

Institution: University of Southampton
Unit of Assessment: 4 Psychology, Psychiatry and Neuroscience
<p>a. Context</p> <p>In Psychology, 34 category A staff work alongside 50 Research Fellows and Research Assistants, and 177 PGR students (since 2008) to conduct world class research across three broad domains: Division of Clinical Neuroscience (DCN), Division of Cognition (DC) and Division of Human Wellbeing (DHW). Since 2008 we have published over 1500 journal papers and have received £7M grant income. Our work benefits a broad range of individuals: It is driven by an ethical imperative. Directly or indirectly, we seek to improve human wellbeing. Everything we do is designed to achieve a better understanding of psychological processes, and wherever possible we use this knowledge to develop and test applications that can benefit a wide range of user groups. Health Clients benefit from our research on physical/mental health. A substantial proportion of colleagues in DCN and DHW have actively disseminated research findings directly to health practitioners or the general public either via public lectures or professional training events, through the production of printed materials and articles in practitioner-focused journals (i.e. self help manuals; guidelines and recommendations) and/or by using television, radio or internet broadcasts. We have, either directly or indirectly, contributed to national and international initiatives to improve client outcomes in mental and physical health domains including anxiety, depression, attention deficit/ hyperactivity disorder (ADHD), conduct disorder, autism, borderline personality disorder, cardiovascular problems, dizziness, eating disorders and substance use disorders. Our research also positively impacts some of the more vulnerable members of our society. Young people, for example, benefit from schools-based research on dyslexia, the impact of child anxiety on school achievement, and bullying. Older adults benefit from our interventions to reduce falls, enhance health in old age, and reduce cognitive decline. Our applied research on attentional processes seeks to reduce risks to the general public and our armed forces by improving methods of detecting terrorist threats during travel, and IEDs in theatres of war. Our collaborations with industry have aided the development of new treatments for mental health conditions, benefitting the broader economy.</p> <p>Key user-groups/audiences for our research include: (i) National/international government departments and inter-governmental agencies. Studies worth over £2 million have been directly commissioned to inform future government policy (e.g. Food Standards Agency, DCN 2003-7; Ministry of Defence, DC 2010-2; Department for International Development, DHW 1999-2004). This research has led to invitations to present to committees responsible for a range of government policy initiatives (e.g. in relation to international adoptees and teenage pregnancy). Moreover, since 2008 over a third of our colleagues have participated in or advised governmental or international organisations including DSM-5, NICE, WHO, Department of Health, Department for Education, Ministry of Defence, Department for International Development. (ii) Non-governmental and charitable organisations. DHW has worked in partnership with non-governmental organisations that use research to influence health policy (e.g. Marie Stopes International, in relation to teenage sexual health). (iii) Industrial partners. DCN has formed successful collaborations with pharmaceutical companies (GSK, Eli Lilly, Janssen Cilag, UCB, and Shire) to conduct basic, treatment, and health outcomes research. DCN has also worked with companies developing diagnostic and assessment tools (e.g. QbTech); (iv) Health, social care and educational practitioners. Researchers in DCN and DHW have directly disseminated their findings to professionals including mental/physical health practitioners, nurses, social workers and teachers through direct contact (e.g. professional development talks) or by targeted publication. (v) The general public. As part of the public engagement with science agenda, we have promoted our research through: a) high profile public science conferences (e.g. DC: Royal Society, 2011); b) popular written and broadcast media (e.g. BBC Documentaries (DCN: e.g. English Romanian Adoptees study - A BBC <i>All in the Mind</i> special 11th Oct 2011); and c) national public health campaigns (DHW and influenza). (vi) Treatment developers. Our research in DCN has informed the development of psychological treatments (anxiety, obesity and personality disorders, ADHD) both directly and indirectly through improved methodology for use by other treatment developers.</p>

Impact template (REF3a)

b. Approach to impact

To illustrate our approach to impact, we use examples to show how we reach the key audiences identified above. In practice, each Division uses several routes.

Impact Route 1: Audience - Patients with ADHD and their families; Topic – Innovations in ADHD management: Group - DCN. In 2007 Sonuga-Barke recognised that the *Institute for Disorders of Impulse and Attention* (IDIA) could best serve the needs of children with ADHD by collaborating with Shire, a company specialising in ADHD pharmacotherapy. His expertise enabled him to offer consultancy to Shire on general aspects of ADHD support, and more specific matters relating to product development, registration, and licensing. Once appointed to the ADHD Educational Institute in 2008, a Shire initiative, he was able to contribute to the training of over 800 physicians and paramedics working throughout Europe and the Americas. Shire's willingness to support the South Hampshire ADHD Register (SHARe) provided an essential platform for IDIA's broad research agenda on the impact of ADHD and its treatment. In turn, IDIA conducts more focused research in relation to Shire's product portfolio. For example, recent and on-going collaborative projects worth over £1 million, which complement IDIA's larger research portfolio focus on, ADHD medication effects on educational outcomes, and patient preferences relating to drug delivery.

Impact Route 2: Audience - The general public; Topic – applications of cognitive science: Group – DC. Beyond patient groups, we have long recognised the need to communicate the relevance of our basic science work to a wide public audience, both through high profile public science meetings and the popular media. For example, DC provided one of just 22 exhibits for the Royal Society, Summer Science Exhibition (London, 2011) with over 13,000 visitors. Selected against very stiff competition, the exhibit, "Guns, Knives and Bombs", explained the process of visual search in an important threat detection scenario, airport security, attracting significant national/international news coverage. Related research has also been presented at the National Engineering Science week. DC has also ensured that other core aspects of its research feature in media. For example, Laverne Antrobus visited Liversedge's eye tracking laboratory for a programme on dyslexia in a major 3-part BBC Documentary series on child development, 'Growing Children'. In the programme, the DC team explained how their research on sentence comprehension provided a basis for the remediation of reading problems (171,000 views – figures from <http://www.barb.co.uk>).

Impact Route 3: Audience - health practitioners: Topics – dizziness/sexual dysfunction: Group - DHW. DHW recognises the importance of communication with health practitioners who are the target consumers of much of their research. This is achieved by publishing in their newsletters and journals, presenting at the conferences, workshops, and seminars they attend, and contributing to the evidence-based guidelines and manuals that inform their work. For example, Yardley's most recent trial of a booklet-based dizziness self-management programme appeared in *BMJ* (2012) and she collaborated with the Meniere's Society to supply her balance guidance booklets, with proven beneficial effects on the basis of clinical trials, to health professionals and patients on request (~14,000 distributed so far). A second example is Graham's research on female sexual dysfunction. Her appointment to the American Psychiatric Association's *Work Group for Sexual and Gender Identity Disorders*, developing new criteria for female sexual disorders (now published in DSM-5), will impact on health practitioners across disciplines.

Impact Route 4: Audience - Clinical psychologists and psychiatrists; Group: DCN. Topic – Therapeutic innovation. Researchers in DCN are at the forefront of innovations in treatment for psychological conditions. In addition to the ADHD related work by Sonuga-Barke and colleagues (Impact Route 1 above) Lynch has a long-running programme on the treatment of personality disorder and is currently running a £2 million MRC EME grant trialling a novel approach to treatment-resistant depression (with Byford, King's College; Russell, Swansea University; and others) based on his long-standing research programme on personality disorder. Likewise, Mogg and Bradley's programme on the mechanisms of anxiety influenced Waters (Griffith University) to develop novel treatments for childhood anxiety. A recent trial has begun to provide evidence of this approach's effectiveness, with 50% of anxious children in the attention training condition showing clinically significant improvement compared to 8% in the control condition (Waters et al., 2013).

Impact template (REF3a)

c. Strategy and plans

The reciprocal relationship between excellence in research and impact in practice is at the heart of our strategy, and the key is communication. The University has recently set up Public Policy@Southampton (PP@S), an external-facing, research impact enhancing unit. PP@S supports strategic engagement events between key policy makers and academics. It co-ordinates annual competitions for policy commissions, and workshops across the University. The 'reach' of these events is extended through podcasts, blogs and policy briefings on the PP@S website, which are promoted through multi-platform social media campaigns orchestrated by the PP@S team. Within Psychology, a senior professor now serves as **Impact Champion** who coordinates impact-related activity by identifying new opportunities for useful research links (including acquiring seedcorn funds from the South East England Development Agency (c. £25k), funding for a London Technology Network Fellow, private charitable donations for social enterprise (£100k) and funds for educational dissemination (£13k Wellcome Trust), communicating with our target audiences and monitoring progress. There is a close collaboration with Psychology's Director of Research and the University's Research and Innovation Services (RIS), a specialist department with over 40 staff that provides dedicated support and expertise to facilitate stakeholder interactions.

Our future plans have three strands:

1) Managing Impact Activities

- A **Research-to-Practice Steering Group** will be introduced to strengthen links with commissioners and consumers of our research and provide a forum for new research ideas. The Committee's external membership will be drawn from policy-makers, practitioners, representatives of private enterprise and public services, and members of the general public. Internal members will include representatives from each Research Division, other units in the University and RIS.
- **Impact appraisal will be introduced** as an element of the annual Personal Performance and Development Review process that supports and develops this aspect of colleagues' work, and a relevant factor in relation to **workload, salary review, and promotion**.

2) Funding Impact Activities

- We will increase our annual budget of £30,000 for impact-related activities including attendance at professional-level conferences to disseminate research findings; media training, and pump priming for specific impact-related activities (e.g. self-help manuals; user-friendly research guides; support for tendering).

3) Outreach for Impact

- We will introduce a dedicated role within the administrative structure to promote more effective outreach to key stakeholders.
- We will increase the use of social media for impact purposes, (with links to the Psychology website), allowing us to grow our contact base and announce research developments to an expanding range of followers. We will launch a regular series of high quality Psychology and Practice Videos on our website linked to more detailed Working Papers on specific topics, for dissemination to potential partners.
- Psychology's Mobile Research Unit embodies our commitment to research outreach, and we will strengthen this by carrying a regularly changing set of material designed to communicate our work to participants and senior staff in our community research settings (e.g. schools, offices, factories, hospitals, military installations).

d. Relationship to case studies

Our case studies exemplify our approach to impact by: (i) illustrating the breadth of our activities across sub-disciplines; (ii) reflecting collaborative approaches that create synergies across disciplinary boundaries (cf. ICS 4 where Yardley works with colleagues in medicine to improve health outcomes); (iii) underlining the value of cultivating long-term constructive relationships with government/non-governmental agencies to shape the applied research agenda (cf. ICS 1 where the FABIC study followed a long term dialogue between the study team and the relevant government departments); (iv) adding value through direct or media-based engagement with the public & professional groups (cf. ICS 3 where the study team participated in the Royal Society public engagement initiative), and (v) embedding research excellence with social value (cf. ICS 2 where high quality clinical trials impacted the lives of ADHD patients and their families by changing clinical recommendations).