

Psychological Hardiness and Self-Leadership: Leading Yourself to Effective Stress Coping

Andrew J. Sidwell, D.E.L.¹

Abstract

The purpose of this proposal is to examine the theories of psychological hardiness and self-leadership side by side. The theories appear to be complementary constructs, grounded in very similar psychological theories and constructs. Furthermore, the interplay between the two theories could strengthen the efficacy of each theory, beyond what already exists independently. A person could use self-leadership to lead themselves to develop a hardy disposition effectively. The basic principles of hardiness and self-leadership share enough foundational elements to be similar yet distinct theories, complementing each other in meaningful ways. However, the primary limitation of this paper is its theoretical nature. Therefore, future research should shed light on the possibilities presented herein.

Keywords: self-leadership, psychological hardiness, stress coping

Introduction

The rise of the internet and globalization led to an interconnected world via improved means of communication. Our ability to connect increased even more as communications technology refined itself and strengthened its networks. Social media of all kinds emerged and rapidly took charge in the communications race, allowing individuals to share real-time thoughts, opinions, and pictures on a nearly continual basis. Despite our supposed increase in connectedness, depression and anxiety have steadily risen, along with suicide rates. For example, the National Institute for Mental Health (NIMH) statistics show that suicide ranks tenth on the list of causes of death in the US, increasing 28% between 1999 and 2016. Anxiety and depression rates also climbed during the same period despite prescription anti-depression medication use rising by an estimated 65% simultaneously, according to the Center for Disease Control. The CDC suggests that one out of every eight Americans over the age of 12 takes an anti-depressant. Adding to these statistics is the unknown number of Americans self-medicating with alcohol, over-the-counter medication, and artificial entertainment.

The present data offer a few paradoxes. Humans are social animals. If we are more connected, why do more people cite feeling alone and depressed? Furthermore, the data reflects an increase in prescribed anti-depressant medications, which should reduce the number of individuals with depression and anxiety. This is not the case. Indeed, the opposite appears to be true. Despite a virtually connected world and an increase in prescribed anti-depressants, the rate of suicide and depression continues to rise across several demographics, especially teenagers. The CDC data shows that suicide is the second leading cause of death for those between 10-24 years old and that many people who commit suicide lack a clinical mental health diagnosis.

These statistics suggest other causal factors that might contribute to the rise in depression and suicide rates. One suggested reason is a misconstrued sense of “happiness” as the pursuit of pleasure and the avoidance of pain. Modern society seems to misinterpret Epicurus’ ancient

¹ University of Charleston, West Virginia, United States

philosophical teachings of avoiding pain and embracing pleasure as a material and indulgent philosophy. More accurately, Epicurus suggested that happiness is being free from not being enslaved by external desires and accepting that death comes to us all, predating the concept of ontological anxiety by 2,000 years. Epicurus' suggestion that death comes to us all and therefore should not be feared provides a challenging response to the notion of "death anxiety" as a cause of stress for many people (Wong, Carreno, & Gongora Oliver, 2018). Epicurus indicated that death does not happen to us because where it is, we are not. Many people struggle with this notion. Indeed, death anxiety contributes to countless mental health disorders (Wong, 2007; Wong et al., 2018). From an existential viewpoint, what this interpretation suggests is that modernity confuses happiness with material gain and indulgence rather than developing existential courage through suffering and finding meaning in the life we have, rather than the life we desire to have (Wong & Bowers, 2019).

Wong and Bowers (2019) propose a "two-pronged" approach to living a meaningful life, framing this as part of the "new wave of positive psychology". First, a person should accept their reality for what it is and develop the capacity to "overcome" or accept the facticity that life is suffering and can be stressful. However, it is our relationship with this suffering that leads to the amount of stress we feel. Next, a person can strive to develop "mature happiness" and grow, despite the vicissitudes of society. In other words, part of the increase in suicide and depression might be due to the relationship many people have with facticity. Facticity is an existential term for a "given" (Maddi, 1987) or the reality we face.

Another potential partial cause of the cited increases in depression and suicide might be ineffective stress coping strategies or the lack of hardy self-leadership. Hardiness is a constellation of attitudes designed to allow an individual to grow and thrive despite stressful circumstances (Maddi, 2006). Self-leadership is a normative, descriptive theory that provides an individual with a cognitive and behavioural framework designed to allow them to interact with their reality more effectively (Houghton, Neck, & Manz, 2003). The author is not suggesting that a lack of hardiness or self-leadership causes suicide and depression. Rather, to combat the rises in suicide and depression, both hardiness and self-leadership might provide additional means a person can use to develop their sense of meaning in life and, by extension, apply Wong's two-pronged approach to overcome their perception of what suffering entails by engaging in a blend of emotive, cognitive, and behavioural practices.

The purpose of this theoretical essay is to examine the mutually supportive aspects of self-leadership theory and psychological hardiness as a means of stress coping and living a self-led life. The essay will consider hardiness and self-leadership independently before weaving them together in a series of propositions and implications for future research.

Psychological Hardiness

In 1982, Kobasa, Maddi, and Kahn published the results of a five-year longitudinal study examining the stress levels and subsequent health reports of 259 male upper- and mid-level managers based on a battery of tests and self-reported illnesses. The researchers determined that individuals with higher levels of commitment, challenge, and control had less stress and reported illnesses and superior stress coping attributes compared to those with lower levels of the same dispositions. In other words, Kobasa et al.'s research suggested that individuals higher in psychological hardiness coped more effectively with life stressors than those lower in hardiness, as measured by five separate tests and self-reported illnesses.

Thus, psychological hardiness appeared in the modern psychological lexicon. Hardiness is a superordinate construct supported by the three facets of commitment, challenge, and control (Bartone, Hystad, Eid, & Brevik, 2012). A person high in *commitment* places value on their life, believing it to be full of purpose and meaning. The *challenge* facet indicates a person with an adventurous spirit who enjoys new experiences and opportunities. A person with a sense of *control* is not a person that attempts to control external factors in their lives; rather, the hardy sense of control pertains to understanding what a person controls and what they don't, focusing internally rather than externally (Hystad, Eid, Laberg, & Bartone, 2011; Bartone et al., 2012).

When taken together, the hardy personality style is a way of being that suggests an individual is the master of their ship, running with the wind or setting their anchor as their resources dictate. In other words, a person high in hardiness and balanced across the three facets of challenge, commitment, and control understands facticity as a limiter and a creator of possibility, not mistaking one for the other (Maddi, 1987).

Since its introduction, hardiness has been shown to be an effective means of stress coping, stress moderating, and stress buffering. For example, Bartone et al. (2012) showed that US Soldiers higher in hardiness had less alcohol-related problems when compared to those lower in hardiness. Bartone (1999, 2000) also demonstrated that Gulf War Soldiers lower in hardiness were more susceptible to PTSD symptoms. The military-specific benefits of a hardy personality mirror the benefits of hardiness found in other, non-combat industries as well, including lawyers (Kobasa, 1982), executive leaders (Maddi & Kobasa, 1984), city bus drivers (Bartone, 1989), health assistance workers in a military zone (Bartone, Ursano, Wright, & Ingraham, 1989), nurse educators (Lambert & Lambert, 1993), Canadian nursing assistants (Harrison, Loiselle, Duquette, & Semenic, 2002), homesick study-abroad students (Harrison & Brower, 2011), and psychopaths in a general population prison setting (Sandvik, Hanson, Hystad, Johnsen, & Bartone, 2015), to name a few.

The research noted above demonstrates the robustness of hardiness as a stress coping strategy in a generally western context. Maddi and Harvey (2006) suggest that hardiness is philosophically and psychologically valid across cultures, arguing that the foundation of hardiness rests in existential psychology and the need for existential courage. From this perspective, hardiness transcends cultural borders by suggesting that, as humans, we continually attempt to seek meaning in our world, having to choose between the past (the known) and the future (the unknown), and that meaning is made based on the decisions we make in any given moment. Maddi and Harvey argue that a person with a hardy disposition routinely engages ontological courage (Tillich, 1952) by choosing the future and accepting the feeling of ontological anxiety that accompanies a journey into the unknown (Kierkegaard, 1843/1954).

Psychologically, hardiness has been studied and found effective in Turkish primary schools (Sezgin, 2009), in moderating nursing burnout in academia (Cam, 2001), and college student stress coping (Eksi, 2010). The studies identified herein represent the efficacy of hardiness in traditionally non-Western cultures, supporting Maddi and Harvey's (2006) argument that hardiness transcends culture.

Taken together, the current research shows that psychological hardiness is a widely accepted way of being that allows a person to practice effective stress coping. An individual balanced across the three C's of hardiness tends to remain engaged with life and those around them, look beyond an obstacle, and find meaning in their existence. Furthermore, a practitioner of hardy stress coping views life as a grand adventure, full of opportunities to learn and grow

through deepening their perspective and broadening their understanding of what is around and within them (Maddi, 2006).

Fundamentally, psychological hardiness suggests that a person shapes their perception of reality as it is, rather than as they'd like it to be. This view is in keeping with Wong and Bower's (2019) suggestion that a person embraces the facticity of life as having suffering. Part of a person's ability to embrace suffering is their level of self-efficacy.

Self-efficacy is a person's belief in their ability to accomplish a given task or to perform to a certain standard (Bandura, 1977, 2010). Self-efficacy is both general and domain-specific. Thus, self-efficacy theory suggests that a person's ability to cope with stress effectively might come down to how deeply they believe they have the resources to do so. Furthermore, self-efficacy, when combined with hardiness, suggests that a person should have the resources and the attitudes to cope with stress effectively.

Self-Leadership

Self-leadership emerged in 1983 as self-management in a seminal paper written by Dr. Charles Manz. In this paper, Manz suggested that, first and foremost, we as people must learn to lead ourselves so that we can lead others effectively. Furthermore, Manz suggested that all people practice some form of self-leadership; some people are just better at it than others.

The common definition of self-leadership is a method of self-influence a person employs to achieve a specific outcome or way of being (Manz, 1986; Neck & Houghton, 2006). Based on this definition, Manz's suggestion about varying degrees of effective self-leadership across people implies that self-leadership is a deliberate process supported by a person's way of life, linked to their sense of identity (Sidwell, 2018).

Like hardiness, self-leadership is a superordinate theory supported by three facets of constructive thought patterns, behavioural strategies, and a sense of natural rewards (Neck & Houghton, 2006). *Constructive thought patterns* resemble Stoic principles in that the focus is on controlling one's thoughts and perceptions using techniques such as visualization and positive self-talk (Furtner, Rauthmann, & Sachse, 2015). *Behavioural strategies* are self-regulatory, applying self-observation to increase self-awareness and self-reflection as a means of creating behavioural patterns that move an individual closer to a specific outcome (Carver & Scheier, 1998; Neck & Houghton, 2006). Developing *a sense of natural rewards* also mirrors Stoic doctrine in that an individual can choose to see any situation or circumstance as rewarding by deriving a sense of meaning rather than dwelling on the mundane or disagreeable aspects of something (Godwin, Neck, & Houghton, 1999).

Taken together, the three sub-facets of self-leadership represent a constellation of cognitive processes and behavioural patterns a person can apply to attain a particular outcome. Furthermore, the self-leadership theory suggests that any person can successfully apply the strategies in their lives, much in the same manner as psychological hardiness.

Self-efficacy also plays a central role in self-leadership, according to some research (e.g., Hans & Gupta, 2018; Lee, 2015; Lee & Kim, 2016; Singh, Kumar, & Puri, 2017). Self-efficacy contributes to an individual's psychological resources and belief in their capacity to achieve a specific outcome, much in the same manner as with hardiness. In other words, self-efficacy provides the self-belief that a person can lead themselves to goal attainment.

Research into self-leadership theory over the last 35 years supports the efficacy of the theory. For example, Amundsen and Martinsen (2015) showed that self-leadership theory is

empowering, increasing job satisfaction, work performance, and creativity in team members. This finding supported conceptual suggestions provided by Houghton and Jinkerson (2004).

Likewise, Carmeli, Meitar, and Weisberg (2006) determined that self-leadership contributes to innovative work behaviours. Additionally, the efficacy of self-leadership has been shown across multiple domains, including entrepreneurial ventures (D'Intino, Goldsby, Houghton, & Neck, 2007; Georgianna, Müller, Schermelleh-Engel, & Petersen, 2016), exercise behaviour and commitment (Bum, 2018), reducing work-related stress (Lovelace, Manz, & Alves, 2007), the military (Lucke & Furtner, 2015; Neck & Manz, 1999), nursing (Chang, Cho, Kim, Lee, & Seomun, 2006), and the IT field (Stagnaro & Piotrowski, 2013).

What these studies show is the pattern of effective behaviours that occurs when people engage in self-leadership as a deliberate process. Meaning, self-leadership is a deliberative process that a person engages in consciously, developing habits through experiences, continually refining and improving their processes along the way. The latter points suggest that a critical component of self-leadership development is a formative experience and the self-reflection after a formative experience required to learn and grow.

Much of the self-leadership research examines how a person uses constructive thought patterns, behavioural strategies, and natural rewards to achieve an external outcome, be it in their professional or personal lives. However, almost no research examines how a person can lead themselves to transcend themselves. Meaning, a person can use the same self-leadership strategies to attain a sense of self-transcendence, if this is their goal.

Wong (2016a) suggests a series of paradoxical arguments that might contribute to self-transcendence. Wong's position is that self-transcendence is as much about contributing to others as it is to developing ourselves. Self-leadership offers a similar position with the theory of superleadership (Houghton, Neck, & Manz, 2003; Manz & Sims, 1991). Superleadership focuses on empowering others to lead themselves much in the same manner that Wong suggests we transcend ourselves to aid others in doing the same. Furthermore, both theories use self-awareness as a foundational component.

Self-leadership emphasizes the need to first become self-aware as a means of moving towards effective self-leadership. Likewise, Wong (2016a, 2016b) argues that self-awareness is central to the process of self-transcendence. A person occupied with "lower" pursuits might lack the self-awareness required to alter their behaviour and begin to pursue a more meaningful existence (Wong, 1998, 2010).

This latter observation brings the discussion back to the value of self-leadership as a stress coping mechanism. Self-leadership in the leadership literature focuses on behaviours related to goal attainment, while very little research suggests that self-leadership might also apply to creating constructive thought patterns and behavioural strategies aimed at overcoming existential anxiety and developing existential courage. However, there is promise to this approach, considering how similar self-leadership in this regard is to Wong's model of self-transcendence.

Theoretical Commonalities

Psychological hardiness and self-leadership share some commonalities at the theoretical level. First, both rely on self-efficacy to attain desired outcomes. That is to say, a person must first believe they are capable of coping with a situation or leading themselves along the desired path. This latter point also suggests that self-transcendence might be part of the equation because a

person must first become self-aware and be willing to part ways with habits, thought patterns, and behaviours that might be holding them back or causing them stress (Wong, 2016a).

Furthermore, personal responsibility plays a role in the efficacy of hardiness and self-leadership. Maddi (2006) suggests that part of effective stress coping is understanding the role of the individual in creating or reducing perceptual stress. Likewise, Houghton and Neck (2006) offer that self-leadership is about being responsible for your outcomes, regardless of what they might be. In both instances, the role of assuming responsibility for yourself (when warranted) contributes to psychological health. Responsibility is one of the four critical components an individual requires to develop personal meaning in their life (McDonald, Wong, & Gingras, 2012).

Lastly, both self-leadership and psychological hardiness suffer from an existential paradox. Each theory focuses on the self yet requires others for validation, like self-transcendence (Wong, 2016a). What this suggests is that, in theory, neither of these theories exists in a vacuum and that each must address the existential paradox through social support.

Psychological hardiness provides a well-defined social support mechanism (see Maddi, 2008), while self-leadership only loosely addresses the role of others in the development of self. Social support comes in many forms. Whether social support is “good” or “bad” comes from societal norms. For example, a gang or fraternity might provide social support based on normative behaviours relevant to each social group. Conversely, churchgoers find social support in the practice of their spirituality when attending church. Both instances use similar psychological mechanisms, yet societal norms judge one as bad and the other as good.

Hardiness suggests that hardy social support challenges the person to become a better version of themselves (Maddi, 2002). Likewise, some research into self-leadership suggests that surrounding yourself with like-minded individuals contributes to effective self-leadership as measured by goal attainment (e.g., Sidwell, 2018; Sidwell & Perry, 2019).

Propositions

The discussion thus far has led to the development of five propositions addressing how self-leadership and hardiness share meaning and theoretical connections.

Proposition 1: Improving Psychological Hardiness Will Improve Self-Leadership and Vice Versa

Both hardiness and self-leadership suggest that individuals create a system of cognitive and behavioural approaches designed to address the facticity of their lives effectively. Hardiness and self-leadership suggest that an individual can create a meaningful, rewarding environment that moves them towards a particular outcome by applying the appropriate thought patterns and shaping their behaviours in such a manner that accepts the facticity of a situation and perceives opportunities where others might see roadblocks. Improving hardiness or self-leadership will enhance the presence of the other theory and vice versa.

Proposition 2: Enhancing Self-Efficacy Will Enhance Both Hardiness and Self-Leadership

Self-efficacy is the belief a person has in their capacity to accomplish a task, influence a result, or create an outcome (Bandura, 2010). Prussia, Anderson, and Manz (1998) suggest that self-efficacy mediates the role of self-leadership on work outcomes, indicating that the higher a

person's self-efficacy is, the more likely they will use effective self-leadership strategies to achieve their goals. Almedom (2005) indicates that self-efficacy and hardiness are complementary, connected constructs that allow a person to overcome a traumatic loss. Taken together, these studies indicate a strong, foundational relationship between self-efficacy, hardiness, and self-leadership. Therefore, enhancing self-efficacy should enhance both psychological hardiness and self-leadership.

Proposition 3: Social Support is Critical to Forming a Hardy Disposition and Effective Self-Leadership Habits

Hardy coping strategies include a social support component by design (Kobasa, Maddi, Puccetti, & Zola, 1985). Hardy social support significantly improves a person's ability to cope with stress and cultivate a hardy disposition (Boyle, Grap, Younger, & Thomby, 1991; King, King, Fairbank, Keane, & Adams, 1998). Likewise, some research suggests that social support enhances self-leadership behaviours (e.g., Chiu, Chung, Woo, & Ho, 2009; Lundberg, McIntire, & Creasman, 2008). When combined, these studies suggest that the social network a person establishes can enhance or detract from their hardiness and self-leadership.

Proposition 4: A Person's Relationship with Facticity Influences their Level of Self-Leadership and Hardiness

How a person determines what their facticity is and what the implications of this perception might mean could shape their relationship with reality. A person higher in hardiness tends to differentiate what is facticity and what is a possibility more accurately than a person lower in hardiness (Maddi, 1987). Furthermore, a person's level of hardiness and self-leadership often determines whether they view a circumstance as a limiter or enabling possibility. Therefore, this proposition suggests that a person higher in hardiness and self-leadership will more accurately perceive facticity and possibility, and this perception will skew towards possibility more strongly based on their level of hardiness and self-leadership.

Proposition 5: Hardiness and Self-Leadership Levels Will Correlate with One Another

Psychological hardiness and self-leadership share many similarities. Each theory represents a constellation of attitudes that create a way of interacting with the world deliberately. Both theories also share the foundational theory of self-efficacy in that a person high in hardiness believes they can influence outcomes in the same manner as a person high in self-leadership. Therefore, the theories should be complementary in that hardiness and self-leadership will correlate at the superordinate and facet levels, when measured quantitatively.

Implications for Future Research

The theoretical crossover provided here offers several implications for future research. First and foremost is the possibility to measure self-leadership and hardiness quantitatively in the same sample. Doing so would allow researchers to begin to understand how the theories might be mutually supporting and lay the foundation for a refined conceptual framework based on the results.

The sample population is broad. Self-leadership and hardiness show efficacy across demographics, professions, experiences, and cultures. Therefore, the more samples gathered, the more generalizable the results will be.

Additionally, conducting mixed methods and qualitative research into both theories simultaneously might provide a deeper understanding of how the theories shape a person's worldview. For example, some research suggests that social support and social networks contribute to or detract from hardiness and self-leadership. However, this suggestion is not something that can be measured quantitatively. Therefore, a mixed method or qualitative design would provide the how and why behind the quantitative data.

Additionally, crafting a study aimed at understanding the potentially reciprocal relationship between hardiness and self-leadership might shed light on the psychological factors at work in each theory. And, by extension, this type of study could also look at the moderating role of self-efficacy on each theory separately and together.

The most challenging proposition to study might be the relationship a person has with facticity because facticity is not a fixed target we can aim for. Indeed, Maddi (1987) suggests that this relationship is in a constant state of flux depending on any number of internal variables (i.e., psychological, emotional) and external factors (i.e., resources available, environmental influences). Therefore, a mixed method or qualitative study might be the ideal methods.

Limitations

The primary limiting factor of this research is its theoretical nature. Currently, no research exists directly examining hardiness and self-leadership together as complementary theories. This fact is a limitation because the propositions offered are only theoretical, not yet tested. This limitation might also be a possibility, in the spirit of this research.

Conclusion

From an existential psychological perspective, this theoretical paper suggests that self-leadership and hardiness could positively influence a person's ability to develop the existential courage required to cope with the existential stress that might be contributing to the increase in depression and suicide rates. However, more research is required.

References

- Almedom, A. M. (2005). Resilience, hardiness, sense of coherence, and posttraumatic growth: All paths leading to "light at the end of the tunnel"? *Journal of Loss and Trauma, 10*(3), 253-265. <https://doi.org/10.1080/15325020590928216>
- Amundsen, S., & Martinsen, Ø. L. (2015). Linking empowering leadership to job satisfaction, work effort, and creativity: The role of self-leadership and psychological empowerment. *Journal of Leadership & Organizational Studies, 22*(3), 304-323. <https://doi.org/10.1177/1548051814565819>
- Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. *Psychological Review, 84*(2), 191-215. <https://doi.org/10.1037/0033-295X.84.2.191>
- Bandura, A. (2010). Self-efficacy. In I. B. Weiner & W. E. Craighead (Eds.), *The Corsini encyclopedia of psychology: Vol. 4* (4th ed., p. 1534). Hoboken, NJ: Wiley.

- Bartone, P. T. (1989). Predictors of stress-related illness in city bus drivers. *Journal of Occupational Medicine, 31*(8), 657-663.
- Bartone, P. T. (1999). Hardiness protects against war-related stress in Army Reserve forces. *Consulting Psychology Journal: Practice and Research, 51*(2), 72-82.
<https://doi.org/10.1037/1061-4087.51.2.72>
- Bartone, P. T. (2000). Hardiness as a resiliency factor for United States Forces in the Gulf War. In J. M. Violanti, D. Paton, & C. Dunning (Eds.), *Posttraumatic stress intervention: Challenges, issues and perspectives* (pp. 115-133). Springfield, IL: Thomas.
- Bartone, P. T., Hystad, S. W., Eid, J., & Brevik, J. I. (2012). Psychological hardiness and coping style as risk/resilience factors for alcohol abuse. *Military Medicine, 177*(5), 517-524.
<https://doi.org/10.7205/MILMED-D-11-00200>
- Bartone, P. T., Ursano, R. J., Wright, K. M., & Ingraham, L. H. (1989). The impact of a military air disaster on the health of assistance workers. *Journal of Nervous and Mental Disease, 177*(6), 317-328. <http://www.hardiness-resilience.com/docs/milairdisaster.pdf>
- Boyle, A., Grap, M. J., Younger, J., & Thomby, D. (1991). Personality hardiness, ways of coping, social support and burnout in critical care nurses. *Journal of Advanced Nursing, 16*(7), 850-857. <https://doi.org/10.1111/j.1365-2648.1991.tb01767.x>
- Bum, C.-H. (2018). Relationships between self-leadership, commitment to exercise, and exercise adherence among sport participants. *Social Behavior & Personality, 46*(12), 1983-1995.
<https://doi.org/10.2224/sbp.7371>
- Çam, O. (2001). The burnout in nursing academicians in Turkey. *International Journal of Nursing Studies, 38*(2), 201-207. [https://doi.org/10.1016/S0020-7489\(00\)00051-1](https://doi.org/10.1016/S0020-7489(00)00051-1)
- Carmeli, A., Meitar, R., & Weisberg, J. (2006). Self-leadership skills and innovative behavior at work. *International Journal of Manpower, 27*(1), 75-90.
<https://doi.org/10.1108/01437720610652853>
- Carver, C. S., & Scheier, M. F. (1998). *On the self-regulation of behavior*. Cambridge, UK: Cambridge University Press.
- Chang, S. O., Cho, K. H., Kim, I. A., Lee, S. J., & Seomun, G. (2006). The relation between self-leadership and outcome of nursing practice. *Journal of Korean Academy of Nursing Administration, 12*(1), 151-158. <https://doi.org/10.11111/jkana.2015.21.5.575>
- Chiu, Y. L., Chung, R. G., Wu, C. S., & Ho, C. H. (2009). The effects of job demands, control, and social support on hospital clinical nurses' intention to turn over. *Applied Nursing Research, 22*(4), 258-263. <https://doi.org/10.1016/j.apnr.2008.02.006>
- D'Intino, R. S., Goldsby, M. G., Houghton, J. D., & Neck, C. P. (2007). Self-leadership: A process for entrepreneurial success. *Journal of Leadership & Organizational Studies, 13*(4), 105-120. <https://doi.org/10.1177/10717919070130040101>
- Eksi, H. (2010). Personality and coping among Turkish college students: A canonical correlation analysis. *Educational Sciences: Theory and Practice, 10*(4), 2159-2176.
<https://files.eric.ed.gov/fulltext/EJ919875.pdf>
- Furtner, M. R., Rauthmann, J. F., & Sachse, P. (2015). Unique self-leadership: A bifactor model approach. *Leadership, 11*(1), 105-125. <https://doi.org/10.1177/1742715013511484>
- Georgianna, S., Müller, G. F., Schermelleh-Engel, K., & Petersen, B. (2016). Entrepreneurs' job satisfaction and its relationship to super-leadership and self-leadership. *Journal of Research in Business, Economics and Management, 6*(3), 928-940.
<http://scitecresearch.com/journals/index.php/jrbem/article/view/821/565>

- Godwin, J. L., Neck, C.P., & Houghton, J. D. (1999). The impact of thought self-leadership on individual goal performance: A cognitive perspective. *The Journal of Management*, 18(2), 153-169. <https://doi.org/10.1177/1742715014543579>
- Hans, S., & Gupta, R. (2018). Job characteristics affect shared leadership: the moderating effect of psychological safety and perceived self-efficacy. *Leadership & Organization Development Journal*, 39(6), 730-744.
- Harrison, J. K., & Brower, H. H. (2011). The impact of cultural intelligence and psychological hardiness on homesickness among study abroad students. *Frontiers*, 21, 41-62. <https://files.eric.ed.gov/fulltext/EJ991042.pdf>
- Harrisson, M., Loiselle, C. G., Duquette, A., & Semenic, S. E. (2002). Hardiness, work support and psychological distress among nursing assistants and registered nurses in Quebec. *Journal of Advanced Nursing*, 38(6), 584-591. <https://doi.org/10.1046/j.1365-2648.2002.02225.x>
- Houghton, J. D., & Jinkerson, D. L. (2004). *Constructive thought strategies and job satisfaction: A preliminary examination*. Paper presented at the 2004 Western Academy of Management Conference, Ayleska, AK.
- Houghton, J. D., Neck, C. P., & Manz, C. C. (2003). Self-leadership and superleadership. In C. K. Pearce, & J. A. Conger (Eds.), *Shared leadership: Reframing the hows and whys of leadership* (pp. 123-140). Thousand Oaks, CA: Sage.
- Hystad, S. W., Eid, J., Laberg, J. C., & Bartone, P. T. (2011). Psychological hardiness predicts admission into Norwegian military officer schools. *Military Psychology*, 23(4), 381-389. <https://doi.org/10.1080/08995605.2011.589333>
- Kierkegaard, S. (1954). *Fear and trembling and the sickness unto death*. Garden City, NY: Doubleday Anchor. (Original work published 1843)
- King, L. A., King, D. W., Fairbank, J. A., Keane, T. M., & Adams, G. A. (1998). Resilience-recovery factors in post-traumatic stress disorder among female and male Vietnam veterans: Hardiness, postwar social support, and additional stressful life events. *Journal of Personality and Social Psychology*, 74(2), 420-434. <https://doi.org/10.1037/0022-3514.74.2.420>
- Kobasa, S. C. (1982). The hardy personality: Toward a social psychology of stress and health. In G. S. Sanders, & J. Suls (Eds.), *Social psychology of health and illness* (pp. 3-32). Hillsdale, NJ: Erlbaum.
- Kobasa, S. C., Maddi, S. R., & Kahn, S. (1982). Hardiness and health: A prospective study. *Journal of Personality and Social Psychology*, 42(1), 168-177.
- Kobasa, S. C., Maddi, S. R., Puccetti, M. C., & Zola, M. A. (1985). Effectiveness of hardiness, exercise and social support as resources against illness. *Journal of Psychosomatic Research*, 29(5), 525-533.
- Lambert, C., & Lambert, V. A. (1993). Relationships among faculty practice involvement, perception of role stress, and psychological hardiness of nurse educators. *Journal of Nursing Education*, 32(4), 171-179.
- Lee, O. S. (2015). The relationship between emotional intelligence, academic self-efficacy and self-leadership among nursing students. *Journal of the Korea Academia-Industrial cooperation Society*, 16(9), 6036-6043. <https://doi.org/10.5762/KAIS.2015.16.9.6036>
- Lee, S. Y., & Kim, Y. Y. (2016). The effects of self-efficacy and self-directed learning readiness to self-leadership of nursing student. *Journal of Digital Convergence*, 14(3), 309-318. <https://doi.org/10.14400/JDC.2016.14.3.309>

- Lovelace, K. J., Manz, C. C., & Alves, J. C. (2007). Work stress and leadership development: The role of self-leadership, shared leadership, physical fitness and flow in managing demands and increasing job control. *Human Resource Management Review*, 17(4), 374-387. <https://doi.org/10.1016/j.hrmr.2007.08.001>
- Lucke, G. A., & Furtner, M. R. (2015). Soldiers lead themselves to more success: A self-leadership intervention study. *Military Psychology*, 27(5), 311-324. <https://doi.org/10.1037/mil0000086>
- Lundberg, C. A., McIntire, D. D., & Creasman, C. T. (2008). Sources of social support and self-efficacy for adult students. *Journal of College Counseling*, 11(1), 58-72. <https://doi.org/10.1002/j.2161-1882.2008.tb00024.x>
- Maddi, S. R. (1987). Hardiness training at Illinois bell telephone. In J. P. Opatz (Ed.), *Health promotion evaluation* (pp. 101-115). Stevens Point, WI: National Wellness Institute.
- Maddi, S. R. (2002). The story of hardiness: Twenty years of theorizing, research, and practice. *Consulting Psychology Journal: Practice and Research*, 54(3), 173-185. <https://doi.org/10.1037/1061-4087.54.3.173>
- Maddi, S. R. (2006). Hardiness: The courage to grow from stresses. *The Journal of Positive Psychology*, 1(3), 160-168. <https://doi.org/10.1080/17439760600619609>
- Maddi, S. R. (2008). The courage and strategies of hardiness as helpful in growing despite major, disruptive stresses. *American Psychologist*, 63(6), 563-564. <https://doi.org/10.1037/0003-066X.63.6.563>
- Maddi, S. R., & Harvey, R. H. (2006). Hardiness considered across cultures. In P. T. P. Wong, & L. C. J. Wong (Eds.), *Handbook of multicultural perspectives on stress and coping* (pp. 409-426). New York, NY: Springer.
- Maddi, S. R., & Kobasa, S. C. (1984). *The hardy executive: Health under stress*. Homewood, IL: Jones-Irwin.
- Manz, C. C. (1983). *The art of self-leadership: Strategies for personal effectiveness in your life and work*. Englewood Cliffs, NJ: Prentice-Hall.
- Manz, C. C. (1986). Self-leadership: Toward an expanded theory of self-influence processes in organizations. *Academy of Management Review*, 11(3), 585-600. <https://doi.org/10.2307/258312>
- Manz, C. C., & Sims Jr, H. P. (1991). SuperLeadership: Beyond the myth of heroic leadership. *Organizational dynamics*, 19(4), 18-35. [https://doi.org/10.1016/0090-2616\(91\)90051-A](https://doi.org/10.1016/0090-2616(91)90051-A)
- McDonald, M. J., Wong, P. T. P., & Gingras, D. T. (2012). Meaning-in-life measures and development of a brief version of the Personal Meaning Profile. In P. T. P. Wong (Ed.), *The human quest for meaning: Theories, research, and applications* (2nd ed., pp. 357-382). New York, NY: Routledge.
- Neck, C. P., & Houghton, J. D. (2006). Two decades of self-leadership theory and research: Past developments, present trends, and future possibilities. *Journal of Managerial Psychology*, 21(4), 270-295. <https://doi.org/10.1108/02683940610663097>
- Neck, C. P., & Manz, C. C. (1999). In search of the self-led soldier: Army leadership in the twenty-first century. In J. G. Hunt, G. E. Dodge, & L. Wong (Eds.), *Out-of-the-box leadership: Transforming the twenty-first-century army and other top-performing organizations* (pp. 153-176). Stamford, CT: JAI Press.
- Prussia, G. E., Anderson, J. S., & Manz, C. C. (1998). Self-leadership and performance outcomes: the mediating influence of self-efficacy. *Journal of Organizational Behavior*, 19(5), 523-538.

- Sandvik, A. M., Hansen, A. L., Hystad, S. W., Johnsen, B. H., & Bartone, P. T. (2015). Psychopathy, anxiety, and resiliency: Psychological hardiness as a mediator of the psychopathy-anxiety relationship in a prison setting. *Personality and Individual Differences, 72*, 30-34. <https://doi.org/10.1016/j.paid.2014.08.009>
- Sezgin, F. (2009). Relationships between teacher organizational commitment, psychological hardiness and some demographic variables in Turkish primary schools. *Journal of Educational Administration, 47*(5), 630-651. <https://doi.org/10.1108/09578230910981099>
- Sidwell, A. J. (2018). *The self leadership habits of ultra-endurance, executive leaders: An exploratory case study* [Doctoral dissertation]. University of Charleston-Beckley, Beckley, WV.
- Sidwell, A. J., & Perry, M. (2019). Self-leadership training review. *Sage Open*.
- Singh, R., Kumar, N., & Puri, S. (2017). Thought self-leadership strategies and sales performance: integrating selling skills and adaptive selling behavior as missing links. *Journal of Business & Industrial Marketing, 32*(5), 652-663. <https://doi.org/10.1108/JBIM-06-2016-0127>.
- Stagnaro, C., & Piotrowski, C. (2013). Shared leadership in IT project management: A practice survey. *International Journal of Management & Information Systems, 17*(4), 223-234. <https://doi.org/10.19030/ijmis.v17i4.8098>
- Tillich, P. (1952). *The courage to be*. New Haven, CT: Yale University Press.
- Wong, P. T. P. (1998). Meaning-centred counselling. In P. T. P. Wong, & P. Fry (Eds.), *The human quest for meaning: A handbook of psychological research and clinical applications* (pp. 395-435). Mahwah, NJ: Erlbaum.
- Wong, P. T. P. (2007). Meaning-management theory and death acceptance. In A. Tomer, G. T. Eliason, & P. T. P. Wong (Eds.), *Existential and spiritual issues in death attitudes* (pp. 65-87). New York, NY: Erlbaum.
- Wong, P. T. P. (2010). Meaning therapy: An integrative and positive existential psychotherapy. *Journal of Contemporary Psychotherapy, 40*(2), 85-93. <https://doi.org/10.1007/s10879-009-9132-6>
- Wong, P. T. P. (2016a). Self-transcendence: A paradoxical way to become your best. *International Journal of Existential Psychology and Psychotherapy, 6*(1). Retrieved from <http://journal.existentialpsychology.org/index.php/ExPsy/article/view/178/141>
- Wong, P. T. P. (2016b). Meaning-seeking, self-transcendence, and well-being. In A. Batthyany (Ed.), *Logotherapy and existential analysis: Proceedings of the Viktor Frankl Institute* (Vol. 1; pp. 311-322). Cham, Switzerland: Springer.
- Wong, P. T. P., & Bowers, V. (2019). Mature happiness and global wellbeing in difficult times. In N. R. Sifton (Ed.), *Scientific concepts behind happiness, kindness, and empathy in contemporary society* (pp. 112-134). Hershey, PA: IGI Global.
- Wong, P. T. P., Carreno, D. F., & Gongora Oliver, B. (2018). Death acceptance and the meaning-centered approach to end-of-life care. In R. E. Menzies, R. G. Menzies, & L. Iverach (Eds.), *Curing the dread of death: Theory, research, and practice* (pp. 185-202). Samford Valley, Australia: Australian Academic Press.