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What is your vision of a Good Life? Local Area Coordination Empowerment (LACE) Pilot Program for Individuals with Heart Failure at National Heart Centre Singapore

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1. Background

Huber et al (BMJ 2011; 343:d4163) proposed reframing health as an individual's ability to adapt and self-manage in the face of life's challenges. In line with this, patient engagement and empowerment are key to a patient-centered, value-based healthcare model, focusing on outcomes that matter most to patients.

Responding to these challenges and opportunities, Medical Social Workers at the National Heart Centre Singapore (NHCS) piloted the "Local Area Coordination Empowerment" (LACE) program in 2020. Targeting heart failure (HF) patients, LACE integrates health and social aspects of care to enhance patient agency to act with purpose and autonomy, by emphasizing care that is:

- **Comprehensible (I understand)**: Helping patients understand their condition and treatment
- **Manageable (I can do it)**: Equipping patients with skills to handle health and social challenges
- **Meaningful (I want to do it)**: Aligning care with patients' values and goals

Beyond individual empowerment, LACE cultivates social capital and community capability by harnessing individual and community strengths to contribute towards self-care and mutual support with improved self-management and patients' quality of life. Ultimately, LACE seeks to improve patient outcomes while reducing reliance on formal healthcare services and hospital readmissions, creating a more sustainable healthcare system.

2. Methodology

Medical Social Workers facilitate goal-setting conversations, empowering patients towards their "Good Life" vision. The program was piloted in inpatient wards, targeting vulnerable patients with complex needs and at higher risk of heart failure readmissions. Patient recruitment followed pre-defined health and psychosocial criteria under the LACE Pathway.

LACE Pathway

Inclusion Criteria
Patients with 1 or more of the following:

Health Indicators:
- Diagnosed with Heart Failure
- Readmission within 30 days or more than 3 times a year
- Non-compliance with medications and medical appointments
- Functional decline

Psychosocial Indicators:
- Perceived loneliness by patients
- Perceived low level of social support by patients
- Perceived lack of confidence in managing health by patients
- Challenges in managing Heart Failure condition
- Caregiver stress
- Patients with any other psychosocial-indicator who may benefit from the programme

Exclusion Criteria
- Mentally incapacitated
- Medically unstable condition and requires intensive/surgical care
- Declines goal setting conversations, and is not keen to be recruited for the programme

Legend:
GAS: Goal Attainment Scale
EQ-5D: EuroQol-5 Dimension
SPHS: Self-perceived Health Scale

Screen	Patient is screened by Heart Failure Team and Medical Social Worker (MSW) Team based on health and psychosocial indicators for program enrolment.
Engage & Recruit	**Dialogue: Envision Good Life** • Rapport and relationship-building to understand patient's lived experiences, challenges and define vision of a Good Life. *MSW administers baseline GAS, EQ-5D & SPHS* ***Key LACE question:*** *What is a Good Life to you?*
Set Goals	**Discover Goals:** MSW facilitates goal setting conversations in partnership with the patient, using the GAS. **Develop Action Plan:** MSW works alongside patient to co-create and develop an action plan to achieve their goals. **Goal-setting questions:** 1. What are your goals? 2. What is most important to you now? 3. What is the easiest to achieve now?
Empower	**Harness Patient's Strengths, Gifts and Resources** • Patient identifies their strengths, resources and solutions to take practical action for change. ***Key LACE question:*** *How can you use your strengths and skills to meet your goals?* **Activate Informal & Community Support** • Patient taps on their informal support systems as resources to attain their goals. • MSW support patients to access and navigate formal services if needed. ***Key LACE question:*** *How can your family, friends, and community support you in meeting your goals?*
Review & Follow-Up	MSW reviews on patient's progress and works alongside them to co-construct solutions if there are challenges in attaining goals. *MSW administers GAS, EQ-5D & SPHS at 3rd & 6th month mark*
Conclude Outcomes	Patient is empowered to achieve goals.

Data Collection and Evaluation

Objective	Evaluate LACE pilot program for heart failure patients using ICHOM measures, assessing their self-management, quality of life, goal attainment and readmissions
Methodology	• Participants: HF patients enrolled in LACE • Data collection: Baseline, 3 months, 6 months (primary endpoint)
Outcome measurement tools	• Goal Attainment Scale (GAS): Measure personalized goal achievement • EQ-5D-3L: Assess quality of life • Qualitative feedback: Collected during review sessions
Additional Data	• Healthcare utilization: From clinical system records • Sociodemographic data: Collected at baseline
Analysis	• Within-subject analyses to evaluate changes over time • Program completion defined as attendance at all sessions

3. Results

225 individuals were enrolled, of which 134 (60%) completed the program.
Average age was 63.6. Data from these participants, and 208 community partners were analysed.

Outcomes

QUALITY OF LIFE

0.19 points in EQ-5D scores ($p < 0.001$).

BETTER HEALTH

9.0 points increase in self-perceived health.

44.7% had reduced admissions.*
(period till the post-6-month assessment)

BETTER CARE

More than 90% of our social-health community partners expressed increased capability in cardiac care management in the community.

BETTER PATIENT EXPERIENCE

95.9% achieved better than expected goal attainment with **20.8 points increase in GAS scores** ($p < 0.001$).
(Feel more empowered and in control; Have clearer understanding of personal goals in life and importance of good health)

BETTER VALUE

Reduction in average length of CVM hospital stay per patient by 2 days ➞ **642 inpatient bed days saved.**
(Due to the reduction in avoidable admissions and re-admission)

**in a subset of 48 patients with prior unplanned admission before enrolment.*

Patients' Experiences

The "Good Life" conversations empowered individuals to assume responsibility for their health and wellness, guiding them in formulating actionable plans to accomplish their goals.

Qualitatively, individuals reported an **increased sense of purpose and direction**, even in the face of their ailments.

They gained a **deeper understanding of their health priorities** and reported **improved communication with healthcare providers**, as evidenced by their narratives and feedback.

Patients' Goals

Housing Stability	Meaning and Purpose	Effective Health Management
Regain Physical Independence/ Self Care Ability	Contributing to the Community	Love and Relationships
Money and Security	Freedom and Ability to Use One's Gifts to Meet Challenges	Home and Sense of Belonging

*Through the **conversation on setting my goals**, I **gained** **a clearer understanding** on **what is it that I want to focus in life**. I also realize how **having good health helps me continue in my new job**. I **understand the importance of talking to my doctor about my condition** and **taking his advice on diet and medicine to better manage my breathlessness**"*

Mr C C K,
45 years old

Figure 4: A role-play on GAS training pre-recorded via Zoom

4. Conclusion

Our programme demonstrates that creating optimal value for patients involves collaborating with them and their ecosystems to support total well-being, regardless of care location. This person-centred, borderless approach enhances healthcare efficiency and long-term sustainability. Our evaluation suggests positive impact of patient engagement and empowerment on care outcomes and patient experience. However, the absence of a comparison group limited our ability to draw definitive conclusions about LACE's effectiveness.

Future work should focus on developing novel value-based care models extending beyond hospital settings, incorporating broader patient engagement strategies and comprehensive outcome measures. This approach can enhance patient-centred care delivery effectiveness.

Moreover, a paradigm shift in care mindsets is essential:
- Focusing on strengths rather than deficits
- Exploring possibilities instead of dwelling on problems
- Viewing patients as potential contributors, not just service users

By embracing these shifts, we can create more empowering, effective, and holistic healthcare experiences for patients.

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