

Optimising Cardiovascular Rehabilitation Outcomes

The Role of Practitioner Psychologists in Addressing Patients' Psychological and Psychosocial Needs

Clinical Context

British Heart Foundation (BHF) and European Society of Cardiology (ESC) guidance recommends Practitioner Psychologist¹ integration into Cardiovascular Rehabilitation provision (BHF & BPS, 2022) and into the cardiovascular care pathway, more broadly (ESC, 2025), to best support the multidisciplinary team (MDT) approach in optimally assessing and meeting patients' rehabilitation needs. This follows on from the widely acknowledged understanding that 'all physical health problems have a psychological dimension' in terms of impact on lifestyle, adjustment and coping, recovery, and wellbeing (Naylor et al, 2016).

The World Health Organisation (WHO) clearly outlines how mental health is an integral component of a person's overall health and wellbeing: mental and physical health being inextricably linked. The dynamic relationships between the two being particularly illustrated in cardiovascular disease where increased levels of psychological distress are known to increase the risks of disease, with research suggesting that haemodynamic, vascular, and immune system disturbance, following physiological responses to chronic stress, have a fundamental role in raising cardiovascular disease risks. In addition, we know that high burdens of stress and mental health disturbance increase the risk of engagement in behaviours that undermine heart health (e.g. exercise restriction or avoidance, smoking engagement or alcohol or drug use, to aid relaxation or emotional coping): further re-enforcing the firm relationships between stress/mental health factors and progressive physical health risks.

We also know that living with chronic cardiac or cardiovascular disease - whether a congenital or inherited condition, or the consequences of surviving an unexpected cardiovascular event, e.g. a stroke, heart attack or sudden cardiac arrest - commonly causes substantial psychological (including neuropsychological) consequences for the patient, ranging from shock and fear for the future, losses in physical confidence and sense of personal safety, profound challenges to self-identity and high burdens of fear, anxiety and emotional management difficulties. These psychological complications then hindering recovery and undermining prospective physical health rehabilitation and clinical outcomes.

¹ Practitioner Psychologist: A HCPC registered, clinical, health or counselling psychologist

A British Heart Foundation survey of five thousand people living with cardiovascular disease found that 58% of respondents reported feeling down, depressed, or hopeless and 59% reported struggling with feelings of anxiety and uncertainty about the future (BHF, 2019). See Table 1 in the Appendices for a breakdown of psychological and neuropsychological consequence rates by specific cardiovascular conditions.

Pre-morbid health beliefs, lifestyles, mental health, social support, and personality factors all influence an individual's ability to adjust to life following a cardiovascular event. From living with the uncertainties triggered in looking towards recovery (following on from unexpected medical emergencies), to preparing for or recovering from planned cardiac surgery (in the context of chronic illness management).

Understanding pre-morbid mental health needs, psychological complications and psychosocial contexts is key to optimising rehabilitation engagement, success and clinical outcomes

Addressing Psychological & Psychosocial needs in Cardiovascular Rehabilitation

Addressing a person's psychological, emotional, and psychosocial needs within the context of cardiovascular rehabilitation is as crucial as addressing physical rehabilitation requirements: both rehabilitation success and optimal patient outcomes will require these needs being met within an integrated, flexible, and holistic approach. Identifying and responding to these needs is the responsibility of the entire MDT and failure to do so will lead to worse patient outcomes.

Patient experiences of living with chronic cardiovascular disease or of experiencing acute cardiovascular events (and their consequences) are different for each patient and must be understood as such, for optimal rehabilitation and support to be provided. For this to be achievable, the Cardiovascular Rehabilitation MDT must deliver needs-assessment and interventions that address the psychological and psychosocial needs within the context of the rehabilitation journey.

Recovery from a cardiovascular condition often requires adaptation not only to changes in physical functioning, but also to changes in identity, lifestyle, relationships, social roles, employment, and future expectations. Many individuals experience a loss of confidence, diminished self-esteem, uncertainty about their capabilities, psychological distress, and disruption to valued aspects of their identity. Supporting adjustment, coping, hope, and psychological wellbeing is therefore fundamental to achieving sustainable recovery, successful self-management, and improved quality of life. Consequently, optimal rehabilitation may require access to psychological treatment/ support that extends beyond the period of MDT physical rehabilitation and is incorporated within the wider MDT rehabilitation pathway.

“Speaking to (other) survivors of cardiac arrest, the range of concerns they have are varied: it almost seems as if no two survivors have the same issues. A Practitioner Psychologist is ideally placed to offer support in helping a patient to rebuild their confidence and to help them return to a sense of normality, whatever that may be”
(Patient report)

Access to specialist Practitioner Psychology provision (i.e. a Practitioner Psychologist with demonstrable expertise in the psychological management of physical health conditions) is needed to meet these needs effectively. Although the integration of NHS Talking Therapies (for Anxiety and Depression) within long-term condition pathways represents an important component of holistic care, the psychological needs arising within cardiovascular rehabilitation extend beyond the treatment of common mental health difficulties. They reflect the complex interaction of biological, psychological, behavioural, and social factors that influence adjustment, emotional wellbeing, health behaviours, self-management, engagement with rehabilitation, and longer-term health outcomes. Addressing these needs requires a specialist biopsychosocial approach that recognises the reciprocal relationship between physical and psychological health throughout the rehabilitation journey, including the psychological impact and potential psychological trauma associated with acute cardiovascular events and consequential life changes and role losses precipitated.

These needs are most effectively addressed through psychological expertise embedded within the cardiovascular rehabilitation pathway. Practitioner Psychologists who specialise in physical health bring specialist knowledge of the interplay between physical health, emotional wellbeing, cognition, behaviour, and social circumstances, alongside advanced psychological treatment expertise, enabling comprehensive assessment, formulation, and intervention within the rehabilitation context. They also contribute to psychologically informed MDT practice, helping to ensure that psychological, cognitive, behavioural, and social factors influencing recovery are identified and addressed alongside physical health needs.

The assessment, formulation, and intervention requirements described above extend beyond what can reasonably be expected from mental health focused Talking Therapies services. While such services can play an important role in addressing common mental health difficulties, they are not typically designed to deliver integrated psychological care within complex physical health rehabilitation pathways. Reliance on less specialised provision risks a narrower clinical focus that does not fully address the multifaceted nature of patients' needs or provide the level of integration required to optimise rehabilitation outcomes. The contribution of a suitably qualified Practitioner Psychologist therefore represents a distinct and essential component of high-quality cardiovascular rehabilitation.

Practitioner Psychologists are thus uniquely placed to provide the support required, helping individuals to adjust to the impact of their condition, develop effective coping strategies, and rebuild meaningful patterns of activity, purpose, and social connection. This may include supporting people to adapt valued hobbies and interests, identify new sources of fulfilment,

adjust to ongoing limitations, strengthen social engagement, re-establish important life roles, and facilitate a return to employment where appropriate. Through formulation-led treatments and intervention, Practitioner Psychologists can help individuals rebuild confidence, restore self-esteem, develop self-efficacy, and establish a renewed sense of identity that incorporates, rather than is defined by, their health condition. They can also support individuals to identify new opportunities for participation and meaning where previous activities or roles are no longer accessible. Such interventions play a crucial role in facilitating self-acceptance, resilience, psychological wellbeing, and engagement in valued activities, enabling individuals not only to manage the impact of their condition but also to maximise long-term recovery, adjustment, and quality-of-life outcomes.

Dedicated Practitioner Psychology provision should be regarded as an essential component of an integrated, person-centred cardiovascular rehabilitation service, providing the specialist expertise required to deliver a genuinely biopsychosocial model of care that cannot be achieved via generic mental health service provision

The role of the Practitioner Psychologist would be expected to cover several areas by influencing and contributing to MDT care and rehabilitation outcomes via:

- Clinical triage and assessment
- Complex clinical formulation (to support the meeting of complex patterns of physical, mental, and cognitive needs following cardiovascular disease/event)
- Clinical care planning support
- Support of MDT interventions and Co-ordination of MDT psychosocial support
- Direct clinical interventions with patients (one-to-one and group interventions or co-delivered clinical interventions)
- MDT case management discussions
- Clinical consultation and clinical supervision to MDT colleagues
- Delivery of family support (and facilitation of MDT family support)
- Training on awareness of psychological issues and psychologically informed ways of working
- Mental Health Interface/ Liaison and advocacy – local psychosocial services

A Practitioner Psychologist who can work across all these areas would be required to manage the complex patient needs associated with the interaction between physical, psychological, mental health and cognitive impacts faced by the Cardiovascular Rehabilitation Team

Family Support

A key role of the Practitioner Psychologist will also include guiding and supporting the meeting of familial psychosocial needs, where witnessing a loved one struggle with sudden and severe chest pain or breathlessness and related distress, associated with an acute cardiovascular event, can be incredibly worrying and distressing for family members. Witnessing a loved one suffer a sudden cardiac arrest can be terrifying and can lead to high levels of fear and psychological trauma for any family members involved in such events (and who may even have to perform lifesaving CPR to save their loved one). Such experiences can raise longer term psychological struggles for family members as well as for patients, highlighting the need for a clear understanding and management of this type of support, within a cardiovascular rehabilitation programme.

“When I had my first cardiac arrest, I was totally unaware of the effect it had on the rest of my family. I was totally unaware of what happened, was in no pain and couldn’t really understand what the fuss was all about. It certainly scared my family more than it affected me” (Patient report)

Clinical Outcome Potential from Psychologist Integration into the MDT approach

Practitioner Psychologist involvement in rehabilitation planning and delivery will help ensure comprehensive needs assessment, robust risk assessment, and the early identification and management of psychological, cognitive, and behavioural factors that could otherwise hinder engagement with rehabilitation or compromise outcomes. This input supports the delivery of integrated, person-centred care and enables the breadth and intensity of rehabilitation required to maximise patient recovery and achieve the best possible outcomes.

Evaluation of an NHS England Community Cardiac Rehabilitation Psychology national pilot programme in 2023/24 (Strategy Unit, 2024) found that the establishment of integrated Practitioner Psychologist roles within the Cardiac/ Cardiovascular Rehabilitation teams improved programme engagement and completion rates (including in hard to reach groups such as patients living with heart failure); substantially reduced rates of anxiety and depression at programme discharge; and achieved a 50% higher return to work improvement rate where 1-1 psychological therapy was delivered, as part of the rehabilitation programme. The formal evaluation also concluded that Practitioner Psychologist integration into the MDT could be expected to support reduced A&E attendances and hospital readmissions, highlighting significant potential for cost-saving opportunities through the clinical approach supported, where a clinical commissioning group evaluation of a community stroke rehabilitation service cited in Griffiths, Gurr, Ford and Garfield, 2023 and Griffiths et al, 2023, indicated rates of stroke re-admission and stroke bed day reductions previously unseen prior to Psychologist integration; and where doing so was found to reduce stroke bed days by 14% and saving over £913,000 over 12 months.

This evidence highlights a range of key rehabilitation outcome improvements, which would be expected with the integration of Practitioner Psychologist contributions to the Cardiovascular Rehabilitation MDT approach

Clinical Governance & Quality Assurance

Regardless of how specialist psychology provision is practically provided to a Cardiovascular Rehabilitation Team (whether in situ within the team, as part of a local network provision model or accessed virtually from a national source), relevant professional clinical governance requirements will need to be met, to ensure safe and effective care is provided.

The British Psychological Society (BPS) sets out clear recommendations in its 2024 publication, *Guidance for Employing Practitioner Psychologists in Physical Healthcare Settings* (BPS, 2024). Adherence to this professional guidance is strongly recommended when developing models of care that incorporate Practitioner Psychologists within the Cardiovascular Rehabilitation multidisciplinary team (MDT), ensuring services are designed and delivered in line with recognised professional standards and best practice.

NHS 10 Year Plan Alignment: The Cardiovascular Modern Service Framework & Neighbourhood Care

The NHS England Cardiovascular Modern Service framework (2026) emphasises the need for Cardiovascular Rehabilitation services to support higher rates of pro-active care (as well as providing more reactive care), as healthcare services shift to working further upstream in patients' healthcare journeys, aiming to support improved rates of functional maintenance, mental and physical wellbeing, re-enablement and secondary illness prevention.

The parallel drive to develop new 'Neighbourhood' models of healthcare further emphasises the need for Cardiovascular Rehabilitation to pivot to more pro-active approaches by providing access to Cardiovascular Rehabilitation interventions further upstream in the clinical journey. This approach would support primary care systems to best clinically manage patients with complex patterns of cardiovascular or cardiorespiratory symptoms influenced by lifestyle, psychological, psychosocial, or socioeconomic factors, maximising the potential for such interventions to better support improved healthcare management and improved rates of secondary illness prevention.

To best achieve these objectives, the ability of Cardiovascular Rehabilitation teams to provide psychologically aware and psychologically informed healthcare, and specialist psychological interventions within the cardiovascular rehabilitation context, will be key. Whilst this will be the responsibility of the whole MDT, access to Psychologist expertise, advice, support, and direct input into routine MDT care will be fundamental to any team's success in doing so. Having Practitioner Psychologist input within the Cardiovascular Rehabilitation MDT and as part of the MDT approach is thus pivotal

Implications & Recommendations

1. **Practitioner Psychologist input into the Cardiovascular rehabilitation programme must become a standard component of MDT care:** To support Cardiovascular Rehabilitation MDTs to deliver the best possible interventions and the best outcomes for patients.
2. **Every Cardiovascular Rehabilitation Team and programme must have access to appropriately trained psychological support.**
3. **Psychology should be embedded across all phases of Cardiovascular Rehabilitation**
4. **Practitioner Psychologist workforce planning must be incorporated into Cardiovascular Rehabilitation MDT workforce planning:** This will provide the best assurance that multifactorial patient needs will be assessed and addressed by the MDT, and for the Cardiovascular Rehabilitation MDT to be best supported in their clinical interventions.
5. **Recruitment of Practitioner Psychologists into dedicated posts embedded within Cardiovascular Rehabilitation teams is strongly recommended.**
6. **Where this is not feasible, alternative models should be considered, including:**
 - The development of regional or locality-based Practitioner Psychology posts providing support across multiple teams through a networked approach.
 - Commissioning of remote support from Practitioner Psychologists, from outside the local area or region, to provide MDT supervision, consultation or patient assessment or intervention, via remote means, might also be considered where this approach may be looked to as an interim measure, where timely recruitment of dedicated posts may be problematic.

BACPR Support

We will continue to:

- **Advocate for the need for Practitioner Psychologist establishment in Cardiovascular Rehabilitation teams:** As both the patient voice and clinical evidence is clear about the value of this for enhancing patient support and rehabilitation outcomes.
- **Provide Psychological skills training (designed and delivered by BACPR Psychologist members):** To provide upskilling support for non-psychologist members and to support psychosocial care within Cardiovascular rehabilitation delivery.

- **Work with the British Psychological Society [BPS], to support the development of minimum standards for psychological support, within Cardiovascular Rehabilitation**

We will also:

Pursue the development of a voluntary BACPR-held register of Practitioner Psychologists with expertise in physical health and cardiovascular rehabilitation. A national register would enable Cardiovascular Rehabilitation services to efficiently identify accredited Practitioner Psychologists to support patient rehabilitation, staff training, and psychosocial care. Its overarching purpose would be to support equitable access to specialist psychological expertise across the UK by establishing a trusted pool of qualified professionals, thereby enhancing biopsychosocial provision for individuals living with cardiovascular disease.

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Patient reports included in the report come from patient feedback from Cardiovascular Care Partnership UK.

Appendices

Table 1: Prevalence of psychological and neuropsychological burdens following cardiovascular disease (CVD) events.

CVD Type / Event	Persistent Psychological & Neuropsychological Problems (with prevalence)	References
Out-of-Hospital Cardiac Arrest	Anxiety, Depression & PTSD (20-25%); Fatigue* (70%); Cognitive Impairment (50%)	Wilder Schaaf et al 2013; Moulaert et al 2009; Hofgren et al 2008; Lilja et al 2015; Van Heugten et al 2014
Heart Failure	Anxiety & Depression (20-40%); Chronic Stress (20-30%); PTSD (10-20%); Cognitive Impairment (25-50%)	Rutledge et al 2006; Celano & Huffman 2011; Freedland et al 2011; Cannon et al 2017; Pressler et al 2010
Adult Congenital Heart Disease	Anxiety & Depression (6-30%); PTSD (5-15%); Cognitive Impairment (Moderate)	Kovacs et al 2009; Mueller et al 2013; Jackson et al 2015; Marelli et al 2016
Cardiomyopathy & Other Inherited Cardiac Conditions	Anxiety & Depression (20-40%); PTSD (10-25%); Cognitive Impairment (25-50%)	Hendriks et al 2018; Ingles et al 2013; Kasparian et al 2016
Myocardial Infarction	Anxiety (10-20%) and Depression (15-20%); PTSD (10-15%); Cognitive Impairment (20-40%)	Meijer et al (2011); Lichtman et al (2014); Thombs et al (2006); Tully & Cosh (2013); Edmonson et al (2012/ 2014); Vilchinsky et al (2017); Gharacholou et al (2011); Sundboll et al (2018)
ICD Recipients	Anxiety & Depression (15-30%); PTSD (10-25%)	Pedersen et al 2004; Sears et al 2011; Ladwig et al 2008
Stroke	Anxiety & Depression (20-75%); PTSD (10-25%); Cognitive Impairment (45-90%)	Hackett & Pickles 2014; Campbell Burton et al 2013; Edmondson et al 2013; Pendlebury 2009; Sun et al 2014

* Combined physical and cognitive fatigue