research students

Recruitment

All PGR students are recruited to PhD programmes, and upon registering are eligible to join any of the research clusters. Similar to staff, PGR students can belong to multiple clusters, reflecting the diversity of expertise and collaborative spirit of the wider department. Supervisory teams are often made up of academics from other faculties and disciplines (e.g., colleagues in the School of Education), reflecting the value placed on multidisciplinary research within the department. Applications for PhD study are made via the Faculty Doctoral Research College (DRC) and are subsequently reviewed by Psychology staff with relevant expertise and the capacity to provide research supervision. Applicants are invited to discuss their proposed project and allow potential supervisors to assess interviewees' suitability for postgraduate research study. Offers are issued via the DRC, who assist students and supervisors with the applications, admissions and enrolment process. The DRC is a professional service based within RIEE that functions as a point of contact and communication for all PGRs from application through to completion of their PhD.

Funded students receive a fee waiver and monthly stipend during their studies reflecting UKRI rates. PGRs are also able to take up to six hours a week of paid teaching work related to their emerging expertise and area of study, an opportunity which enables them to further their understanding of the relationship between research and teaching. These opportunities have attracted PGRs with a variety of backgrounds, including clinical practice and research.

Additionally, local initiatives such as the Careers Conference (where established researchers present to undergraduate students an overview of working life as an academic, and the associated skills, experience and qualifications required) have secured excellent students from our own cohort; as of 2020, six of our PhD students had completed their undergraduate study at BCU. Further evidence of our success in developing our own students is evidenced in the appointment (after a competitive recruitment process) of a number of our PhD researchers as departmental staff members (Keyte, Hussain, Lloyd, Pierce and Lally).

Reflecting the department's sustainable approach to PGR recruitment, Psychology has pioneered a scheme to involve students in research as early as from their first year of undergraduate study. The **Volunteer Research Assistantship (VRA)** scheme for undergraduates develops their interest in research, whilst encouraging them to consider a research career. Staff members and PhD students submit small research projects that are advertised to students who can apply via a competitive process. The successful students (a total of 179 from 2014 to 2020) are then assigned to a project and work closely with a member of staff for a five-week period on the research project, which provides students with a wide range of research experiences, including literature review and synthesis, writing ethics proposals, data collection, analysis and verbal presentation skills.

In addition to the VRA, the **Student Researcher Scheme** recruits a pool of students who are then ready to be called upon as research assistants in funded research, and thus are fully integrated in the research environment, further fostering its sustainability.

PGR student training

All new research degree students are expected to attend and complete the Postgraduate **Certificate in Research Practice (PCRP)** during the first year of their PhD, complementing the traditional practice of PhD supervision. The program informs students about the PhD 'journey' and provides training in fundamental research skills in addition to support and guidance from academic staff and professional services teams. As part of the course, students are given an

induction to both the PhD and the PCRP, along with a Research Degrees Handbook that details their course information.

Further training opportunities are provided for their development as emergent academics; these include presenting at the research seminar series and RESCON, attending researcher away days and writing retreats, and working collaboratively on research projects with the staff. Senior PhDs students (in their third year of study and beyond) can take part in a **PhD peer mentorship scheme**, through which they provide support and advice to first and second year PhD colleagues. Along with the PhD student Community of Practice mentioned above in Section 1, these systems are effective forms of support during students' time with the University. Collectively, each of these measures facilitates the integration of our PGRs into the University's research culture as well as developing important skills. The Centre of Academic Success (Education Development Services from 2018) provides additional support as part of the Faculty research infrastructure on academic writing and presentation skills. Dedicated base-rooms with computer access are provided for PGRs as communal working space through which they can access peer support and act as a social hub to foster a collaborative research environment. Students are also able to apply to the DRC (who administer the allocated budget for PGR activities each year) for funding for conference and event attendance, travel and wider research related expenses, including participant remuneration and study recruitment advertising. For instance, across the REF period 2014 to 2020, a total of £21,700 has been allocated to PGR student conference support.

PhD supervision and skills development

Skills development and monitoring of PhD students' progress are managed through the Faculty Research Degrees Committee, which meets monthly. The Faculty has adopted the Vitae researcher development framework to support the maturation of its research community and this is embedded in the Annual Review of Progress (APR) which takes place annually in June. This is a review process involving in-depth self-assessment by the student, the supervisory team and an independent third party. Students are also encouraged to take part in satisfaction surveys, which allow us to evaluate the vibrant research environment for PGRs and to identify and address potential issues. Representatives from the growing Psychology PGR community are invited to sit on University, Faculty, and Departmental research committees. PGR students are supported by their supervisors who are also provided with additional training to strengthen their PGR supervision competency. An increasing number of staff are being trained to be PhD supervisors or Director of Studies; currently there are 36 members of staff supervising PhD students and 25 are Director of Studies (out of 51 members of staff in the Department). The University runs an accredited professional development programme for research degree supervisors known as a Community of Practice (CofP) accredited by the Staff and Educational Development Association (SEDA). The CofP provides peer support and guidance through the supervision process as well as sharing the best practice methods for PhD supervision. The CofP consists of workshops, during which participants share experiences and explore different strategies and approaches to PhD supervision. The program scaffolds supervisory practice with an understanding of the theory, resources available, and commonly experienced challenges within supervision. As of the end of 2019, a total of 15 Psychology staff attended this SEDA course, whilst 14 attended the in-house training for Research Supervision training offered at the Faculty level. These have contributed positively to the community of PhD supervisors in Psychology, as six staff attended the VIVA chair training and two staff chaired VIVAs. Our PGR community's successes reflect the effectiveness of the above processes, ranging from securing external positions both in (e.g., Pierce, now a lecturer at Arden University) and outside academia (e.g., Knowles, now a Higher Statistical Officer at the Department for Education) to contributing to the research community through extensive publications (e.g., Hussain, Henna, Keyte and Knowles).

Equality and diversity

The Department of Psychology is strongly committed to fairness and transparency in its decision-making processes and employment and working conditions, which ensure that equality and inclusivity are fostered and that diversity is encouraged. These principles are of integral importance in developing the Department's research environment. A proportion of 62% of new

appointments from 2014 to 2019 were women, reflecting the Department's overall composition (see below). Five female academics have been promoted to Senior Research Fellow, Reader or Professor since 2014.

In May 2020, the University announced the development of an extensive programme of EDI work, including working towards the Race Equality Charter Mark. BCU is also a signatory to the 10 Athena SWAN (AS) principles and it secured the Institutional Bronze award in May 2016.

Under the leadership of Abbott (Inequalities research cluster), the School Athena SWAN Lead and Faculty co-lead, the School of Social Sciences successfully pursued the Departmental Bronze award. Abbott successfully completed the Aurora leadership programme for women academics in 2017/18; this programme is now being undertaken by Fotakopoulou.

The fairness of the processes leading to staff recruitment is underpinned by a series of mechanisms set out by the university and closely followed by the Department. These include, for example, the anonymisation of applications and shortlisting and the use of established selection criteria. Research-relevant responsibility roles are advertised to the whole academic community who then have a significant amount of time (usually 2-3 weeks) to consider whether to apply, discuss this decision with their mentor and LM, and be offered support in their application.

Applications are then scored independently on pre-defined and available criteria ratings by at least three experienced staff members (e.g., Director of Research for the School of Social Sciences) and then discussed during moderation meetings held at the Departmental and School levels. Management roles undergo a further step whereby candidates are interviewed in a competitive and transparent manner according to pre-defined criteria made available in advance to all the Department staff.

As an outcome of the above processes, the gender composition of the staff with Significant Responsibility for Research reflects the make-up of the Department's broader academic community. For example, 64% of staff with SRR are female; this figure is 66% when we consider the whole Psychology Department. The proportion of about 2 out of 3 female staff can be observed across different roles, for example Reader or Associate Professor (63%), Senior Lecturer or Senior Research Fellow (67%), ECR (67%) and PhD students (74%); this proportion drops to 50% at the Professorial level, although this group includes only two members of staff at the moment. Going forward, three of the five current School-level Research Centres are led by women: Crime and Society (Hammond), Health and Well-Being (Wallis), and Identity and Inequalities (Prof Lee Tre-week, from the Department of Criminology and Sociology). Similarly, women are Deputy Research Directors for three out of the five of the School-level Research Centres: Hewett (Health and Well-Being), Fotakopoulou (Identity and Inequalities) and Harrison, Emily (Lifespan Behavioural Science).

A total of 6% of staff with SRR declared a disability, compared to an overall rate of 4%. Only 6% of staff with SRR are on fixed-term contract, whilst this proportion is 8% when considering all the staff in the Department. A total of 21% of the UoA staff comes from Black, Asian or other Minority Ethnic (BAME) backgrounds, this rate for staff with SRR is 15%.

The BCU LGBT+ staff network is open to all BCU colleagues who identify as identity member of a gender, sexual, and/or romantic minority group. Colleagues who are LGBT+ allies (i.e., individuals who may not identify as LGBT+ themselves but are active supporters of the community) are also invited to participate in the network. The University also acknowledges the social model of disability, in which disability is defined as the barriers perpetuated by society, including prejudice, stereotyping, unaccommodating policies and inaccessible buildings. The contribution of disabled staff is valued and recognised across the University, and the department practices this inclusive approach through provision of individualised support for training and development and research activity, including promotion opportunities.

Nested within the Inequalities cluster, research projects have been exploring the impact of inequality in different domains and have been also resulted in collaboration and active dialogues with external associations (see Section 4). Some examples include studies into ethnic differences in innocent suspects' behaviour when using the Strategic Use of Evidence Technique (Wyler, Abbott and Pornari), and investigations on (a) the role of cognitive inequalities in health and wellbeing outcomes (Bridger), (b) cross-cultural interventions in IAPT services (Ahmed, a PhD candidate, Akhtar and Rentzelas), and (c) barriers to STI information gain in men who have sex with men (Pierce, Abbott and Brown).

3. Income, infrastructure and facilities

Income. Investment from the University and BLSS has been used to develop a responsive research structure that led to intensified research-income activities. Even though income generation in this REF period has been modest, there has been a considerable increase in the bids' submission rate for external funds. For example, in 2018 Psychology staff submitted 24 applications for research or enterprise.

Through the **collaborative research environment we fostered** we now have an emerging record of success in applications to the British Academy, Leverhulme Trust and the ESRC. A recent example is Carter's (Applied Cognition and Technology cluster) **interdisciplinary ESRC grant** (£142,000) in collaboration with Dr Imran Awan (Department of Criminology and Sociology, BCU) for their project 'What are the Drivers of the Islamophobic Infodemic Communications on social media?'

Bridger, Aldrovandi, and Mavritsaki (Applied Cognition and Technology cluster) received a grant from the **British Academy/Leverhulme Trust** (£8,000) to explore the role of individual and domain differences in attentional processes underpinning decision-making. Further income has been brought in by the Applied Forensic Psychology cluster by Pornari and Abbott (£9,900) as a **British Academy/Leverhulme Trust small grant**—led by Wyler, formerly at BCU—in order to explore potential ethnical differences in suspects' responses in an investigative interview. Tonkin and Burrell, formerly at BCU and now external supervisors to two of our PhD students, were awarded funding from (a) the **British Academy** (£5,000) that enabled them to engage in cross-disciplinary research that combined the disciplines of machine learning and forensic psychology together with a collaborator from the Engineering Department at Vrij Universiteit Brussel in Belgium, (b) the **Leverhulme Trust** (£30,000) and (c) the **BPS** (£3,000) to establish networks that brought together researchers and practitioners of **crime linkage** from seven countries around the world, which also attracted £1,000 from the **ESRC** as a Training Bursary to conduct a meta-analysis. Further **ESRC** awards include £1,000 to Mantzios (Applications and Interventions in Positive Psychology) as PI for a project on mindfulness and mental health in schools.

Our collaborations with external national and international agencies allowed us to secure additional income; for example, **Age UK** Sandwell awarded £7,000 to Jackson within the Health and Well-Being research cluster. Farooqi (Health and Well-Being) received funds from the **European Union Agency for Railways** for her role as PI on a Human and Organisational factors and system thinking project (£4,900), and as PI for a programme in collaboration with **East Leicester General Medical Practice** supporting the development and implementation work on a Black and Minority Ethnic Research Toolkit (£5,000). Rentzelas and Mavritsaki received external funding as part from a University wide team from **Meridian** to study attitudes toward Magnesium (£2,000). Moreover, Jalil, now a Visiting Fellow in Forensic Psychology, secured an **AHRC/Community-University Partnership Initiative** funding worth £1,000. Funding was also secured for **enterprise** activities, including Farooqi's consultancy fee for a speech therapy programme project in collaboration with Prof John Clibbens and Dr Helen Jenkins (from the Health, Education, and Life Sciences Faculty), and the University Hospital Birmingham (£4,900), and Harrison, Emily's ABRACADABRA programme, during which she delivered training for school teachers (£22,000; The Education Endowment Foundation), within the Psychological Research in Development and Education research cluster.

In order to further consolidate these activities and to recognise that the scale and intensity of research in the Faculty are considerably increasing, the Research Development Strategic Officers (RDSOs) at the Faculty level carry out the role of supplying accurate and regular bulletins to all academics on funding opportunities to respond with bids. A **Grant Mentorship Scheme** was set up in 2019 whereby more experienced researchers are paired with staff at an earlier research career stage to establish frequent and supportive sessions, which are formalised and overseen within a **Community of Practice and Mentoring for grant writing**, a formal series of meeting and workshops open to researchers in order to offer support to the development of grant proposals. Mentoring for grant writing is offered by senior academics with experience in preparing and securing external funding to less experienced colleagues who are interested to pursue external funds. These processes also provide support for the finance and

budgeting elements of bid submission, as well as a peer review process and ensuring that bids are submitted on time.

Infrastructure and support. Staff in our Unit have received funding amounting to £90,000 since 2014 from the Department to facilitate the launch of the Centre and the attendance of staff at key conferences. The funding for our Unit is in addition to monies available in the general staff development fund that is accessible by all members of staff (see Section 2); this is intended for general staff development purposes but also includes research activities.

All staff are expected and encouraged to seek external funding: Income expectations from staff are calibrated to their seniority and HEI experience. As mentioned in Section 2 above, the Faculty's offers competitive internal grants to staff for the generation, preparatory work and development of plans and to provide appropriate support to put them into effect; within their application, staff are required to isolate how the funds will lead to a further, external grant application. The School's recent and significant development exemplifies its commitment to developing and sustaining external collaboration to expand its potential to attract external funding. Moreover, dedicated support staff have been appointed at School and Faculty level to support staff seeking research funding, including the Research Grant Mentorship Scheme mentioned above.

Equipment and facilities. The university strongly supported the development of our Unit through the purchase of and access to specialist equipment, which significantly enhanced the facilities within CAPr. Equipment that was purchased includes two EEGs, three eye-trackers, a Bio-Pac, and tDCS. This provision enabled activity within the Applied Cognition and Technology cluster; for example, eye-tracker pilot data led to the successful application for the BA/Leverhulme Small Research Grant from Bridger.

Improvements to the IT systems that support research have been implemented, including the purchase of licences for software that supports data collection and analysis activities for all research active staff, such as E-Prime, NVivo, MATLAB, Gorilla, and Qualtrics. Together, these facilities will enable staff to design and implement a wide range of cutting-edge research during the next REF period, providing all staff with the infrastructure needed to build and maintain their research capacity.

Apart from the Psychology-dedicated laboratory space for individual testing and group testing, the Faculty has facilitated inter-disciplinary research through negotiating the use of space allocated to other Schools. For example, qualitative data during mock jury studies were collected on multiple occasions from members of the Applied Forensic Psychology cluster in the court room, which is allocated to the School of Law.

Research management and governance. Each of the research clusters meets on a regular basis to review members' research activity and review progress against its strategic aims. Cluster leads report to and work closely with the CAPr research director and deputy research director, who also offer a strategic oversight of the research activities. The support mechanisms in place for ECRs mentioned in Section 2 are also overseen by the research director and deputy research director in liaison with the School research director. Effective research governance is managed strategically at Faculty level by the Faculty Research Committee (FRC) and the Faculty Research Degrees and Environment Committee (FREDEC) who hold regular meetings. The Faculty Academic Ethics Committee (FAEC) has cross faculty responsibility for ethical approval and compliance and it reports to the University Research Ethics Governance and Compliance Committee (UREGCC), which then reports to the University Research Committee (URC).

4. Collaboration and contribution to the research base, economy and society

We fostered a strong ethos of collaboration and active contribution to psychological research and practice, reflecting our commitment to partnership working across each research cluster. Psychology has strong links with external partners, including NHS services, schools and prisons across Birmingham and the West Midlands, in addition to a growing network of alliances in national and international contexts, including international law enforcement agencies, universities and the UK government. Staff also contribute significantly to peer review and

editorial activities within their specialist fields, in addition to holding seats on Research Council funding and British Psychological Society committees. Several colleagues hold external honorary appointments at leading universities (e.g., Jackson at the University of Birmingham, Mavritsaki at Cambridge University), and recent awards won by staff (e.g., Tecwyn was awarded the Frank Beach Award by Division 6 of the American Psychological Association for the best article published in the Journal of Comparative Psychology in 2019) indicate the expertise present within our UoA, and the high esteem in which we are held.

Collaboration network. As mentioned, collaborative work is a particular strength of CAPr, both internally and involving external collaborators and organisations relating to applied practice.

Within and across research clusters, colleagues are engaged in several projects; for example, Mavritsaki (Applied Cognition and Technology) and Rentzelas (Inequalities cluster) examine cross-cultural differences in perception, Abbott (Inequalities) and Egan (Applications and Interventions in Positive Psychology) focused on the area of sexual health and relationships in adolescence, Brown (Inequalities) and Aldrovandi (Applied Cognition and Technology) investigated cognitive heuristics and social norms within the context of health message processing. Such collaborations strengthen our publication record – recent papers include Abbott, Weckesser and Egan (2020) and Knowles, Brown and Aldrovandi (2020).

Cross-faculty collaborations are particularly strong across the Centre. These include Fotakopoulou (Psychological Research in Development and Education) who, in collaboration with Dr Jane O'Connor in the Faculty of Health Education and Life Sciences (HELS), has developed an international project exploring parental and early year's educators' attitudes and experiences to young children's use of technology. Collaborators in Sweden, Australia, Portugal, Greece, China, Japan and Norway have used Fotakopoulou and O'Connor's Technobabies questionnaire to contribute data, resulting in the publication of three journal papers and two book chapters. As part of this work, Fotakopoulou was significantly involved in establishing a European Early Childhood Education Special Interest Group on digital childhoods, whose membership includes academics across the UK, Europe (including Finland and Norway) and internationally (including Australia). Brown is collaborating with colleagues in Health on a project examining the impact of graphic warnings on cigarette packaging on smoking outcomes. Our **external collaborations** (see Figure 1 below) are equally strong and include national and international partnerships.

Our PhD students are supervised by collaborative teams, which include cross-faculty and cross-institution supervisory members. For example, Mavritsaki and Rentzelas supervise Chua in collaboration with Professor Kourtzi at the University of Cambridge.

In keeping with our commitment to applied research, colleagues also collaborate on projects with a range of external agencies, including the **National Union of Students**, **private and public sector prisons** (e.g., HMPs Birmingham, Grendon and Dovegate), **police forces and law enforcement agencies** (e.g. West Midlands Police, the Royal Canadian Mounted Police, the South African Police Service, the Metropolitan Police, the Dutch and Belgian National Police and the Serious Crime Analysis Section of the UK National Crime Agency), **forensic and non-forensic healthcare providers** (e.g. Lighthouse Healthcare, Partnerships in Care, Russell Hall hospital, Worcestershire Health and Care Trust and the Bamford Centre for Mental Health and Wellbeing, Heartlands hospital, and IAPT services) **educational agencies** (e.g. the TITAN partnership of schools, OASIS academy, and local schools), and **business partners** (e.g., Meridian Lightweight technology).

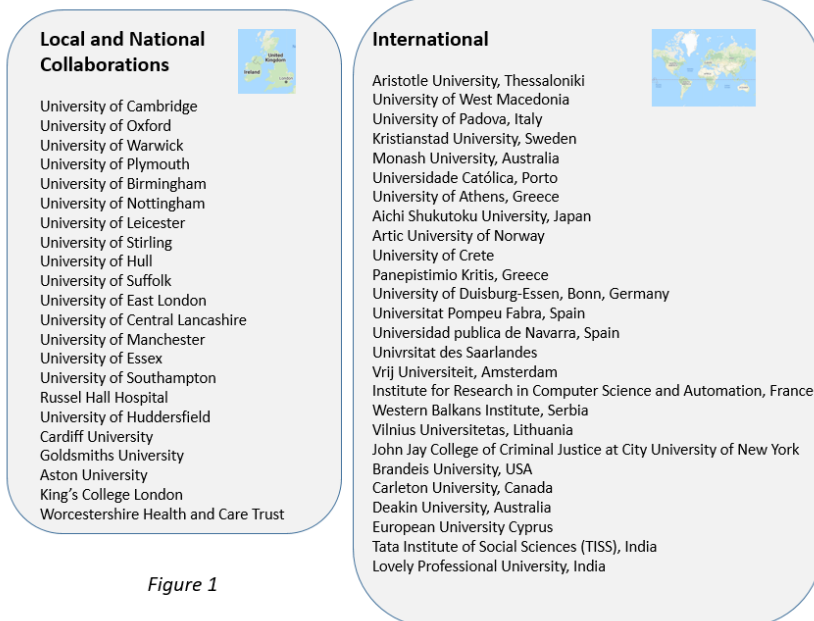


Figure 1

Work with government and evidence-based policy. Our research contributes to the understanding of nationally and internationally important issues, most recently the covid-19 pandemic. Reflecting the national importance of our colleagues' work, Kamal (Health and Well-Being cluster) was appointed as a member and core participant in the Ethnicity Subgroup of the **Scientific Advisory Group for Emergencies (SAGE)** and she also contributes to the Scientific Pandemic Insight Group on Behaviours (SPI-B), a behavioural science sub-group of SAGE. Kamal contributes her expertise to advising on the Government's COVID-19 response also by leading a SAGE document titled "Public Health Messaging for Communities from Different Cultural Backgrounds", published on 22/07/2020; she also contributed to other two documents: "SPI-B Consensus Statement on Local Interventions" and "Areas of intervention ('local lockdown' measures) to control outbreaks of COVID during the national release phase", both published on 29/07/2020 – her contribution is ongoing.

Our contribution to government policy and decision making also extends to work on online extremism. Carter (Applied Cognition and Technology), PGR student Sutch and Professor Imran Awan (Professor of Criminology at BCU) produced a report for the **UK Government Commission for Countering Extremism**, examining the role of online extremism through differences between general online discussion of extremism and discussion inspired by offline events.

We are also developing our expertise in evidenced based policy: Bedwell (Applied Cognition and Technology) was selected through a competitive process to take part in the Royal Society Pairing Scheme, through which she spent time shadowing a specialist scientific advisor in the House of Commons Science and Technology Committee. Bedwell was able to develop her knowledge of evidence-based policy and decision making and subsequently share this with colleagues across the department, demonstrating our committed focus to applied research and the robust knowledge dissemination processes within the department.

Contribution to the research base

Most colleagues are active as peer reviewers in journals in their research area; examples include Tecwyn for Cognition and Cognitive Development, Scanlon for the Journal of Social and Political Psychology, Galvin for the Journal of Psychiatric and Mental Health Nursing, and Psycho-Oncology, Coyne-Umfreville for the Journal of Research in Reading, and Computers in Education, Harrison, Natalie for the Journal of interpersonal violence and the International Journal of Prisoner Health, and Bedwell for Neuropsychology.

Some of the Psychology staff are also members of editorial boards. For example, Jackson sits on as a board member for the Journal of Advances in School Mental Health Promotion, Tecwyn for Psychological Science and Mavritsaki for Frontiers in Psychology. Other staff served as

Guest Editors for special issues; Mantzios and Egan for a special issues in Frontiers in Psychology, Mavritsaki and Rentzelas for another issue of Frontiers in Psychology, Harrison, Emily for a Special Issue in Psychology Teaching Review and Hammond for special issues of both the Journal of Criminal Psychology and Journal of Investigative Psychology and Offender Profiling, or are Associated Editors; Mavritsaki, Frontiers in Computational Neuroscience and Mundy, Ian, Journal of Research in Reading.

Awards and esteem

The research of CAPr's members has attracted a number of awards, including Tecwyn receiving the American Psychological Association (Society for Behavioral Neuroscience and Comparative Psychology) Frank Beach Award for the best article published in the Journal of Comparative Psychology in 2019 and Bedwell being awarded a Cognitive Neuroscience Society Postdoctoral Fellowship in March 2018. These internationally competitive awards evidence the growing profile of the research taking place within the department and the expertise of its staff. This expertise is also recognised through the Honorary or Visiting Academic posts held by staff at other institutions; Mavritsaki was a visiting academic in the Experimental Psychology department at the University of Oxford (2012-2016), visiting academic in the Psychology department at the University of Cambridge and an honorary lecturer of the Psychology Department at the University of Birmingham; Jackson is a member of the Oxford Institute of Ageing Study Group and Honorary Senior Lecturer in the Institute of Occupational and Environmental Medicine at the University of Birmingham.

CAPr members are also involved with several committees with regional and national remits. McDonald is a member of the West Midlands branch of the British Psychological Society (BPS), for which role she organised the BPS Conference and the Conference of the Division of Academics, Researchers and Teachers in Psychology (DART-P), and Pierce is a member of Midlands Health Psychology Network committee, an organisation that aims to support and foster aspiring and early career health psychology professionals across the region. Emeritus Professor John Clibbens is a member of BPS and ESRC committees, and Professor Jackson is a member of the Institute of Directors and of the ERC Peer Review College.

Contribution to society and the economy

Colleagues are strongly engaged with the public and the wider society, and regularly organise and participate in a range of initiatives that improve and promote the civic understanding and application of psychology.

Bridger (Applied Cognition and Technology) and Hewett (Health and Well-Being) co-organised an event launching the Make My City Fair (MMCF) initiative, which has since been developed into a seminar programme linked to Birmingham 2029 (outlined above). As long term project MMCF aims include (1) moving towards alternative models/features of local government which enable investment in what matters to people locally (building on the 'Preston Model'), (2) bringing citizens together and build on existing networks to determine what matters for the people of Birmingham (Citizen's Jury; Birmingham Poverty Truth Commission, (3) identifying and developing city-wide community/service networks which will counter the impact of austerity on services, (4) challenging and re-framing the existing narratives surrounding austerity in Birmingham, (5) counting and mapping the real cost of austerity in Birmingham, (6) developing infographics which convey, simply and quickly, the multi-pronged impact of austerity (and conversely, the social value in investment in people and services). Bridger has also been involved in discussions with the Director of Implementation at West Midlands Mental Health Commission, on the integration of regional and local public health data within the Birmingham 2029 project.

Fotakopoulou (Psychological Research in Development and Education) and Rentzelas (Inequalities) are members of a collaborative EU Erasmus project – EMBRACE HE – addressing poor mental health and wellbeing in higher education students (2019 – 2022). EMBRACE HE developed and uses an innovative open access toolkit to share models of innovative best practice and embedded curricular, extracurricular, pedagogical, pastoral and collaborative activities (with Students' Unions, external stakeholders etc.) designed to improve student wellbeing. The project engages with all HE staff groups as an international research consortium

team, including policy makers and aims to engage over 50,000 participants in using EMBRACE HE resources over the project lifetime.

Parker (Inequalities) produced 'Forced to Leave to the Unknown', a book of stories by refugees and asylum seekers in Cardiff, funded by the Big Lottery and in partnership with Space4U Cardiff, raising awareness of the experiences of these vulnerable groups and the impact of their life experiences. Furthermore, Abbott (Inequalities), in collaboration with colleagues from the Health, Education and Life Sciences (HELS) Faculty leads the Vagina Quotient (VQ), an interdisciplinary, collaborative and sex positive research project that promotes female sexual agency, pleasure and health. The VQ is a social enterprise, research and impact initiative, which run in partnership with local enterprise, government, and 3rd sector agencies, providing a significant and pioneering form of public engagement. The aim of this initiative is to improve women's access to sexual health information, products and services through community pop-ups and events. The pop-ups bring together female-led social enterprises, artists and organisations in and around Birmingham, reflecting the wide range of expertise and approaches underpinning the project.

Earnshaw (Inequalities) and Harrison, Natalie's (Applied Forensic Psychology) Community-University Partnership Initiative (CUPI) project with Sport Birmingham and FASTN (Family Stability Network) on sports-based mentoring programmes for 'at-risk' children in schools. The benefits of such activities for these children, including helping them to recognise and develop healthy relationships, have been positively noted in TeacherToolkit, a professional resource for educators, and will be supported by a forthcoming paper by Earnshaw and Harrison, Natalie. Further local outreach was conducted by Tecwyn (Applied Cognition and Technology) and Fotakopoulou (Psychological Research in Development and Education), who partnered with the Birmingham ThinkTank Science Museum for a 'Meet the Expert' programme, a series of STEM engagement and involvement, comprising 'hands-on' activities led by 'professional scientists' for families. Finally, Hammond (Applied Forensic Psychology) acts as an academic advisor for the Office of the Police and Crime Commissioner, and has worked extensively with them and the Association of Police and Crime Commissioners in developing national responses for tackling fraud in the UK. Hammond's work in this area also includes consultancy for West Midlands Police (January 2018 onwards), where she is an academic lead for their Evidence-Based Practice Team, and work with various local organisations and charities, including Support After Murder and Manslaughter (SAMB), The Precious Trust, and various local domestic violence support agencies.

To summarise, we have provided evidence that, since 2014, we have put in place structures and processes that nurtured a growing, inclusive and thriving research community. The devised strategy and structure will ensure that the Department will continually assess and improve its research profile in the long-term, with the aim to extend our reputation as a research unit, to consolidate our strengths, and to increase our external research income.