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Case Report

Bridging objective function and subjective distress in acute heart failure: A Case Report

BATHE at the HF bedside

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Abstract

Introduction: Psychological distress is common in acute heart failure (HF) but is often underrecognized during hospitalization. The BATHE (Background, Affect, Trouble, Handling, Empathy) framework may provide a practical approach for structured psychosocial assessment.

Case Presentation: A 67-year-old man was admitted with acute decompensated HF, reduced ejection fraction, dyspnea, edema, and chest discomfort. Despite objective clinical improvement following standard HF treatment, he remained highly anxious and fearful of dying in his sleep due to memories of his father's fatal HF course. A BATHE-guided bedside conversation identified catastrophic interpretations of symptoms and experiential family history as key drivers of distress. Targeted education, emotional validation, family involvement, and psychosocial support were incorporated into care.

Conclusion: This case highlights the discrepancy between objective clinical status and subjective distress in acute HF. Brief BATHE-guided communication may facilitate psychosocial assessment, improve patient understanding, and support more effective engagement with treatment and self-care.

Keywords

heart failure, psychological distress, BATHE framework, symptom assessment, patient-centered care

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Introduction

Heart failure (HF) affects millions worldwide and remains a leading cause of 30-day readmission despite advances in guideline-directed medical therapy.[1] Anxiety and depression occur in roughly one third of patients with HF and independently predict poorer self-care, greater symptom burden, and higher rehospitalization rates.[2] Yet during acute admissions, clinicians typically focus on measurable indices, such as ejection fraction, natriuretic peptide levels, and oxygen saturation. At the same time, distress, fear, and catastrophic thinking are often addressed informally or not at all.[3]

Brief psychosocial tools, including the BATHE framework (Background, Affect, Trouble, Handling, Empathy), offer a practical way to explore a patient's emotional state within minutes and are well described in primary care but less familiar in hospital cardiology and internal medicine settings.[4] In line with ACAM guidance that case reports follow CARE principles and standard sections, we present a single case of acute decompensated HF to illustrate how experiential family history and catastrophic interpretation of symptoms can drive distress disproportionate to hemodynamic compromise, and how a BATHE-guided conversation at the bedside helped narrow this gap.

Case Presentation

A 67-year-old Arabic-speaking contractor presented with one month of progressive exertional dyspnea, new orthopnea, and paroxysmal nocturnal dyspnea. Over the preceding week, he noted bilateral lower extremity edema, a 6.5 kg weight gain, and substernal chest pressure rated 8/10, brought on by minimal activity and relieved by rest. His history included long-standing hypertension, medically managed myocardial ischemia, and heavy past smoking. Regular medications were digoxin, amlodipine, and furosemide.

From the first encounter, fear dominated his narrative. He repeatedly described watching his father die from advanced HF and spontaneously linked his own symptoms to that experience, stating that he was "afraid of stopping breathing in my sleep" and asking whether he would "end up like" his father. On examination, he had elevated blood pressure, sinus tachycardia, jugular venous distension, an S3 gallop, bibasilar crackles, and bilateral pitting edema. Chest imaging and echocardiography showed acute decompensated HF with reduced ejection fraction (HFrEF, 35-40%) and elevated natriuretic peptide levels.

He was treated with intravenous loop diuretics, continuation of digoxin and amlodipine, supplemental oxygen, sodium and fluid restriction, and continuous telemetry. Over five days, he showed a typical physiological response: approximately 5 kg weight loss, regression of edema, resolution of chest pain, and normalization of oxygen saturation on room air. Despite this improvement, his emotional state remained discordant with his clinical trajectory. Even with oxygen saturations above 93%, he described breathlessness as "severely frightening" and persisted in ruminating about sudden nocturnal death.

Because his anxiety appeared out of proportion to his current hemodynamic status, the team used BATHE as a brief, structured framework to explore his concerns. When asked about the background, he summarized worsening dyspnea and swelling and described his chest pain as "another heart attack." When invited to identify his predominant affect, he chose the word "terrified" and reported feeling like a burden to his family. In discussing what was most troubling, he again focused on his father's illness, emphasizing not breathing normally, chest discomfort, and a conviction that he was destined to follow the same path. Regarding handling, he described sleeping upright, resting frequently, and relying on family support, but still feeling overwhelmed and unsafe.

The final BATHE step, an explicit statement of empathy, involved acknowledging that his fears were understandable given his father's course and assuring him that the team would address both his symptoms and his perceived risk. This short, focused conversation clarified that his distress arose less from current hypoxemia and more from a catastrophic reading of familiar bodily sensations filtered through the template of his father's decline.

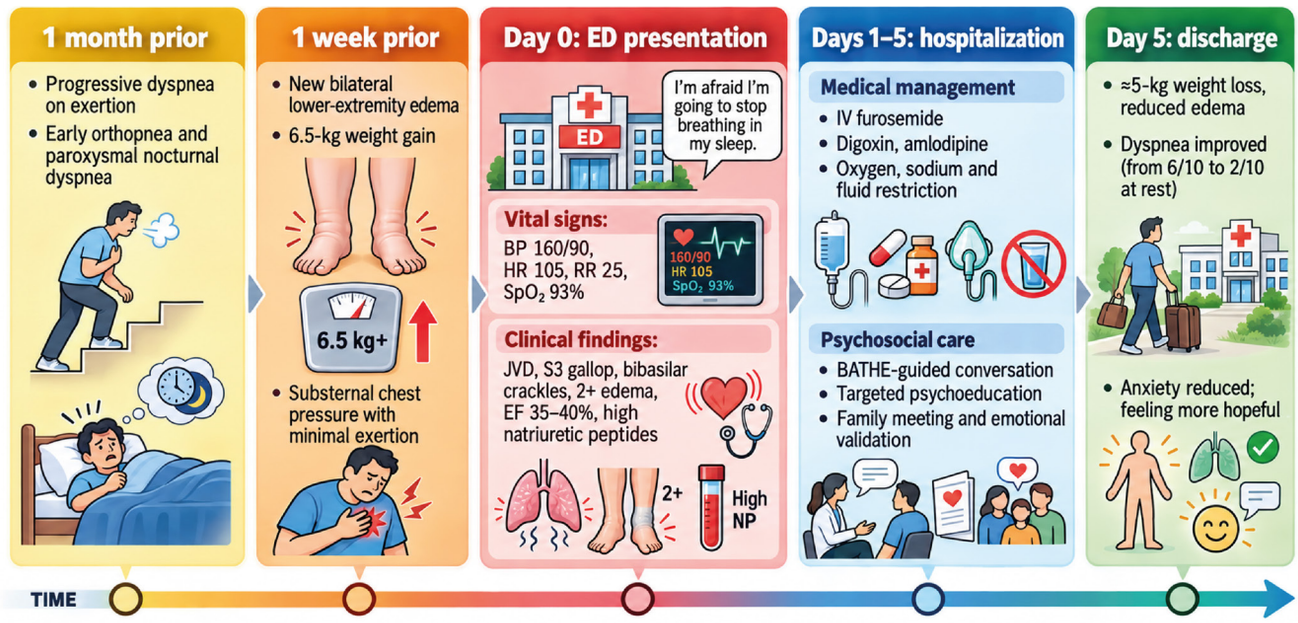


Figure 1. *Timeline of Clinical Course, Medical Management, and Psychosocial Interventions During Acute Decompensated Heart Failure*

The figure depicts symptom progression, key in-hospital events (emergency department presentation, initiation of intravenous diuretics, optimization of heart failure therapy), and the introduction of psychosocial care using BATHE, targeted psychoeducation, and a family meeting. Changes in congestion and dyspnea are based on clinical assessment and patient-reported numerical ratings. Trajectories of anxiety and hopefulness reflect patient-reported perceptions during hospitalization; no standardized validated anxiety or hope scales were used.

Guided by this understanding, the team added targeted psychosocial strategies alongside ongoing medical treatment. Daily rounds incorporated intentional emotional validation consistent with BATHE principles, and clinicians provided clear, jargon-free explanations of HF pathophysiology, prognosis, and ways in which his situation differed from his father's. A family meeting included his wife and adult children, addressed caregiver concerns, aligned expectations, and outlined home-monitoring steps. Referrals were made to cardiac rehabilitation and outpatient psychological support, with an emphasis on cognitive behavioral techniques for catastrophic thinking.

By discharge on day five, congestion markers had improved, and self-reported dyspnea decreased from 6/10 to 2/10 at rest. Equally important, he described feeling "less panicked" and "more hopeful," and expressed greater confidence in his ability to live with HF rather than simply anticipating a repetition of his father's story. A timeline figure (Figure 1) summarizes symptom progression, medical management, and the introduction of psychosocial interventions during hospitalization.

Ethical Approval

Not applicable.

Statistical Analysis

Not applicable.

This case report was prepared and reported in accordance with the CARE guidelines.

Discussion

This case highlights three interrelated elements often under-recognized in acute HF care: mismatch between objective cardiac indices and subjective symptom distress, the psychological legacy of family history, and the feasibility of structured psychosocial tools in busy inpatient settings. Symptom perception in HF reflects not only congestion and perfusion but also anxiety, depression, and patients' cognitive models of illness, with anxiety particularly associated with poorer quality of life, reduced adherence, and higher hospitalization rates.[5] In this patient, recurrent thoughts of "stopping breathing in my sleep" and fixation on myocardial infarction exemplified catastrophic misinterpretation of bodily sensations, fueling a cycle of hypervigilance and escalating fear that routine HF protocols do not explicitly address.[2]

Experiential family history acted as a powerful schema through which he interpreted his current illness. Cognitive behavioral theory posits that witnessing a relative's prolonged, ultimately fatal disease may create enduring beliefs about prognosis; when similar symptoms arise, these schemas may be automatically activated, driving fear, avoidance, and a sense of inevitability.[6] Clinicians commonly document family history to estimate inherited cardiovascular risk, but they also less often explore the illness journey and how it continues to shape expectations. This case suggests that asking both who in the family was affected and how those experiences influence the patient's understanding can reveal potent drivers of symptom amplification and distress.

Within this context, BATHE operated as more than a checklist. In under ten minutes, it created a structured space to hear the patient's story, name emotions, and identify the specific fears sustaining his distress. For hospitalists and cardiology teams facing multiple demands and limited psychiatric resources, brief tools such as BATHE and ultra-short screeners (for example, PHQ-2 or GAD-2) offer a practical way to integrate psychosocial assessment into daily care without lengthy interviews or specialist training.[7] In this case, BATHE facilitated a shift from generic reassurance to targeted explanations addressing his belief that his father's trajectory was repeating.

Several pragmatic implications for general internists and HF clinicians emerge. First, brief, systematic screening for anxiety and depression should be considered part of core HF assessment during acute admissions, rather than an optional adjunct once congestion has resolved. Second, exploring experiential family history can uncover schemas that magnify symptom interpretation and avoidance. Third, early collaboration with social work, psychology, or liaison psychiatry may help translate these insights into concrete support, particularly for patients whose distress remains high despite medical stabilization. Finally, clear, non-technical education that addresses misconceptions, clarifies prognosis, and explicitly differentiates the patient's trajectory from that of a deceased relative can itself be therapeutic.

Limitations

As a single illustrative case, this report cannot capture the full range of HF presentations, cultural contexts, or responses to BATHE-guided communication. We did not use standardized anxiety or depression scales to quantify distress or change over time, nor do we have long-term follow-up regarding rehospitalization, medication adherence, or health-related quality of life. The patient's cultural background and family-centered norms likely shaped how distress was expressed and managed, potentially limiting the transferability of specific interactions to other settings. Nonetheless, the mechanisms emphasized- catastrophic interpretation of symptoms, schema activation by family history, and the perceived benefit of feeling heard- are likely relevant across diverse HF populations.

Conclusion

This case demonstrates how physiological dysfunction and psychological distress can diverge in acute decompensated HF, and how deliberate psychosocial assessment can help narrow that gap. In our patient, severe anxiety rooted in his father's fatal HF course amplified symptom burden beyond what cardiac dysfunction alone would predict. In contrast, a brief BATHE-guided conversation, paired with targeted education, reframed his experience and supported a more hopeful engagement with care. Routine psychosocial screening, explicit inquiry into experiential family history, and basic competence in brief psychotherapeutic techniques should be considered essential skills for clinicians managing HF in acute settings. Embedding such approaches into HF pathways warrants further study using patient-reported symptoms, emotional outcomes, adherence, and health care utilization as key endpoints.

Declarations

Animal and Human Rights Statement

All procedures performed in this study were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Declaration of Helsinki and its later amendments, or comparable ethical standards.

Informed Consent

Written informed consent was obtained from the patient.

Data Availability

The datasets used and/or analyzed during the current study are not publicly available due to patient privacy reasons but are available from the corresponding author on reasonable request.

Conflict of Interest
The authors declare no conflict of interest.

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Methodology: F.A.M., N.A.M., S.E.E., M.S.F.
Investigation: F.A.M., N.A.M., B.A.A.
Data Curation: F.A.M., N.A.M.
Formal Analysis: S.E.E., M.S.F.
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The authors declare that no AI-assisted technologies were used.

Abbreviations
ADHF: Acute decompensated heart failure
BATHE: Background, affect, trouble, handling, empathy (psychotherapeutic interview framework)
HF: Heart failure
IV: Intravenous
NYHA: New york heart association (functional classification)
QoL: Quality of life

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