

Coping and Adaptation Strategies in Congenital Heart Disease—a Qualitative Single Case Study

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Abstract

Congenital heart disease (CHD) is a common cardiovascular illness in infants. Patients now have better survival rates due to improved medical care. However, CHD can have a significant impact on patients' lives. Learning to cope and adapt to CHD is crucial for managing the condition. This article explores the coping and adaptation strategies of a CHD patient, here named KK, who has achieved higher psychological well-being. The inquiry aims to gain insight into the evolution of KK's personality. The study identifies gratitude, resilience, and compassion as key themes contributing to the patient's positive prognosis. The findings suggest that these attitudes and abilities may aid individuals in coping and adapting to CHD and other cardiovascular diseases. This article can provide valuable insights for health professionals, primary caregivers, and individuals with CHD.

Keywords: Adaptation; Compassion; Congenital Heart Disease; Coping; Gratitude; Personality; Resilience.

Introduction

Chronic illnesses are long-term health disorders that cause impairment in daily activities and for which there is no cure. Some are degenerative, causing disability and discomfort, while others can be treated to some extent. Chronic diseases are often caused by lifestyle and health behaviors, while acute diseases are caused by germs or accidents. Chronic illnesses have a gradual beginning and long-term progression; their symptoms and causes can be unexpected or unobservable, making it difficult for early identification. Psychological frameworks highlight the impact of illness intrusions and challenges faced by these individuals—including employment, income, social interactions, sexual activity, and personal growth (Moss-Morris, 2013). Some examples of chronic illnesses are asthma, arthritis, cancer, cardiovascular diseases, and diabetes.

Advancements in healthcare have reduced mortality rates from acute diseases, but chronic illnesses remain a major public health issue worldwide. Survival rates have increased, but the symptom burdens related to the illness and/or its treatment remain problematic (Moss-Morris, 2013). Living with chronic illnesses affects physical health, daily functioning, and quality of life (QOL), with the complex range of physical and psychological symptoms compromising overall functioning. Chronic illness negatively impacts an individual's well-being, especially for women, who tend to live longer, experience functional decline, and live alone more often (Jenkinson & Cantrell, 2017). Dealing with chronic illnesses can be a real challenge, but it's essential to learn how to cope and adapt in order to maintain overall well-being.

In the current article, the focus is on coping and adaptation strategies for cardiovascular disease, specifically congenital heart disease.

Congenital Heart Disease

Congenital heart disease (CHD) is a type of cardiovascular disease that is prevalent in infants, requiring lifetime expert care and recurrent surgical interventions (American Heart Association, 2023; Meller et al., 2020; Scott & Neal, 2021). With the advancements in cardiothoracic surgery, pediatric cardiology, and intensive care medicine, 90% of infants live to maturity (Hays, 2015; Iyer et al., 2017). However, heart failure, arrhythmias, and stroke are common prevalent issues, requiring lifetime specialized treatment and follow-up. Heart failure is a significant cause of morbidity, and the major cause of mortality among adult congenital heart disease (ACHD) patients (LeMond et al., 2015; Leusveld et al., 2020). Congenital heart disease is characterized by shortness of breath, exercise limitations, exhaustion, and an abnormal heart sound called a heart murmur, which is detected by a physician listening to the heartbeats (Sun et al., 2015).

Cardiac resynchronization therapy (CRT) is a recommended treatment for patients with heart failure and left bundle branch block (LBBB), and decreased ejection fraction. The therapy aims to reduce the dyssynchrony of myocardial contractions, ultimately leading to a decrease in morbidity. Under the current heart failure guidelines of the European Society of Cardiology, CRT is classified as a class IA recommendation. This means that it has a large and clinically meaningful effect

and its benefits are certain (Packer, 2016; Brida et al., 2022; Liu et al., 2023). CRT is effective in treating adult heart failure in CHD patients, potentially improving long-term prognosis when used effectively (Janoušek & Kubuš, 2016). However, CRT can be a challenging treatment option due to its complexity and the limited availability of suitable venous sites for implantation (Karpawich & Chubb, 2023). Advancements in medical, surgical, and catheter intervention have improved the life expectancy of many CHD patients, but millions still face complications such as cardiac failure, arrhythmias, lung disease, neurological, renal, and hepatic illnesses. Infections such as myocarditis and endocarditis are common and linked to high morbidity and mortality. Over 30% of adult CHD patients with moderate to severe cardiac abnormalities have compromised pulmonary function (Diller et al., 2021; Pelosi et al., 2023).

Coping and adaptation in Chronic Illness

Coping is a crucial aspect of understanding the adjustment to chronic illness (Adams & Dahdah, 2016; Lumsden et al., 2019). Coping is classified as either problem-focused, which involves resolving or minimizing stressors, or emotion-focused, which is self-soothing and involves expressing and processing emotions, and seeking emotional support. However, many coping efforts combine aspects of both problem- and emotion-focused coping, such as seeking social support. Coping strategies can be further categorized as approach or avoidance, based on an individual's motivation to confront or avoid a stressor. Approach-oriented strategies involve actions such as seeking social support and problem-solving, while avoidance-oriented strategies aim for escape or denial. Coping strategies can also be behavioral, involving changing situations, or cognitive, involving changing thoughts or perceptions of stressors. These strategies often overlap, with positive reappraisal considered an emotion-focused, approach-oriented, or cognitive approach coping strategy (Moos & Holahan, 2007). Positive reappraisal is a way of finding positive meaning in a negative event. It helps reframe the individual's response to the event, making it productive rather than destructive. This active coping strategy can improve health outcomes and help one emerge stronger and wiser from adversity (Holahan, 2021).

Adapting is a deliberate process through which individuals exercise their awareness and choice to seamlessly integrate with their environment (Weinert et al., 2008). The model of adjusting to chronic illnesses Moss-Morris (2013) presents that background factors (such as personality and early life experiences) influence how people respond and adapt to illness stressors. Illness-specific factors (such as degree of disability and prognosis) determine the nature of the stressors, and the process of adjustment is to return to and maintain equilibrium in the case of chronic stressors. Successful adjustment is determined by background factors as also by cognitive and behavioral strategies. Factors that prove successful at one stage of the disease trajectory may change when the illness stressors change.

The purpose of this article is to trace and exemplify the coping and adaptation of a patient with CHD in order to achieve a healthy or higher psychological well-being (Dhanabhakya & Sarath, 2023). It also takes into account the attitudes established and maintained by the patient at various stages. Attitudes encompass a sophisticated amalgamation of elements often associated with personality, beliefs, values, behaviors, and motivations. Although this article draws on the health perspective, it has the potential to contribute to and complement a psychological perspective that proves to be valuable for health professionals, primary caregivers, and others with CHD. It provides valuable insights into patients' health conditions, and the kind of challenges they face.

Method

An exploratory single case study research design was used to explore the coping and adaptation strategies of an individual with CHD. Case studies take a naturalistic approach and delve deeply into relationships, processes, and the complexities of a given context. The presented case study is derived from a qualitative study, which can bring to light specific aspects that emerge in coping and adaptation mechanisms for higher psychological well-being (Creswell & Poth, 2017; Warrington et al., 1993).

The study aimed to explore the coping and adaptation strategies of individuals with cardiovascular disease. Therefore, responses from 28 individuals identified through purposive sampling with various cardiovascular diseases were collected on the 54-Item (medium form) Ryff's Scales of Psychological Well-being to assess the overall scores. (Appendix.1) The scale is scientifically validated and revealed an internal consistency (α) ranging from .88 to .81. The scale was chosen as it was freely available for research purposes. The components of psychological well-being included **Self-acceptance, Purpose in life, Autonomy, Positive social relationships, Environmental mastery, and Personal growth** (Ryff, 1989a; Ryff, 1989b).

The selection of the psychological well-being scale was predicated on the assumption that individuals with higher well-being scores are likely engaging in positive and effective behaviors, particularly in the context of chronic illnesses such as heart disease. This assumption is rooted in the belief that an individual's psychological well-being can have a significant impact on their ability to cope with and manage physical illnesses. As such, the psychological well-being scale was deemed a suitable instrument for assessing the potential relationship between psychological well-being and cardiovascular outcomes (Kubzansky et al., 2018; Lloyd-Jones et al., 2022).

Table 1: Psychological Well-being scores of KK collected on 54-Item Ryff's Scales of Psychological Well-being (Ryff, 2013; Ryff, 2017) - Total Score: 292/324

Autonomy	Environmental Mastery	Personal Growth	Positive Relations with others	Purpose in life	Self-Acceptance
Self-determination and independence; the ability to resist social pressures to think and act in particular ways, regulate behavior from within, and evaluate oneself based on personal standards	Sense of mastery and competence in one's environment; the ability to control a complex array of external activities and leverage opportunities; the capacity to choose or create contexts that suit needs and values	Feelings of continued development and the sense that one is growing and expanding; openness to new experiences; realization of one's potential and perceived improvement in self and behavior over time; change that reflects greater self-knowledge and effectiveness	Warm, satisfying, trusting relationships with others; concern for the welfare of others; capacity for strong empathy, affection, and intimacy; understanding of the give-and-take of relationships	The possession of goals and a sense of direction; the feeling that there is meaning to present and past life; holding beliefs that give life purpose as well as aims and objectives for living	Positive attitude toward the self; acknowledgment and acceptance of multiple aspects of self, including good and bad qualities; positive feelings about one's past
47/54	45/54	51/54	49/54	52/54	48/54

Analysis

One participant—here named KK—out of the 28 participants with cardiovascular conditions was selected for the current study, based on the highest psychological well-being score. The selected participant had a score of 292 out of a total score of 324, as shown in Table 1. A holistic case study approach was employed to explore the participant's world. There were four meetings with KK, in one of which KK was accompanied by her 22-year-old son and one close friend, to mitigate the effects of recall and participant bias. At the first meeting, a clear explanation of the study's goals was provided, informed consent was obtained, rapport was established, and responses for the Psychological Well-being Scale (PWB) were collected. Subsequently, two rounds of interviews were conducted, each lasting an average of 60–90 minutes, with a 14-day interval between them.

The interview format was intentionally unstructured, guided by three broad and open-ended themes. A few broad, open-ended, and non-judgmental questions encouraged narratives to emerge (Creswell & Poth, 2017). The themes were considered as starting points for capturing the various features and stories of everyday practices for coping and adapting to the heart condition:

- Participant's health condition such as history of the illness, limitations, treatment cost, etc.,
- Family and Psychosocial situation, and
- Participant's psychological well-being and attitudes toward the heart condition.

Through a multitude of follow-up questions, the interviews allowed for issues that the participant viewed as important and pressing in her daily life at the time of the interview. A common follow-up would be: "Give me an example" or "Can you elaborate on that?". The participant was repeatedly asked to describe her practices and reasons for the various actions

taken in her everyday situations. Some open-ended questions were asked, such as: "What keeps you going? How do you cope with your condition?" The final interview was a follow-up, and focused on clarifying matters raised during the previous interviews. During the study, a contextual observation was conducted by watching a YouTube interview of the participant. The goal of the observation was to facilitate descriptive conversations during interviews, rather than justification.

The researcher aimed to investigate how individuals with CHD maintain high levels of psychological well-being, particularly focusing on the case of KK. This inquiry involved a comprehensive analysis of KK's coping mechanisms, adaptations, and attitudes toward her illness. The study is ideographic and the purpose is to make analytical generalization, and to illustrate a case where the reader can judge its use. The study is valuable to the extent that others may gain further insights into the issue at hand. In this article, the illustrations provided in the results are intended to facilitate professional judgment-based analogies rather than evidence-based method applications.

The Case Context

KK is a 58-year-old woman who resides in a metropolitan city in India. As reported by KK, she was six years old when her father passed away while serving in the armed forces. As a child, KK suffered due to her mother's narcissism and her elder sister's hostility. When KK was nine years old, she and her sister were sent to a boarding school, where KK struggled with sports and experienced fainting spells. Her mother took her to various clinics and cardiologists, and only in her 20s, she was diagnosed with CHD. The symptoms of CHD can sometimes go undiagnosed. Despite her heart condition, as an adult she excelled in various private firms and earned promotions as a Human Resources professional. KK's mother wanted her to remain unmarried and look after her. However,

at the age of 34, KK married a man who had three teenage children from his previous marriage and moved overseas with him. Despite coming from an affluent background herself, she faced significant financial difficulties due to her husband's controlling nature, which made it challenging for her to access basic funds while she stayed married. She became a homemaker after briefly working in private firms. She moved back to India with her adolescent son and divorced her husband after a 20-year marriage. KK has survived three heart failures and has undergone three surgeries for battery replacement of the cardiac resynchronization therapy (CRT) device. Despite facing numerous challenges throughout her life, including health issues and a difficult marriage, KK today dedicates herself to social work, rescuing street dogs, and supporting local businesses. She is highly regarded in her community for her compassion and fearlessness in helping individuals who have experienced abuse and violence. She currently resides with her son and two dogs, BB and SS. This study aims to offer valuable lessons from KK's experiences, perhaps some inspiration and support for individuals dealing with CHD.

Results

KK has effectively implemented approach-oriented strategies to cope with her heart condition, utilizing cognitive and behavioral techniques to manage her illness. Approach-oriented coping includes the use of emotional support from her son and her two pets, active coping, positive reframing, and acceptance of her condition. KK's adaptation can be aptly described using Moos and Holahan's (2007) adaptive tasks framework, which systematically separates the impact of illness into illness-related tasks and general life-related tasks. Illness-related adaptive tasks include managing symptoms and treatment, and developing relationships with healthcare professionals. KK has fully accepted her condition and employs cognitive and behavioral strategies to stay in tune with her body cues, such as exhaustion, the need for rest, slowing down, recreation, exercise, or walking. She is highly compliant with her treatment and medication, and acknowledges her limitations, such as being in a crowd, air travel, and lifting heavy weights. She explains Eldh et al. (2020), "See, I cannot push certain limits; if I do, then I become unstable. I am a single parent and it can mean a lot in my condition. I do not like to see these as challenges. It is so integral to my life. It is what it is." KK's general adaptive tasks include maintaining an emotional balance, a positive self-image, and good relationships with loved ones, as well as preparing for an uncertain future. KK has impressively coped with and adapted to her condition. The following section describes the three key themes uncovered in this study:

1. Gratitude
2. Resilience
3. Compassion.

Themes

The unstructured interview with KK brought to light three key themes that helped her cope with and adapt to her heart condition. What is remarkable is that KK exhibited resilience, gratitude, and compassion even before her diagnosis. It's

fascinating to think about how they have served as a foundation for her to navigate through this difficult journey.

Gratitude

Gratitude is a mood and characteristic that can be seen as both a state and a trait. As a state, gratitude encourages reciprocity and prosocial conduct, while as a trait, it is a life attitude that emphasizes observing, and being grateful for the good in the world (Jans-Beken et al., 2019).

An attitude of gratitude has helped KK in achieving higher psychological well-being. She is grateful that despite a progressive heart condition, she is able to do much. She is grateful to her immediate environment—her son, who is compassionate and caring, and her two dogs, BB and SS. She thinks she is fortunate to have met many wonderful individuals in her life, such as her cousin, certain friends, an uncle from the military services, her doctors, and hospital support staff, who have supported her during her difficult times. She feels disappointed with people who do not show gratitude in their lives, who whine and mourn over life's smallest discomforts. In her words : "I can walk fairly fast despite having difficulty climbing stairs. Nonetheless, I am grateful for what I can accomplish. I am aware of the opportunities that life presents, and I accept things as they are. I frequently emphasize the words 'enhance' and 'gratitude'. The challenges I face are not burdensome to me. If this were how my life is going to be another time, I would say, 'so be it' with gladness."

Research shows a correlation between life happiness and thankfulness, and gratitude therapies can reduce psychiatric symptoms and improve physical and mental well-being. Gratitude is a dispositional trait that enhances cardiovascular health, reduces symptoms, and improves social interactions. It reduces social isolation and loneliness, and improves overall well-being (Jans-Beken et al., 2019; Gallagher et al., 2021; Kerry et al., 2023).

Resilience

Resilience is the ability to cope with trauma, adversity, and stress, demonstrating a positive adaptation to stressful events and maintaining a healthy state after such events (Lossnitzer et al., 2014; Walker & Peterson, 2018; Babić et al., 2020). Resilience is characterized by the three Rs: resistance, recovery, and rebound. Resistance refers to an individual's ability to lessen the harm of a challenge; recovery involves returning to one's original state after a challenge; and rebound involves achieving a positive outcome after a stressor that enhances functional abilities (Jin et al., 2022; Windle, 2010). Resilience involves coping strategies, resisting negative influences, and preventing significant dysfunctions. Resilient individuals view everything as a learning experience, focus on personal strengths, use constructive criticism, have strong social skills, and are emotionally aware. Good resilience can prevent disease development, promote good health, facilitate recovery, and provide a productive life despite chronic illness (Babić et al., 2020). Resilience is crucial in chronic conditions that require ongoing medical care and limit daily activities (Jin et al., 2022; Shabani et al., 2023).

KK shares her experience of growing up in an unfavorable environment. As reported, her mother's narcissistic attitude negatively impacted her social life, and she was punished severely for even the smallest mistakes, and was locked out of the house or in a room for hours or even days. Nevertheless, she did not let the environment affect her, and as she grew into her teenage years, she toughened up. She endured a challenging marriage, during which her husband displayed controlling and emotionally abusive behavior. She considers this as the reality of her life and continues to strive for excellence. KK's way of being resilient is to be fearless and believing that some level of activism is necessary to navigate through the cruel and dysfunctional world. She firmly believes in hope and spreads it to others who are in despair. While not originally raised in the Buddhist tradition, she adopted Buddhist principles, which aided her in cultivating the practice of detachment and embracing life's uncertainties (Steinhorn et al., 2017). Reading books has always been a source of comfort for KK, and it has helped her cope with life's challenges. Although she cannot read for long periods due to her illness, she still tries to read a few pages at a time and takes breaks in between. She strongly believes in adequate risks, constantly rediscovering, and not merely skimming through life. In her words, "Death is a journey completed. I don't want to be half-dead with fear. I do not see these as challenges; it is so integral to my life. It is the life known to me. But I do continue to heighten my standards of functioning."

Compassion

Compassion is the sensitivity demonstrated to understand another person's pain and aims to help them find a solution. It is a humanistic aspect characterized by warmth, concern, and care, with a strong desire to improve another's well-being. Compassion is not influenced by pressure or stress, and begins with an empathetic reaction to another person's suffering. It is a feeling for them, not with them. Compassion is not a measurable ability or preconceived approach (Singer & Klimecki, 2014; Perez-Bret et al., 2016). KK asserted Eldh et al. (2020), "Demonstrating compassion has been an unparalleled journey. It has given me succor. It has allowed me to learn and give succor to others. Consequently, I have thrived against all odds."

KK stated that her most important life goal is to show compassion to those in need. She is always ready to lend a helping hand and alleviate pain—not only for people, but also for animals. Her philanthropic endeavors encompass a wide array of initiatives, including the support of local enterprises, advocacy for women's and children's rights, as well as active involvement in animal rescue efforts. Through her extensive network, she diligently identifies and allocates resources to aid individuals in need, demonstrating an unwavering commitment to humanitarian causes even when they involve threats and risks to her life. She has a social media page endorsing compassion and has organized several awareness programs on the streets and at workplaces, holding up a sign that says "Show Compassion" in her city. Despite not having a kind childhood or marriage, she never lost sight of her goal in life—to be kind and compassionate. She affirms, "Compassion

often serves as an effective solution, although it is not easily practiced. It requires intentional effort, meticulous planning, execution, and a delightful disposition. Prior experience in a specific field is not a prerequisite, provided one possesses determination and empathy. Motivated by a genuine concern for humanity and a sense of detachment, I am delighted to walk away without credit. To date, I have completed approximately 900 compassion-driven projects." When asked whether being compassionate and helping others has helped her cope and adapt to her illness, she clearly stated that it was the other way around. She mentioned that as a young girl, she could distinguish between right and wrong with regard to fundamental human values. She vividly recounted an incident that occurred when she was 25 years old. In 1991, while walking home from work in her hometown, KK witnessed a group of children teasing a black African man who was passing by a park. She said to herself as she was witnessing, "How wrong is it? Why don't we step up? Why don't we manifest things? Yeah, I need to fight some things. I questioned myself, am I going to just witness it?" Feeling conflicted, KK eventually apologized to the man and confronted the kids. Although the children threatened to tell their parents, nothing ever happened. Despite her fear of the consequences, she mustered the courage to stand up for what she believed was right.

KK prioritizes self-compassion by setting boundaries, listening to her body and mind, and avoiding negativity and toxic relationships. "Even during social work, I know when to say a NO and when to say STOP. I also step back; my pet BB tells me your heart is working hard. I have made compromises such as I could not go and visit my cousin, mom, and my uncle. I could not say a goodbye. That's something I have accepted that I can't do certain things. There is no confusion to disengage. I know when to stop, like the toxic relationship with my sister." KK consistently engages in positive self-talk and proudly embraces her compassionate nature. Despite encountering opposition from her mother regarding her choice of spouse, she refrains from indulging in self-criticism. She visits spas and beauty parlors to take care of her physical and mental well-being, diligently addressing her ailments and continually elevating her functional capacity. She demonstrates self-forgiveness, self-love, and self-acceptance. Self-compassion is the act of supporting oneself during hardships, whether due to personal or external issues. Chronic medical diseases significantly impact the population, leading to recurring pain, exhaustion, stigma, and isolation, resulting in psychological discomfort and mental illness. Research suggests that self-compassion is associated with better adaptive outcomes, such as less shame, health-risk behaviors, functional impairment, and promotion of well-being (Finlay-Jones et al., 2023; Neff, 2023).

KK's Personality

Further investigation in this study delved into whether KK's attitudes and abilities were innate or acquired, thereby examining the interplay between nature and nurture. The inquiry sought to understand the development of KK's personality.

KK attributes these traits to a combination of genetic predisposition and learned behavior through socialization. The experience of enduring traumatic events prompted KK to recognize the significance of adhering to ethical principles, especially following early exposure to unethical conduct from a few people around her. From the interview content, it becomes evident that certain inherent inclinations towards specific traits are believed to have been inherited from her father, a former member of the armed forces. According to familial testimonies, her father was renowned for his compassionate nature and remarkable resilience, epitomizing bravery, determination, and valor. KK drew inspiration from her father's strong traits and she emulated them with ease because she also believes she has inherited them in her genes. Furthermore, she gleaned valuable insights from her friends and distant relatives, drawing inspiration from the warmth and support they provided.

Witnessing cruel behavior and a lack of ethical conduct of a few close people from a young age reinforced her determination to develop her ethos. KK was deeply affected by her cousins' mistreatment within their family, which motivated her to seek out and provide love and support to them. Expressing her dismay, she recounted, "My mother and other relatives disowned and turned away my two cousin brothers when they lost their parents. I questioned my mother about why they were not receiving the care and support they needed." Various examples, including her efforts to educate girls from lower socioeconomic backgrounds, rescue injured cows, confront bullies, and choose forgiveness over malice, have shaped KK's ethical beliefs from an early age. These experiences have molded her values and actions, demonstrating her commitment to compassion, resilience, and gratitude.

In conclusion, KK's reflections underscore the combined influence of genetic predisposition and socialization in shaping

her character and ethical values. It could also be looked at through the lens of the concept of post-traumatic growth (PTG), which emphasizes the positive changes that can occur after experiencing adversity (Panjwani & Revenson, 2020; Taylor, 1983).

Discussion

The research findings highlight the positive impact of gratitude, resilience, and compassion on an individual dealing with CHD. Specific examples demonstrate how these attributes might have contributed to higher psychological well-being for the participant, potentially promoting a positive prognosis for the illness. The results illustrate how the participant's attitudes toward life have helped in coping and adapting to CHD for over 47 years. It is important to note that while the results showcase successful coping and adapting practices, they do not aim to provide evidence of what works, but rather, aim to inform individuals living with CHD and deepen their understanding of coping and adapting practices. Therefore, we may conclude these attributes have not only helped KK with a positive prognosis of illness but also helped her deal with adverse life events such as a difficult childhood, a difficult marriage, and the diagnosis of a life-threatening heart condition. It is conceivable that the presence of resilience, compassion, and gratitude has contributed to KK's attainment of higher psychological well-being.

Implications for individuals with CHD, health professionals and primary caregivers

The findings of this study could be modelled to promote positive psychological well-being in individuals with CHD and extend it to other chronic illnesses. Some of the ways the attitudes of gratitude, resilience, and compassion could be applied in real-life settings are mentioned in brief in Table 2.

Table 2: Practical Approaches to Develop Gratitude, Resilience, and Compassion

Gratitude	Resilience	Compassion (self and others)
<ul style="list-style-type: none">writing reflective journals and diariesappreciating small everyday tasks and achievementsmaking comparisons with those who are less fortunate	<ul style="list-style-type: none">becoming hopeful and optimisticfinding a sense of purpose and setting goalsdeveloping autonomy	<ul style="list-style-type: none">practicing self-compassion through positive self-talk, and self-care.taking actions to alleviate pain and sufferingdisplaying genuine care, empathy, and active listening

Health professionals and caregivers can support and promote psychological well-being in various ways (as listed in Table 2). Gratitude involves regularly writing reflective journals to focus on what we have rather than what we lack. It is about noticing and appreciating everyday tasks and every small achievements—and sometimes, making comparisons with those who are less fortunate—to help cultivate a grateful mindset (Panjwani & Revenson, 2020). For people living with chronic conditions such as CHD, it can be helpful to focus on what they can still do, rather than what they cannot. Patients can also benefit from listening to or reading inspiring stories of gratitude and nurture positive relationships in their lives. Resilience can be built by healthcare professionals, primary caregivers, and individuals by authentically encouraging patients to stay optimistic. This can be done by helping them

find a sense of purpose and setting goals, and by separating the illness from the person. Additionally, individuals can be assisted in gaining mastery and control over their illness to manage and alleviate pain. It is important to encourage patients to see their own ability, focus on their individual strength, and autonomy to cope with the illness. To cultivate compassion in patients, it is important to emphasize the practice of self-compassion. This can be achieved through positive self-talk, prioritizing self-care, avoiding self-criticism, and choosing to be kinder to oneself. Acts of compassion in patients can be nurtured through modeling. Health professionals and primary caregivers can demonstrate compassion in various ways to help their patients model compassionate behaviors. This includes actively engaging in attentive listening and observing patients' needs, providing comprehensive recovery,

healing, and post-treatment care, showing respect for patients' individual preferences, displaying genuine understanding and empathy toward patients through nonverbal communication, and offering counseling and advocacy support to patients in need. By exercising these compassionate behaviors, healthcare professionals and primary caregivers can create a positive and supportive environment that can contribute to the overall healing process of their patients (Baguley et al., 2022). They may also conduct workshops and awareness programs to foster compassion in patients, and involve them in a larger project to make a meaningful contribution.

Epilogue

Taken as a whole, this article concludes that resilience, gratitude, and compassion can play an important role in the lives of individuals to cope with and adapt to CHD and other cardiovascular diseases.

References

1. American Heart Association. (2023, October 25). About congenital heart defects. <https://www.heart.org/en/health-topics/congenital-heart-defects/about-congenital-heart-defects>
2. Adams, D., & Dahdah, M. (2016). Coping and adaptive strategies of traumatic brain injury survivors and primary caregivers. *NeuroRehabilitation*, 39(2), 223–237. DOI: <https://doi.org/10.3233/nre-161353>
3. Babić, R., Babić, M., Rastović, P., Ćurlin, M., Šimić, J., Mandić, K., & Pavlović, K. (2020). Resilience in health and illness. *Psychiatr Danub*, 32(Suppl 2), 226–232. <https://pubmed.ncbi.nlm.nih.gov/32970640/>
4. Baguley, S. I., Pavlova, A., & Consedine, N. S. (2022). More than a feeling? What does compassion in healthcare 'look like' to patients? *Health Expectations*, 25(4), 1691–1702. DOI: <https://doi.org/10.1111/hex.13512>
5. Brida, M., Lovrić, D., Griselli, M., Gil, F. R., & Gatzoulis, M. A. (2022). Heart failure in adults with congenital heart disease. *International Journal of Cardiology*, 357, 39–45. DOI: <https://doi.org/10.1016/j.ijcard.2022.03.018>
6. Creswell, J. W., & Poth, C. N. (2017). Qualitative Inquiry and research design : choosing among five approaches. (4th edition.). SAGE Publications. https://books.google.co.in/books/about/Qualitative_Inquiry_and_Research_Design.html?id=DLbBDQAAQBAJ&redir_esc=y
7. Crossland, D. S., Van De Bruaene, A., Silversides, C. K., Hickey, E. J., & Roche, S. L. (2019). Heart failure in adult congenital heart disease: From advanced therapies to End-of-Life care. *Canadian Journal of Cardiology*, 35(12), 1723–1739. DOI: <https://doi.org/10.1016/j.cjca.2019.07.626>
8. Davidr. (2021, March 25). Elevate your happiness using positive reappraisal. Pattison Professional Counseling and Mediation Center. <https://www.ppcfl.com/blog/elevate-your-happiness-using-positive-reappraisal/>
9. Dhanabhakym, M., & Sarath, M. (2023). Psychological Wellbeing: Asystematic Literature Review. *International Journal of Advanced Research in Science, Communication and Technology*, 3(1), 603–607. DOI: <https://doi.org/10.48175/ijarset-8345>
10. Diller, G., Enders, D., Lammers, A. E., Orwat, S., Schmidt, R., Radke, R., Gerss, J., De Torres Alba, F., Kaleschke, G., Bauer, U., Marschall, U., & Baumgartner, H. (2021). Mortality and morbidity in patients with congenital heart disease hospitalised for viral pneumonia. *Heart (London. 1996)*, 107(13), 1069–1076. DOI: <https://doi.org/10.1136/heartjnl-2020-317706>
11. Eldh, A. C., Årestedt, L., & Berterö, C. (2020). Quotations in qualitative studies: reflections on constituents, custom, and purpose. *International Journal of Qualitative Methods*, 19. DOI: <https://doi.org/10.1177/1609406920969268>
12. Finlay-Jones, A., Boggiss, A., Serlachius, A. (2023). Self-Compassion and Chronic Medical Conditions. In A. Finlay-Jones, K. Bluth, K. Neff, (Eds.). *Handbook of Self-Compassion. Mindfulness in Behavioral Health*. (pp. 329–346). DOI: https://doi.org/10.1007/978-3-031-22348-8_19
13. Gallagher, S., Creaven, A., Howard, S., Ginty, A. T., & Whittaker, A. C. (2021). Gratitude, social support and cardiovascular reactivity to acute psychological stress. *Biological Psychology*, 162, DOI: <https://doi.org/10.1016/j.biopsycho.2021.108090>
14. Hays, L. (2015). Transition to adult Congenital heart Disease care: a review. *Journal of Pediatric Nursing*, 30(5), e63–e69. [https://www.pediatricnursing.org/article/S0882-5963\(15\)00031-7/abstract](https://www.pediatricnursing.org/article/S0882-5963(15)00031-7/abstract)
15. Iyer, P. U., Moreno, G. E., Caneo, L. F., Faiz, T., Shekerdeman, L. S., & Iyer, K. S. (2017). Management of late presentation congenital heart disease. *Cardiology in the Young*, 27(S6), S31–S39. DOI: <https://doi.org/10.1017/s1047951117002591>
16. Janoušek, J., & Kubaš, P. (2016). Cardiac resynchronization therapy in congenital heart disease. *Herzschrittmachertherapie & Elektrophysiologie (Print)*, 27(2), 104–109. DOI: <https://doi.org/10.1007/s00399-016-0433-7>
17. Jans-Beken, L., Jacobs, N., Janssens, M., Peeters, S., Reijnders, J., Lechner, L., & Lataster, J. (2019). Gratitude and health: An updated review. *The Journal of Positive Psychology*, 15(6), 743–782. DOI: <https://doi.org/10.1080/17439760.2019.1651888>
18. Jenkinson, A., & Cantrell, M. A. (2017). Inner strength in women with chronic illness. *Chronic Illness*, 13(2), 100–116. DOI: <https://doi.org/10.1177/1742395316664961>
19. Jin, Y., Bhattarai, M., Kuo, W., & Bratzke, L. C. (2022). Relationship between resilience and self-care in people with chronic conditions: A systematic review and meta-analysis. *Journal of Clinical Nursing*, 32(9–10), 2041–2055. DOI: <https://doi.org/10.1111/jocn.16258>
20. Karpawich, P. P., & Chubb, H. (2023). Indications for Cardiac Resynchronization Therapy in Patients with Congenital Heart Disease. *Cardiac Electrophysiology Clinics*, 15(4), 433–445. DOI: <https://doi.org/10.1016/j.ccep.2023.07.005>
21. Kerry, N., Chhabra, R., & Clifton, J. D. W. (2023). Being thankful for what you have: A Systematic Review of evidence for the Effect of gratitude on life satisfaction.

- Psychology Research and Behavior Management, 16, 4799–4816.
DOI: <https://doi.org/10.2147/PRBM.S372432>
22. Kubzansky, L. D., Huffman, J. C., Boehm, J. K., Hernandez, R., Kim, E. S., Koga, H. K., Feig, E. H., Lloyd-Jones, D. M., Seligman, M. E. P., & Labarthe, D. R. (2018). Positive Psychological Well-Being and Cardiovascular disease : JACC Health Promotion Series. *Journal of the American College of Cardiology*, 72(12), 1382–1396.
DOI: <https://doi.org/10.1016/j.jacc.2018.07.042>
 23. LeMond, L., Mai, T., Broberg, C. S., Muralidaran, A., & Burchill, L. J. (2015). Heart failure in adult congenital heart disease: Nonpharmacologic Treatment Strategies. *Cardiology Clinics*, 33(4), 589–598.
DOI: <https://doi.org/10.1016/j.ccl.2015.07.004>
 24. Leusveld, E. M., Kauling, R. M., Geenen, L. W., & Roos-Hesselink, J. W. (2020). Heart failure in congenital heart disease: management options and clinical challenges. *Expert Review of Cardiovascular Therapy*, 18(8), 503–516. DOI: <https://doi.org/10.1080/14779072.2020.1797488>
 25. Liu, T., Jackson, A. C., & Menahem, S. (2023). Adolescents and adults with congenital heart disease: Why are they lost to Follow-Up? *World Journal for Pediatric and Congenital Heart Surgery*, 14(3), 357–363.
DOI: <https://doi.org/10.1177/21501351221149897>
 26. Lloyd-Jones, D. M., Allen, N. B., Anderson, C. A., Black, T., Brewer, L. C., Foraker, R. E., Grandner, M., Lavretsky, H., Perak, A. M., Sharma, G., & Rosamond, W. (2022). Life's Essential 8: Updating and enhancing the American Heart Association's construct of cardiovascular health: a Presidential advisory from the American Heart Association. *Circulation*, 146(5).
DOI: <https://doi.org/10.1161/cir.0000000000001078>
 27. Lossnitzer, N., Wagner, E., Wild, B., Frankenstein, L., Rosendahl, J., Leppert, K., Herzog, W., & Schultz, J. H. (2014). Resilience in chronic heart failure. *Deutsche Medizinische Wochenschrift*, 139(12), 580–584.
DOI: <https://doi.org/10.1055/s-0034-1369862>
 28. Lumsden, M. R., Smith, D. M., & Wittkowski, A. (2019). Coping in Parents of Children with Congenital Heart Disease: A Systematic Review and Meta-synthesis. *Journal of Child and Family Studies*, 28(7), 1736–1753.
DOI: <https://psycnet.apa.org/doi/10.1007/s10826-019-01406-8>
 29. Meller, C. H., Grinenco, S., Aiello, H., Córdoba, A., Sáenz-Tejera, M. M., Marantz, P., & Otaño, L. (2020). Congenital heart disease, prenatal diagnosis and management. *Archivos Argentinos De Pediatría*, 118(2).
DOI: <https://doi.org/10.5546/aap.2020.eng.e149>
 30. Moos, R.H., & Holahan, C.J. (2007). Adaptive Tasks and Methods of Coping with Illness and Disability. In E. Martz, & H. Livneh (Eds.), *Coping with Chronic Illness and Disability*. (pp. 107–126). Springer eBooks.
DOI: https://doi.org/10.1007/978-0-387-48670-3_6
 31. Moss-Morris, R. (2013). Adjusting to chronic illness: Time for a unified theory. *British Journal of Health Psychology*, 18(4), 681–686. DOI: <https://doi.org/10.1111/bjhp.12072>
 32. Neff, K. D. (2023). Self-Compassion: theory, method, research, and intervention. *Annual Review of Psychology*, 74(1), 193–218. DOI: <https://doi.org/10.1146/annurev-psych-032420-031047>
 33. Packer, M. (2016). Unbelievable folly of clinical trials in heart failure : The Inconvenient Truth About How Investigators and Guidelines Weigh Evidence. *Circulation. Heart Failure*, 9(4).
DOI: <https://doi.org/10.1161/circheartfailure.116.002837>
 34. Panjwani, A. A., & Revenson, T. A. (2020). Coping with Chronic Illness. In K. Sweeny, M. L. Robbins, & L. M. Cohen (Eds.), *The Wiley Encyclopedia of Health Psychology*. (pp. 61–70). *Wiley online library*.
DOI: <https://doi.org/10.1002/9781119057840.ch51>
 35. Pelosi, C., Kauling, R. M., Cuypers, J. A. A. E., Utens, E. M. W. J., Van Den Bosch, A. E., Van Der Heide, A., Legerstee, J. S., & Roos-Hesselink, J. W. (2023). Life expectancy and end-of-life communication in adult patients with congenital heart disease, 40–53 years after surgery. *European Heart Journal Open*, 3(4).
DOI: <https://doi.org/10.1093/ehjopen/oead067>
 36. Perez-Bret, E., Altisent, R., & Rocafort, J. (2016). Definition of compassion in healthcare: a systematic literature review. *International Journal of Palliative Nursing*, 22(12), 599–606.
DOI: <https://doi.org/10.12968/ijpn.2016.22.12.599>
 37. Ryff, C. D. (1989a). Beyond Ponce de Leon and Life Satisfaction: New Directions in Quest of Successful Ageing. *International Journal of Behavioral Development*, 12(1), 35–55.
DOI: <https://doi.org/10.1177/016502548901200102>
 38. Ryff, C. D. (1989b). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57(6), 1069–1081. DOI: <https://psycnet.apa.org/doi/10.1037/0022-3514.57.6.1069>
 39. Ryff, C. D. (2013). Psychological Well-Being Revisited: Advances in the science and practice of Eudaimonia. *Psychotherapy and Psychosomatics*, 83(1), 10–28.
DOI: <https://doi.org/10.1159/000353263>
 40. Ryff, C. D. (2017). Eudaimonic well-being, inequality, and health: Recent findings and future directions. *International Review of Economics*, 64(2), 159–178.
DOI: <https://doi.org/10.1007/s12232-017-0277-4>
 41. Scott, M., & Neal, A. E. (2021). Congenital heart disease. *Primary Care*, 48(3), 351–366.
DOI: <https://doi.org/10.1016/j.pop.2021.04.005>
 42. Shabani, M., Taheri-Kharamah, Z., Saghaipour, A., Ahmari-Tehran, H., Yoosefee, S., & Amini-Tehrani, M. (2023). Resilience and spirituality mediate anxiety and life satisfaction in chronically ill older adults. *BMC Psychology*, 11(1). DOI: <https://doi.org/10.1186/s40359-023-01279-z>
 43. Singer, T., & Klimecki, O. M. (2014). Empathy and compassion. *Current Biology*, 24(18), R875–R878.
DOI: <https://doi.org/10.1016/j.cub.2014.06.054>
 44. Steinhorn, D. M., Din, J., & Johnson, A. (2017). Healing, spirituality and integrative medicine. *Annals of Palliative Medicine*, 6(3), 237–247.

- DOI: <https://doi.org/10.21037/apm.2017.05.01>
45. Sun, R., Liu, M., Lü, L., Zheng, Y., & Zhang, P. (2015). Congenital heart disease: causes, diagnosis, symptoms, and treatments. *Cell Biochemistry and Biophysics*, 72(3), 857–860. DOI: <https://doi.org/10.1007/s12013-015-0551-6>
46. Taylor, S. E. (1983). Adjustment to threatening events: A theory of cognitive adaptation. *American Psychologist*, 38(11), 1161–1173.
DOI: <https://psycnet.apa.org/doi/10.1037/0003-066X.38.11.1161>
47. Walker, C., & Peterson, C. L. (2018). A sociological approach to resilience in health and illness. *Journal of Evaluation in Clinical Practice*, 24(6), 1285–1290.
DOI: <https://doi.org/10.1111/jep.12955>
48. Warrington, E. K., Cipolotti, L., & McNeil, J. (1993). Attentional dyslexia: A single case study. *Neuropsychologia*, 31(9), 871–885.
DOI: [https://doi.org/10.1016/0028-3932\(93\)90145-p](https://doi.org/10.1016/0028-3932(93)90145-p)
49. Weinert, C., Cudney, S., & Spring, A. (2008). Evolution of a conceptual model for adaptation to Chronic illness. *Journal of Nursing Scholarship*, 40(4), 364–372.
DOI: <https://doi.org/10.1111/j.1547-5069.2008.00241.x>
50. Windle, G. (2010). What is resilience? A review and concept analysis. *Reviews in Clinical Gerontology*, 21(2), 152–169. DOI: <https://doi.org/10.1017/S0959259810000420>

Appendix 1: RYFF SCALES OF PSYCHOLOGICAL WELL-BEING (54-Item)

The following set of statements deals with how you might feel about yourself and your life. Please remember that there are neither right nor wrong answers. Circle the number that best describes the degree to which you agree or disagree with each statement.	Strongly Disagree	Disagree	Disagree Slightly	Agree Slightly	Agree	Strongly Agree
Most people see me as loving and affectionate.	1	2	3	4	5	6
I am not afraid to voice my opinion, even when they are in opposition to the opinions of most people.	1	2	3	4	5	6
In general, I feel I am in charge of the situation in which I live.	1	2	3	4	5	6
I am not interested in activities that will expand my horizons.	1	2	3	4	5	6
I live life one day at a time and don't really think about the future.	1	2	3	4	5	6
When I look at the story of my life, I am pleased with how things have turned out.	1	2	3	4	5	6
Maintaining close relationships has been difficult and frustrating for me.	1	2	3	4	5	6
My decisions are not usually influenced by what everyone else is doing.	1	2	3	4	5	6
The demands of everyday life often get me down.	1	2	3	4	5	6
I don't want to try new ways of doing things—my life is fine the way it is.	1	2	3	4	5	6
I tend to focus on the present, because the future always brings me problems.	1	2	3	4	5	6
In general, I feel confident and positive about myself.	1	2	3	4	5	6
I often feel lonely because I have few close friends with whom to share my concerns.	1	2	3	4	5	6
I tend to worry about what other people think of me	1	2	3	4	5	6
I do not fit very well with the people and the community around me.	1	2	3	4	5	6
I think it is important to have new experiences that challenge how you think about yourself and the world.	1	2	3	4	5	6
My daily activities often seem trivial and unimportant to me.	1	2	3	4	5	6
I feel like many of the people I know have gotten more out of life than I have.	1	2	3	4	5	6
I enjoy personal and mutual conversations with family members or friends.	1	2	3	4	5	6

Being happy with myself is more important to me than having others approve of me.	1	2	3	4	5	6
I am quite good at managing the many responsibilities of my daily life.	1	2	3	4	5	6
When I think about it, I haven't really improved much as a person over the years.	1	2	3	4	5	6
I don't have a good sense of what it is I'm trying to accomplish in my life.	1	2	3	4	5	6
I like most aspects of my personality.	1	2	3	4	5	6
I don't have many people who want to listen when I need to talk.	1	2	3	4	5	6
I tend to be influenced by people with strong opinions.	1	2	3	4	5	6
I often feel overwhelmed by my responsibilities.	1	2	3	4	5	6
I have a sense that I have developed a lot as a person over time.	1	2	3	4	5	6
I used to set goals for myself, but that now seems a waste of time.	1	2	3	4	5	6
I made some mistakes in the past, but I feel that all in all everything has worked out for the best.	1	2	3	4	5	6
It seems to me that most other people have more friends than I do.	1	2	3	4	5	6
I have confidence in my opinions, even if they are contrary to the general consensus.	1	2	3	4	5	6
I generally do a good job of taking care of my personal finances and affairs.	1	2	3	4	5	6
I do not enjoy being in new situations that require me to change my old familiar ways of doing things.	1	2	3	4	5	6
I enjoy making plans for the future and working to make them a reality.	1	2	3	4	5	6
In many ways, I feel disappointed about my achievements in my life.	1	2	3	4	5	6
People would describe me as a giving person, willing to share my time with others.	1	2	3	4	5	6
It's difficult for me to voice my own opinions on controversial matters.	1	2	3	4	5	6
I am good at juggling my time so that I can fit everything in that needs to be done	1	2	3	4	5	6
For me, life has been a continuous process of learning, changing, and growth.	1	2	3	4	5	6
I am an active person in carrying out the plans I set for myself.	1	2	3	4	5	6
My attitude about myself is probably not as positive as most people feel about themselves.	1	2	3	4	5	6
I have not experienced many warm and trusting relationships with others.	1	2	3	4	5	6
I often change my mind about decisions if my friends or family disagree.	1	2	3	4	5	6
I have difficulty arranging my life in a way that is satisfying to me.	1	2	3	4	5	6
I gave up trying to make big improvements or change in my life a long time ago.	1	2	3	4	5	6

Some people wander aimlessly through life, but I am not one of them.	1	2	3	4	5	6
The past has its ups and downs, but in general, I wouldn't want to change it.	1	2	3	4	5	6
I know that I can trust my friends, and they know they can trust me.	1	2	3	4	5	6
I judge myself by what I think is important, not by the values of what others think is important.	1	2	3	4	5	6
I have been able to build a home and a lifestyle for myself that is much to my liking.	1	2	3	4	5	6
There is truth to the saying that you can't teach an old dog new tricks.	1	2	3	4	5	6
I sometimes feel as if I've done all there is to do in life.	1	2	3	4	5	6
When I compare myself to friends and acquaintances, it makes me feel good about who I am.	1	2	3	4	5	6

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