

Impact case study (REF3)

Institution: University of Worcester		
Unit of Assessment: 4 Psychology, Psychiatry and Neuroscience		
Title of case study: Enhancing self-care among adults with severe allergy		
Period when the underpinning research was undertaken: 2014-2019		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Dr Béré Mahoney	Principal Lecturer in Psychology	1994-
Dr Elaine Walklet	Senior Lecturer in Psychology	2013-
Professor Eleanor Bradley	Professor of Health Psychology	2013-
Period when the claimed impact occurred: 2016-2020		
Is this case study continued from a case study submitted in 2014? N		
1. Summary of the impact		
<p>Severe allergies are common amongst adults in the UK. Effective treatment relies on patient and health professional's education. The team's research and consultancy with an allergy treatment global leader challenged thinking about treatment and has been used to improve the company's allergy education materials, now translated into 17 languages. Impacts contributed to significant growth in the company's market share and informed their strapline "committed to patient support". Working with patients, families, health professionals, industry and third sector stakeholders, the research has raised the profile of the psychological aspects of treatment, influencing approaches to support.</p>		
2. Underpinning research		
<p>The research focused on the effects of severe allergy on adult patients and their families. It identified unique self-care issues faced by these patients, challenging accepted thinking that mere provision of medical instructions will lead these patients to be effective self-carers. The research identified that severely allergic adults are active self-carers whose health beliefs and experiences can be barriers to their self-care. The research has provided new patient-focused perspectives on the treatment of these patients, raising the profile of severely allergic adults support needs which have been relatively overlooked in academic research, healthcare design and delivery.</p> <p>The research was conducted in collaboration with the Allergy Service at Worcestershire Acute Hospitals NHS Trust. It includes one of the first UK based qualitative studies on the experiences of individuals living with adult-onset severe allergy, the perspectives of their families and allergy service healthcare staff (Reference 1). Patient and family insights identified lengthy referral times, limited patient-focused treatment, patients struggling to self-care and healthcare staff unaware that psychological factors influence what it is like living</p>		

with severe allergy for these patients. It found that self-care for severely allergic adults has unique and overlooked challenges.

The work advanced further through industry sponsorship from *ALK-Abelló*, a global pharmaceutical company specialising in allergy and allergic asthma. This led to the development of a unique psychologically-informed training programme, delivered across Worcestershire to healthcare staff who train severely allergic patients to use an adrenaline auto-injector, the NICE recommended treatment for severe allergic reactions or anaphylaxis (Reference 2). Longitudinal evaluation of the training programme showed it had a transformational impact on staff understanding of severely allergic adults' self-care as a process with psychological and not purely physical dimensions, altering their communication with patient groups (Reference 3). The research challenged accepted notions of severely allergic adults as "easy" adherent self-carers compared to younger patients and equipped healthcare staff with knowledge and skills they reported applying confidently in a range of clinical contexts.

The research was widely disseminated to practitioner audiences:

- Summary findings were published in *Outlook* the Anaphylaxis Campaign flagship magazine in 2016 and *The Psychologist* the British Psychological Society's flagship professional publication in 2019, extending the reach to diverse health and allied professionals, third sector organisations and members of the public interested in severe allergy.
- Anaphylaxis in adulthood: exploring the psychological experience and patient-centred care, British Society for Allergy and Clinical Immunology Annual Conference, 2015.
- Putting the patient first - a patient focused approach to allergy treatment (ALK-Abelló Ltd sponsored symposium), British Society of Allergy and Clinical Immunology Annual Conference, 2018.
- Nonadherence to carrying and using adrenaline pens in adults with anaphylaxis: the impact of a theoretically informed training intervention on staff knowledge and beliefs, European Academy of Allergy and Clinical Immunology Annual Conference, 2020.

3. References to the research

1. Walklet, E., Taylor, C., Bradley, E., Mahoney, B., Scurlock-Evans, L., & O' Hickey, S. (2016). "Because it kind of falls in between, doesn't it? Like an acute thing and a chronic": the psychological experience of anaphylaxis in adulthood". *Journal of Health Psychology*, 23 (12): 1579-1589. DOI: 10.1177/1359105316664130.
2. Walklet, E., Mahoney, B., Bradley, E., & O' Hickey, S. (2019) Application of Health Psychology: Development of a Practitioner Training Intervention in Anaphylaxis. *Journal of Continuing Education in the Health Professions*, 39 (2): 130-35. DOI: 10.1097/CEH.0000000000000254.
3. Mahoney, B., Walklet, E., Bradley, E., & O' Hickey, S. (2019). Improving Adrenaline Auto-injector Adherence: a Psychologically-informed Training for Healthcare Professionals. *Immunity, Inflammation and Disease*, 7 (3): 214-28. DOI: 10.1002/iid3.264.

All outputs were reviewed as part of the processes set out in the University's REF Code of Practice and were identified as at least 2*.

4. Details of the impact

New processes have been adopted in organisations leading to improvement in their services

The research team has worked closely with *ALK-Abelló* since 2016 providing expert advice to the company on patient education (Source A) and developing and evaluating training materials for healthcare staff in the use of the company's adrenaline auto-injector (Source B). This provision has led to the following improvements in *ALK-Abelló* services and innovations as outlined in testimonials from the company (Sources C and D):

- Informed a complete overhaul of the adult patient section of the Jext® (adrenaline auto-injector) website in July 2018 (<https://adults.jext.co.uk/>)
- Implementation of a more structured online training tool for healthcare professionals (<https://hcp.jext.co.uk/training/>)
- Design and development of a more patient friendly administration route for adrenaline

Professional ideas influenced by research via training

The unique psychologically-informed training developed by the team, was delivered to healthcare staff in Worcestershire Acute Hospitals NHS Trust. It influenced the reported knowledge, understanding and practice of attendees (Sources B and G). The training used health psychology principles to develop the communication techniques healthcare staff could use to explore the perceptions and beliefs of severely allergic adults about their condition, and to influence their injector use and other self-care behaviours. Longitudinal evaluation of the training showed it influenced: attendees' professional ideas about and practice with severely allergic adults and other patient groups; and ideas and practices they intended sharing with their professional colleagues. The training led to "a completely different view of how to approach patients now" and increased confidence that they now had the techniques and supporting materials to enable effective changes to their practice. The training was reported as useful for enhancing the experiences of severely allergic adults by encouraging them to be more effective self-carers: "giving them the tools to think about how they're going to get over those problems".

Research challenged conventional wisdom and stimulated debate among stakeholders

The team's research has challenged conventional thinking and stimulated debate among industry providers of allergy treatment (Sources C and D) and healthcare professionals (B and G) about how to encourage severely allergic adults to be effective self-carers. For *ALK-Abelló*, the team's research findings and ongoing partnership have "been instrumental in shaping *ALK*'s communication to healthcare professionals and patients".

Further, the team have stimulated debate in the wider "allergy community". The CEO of the Anaphylaxis campaign, the UK's leading charity supporting the needs of individuals living with severe allergy, sat on the steering group that oversaw the overarching project. Mahoney and Walklet were the invited chairs for the *ALK-Abelló* sponsored Symposium *Putting the Patient First* at the British Society of Allergy and Clinical Immunology Annual Conference in 2018, the major forum for researchers and practitioners in allergy services.

Further, the team are also developing a collaboration with world-leading providers of specialist allergy care and largest adult allergy service in the UK exploring the impact of severe allergy on adults at the Department of Allergy at Guy's and St Thomas' Hospital, London, a European Academy of Allergy and Clinical Immunology and World Allergy Organisation Centre of Excellence (Source F).

5. Sources to corroborate the impact

- A. Consultancy contract with *ALK-Abelló* for Mahoney and Walklet.
- B. Mahoney, Berenice, Walklet, Elaine, Bradley, Eleanor and O'Hickey, Stephen (2019) Improving Adrenaline Auto-injector Adherence: a Psychologically-informed Training for Healthcare Professionals. *Immunity, Inflammation and Disease*. ISSN Online: 2050-4527.
- C. Testimony from National Projects Manager, *ALK-Abelló*
- D. Testimony from Allergology Laboratory Kopenhagen, *ALK-Abelló*
- E. BSACI 2018 slides
- F. Email from Consultant Allergist and Clinical Lead for Adult Allergy, Department of Allergy at Guy's and St Thomas' Hospital, London
- G. Testimonial from Consultant Respiratory Medicine, Worcestershire Acute Hospitals NHS Trust