



AWARENESS

Newer Horizons in Human Excellence



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Brief Report

Leading Causes of Life in Medicine: Pilot Studies

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Abstract: The five Leading Causes of Life (connection, coherence, agency, intergenerativity or blessing, and hope) framework has been piloted in medical settings, including health system employee orientation, integrative primary care settings, and executive physicals for healthcare leaders and clergy. The Leading Causes of Life were assessed in several hundred persons and integrated into in primary care and clergy health integrative medicine care plans, as well as within an executive physical model called “Life of Leaders”, conducted with 130 persons from 2007-2013 in Memphis, TN. More secular and younger primary care patients reported that the assessment and focus on Leading Causes of Life vs. pathology was empowering but reported less hope and agency. Clergy/chaplain populations reported that this framework opened up rich dialogue for future health discussions, while reporting less coherence than their secular counterparts. Leading Causes of Life with the spiritual- and asset-based assessment within the executive physical model was useful as an every 3-year adjunct to typical annual physicals and particularly helpful during transition periods in leaders’ lives (e.g., upcoming job sabbatical, promotion, retirement). Use of the Leading Causes of Life framework in medical settings may be useful in moving away from the traditional, pathology-based models of care and deserves more exploration in all healthcare settings.

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Abbreviations: Leading Causes of Life (LCL), Leading Causes of Life-Initiative (LCL-I), Post-Traumatic Growth (PTG)

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1. Introduction

Leading causes of life (LCL) is an asset-based framework [1] that moves away from traditional, pathology-based medicine traditionally focused on the “leading causes of death” [2] to instead focusing on what enhances or optimizes life. The LCL framework is related to positive deviancy, which promotes harvesting and scaling community wisdom to find solutions [3,4]. Grounded in social complexity theory, LCL also resonates with flourishing and resiliency models [5], particularly positive psychology [6], which is the scientific study of what goes right in life. The five “causes” include connection, coherence, blessing or intergenerativity and hope. A more in-depth review of the causes can be found elsewhere [1,7] but are reviewed briefly here.

Connection refers to how humans are social creatures that need relationships to support and optimize their health. Connection is vital for humans from early infancy

in terms of just basic touch, as evidenced by early studies of orphans, who failed to thrive and often died prematurely when not touched or held regularly [8]. More recent studies of both animals and humans indicate that touch can decrease anxiety, depression, muscle tension, heart rate, and promote healing after stroke [9]. Human beings find life through complex social relationships and connections to one another, building communities of various kinds that enable us to adapt to changing threats and opportunities [10].

Coherence refers to how persons make sense of their own narrative or story. Actively crafting and living into that personal story is evidenced in the post-traumatic growth syndrome or PTG, whereby persons grow more resilient or stronger after trauma [11]. Coherence defines how we make sense of life, how we order an otherwise overwhelming confusion from the experiences of nature and of ourselves in seeing our life journey as intelligible and neither simply random nor victim to inexplicable forces [10].

Agency refers to the human capacity to choose to do. This is illustrated in the works of Bandura [12], whose work on self-efficacy suggested that a belief that persons can change their lives offers a sense of control over any circumstances, often resulting in more resiliency and proactive behavior. The capacity to act intentionally in the world, both our creative freedom and a moral awareness of our responsibility for what we do and why, marks our human spirit and is a central cause of life, that is unalienable and universal [10].

Blessing or inter-generativity refers to the relationship with those closest to us, including our ancestors, parents, children, and future generations. This cause is related to the field of psycho-neuro-immunology or how our immune system is impacted by our attitudes, beliefs, thoughts, and emotions, highly tied to encounters with others, and can impact physical and mental wellness [13]. Visits with others can decrease loneliness, depression and result in improved immune system functioning for both parties [14]. Human lives are blessed and nurtured by those who come before and after us, we are encouraged, strengthened, enlivened and better able to shape our own lives, to make vital choices. Active blessing means bestowing upon another approval or praise, while affirming their sacredness as a person and wishing them well [10].

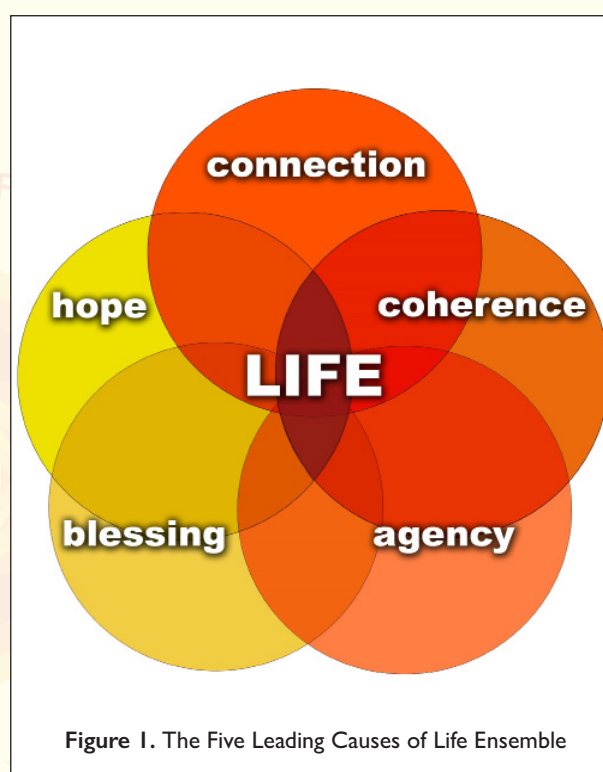


Figure 1. The Five Leading Causes of Life Ensemble

Lastly, **hope** refers to a positive orientation toward the future, even a “memory of the future” [15] and can highly impact medical outcomes. Hope is not simply optimism or wishful thinking but focuses on the human capacity to imagine a different, healthier future and to find the energy to do something to make that happen [10]. Dozens of studies reflect better cancer, cardiac, post-surgical outcomes, as well as decreased levels of anxiety and depression in those with higher levels of hope [16]. Countless studies also have linked improved outcomes in pain management and general immune system functioning in persons who demonstrate higher levels of hope [17].

The five causes are not designed to be independent; rather they work together as an ensemble and have considerable and intentional overlap in terms of domains of each cause [10]. The focus in using the LCL framework and early tools described below was to work with and build upon the asset of each cause that a person possessed, not focus on what was lacking. Figure 1 visually presents the 5 intentionally interdependent Leading Causes of Life.

2. Materials and Methods

The LCL framework was piloted across medical and other settings from 2007-2013.

Health System Setting: Orientation and Leadership Training

The first use of the LCL framework was to introduce it as part of each new employee orientation at the Methodist Le Bonheur Healthcare (MLH) system. A 30-minute introduction to the five causes were shared from Faith & Health staff on

the first day of work for individuals at all levels of the organization (e.g., from executives, physicians, nurses to front-line workers, such as environmental and food service workers and security).

Additionally, every quarter, the top 500 leaders of the health system were trained in a three-hour, comprehensive use of the LCL framework in their various work settings.

Lastly, since MLH was owned by the three local state United Methodist Church Conferences (Memphis, Arkansas, Mississippi), a two-day conference on LCL was offered to each conference from 2008-2010. This two-day conference format was designed for large lecture groups in which the general framework of LCL was presented by Dr. Gary Gunderson in extended dialogue. Next, Rev. Larry Pray (co-author of the LCL book) presented ways to infuse the Leading Causes of Life into pastoral settings/work and lead the group in several small group exercises to teach these strategies more effectively. A unique aspect of this interactive teaching was the “five-course meal” format that engaged small dinner groups around discussion of each of the five causes. Lastly, Dr. Teresa Cutts presented the high-level health science or “found science” under-girding this work, integrated into clergy and congregational contexts. This conference offering fit well into a state or regional-level denominational leadership meeting and was an excellent awareness level introduction to the Leading Causes of Life framework for broader clergy leadership. Particularly, with Bishop leadership at the initial and ending services, this introductory conference served as a springboard to engage top and middle clergy leaders in understanding and using the Leading Causes of Life framework in their ministry.

Primary Care Integrative Medicine Setting

The creation and development of a brief LCL survey for individuals was then piloted at our integrative, spiritually based primary care clinic, Harbor of Health, in Memphis. Survey development and test construction logic was not psychometrically sound in terms of independent domains. As mentioned above, the five causes intentionally overlap in domains assessed and the survey was designed to stimulate conversation about assets and life with patient-provider dyads or small groups, not measure singular cause factors.

Over a period of three months, patients consecutively presenting to this new clinic, focused on wellness and prevention, were offered the LCL survey as part of their medical intake process. This was in addition to the traditional Health Risk Appraisal, which again, focuses primarily on pathology. Ninety-eight percent (N=100) completed the survey. Two females declined to complete the full survey, as they did not wish to share their spiritual views. This cohort was young (mean age of 34.8 years of age) with 65% identifying as female and 35% as male.

Clergy Conference and Chaplaincy Setting

The LCL survey was offered to all participants of the three clergy conferences offered by the MLH system leaders from 2008-2010. Additionally all MLH chaplain and chaplain residents completed the survey over a two-year period, for a total of 400 persons completing the survey. To enhance our ability to capture survey findings, no personal health information or demographic data were captured on those completing the survey, but the general estimate (from conference leaders' report) was that average age of this cohort was in their late 50's and predominantly male.

Life of Leaders Executive Physical

Leading Causes of Life were integrated into a spiritually based Executive Physical that was developed by MLH and the Church Health Center in Memphis, TN. The process, called Life of Leaders, is described in depth elsewhere [18]. Approximately 130 clergy leaders (including Bishops and District Superintendents of the United Methodist Church) and other executives (Foundation presidents, magazine editors, etc.) experienced this two- and one-half day assessment, including dialogue and recommendations from health providers, as part of this leadership process from 2007-2013.

Life of Leaders was designed to focus on how life is a journey, not an event and how health issues and perception of these issues occur across the lifespan. It was developed to be an adjunct to regular wellness examinations, offered every 3 years or whenever a person desired a reset or revitalization, such as job sabbatical, promotion, transition, or retirement. In Memphis, it was intentionally hosted at a clinic and wellness center that catered to the underserved, to highlight the focus on integration of those with power and affluence with the “least of these.”

The program was team-based, with the physician working closely with a life practitioner (so named to down-play their role in behavioral health and focus more on assets than psychopathology), exercise physiologist and/or physical therapist and nutritionist. Cohorts of up to 12 participated in group meals, fellowship, and local musical events. Concierge

services were tailored to the needs/wishes of each participant, based on extensive pre-work assessments (LCL survey, Values in Action Strengths Survey, brief Myers Briggs, Your Health Journey Narrative, Health Risk Appraisal or HRA; also most recent annual physical findings from the last medical checkup). Specifically, the Your Health Journey narrative was crafted as the antithesis of the “traditional History and Physical” assessed in medical encounters, as it tapped into assets and concerns across the person’s lifespan and family history. Services offered included specialty consults (e.g., sleep, pain management) and integrative medicine treatments (e.g., Tai’chi, acupuncture, acupressure, Pilates, aromatherapy, massage). Extra time (90 minutes) was afforded with both the physician and life practitioner, to allow the participant to relax into the space and share more of their concerns/thoughts, both on Day 1 of assessment and Day 2 of Reporting Back/Recommendations. Copies of all medical records/reports were given in full form to each participant, to promote transparency, convenience, and to encourage sharing it with their local primary care provider upon returning to their home settings. See Table 1 for key components of the Life of Leaders leadership process.

Team-Based	Concierge	Extra Time	Pre-Work
Medical Provider, Life Practitioner, Nutritionist, Physical Therapist/Exercise Coach, Other Specialists as desired. Group music and meditation from local artists, meal and fellowship.	Tailored to individual needs/wishes for specialty consults (e.g., pain management or sleep) or treatments (e.g., massage, acupuncture, Pilates, aromatherapy) as requested on prework	Participant spends 90 minutes each with Medical Provider, Life Practitioner, Nutritionist and Exercise Coach on Day One; Also 90-minute Day Two report back with Medical Provider and Life Practitioner Team	Extensive pre-work packet completed two weeks before event with Myers Briggs, Positive Psychology surveys, Leading Causes of Life survey and Health Risk Appraisal and Your Health Journey Narrative assessments

Table 1. Key Components of the Life of Leaders Process

3. Results

3.1. Health System Orientation & Leadership Training

Introduction of LCL into all new employee orientation was rated as a highlight of and one of “most useful” aspect of those orientations by employees within the system. Anecdotal reports of novel use of the framework came from disparate hospital employees, some unexpected. For example, the supervisor of employees whose job was calling former patients to collect unpaid bills (admittedly an often unpleasant conversation for both parties) trained her staff on how to use LCL to approach their calls in a more affirming and positive manner. Also, the Dr. Gary Gunderson was invited to offer the keynote address on LCL to the state association of pathologists, to enhance their work.

In the MLH new employee, high level leadership and clergy conference LCL trainings, those exposed indicated that inserting LCL language alone served as an “intervention” to change patient-provider dialogue or even community-based conversations to be more proactive and less pessimistic.

3.2. Primary Care Integrative Medicine Clinic

At the Harbor of Health clinic, our younger, more secular group of patients reported lower levels of connection and agency, compared to clergy and chaplaincy cohorts. Correlations between lower agency and coherence scores were found on those patients who reported more headaches, GI disorders, substance use disorder, depression, and muscular skeletal pain on the HRA. Patients reported positive experiences in thinking through their strongest LCLs and being refreshed by being asked this question: “What is right with you?” by the primary care physician in the care plan development that incorporated both HRA and LCL findings.

3.3. Clergy Conference and Chaplaincy

This cohort demonstrated lower scores on coherence and higher scores on blessing and connection. Mixed scores were noted on hope. Cohort respondents liked the more positive LCL framework, particularly those who reported some degree of compassion fatigue or were struggling in their ministries. Most reported that they wished to have time to discuss these findings in small groups to further process and maximize the benefit of the framework. However, clergy often quickly moved to focus on how LCL could be used to assess congregational strengths, vs. keeping the focus on their individual findings. See Appendix A for a copy of the LCL survey for individuals.

3.4. Life of Leaders Executive Physical

Life of Leaders was conducted with N=130 persons, 75% persons identifying as males and 25% identifying as females. Mean age was 62 years. Early piloting of this process in 2007 with 18 UMC Bishops of the Duke Episcopal Leadership Foundation group revealed how potent this process of leadership engagement around life and faith and health could be. Anecdotal feedback from the original cohort held in 2007 included:

- Staff commitment and knowledge helped me move from focusing on the past to claiming the future: “I have been looking at my life as a rearview mirror view. This framework focuses me on what’s ahead in my future—positive Life.”
- The integrated provider teamwork and the way they communicated about my clinical findings to create a holistic report was great.
- The assets-based model was superb and supported my gifts and talents while showing me creative ways to use these to achieve optimal health.
- Your wonderful team successfully blended the best of an executive health examination with helpful support for self-care, spiritual nourishment, relaxation, and conversation.
- The experience was “Better than Mayo” (i.e., better than Mayo Clinic’s Executive Physical process) in its focus on Leading Causes of Life in very creative ways.
- True integration of mind/body/soul

Structured, anonymous evaluation was captured from the Life of Leaders participants via e-mail surveys within one month of the process. It revealed that 74.4% of the cohorts gave the highest rating of “Excellent”, with an overall response rate of 34%.

4. Discussion

These early pilot findings require further evaluation, refining of findings, and research of more specific hypotheses regarding the LCL framework and surveys than have been conducted to date. However, the almost universally positive response to the LCL framework, from health system employees as disparate as financial collector supervisors, pathologists, and janitorial staff, suggest that the continued use of LCL training within medical settings is merited and that the language framework itself is robust enough to be utilized across health systems, medical specialties and even clergy and chaplaincy populations. Likewise, the dialogue stimulated between providers and patients in a primary care setting, with the flip of asking “What is right with you?” vs. “What is wrong with you?”, much like the recommended *Awareness 2024*, Vol 1, Issue 1: Pages 33-38 37 resilience question of “What happened to you?” rather than “What is wrong with you?” also indicates the usefulness of LCL and argues for a broader implementation of the LCL framework.

As noted recently in JAMA [19], a shift in perspective is needed in medicine, moving away from pathology and death to health and well-being, exemplified by the Leading Causes of Life. As Dr. Philip Pizzo, the former Dean of Stanford School of Medicine and Founding Director of the Stanford Distinguished Careers Institute notes: “physicians and other clinicians [need to] think differently about how to support the longer lives of their patients, focusing on how to make them more

meaningful and functional and less attenuated by the morbidities that lead to medical, social, and financial dependency.” [19]. The Leading Causes of Life framework seems ideal for this purpose, thus meriting further utilization and research.

Funding: This research received no external funding.

Informed Consent and Institutional Review Board Statement: Standard informed consent was obtained for all patients described below seen in primary care and other clinical settings. In congregational, health system orientation and seminar settings, patient consent was waived due to participants being exposed to purely educational materials LCL. Formal institutional review board ethical approval for consent to participate was waived for all activities described above, as these offerings were part of health system quality improvement efforts of the Center of Excellence in Faith & Health at Methodist Le Bonheur Healthcare.

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Conflicts of Interest: The authors declare no conflicts of interest.

Appendix A

Please choose your best response to each question below. There are no right or wrong answers.

Table A1. Leading Causes of Life Survey-SF (Short Form)

1. I can think of at least five people who feel they can count on me if they need help or someone to talk to.	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
2. In the past year I have been able to make some choices that make a difference in the lives of those that live around me.	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
3. I am part of faith or service group that depends on me and would be missed if I dropped out.	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
4. On most days I experience meaningful connection to a loved one.	Strongly Disagree	Disagree	Neither agree nor Disagree	Agree	Strongly Agree
5. If I wanted to, I feel like I could change my job or where I live.	Strongly Disagree	Disagree	Neither agree nor Disagree	Agree	Strongly Agree
6. If we choose to do it, we could make a difference in the really big issues, such as hunger, the environment and poverty.	Strongly Disagree	Disagree	Neither agree nor Disagree	Agree	Strongly Agree
7. On most days I find something that makes me laugh.	Strongly Disagree	Disagree	Neither agree nor Disagree	Agree	Strongly Agree
8. I am able to talk to my loved ones about things that really matter.	Strongly Disagree	Disagree	Neither agree nor Disagree	Agree	Strongly Agree
9. On most days I am able to express my purpose in life through my work.	Strongly Disagree	Disagree	Neither agree nor Disagree	Agree	Strongly Agree
10. My parents are proud of me (or would be, if they were alive).	Strongly Disagree	Disagree	Neither agree nor Disagree	Agree	Strongly Agree

11. When I make mistakes, I am able to ask forgiveness from those I care about the most.	Strongly Disagree	Disagree	Neither agree nor Disagree	Agree	Strongly Agree
12. I think in some way that my life is making the world a better place for the next generation.	Strongly Disagree	Disagree	Neither agree nor Disagree	Agree	Strongly Agree
13. The things I value most will endure after I die.	Strongly Disagree	Disagree	Neither agree nor Disagree	Agree	Strongly Agree
14. When I think about the future of those I love, I am positive.	Strongly Disagree	Disagree	Neither agree nor Disagree	Agree	Strongly Agree
15. I can see where God is working in the world for good.	Strongly Disagree	Disagree	Neither agree nor Disagree	Agree	Strongly Agree

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