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Academic Paper

Exploring Health Literacy and its Relationship to Health and Wellness Coaching

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Abstract

Health outcomes are influenced by the ability of individuals to take an active role in the decisions and actions affecting their health and well-being. This involves a process of accessing, understanding, appraising, and using health-related information and resources to take actions that lead to positive health outcomes and an improved quality of life. Health literacy plays an integral role in the health and wellness outcomes achieved by both individuals and the healthcare delivery system as a whole, with low health literacy linked to deleterious impacts on health status and quality of life. Identifying approaches that increase health literacy is a critical component in elevating the health status of individuals and populations. This discussion investigates the relationship between health and wellness coaching (HWC) and health literacy, exploring the potential HWC has for improving health literacy. Key constructs of HWC and health literacy are shared, along with observations about their interconnectivity and the implications this has for advancing health literacy and mobilizing positive change in healthcare.

Keywords

health literacy, health coaching, health and wellness coaching, coaching competencies, self-efficacy, empowerment, activation, engagement, communication, sense of coherence, salutogenesis, Integrated Health Literacy Model, Extended Health Empowerment Model,

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Introduction

Health and wellness coaching (HWC) is a rapidly developing profession in the domains of health promotion, disease prevention, and health care. The aim of HWC is to help individuals “foster healing, optimize health, and enhance well-being” (Kreisberg & Marra, 2017, p. 22) using methodology from fields such as health psychology, positive psychology, and human development (Wolever, Caldwell, McKernan and Hillinger, 2017) in a collaborative, relationship-oriented approach (Caldwell, Gray and Wolever, 2013).

Literature has explored the complexity involved in defining “coaching” generally, or defining particular genres of coaching specifically (Bachkirova & Kauffman, 2009; Jacob, 2013; Sime & Jacob, 2018; Wilson, 2013). As we describe HWC in this article, we face this same challenge. Because the field of HWC is unlicensed, anyone can claim to be a health and/or wellness coach (we also use the acronym HWC here), and training programmes of widely differing standards exist. We assert that the need for standards in the coaching field, generally, is facilitated by way of professional credentialing bodies, such as the International Coaching Federation (ICF) and, for HWC coaching specifically, through the National Board for Health & Wellness Coaching (NBHWC).

We also recognise that all coaching focuses on wellness in its broadest sense, but HWC focuses specifically on promoting health and wellness (NBHWC, 2019). In this regard, some of what will be discussed in this article is broadly pertinent to coaching. However, much is pertinent specifically to HWCs trained in client-centred care and behaviour change methodologies, including a health and wellness scope of practice, such as that provided by NBHWC (2019).

Various theories and frameworks underpin HWC methodology, including Growth Mindset, Motivational Interviewing, the Transtheoretical Model, the Theory of Planned Behaviour, Social Cognitive Theory, Social Learning Theory, Self-Determination Theory, and Self-Efficacy Theory (NBME® & NBHWC, 2019). According to Caldwell et al. (2013):

> *The major tenets of the health coaching process are patient-centeredness and patient control focused around patient-originated health goals that guide the work within a supportive coaching partnership* (p. 48).

In this way they regard individuals as if they are active partners who take responsibility for their health and may be one of the reasons HWC is an emerging area of research. Furthermore, there appear to be intersections between HWC and other wellness-related constructs and determinants of health that are worthy of investigation.

The past ten or so years have given rise to a dramatic increase in the body of research, including systematic reviews, exploring the impact of HWC on health behaviour, health outcomes, and health-related quality of life, in many cases finding positive outcomes (Department of Veterans Affairs, 2017; Kivela, Elo, Kyngas, and Kaariainen, 2014; Sforzo, Kaye, Todorova, Harenberg, Costello, Cobus-Kuo, Faber, Frates, and Moore, 2017; Sforzo, Kaye, Harenberg, S. Costello, Cobus-Kuo, Rauff, Edman, Frates, and & Moore, 2019). Health literacy has also been linked to similar outcomes (Chen, Yehle, Albert, Ferraro, Mason, Murawski and Plake, 2014; Como, 2018; Halleberg Nyman, Nilsson, Dahlberg and Jeansson, 2018; Jaffe, Arora, Matthiesen, Meltzer and Press, 2017; Köppen, Dorner, Stein, Simon and Crevenna, 2018; Wang, Lang, Xuan, Li and Zhang, 2017; Wu, Moser, DeWalt, Rayens and Dracup, 2016). Yet, little research has directly explored the relationship between HWC and client health literacy. In fact, a December 31, 2018 PubMed search on “‘health literacy’ and coach” yielded 15 articles, only one of which explored HWC and health literacy, a study by Rubin, Freimuth, Johnson, Kaley and Parmer (2014). This finding highlights a lack of investigation into the arena of HWC as it connects to health literacy. With the increasing complexity of the health and wellness industry and the healthcare system, there is a need to gain a deeper understanding of approaches that foster health literacy, as this could inform the evolution of

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practices and policies designed to improve health outcomes and could mobilise positive social change in healthcare.

This article examines the relationship between HWC and health literacy in three ways as follows:

- defines health literacy and key related constructs
- reviews research on the relationship between health literacy - as well as on each of its key related constructs - and health outcomes
- illustrates links between HWC and health literacy, along with its key related constructs.

Defining Health Literacy

In 2004, an Institute of Medicine Report (IOM) defined health literacy as "the degree to which individuals can obtain, process, and understand the basic health information and services they need to make appropriate health decisions" (p. 1). The World Health Organization (WHO) later expanded the definition to include "the cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand and use information in ways which promote and maintain good health" (Nutbeam, 2006, p. 264). More recently, based on a systematic review of the literature on health literacy, Sørensen, Van den Broucke, Fullam, Doyle, Pelikan, Slonska, Brand and (HLS-EU) Consortium Health Literacy Project European (2012) synthesised 17 definitions and 12 conceptual models to develop both a new definition and an integrated conceptual framework called the Integrative Health Literacy Model (IHLM). The Sorensen et al. (2012) definition of health literacy is linked to literacy overall and encompasses the individual's:

> *… knowledge, motivation and competence to access, understand, appraise, and apply health information in order to make judgments and take decisions in everyday life concerning healthcare, disease prevention and health promotion to maintain or improve quality of life during the life course.* (p. 3)

As indicated in the definition above, the IHLM suggests that the following four health literacy competencies apply to information across health domains—related to health determinants, health risk factors, and medical or clinical care:

- Accessing – the ability to access or obtain relevant information
- Understanding – the ability to understand and derive meaning from relevant information
- Appraising – the ability to interpret and evaluate information
- Applying – the ability to make informed decisions based on relevant information

The IHLM supports a view of health literacy encompassing the following validated aspects: resource development (obtaining resources and information, learning and discovery), making sense (understanding and analysing information, comparing one's current status with the envisioned future), and actual health behaviour change (applying knowledge and decisions, generally in small manageable steps) are identified by Dwinger, Kriston, Härter and Dirmaier (2015). Over an individual's life course, the heath literacy process, as conceptualised by Sørensen et al. (2012), can lead to the development of knowledge and skills that can assist an individual to manage their way along a health continuum, whether as an individual wanting to improve their health within the health promotion domain, an individual with risk(s) for disease in the disease prevention domain, or a patient within the health care domain.

Other Key Health Literacy Constructs

The Sorensen at al. (2012) conceptualisation of health literacy is broad. Even so, the research and clinical literature also identify additional constructs as closely linked to, and difficult to disentangle

from, health literacy. These relate to communication, empowerment, and activation.

Communication and communication style are increasingly recognised as key to the development of health literacy. This includes communication approaches engaged in by health care providers and communication skills of health care consumers, as well as the interaction of the two. Examples of these approaches are found in Feinberg, Ogrodnick, Hendrick, Bates, Johnson and Wang (2019); McNeill, Washburn, Han, K and Moon (2019); Tavakoly Sany, Peyman, Behzhad, Esmaeily, Taghipoor and Ferns (2018); and USDHHS (2010).

Empowerment is defined as a process through which an individual gains greater control over decisions and actions affecting their health (Schulz & Nakamoto, 2013). A related construct is self-efficacy, an internal capacity facilitating an individual's ability to achieve goals or to cope with stressful situations (Geyer, 1997; Kinsaul, Curtin, Bazzini and Martz, 2014; Lundman, Aléx, Jonsén, Norberg, Nygren, Santamäki Fischer and Strandberg, 2010). Sense of Coherence—the "capability to see that one can manage any situation, independent of whatever is happening in life" (Koelen & Lindström, 2005, p. S11)—is tied similarly to health literacy (Bull, Mittelmark and Kanyeka, 2013; Geyer, 1997; Lerdal, Fagermoen, Bonsaksen, Gay and Kottorp, 2014; Lundman, Aléx, Jonsén, Norberg, Nygren, Santamäki Fischer, and Strandberg, 2010).

Activation is the knowledge, skill, motivation, and confidence for managing one's health and health care (Hibbard, Stockard, Mahoney and Tusler, 2004).

Engagement is a construct related to, and sometimes used synonymously with, activation. It comprises having an interest in, giving attention to, or acting on managing one's own health (Hibbard, 2017). Activation and engagement are constructs distinct from, but described as "inextricably intertwined" with, health literacy (Hibbard, 2017; McCormack, Thomas, Lewis and Rudd, 2017).

Health Literacy and Health and Wellness Coaching

In the following discussion, health literacy and its relationship to both health outcomes and HWC is explored. Additionally, each of the key constructs related to health literacy, identified above, are discussed as they relate specifically to health literacy, health outcomes, and HWC.

Health literacy and health outcomes

The effect of health literacy on health outcomes has been a topic of interest for several decades, rising to the forefront after a study by the National Centre for Education Statistics (NCES) found that approximately 80 million U.S. adults had low health literacy, leaving them at risk of poorer health access and health outcomes (Kutner, Greenberg, Jin and Paulsen, 2006). A 2011 Agency for Healthcare Research and Quality (AHRQ) report reviewed the literature on print, oral (speaking and listening) and numerical (understanding quantitative information) health literacy. Regardless of the varied approaches to measurement of health literacy in the studies examined AHRQ consistently found an association between low health literacy and an increase in both hospital stays and emergency care; lower participation in preventive measures; a lower ability to properly use medications; and a decreased capacity to understand health messages in general (Berkman, Sheridan, Donahue, Halpern and Crotty, 2011). In the elderly population, the AHRQ study found that low health literacy was associated with both lower overall health status and higher rates of mortality.

Health literacy has been studied in healthy individuals and shown to be associated with healthy lifestyle choices, including exercise and physical activity, healthy eating, and others (Yokokawa,

Fukuda, Yuasa, Sanada, Hisaoka and Naito, 2016; Zoellner, You, Connell, Smith-Ray, Allen, Tucker, Davy and Estabrooks, 2011). Numerous recent studies also demonstrate a relationship between health literacy and varied outcomes including health-related quality of life (HRQOL), knowledge about one's disease and related risk factors, surgical recovery, hospital length of stay, pain intensity, and even perceived mental status (Chen et al., 2014; Como, 2018; Halleberg Nyman, Nilsson, Dahlberg and Jeansson, 2018; Jaffe et al., 2017; Köppen et al., 2018; Wang et al., 2017; Wu et al., 2016).

As the studies reviewed above suggest, a plethora of research makes it clear that health literacy is an important factor influencing the health and wellness of many populations. For this reason, promoting client health literacy is an important consideration in HWC.

HWC and health literacy

As mentioned previously, a PubMed search on "'health literacy' and coach" yielded 15 articles, only one of which explored HWC and health literacy. In this article, Rubin et al. (2014) reported on a program for "Meals on Wheels" volunteers that provided three to four hours of training, including didactic, videos, and practice, in health literacy and the process of "interactive health literacy coaching" related to communication skills, in particular to the preparation and asking of questions. In a subsequent "booster" training session, the volunteers were also shown videos of ideal coaching practices. The elderly recipients of this coaching reported that they enjoyed learning about communication skills; they also demonstrated improved knowledge, at post-test, of material addressed in the coaching.

A similar programme was described in the U.S. Department of Health and Human Services publication titled *National Action Plan to Improve Health Literacy* (2005). The *Health Education and Literacy Program,* an initiative of the Integrated Health Network - a group of eight providers serving over 200,000 uninsured and underinsured individuals – used lay health coaches to reach clients and "empower them to take control of their health, communicate with providers, and become more confident in navigating the health care delivery system" (USDHHS, 2010, p. 29). While the lay coach training was not specified, preliminary results of a qualitative study of this programme (Office of Disease Prevention, 2008) found that, after working with these coaches, the percent of participants having a primary care provider increased from 57 to 81% and, among those with chronic illness, the ability to discuss their self-management plan increased from 1 to 27% (USDHHS, 2010, p. 29). Although more research is needed, the results of these studies suggest a potential for HWC to affect health literacy in several realms.

Despite the lack of research directly relating health literacy and HWC, the literature describing HWC itself suggests that HWC is a process that supports health literacy. For example, Dwinger et al. (2015) and Sorensen et al. (2012) indicate the following key aspects of health literacy: resource development, making sense, and actual health behaviour change. A job task analysis to determine national standards for training and education of HWCs, conducted in collaboration with NBHWC, and validated by large surveys of practicing HWCs, determined key HWC processes (Jordan, Wolever, Lawson and Moore, 2015). The relationship between HWC and the aspects of health literacy defined by Dwinger et al. (2015) and Sorensen et al. (2012) can be seen in the following key HWC processes, described by Wolever et al. (2017):

- Making sense (comparing one's state with the envisioned future):

> *Coaches first elicit from the client a vision of their optimal health, self, or future through visioning and the use of the perceptual information processing system rather than solely relying on the conceptual information-processing system.* (p. 324)

[Clients] are led through a gap analysis wherein they compare where they are now with where they want to be, in multiple domains of their lives. (p. 324)

- Resource development and making sense (understanding and analysing information):

For the most part, effective health coaches avoid teaching, advising, or telling clients what to do but facilitate client learning and discovery. (p. 324)

- Actual health behavior change:

[While clients] are often not ready to take on something that the provider would prioritise from a medical perspective …, by starting in one area where the [client] has intrinsic interest and motivation to change, the chances of success are great. (p. 324)

The coaching processes to support resource development, making sense (described above), and behaviour change can also be seen in the key coaching competencies identified by both the ICF (2019) and the NBHWC(NBME® & NBHWC, 2019), two primary coach credentialing bodies (see examples in Table 1). In order to earn ICF or NBHWC credentials, coaches are required to understand and demonstrate these competencies in their coaching; this resultant knowledge and skill set support the connection of coaching practices to health literacy aspects.

Table 1: Examples of Coaching Competencies Supporting Key Aspects of Health Literacy Development

Aspect of HealthLiteracy[a]	**ICF Core Competencies[b]**	**NBHWC Coaching Competencies[c]**
Resource Development	**8.** (Sub-competency5). Invites the client to consider how to move forward, including resources, support and potential barriers	**2.1.3.** Share information or recommendations only when specifically asked or given permission to do so **2.8.** Assist client to evaluate and integrate health information
Making Sense	**7.** Evokes Awareness: Facilitates client insight and learning...	**2.6.6.** Explore broader perspectives and inspire interest in new possibilities **2.8.** Assist client to evaluate and integrate health information **2.10.** Client awareness, perspective shifts and insights **2.12.3.** Engage client to evaluate options, considering both short and long-term benefits and consequences **2.14.3.** Decisional balance
Behaviour change	**8.** Facilitates Client Growth: Partners with the client to transform learning and insight into action.	**1.3.5.** Establish or refine client's specific long-term goals that lead toward desired outcomes **1.3.6.** Establish or refine client's short-term SMART goals or action steps for what will be accomplished between sessions **1.3.7.** Support the client in achieving the SMART goals or action steps including back-up plans **1.4.6.** Articulate new action steps and adjust plan if needed, with self-monitoring

[a] Dwinger, S., Kriston, L., Härter, M., & Dirmaier, J. (2015). Translation and validation of a multidimensional instrument to assess health literacy. *Health Expectations: An International Journal of Public Participation in Health Care and Health Policy*, *18*(6), 2776–2786. doi: 10.1111/hex.12252
[b] International Coach Federation (ICF). (2019). *Updated ICF Competency Model: November 2019.* Retrieved from https://coachfederation.org/core-competencies
[c] National Board of Medical Examiners® (NBME®) and the National Board for Health & Wellness Coaching (NBHWC). (2019). Health & Wellness Coach Certifying Examination Content Outline with Resources. Retrieved from https://www.nbme.org/pdf/hwc/HWCCE_content_outline.pdf

Other authors, such as Irwin and Morrow (2005), also describe related coaching processes that promote health literacy: identification of "personal values; goal setting; self-defined issues;

empowerment; self-confidence; reinforcement; and self-efficacy" (p. 29). The types of coaching reflections and questions in Box 1 illustrate how a coach might use each of these processes with a client to promote health literacy over time.

Box 1: Examples of Coaching Questions Potentially Promoting Client Health Literacy

Personal values:	What matters to you most about losing weight?
Goal setting:	So, you want to lose weight. What is your own target goal? Over how much time?
Self-defined issues:	You said you would like to discuss losing weight. When you think about that, what aspect seems most important to you to talk about now?
Empowerment:	Tell me about a tough challenge you have had in the past that you succeeded in managing… When you think about that, what strengths did you use there? How might you apply those same strengths now?
Self-confidence:	What is one small step you could take this week toward your goal – nothing too big or difficult – just something that seems very manageable and would move you forward?
Reinforcement: **Self-efficacy:**	High five! You met your goal for the week! What did you learn about yourself as you accomplished that? I really see your determination to come in for our appointment today. What other strengths and values of yours do you think are assisting you here?

Health Literacy, Communication, and Coaching

Communication processes and style are key in promoting health literacy and are also central components of HWC.

Health literacy and communication

The research and practice literatures increasingly recognise that communication processes and communication style are central to promoting health literacy. For example, in a study involving individuals with hypertension, training health care providers with improved communication approaches, such as using open-ended questions and taking time to understand patients' needs, concerns, and social/financial barriers, led to significant improvements in "patient communication skills, self-efficacy, adherence to medication, and hypertension outcomes" (Tavakoly Sany et al., 2018, p. 154; USDHHS, 2010). Another communication approach is "teach back," a patient-centred health literacy technique that has been shown to improve client understanding of discharge instructions and other personal health information (e.g., Feinberg et al., 2019). In addition to improving health literacy by training health care providers in improved communication skills, teaching these skills to health care consumers also promotes health literacy. For example, working with low income, rural individuals using "teach back", modelling, and creating relevant scenarios, with the "How to Talk to Your Doctor (HTTTYD) Handbook Program" led to increased confidence and increased health literacy (McNeill et al., 2019).

Dennis, Williams, Taggart, Newall, Denney-Wilson, Zwar, Shortus and Harris (2012) conducted a systematic review and narrative synthesis exploring the effectiveness of healthcare providers in promoting health literacy, finding that "shared decision making and good communication are important to developing a sense of trust and partnership to develop health literacy" (p. 6). Venkeer and Panns (2016) indicate that health literacy is best supported by a "transactional, constructivist [communication] approach" in which "the message is not static as it is in classical [communication] models but is fluid and emerges in the interaction." (p. 282). As described below, the nature and practice of HWC is consistent with the integrated use of these key communication approaches that support health literacy.

HWC and communication

In its 2010 *National Action Plan to Improve Health Literacy,* one goal identified by the USDHHS Office of Disease Prevention and Promotion addresses improving "health information,

communication, decision[-]making, and access to health services” (p. 29), all of which are varied aspects of health literacy and its outcomes. As part of this, DHHS stresses the importance of the “quality of … communication” as a factor in health literacy, suggesting that, among other strategies, health coaches can help improve access to services and information, two aspects of health literacy (p. 30). Communication approaches used in coaching go further than improving access to services and information. The types of communication approaches typically used in HWC potentially can empower clients to both identify their own health-related goals and develop stepwise plans to achieve them.

ICF (2019) and NBHWC (NBME® & NBHWC, 2019), two coach credentialing bodies, both identify communication competencies as central in the coaching process. These competencies include active listening and reflection, a focus on client-centred questions, and interactive goal setting, all communication approaches identified by Dennis et al. (2012) and Venkeer and Panns (2016) as key in developing health literacy. Further, coaching communication is intentionally client-centred and respectful, typically incorporates acknowledgement of the client, frequently uses Socratic questioning, and invites the client to determine learning or action steps for themselves, as the hypothetical examples in Box 2 illustrate. Caldwell et al. (2013) emphasize that, rather than comprising pre-determined education based on the client’s ‘presenting problem’, coaching is in fact a concordant, or reciprocal communication approach supporting client empowerment (see also Irwin & Morrow, 2005; Wolever et al., 2017).

Box 2: Examples of Coaching Interactions

Client-centered:	What would you like to focus on in our session today? If, at the end of our session, you felt it was successful, what would have happened?
Respectful:	You said that working out in a gym is not a good exercise plan for you. What would a good plan look like for you?
Acknowledgment:	You have come in for this appointment which shows commitment. The fact that you are considering making some lifestyle changes to take care of your health suggests to me that you are a person of resolve.
Socratic questioning:	You mentioned wanting to reduce your blood pressure. What would that look like for you?
Identifying action steps:	You talked about the value of incorporating more whole foods into your diet. What is one small step you could take to move in that direction?

Health Literacy, Empowerment Constructs and Coaching

Health literacy has been linked to empowerment and its related constructs of sense of coherence and self-efficacy. HWC, like most coaching, is, by its nature, an empowering process that supports self-determination and self-efficacy.

Health literacy and empowerment

WHO defines empowerment for health as a process—social, cultural, psychological or political—through which an individual gains greater control over decisions and actions that affect their health (WHO, 1998). Research has examined both the adverse effects of powerlessness related to ill health and the beneficial effects of empowerment related to positive health (Kinsaul et al., 2014; Schulz & Nakamoto, 2013). According to Diviani, Camerini, Reinholz, Galfetti and Schulz (2012), the Extended Health Empowerment Model details the diverse factors that contribute to health behaviour, declaring health literacy and psychological empowerment as equal predictors. The combined health literacy factors of basic reading and numeracy skills, factual knowledge, procedural knowledge, and judgment skills work together with the empowerment skills of meaningfulness, competence, and self-determination, leading to the development of new health behaviours.

Koelen and Lindström (2005) indicate that health literacy develops in relationship to empowerment, occurring through supportive, collaborative partnerships between health care providers and clients. These findings are echoed in the conclusions of Bravo, Edwards, Barr, Scholl, Elwyn, McAllister and the Cochrane Healthcare Quality Research Group, Cardiff University (2015), who conducted both a scoping review and qualitative interviews to explore client empowerment and developed a conceptual map linking empowerment to health literacy, self-management, shared decision-making, and other constructs. These authors suggest that health literacy and its components—including knowledge, an active role, informed decision-making, and management of one's self-care and healthcare—are indicators of empowerment. Empowerment itself, they suggest, can contribute to adaptation to chronic illness, quality of life, well-being, and satisfaction with life, as well as independence, all of which can influence health status.

Health literacy and sense of coherence

Sense of coherence (SOC) is a construct within the salutogenic model of health that accounts for the creation and improvement of health and well-being in multiple dimensions—physical, emotional, mental, spiritual, and social (Becker, Glascoff and Felts, 2010). In contrast to the biomedical model of health (pathogenesis) that answers the question "What creates illness?", the salutogenic model of health (salutogenesis) answers the question, "What creates health?" (Antonovsky, 1979). Eriksson (2017) considers salutogenesis as a continuous learning process

> *… supporting movement toward health (and other desired aspects of one's existence) via improving health literacy: knowledge supports health literacy, which supports development in the ways one relates to one's world. The process of relating to others produces learning, and the knowledge gained from practice expands one's area of knowledge. (pp. 92-93)*

SOC indicates an individual's capacity to deal effectively with any situation that comes up in their life (Koelen & Lindström (2005). This capacity consists of three elements: comprehensibility (assessing and understanding their situation), meaningfulness (finding the meaning that motivates a change toward a health-promoting direction, and manageability (using available resources to manage the change) (Eriksson, 2017). Thus Koelen and Lindström (2005) describe a reciprocal relationship between health literacy and SOC.

Kriesberg and Marra (2017) assert that HWC is a salutogenic practice whereby the coach supports a client in increasing their resources to achieve higher levels of health. The authors emphasise that "by listening and helping clients increase awareness, coaches provide powerful reflective support, monitor progress, identify multiple ways of achieving goals, and celebrate success" (p. 23).

Health literacy and self-efficacy

Self-efficacy is one of the foundational constructs of Bandura's Social Cognitive Theory and refers to an individual's beliefs about how well they can "execute courses of action required to deal with prospective situations" (Bandura, 1982, p. 122). According to Bandura, how people will behave depends greatly on their belief in their ability to successfully act, and a person with higher self-efficacy is more likely to participate in self-care behaviours.

The relationship between self-efficacy, health literacy, and health behaviours has been studied in a variety of patient populations, most thoroughly in individuals with diabetes (Xu et al., 2018; Massoompour, Tiurgari and Ghazanfari, 2017; Lee, Lee and Heimoon, S. 2016; Reisi, Mostafavi, Javadzade, Mahaki, Tavassoli and Sharifirad, 2016), as well as in kidney replacement recipients (Campbell, Beardsley, Shaya and Pradal, 2015), persons with hypertension (Wang et al., 2017) and patients with heart failure (Chen et al., 2014). Although at least one study has found that health literacy, in terms of information or knowledge, was not related to self-efficacy or self-care practices (Chen et al., 2014), other studies have demonstrated a positive relationship between these

variables (Al Sayah, Majumdar, Williams, Robertson and Johnson, 2013; Bohanny, Wu, Liu, Yeh, Tsay and Wang, 2013; Chen et al., 2011; Dennison, McEntee, Samuel, Johnson, Rotman, Kielty and Russel, 2011).

While Reisi et al. (2016) found that self-efficacy is a more important predictor of self-care than health literacy, Massoompour et al. (2017) found a significant direct correlation between health literacy and self-efficacy among individuals with diabetes. Among kidney transplant recipients, Campbell et al. (2015) found an increase in functional health literacy was associated with an increase in self-efficacy and that self-efficacy partially mediated the influence of functional and communicative health literacy on adherence to self-care behaviours. A relationship has been documented between self-efficacy to manage a condition and health related quality of life (HRQOL) as well as between health literacy and HRQOL (e.g., Wang et al., 2017).

Taken together, the body of research on health literacy, self-efficacy, and self-care suggests that interventions that promote both self-efficacy and health literacy may maximise self-care behaviours. Both because HWC is a process designed to promote self-efficacy, and a small amount of research, described above, suggests it may promote health literacy, we suggest that HWC is an intervention that may promote optimal self-care behaviours.

HWC and empowerment constructs

Bravo et al. (2015) identify health coaching as an individually focused empowering intervention that supports health literacy, among other outcomes. Bravo et al. (2015) also report that:

> *Analysis of published definitions of patient empowerment, and analysis of UK stake- holder interviews suggested that the level of patient empowerment is modifiable by healthcare interventions… examples [of which] … include… health coaching…. (p. 10)*

In describing the relationship between health literacy and empowerment for health, Schulz & Nakamoto (2013a) suggest that health professionals need to guide patients/clients to the most relevant resources, tools, and applications for health literacy and empowerment to be realised. Because of its client-centred nature, coaching theories and competencies indicate that the role of a coach is to support clients in identifying personally relevant tools and resources related to their self-identified goals (ICF, 2019; NBME® & NBHWC, 2019, p. 16)

Client empowerment is a key HWC competency. For example, NBHWC competencies 1.3 and 2.1 (NBME® & NBHWC, 2019) directly mention empowerment:

> *1.3: The coach is not the ‘expert’ deciding what is most appropriate; instead, the client is empowered to select an area [of focus] that feels important, motivating, or timely. (p. 6)*

> *2.1: A coach facilitates behaviour change by empowering the client to self-discover values, resources, and strategies that are individualised and meaningful. (p. 9)*

In an examination of individual empowerment from a salutogenic perspective, Koelen and Lindström (2005) suggest that:

> *to facilitate the empowerment process, the relation between professionals and [clients] must be seen as a partnership …. [and] empowered relations between professionals and clients … can best help to make the healthy choices the easy choices. (p. S14)*

We assert that the coaching model fits with the empowerment process described by Koelen and Lindström (2005). Coaching by its nature and definition is a collaborative partnership model. For example, ICF (2015, Part One, bullet 1), defines coaching as “partnering with clients…”, and

NBHWC describes coaches as "partners and facilitators" (Scope of Practice, 2017, lines 9-10). Further, coaching competencies specifically include developing trust, a key aspect of partnership:

- ICF Core Competency 4: "Cultivates Trust and Safety" (ICF, 2019)
- NBHWC competency 2.2: "Trust and Rapport" (NBME® & NBHWC, 2019, p. 10)

Sub-components of each of these competencies indicate specifics of how a coach develops and maintains trust with a client over time. For example, a coach:

- "Acknowledges and supports the client's expression of feelings, perceptions, concerns, beliefs and suggestions" (ICF, 2019)
- "Convey[s] unconditional positive regard" (NBME® & NBHWC, 2019, p.10)

Furthermore, coaching processes include a specific focus on supporting client self-determination and the development of client self-efficacy, both of which are aspects of empowerment. In studying pain and impairment in individuals with cancer, Kravitz, Tancredi, Grennan, Kalauokalani, Street, Slee, Wun, Oliver, Lorig and Franks (2011) report that a tailored education and coaching intervention, providing education on both pain control and communication with health care providers, and supporting both planning and communication rehearsal, improved client pain communication self-efficacy among other outcomes. A small qualitative study in which life coaching was offered to ten youth with type-1 diabetes demonstrated improvements in well-being and personal empowerment (Ammmentorp, Thomsen, and Kofoed, 2020). A randomised controlled trial of motivational-interviewing-based health coaching (N=132 intervention, 155 usual care controls) by nurses certified as coaches demonstrated significantly improved diabetes self-efficacy/empowerment at three months (Young, Miyamoto, Dharmar and Tang-Feldman, 2020). A study of five sessions of motivational-interviewing based nurse tele-coaching for individuals with diabetes (N= 51), compared to usual care (N=50), found significantly higher self-efficacy at nine months in the tele-coaching group (Young et al 2014). Cinar and Schou (2014) found greater tooth-brushing self-efficacy, reduced periodontal disease, and improvements in A1C in a group of 77 individuals with diabetes receiving health coaching, as compared to 109 receiving health education. Several studies of coaching for individuals with ADHD demonstrate positive trends in client self-determination (Maitland, Richman, Parker and Rademacher, 2010; Richman, Rademacher and Maitland, 2014). Studies of coaching in spheres other than health also indicate that coaching processes support the development of self-efficacy (Moen & Skaalvik, 2009; Saadaoui & Affess, 2015).

Two NBHWC competencies directly address issues of self-determination and self-efficacy (NBME® & NBHWC, 2019), illustrating the thrust of HWC in relation to these theories:

- 2.11: Client's freedom of choice, autonomy, and intrinsic motivation (including, explicitly: 2.11.5. Self-determination theory) (p.19)
- 2.12: Client self-efficacy (including 2.12.5. Social Cognitive Theory [Social Learning Theory and Self-Efficacy Theory, including role models, mastery]) (p.20)

In a study of variables associated with health promotion behaviours among urban, black women, Hepburn (2018) reported that:

> *Health literacy, self-efficacy and readiness for change [were] all associated with health promotion behaviours, [and] readiness for change was the most highly correlated* (p.352)

As indicated in several NBHWC coaching competencies (e.g., competencies 2.7, 2.9, 2.11 and 2.12), part of a coach's skillset in communication includes exploration of, and support for, increasing a client's readiness for change (NBME® & NBHWC, 2019). Competency 2.9 includes the following note: "[T]he coach applies the Transtheoretical Model by recognising the client's stage of change based upon what s/he says…. "(NBME® & NBHWC, 2019, p. 17).

The NBHWC coaching competencies, which emphasise both exploring readiness for change and supporting the development of client self-efficacy and empowerment, promote the "making choices" aspect of health literacy (Venkeer & Panns, 2016) that underlies and supports effective behavior change.

Health Literacy, Activation, Engagement, and Coaching

Client activation and engagement may be intertwined with health literacy and have been shown to improve health outcomes. Activation and engagement can also be outcomes of the HWC process.

Health literacy and activation/engagement

While measures of health literacy developed several decades ago focused primarily on an individual's reading and math skills (Sørensen et al., 2012), in more recent literature, Hibbard (2017) has indicated that the constructs of activation, engagement and health literacy are often intertwined. Further, research has demonstrated the contribution of activation and engagement to improving health outcomes (Hibbard & Green, 2013; Simmons, Wolever, Bechard and Snyderman, 2014).

The term "activation" refers to "an individual's knowledge, skill, motivation, and confidence for managing their health and health care" (Hibbard et al., 2004, pp. 1443-1444). Being activated is a process requiring a degree of self-efficacy, motivation, and the ability to take charge, followed by potentially initiating change. This description can be considered an encapsulation of the coaching process.

Additionally, activation aligns with behaviour change concepts (Hibbard, 2017). According to Hibbard (2017), engagement is a term "used to denote a wide range of activities and states: [such as] patient interest or attention... taking actions in managing one's own health" (p. 252). Although some authors, such as Smith, Curtis, Wardle, von Wagner and Wolf (2013), express concerns about conflating the terms activation and engagement, based on an extensive review of the literature, Hibbard notes that the terms are sometimes used interchangeably (Hibbard, 2017).

Health literacy and activation each contribute independently to a variety of health outcomes examined in this research; the stronger contributor seems to depend on the outcome assessed. Health literacy appears to be more closely tied to socio-demographic characteristics and to understanding and using information (Greene, Hibbard and Tusler, 2005; Hibbard, 2017), while activation appears to be the stronger predictor of self-management and healthy behaviours as well as health outcomes (Hibbard & Greene, 2013). Individuals with lower health literacy skills and high activation can compensate "for their lower skills with extra effort and [in this way] make up any comprehension deficits" (Hibbard, 2017, p. 254).

Development of the "Patient Activation Measure" led Hibbard, Stockard, Mahoney, and Tusler (2004) to determine differing "levels of activation" among individuals, is like the "stages of change" in Prochaska and DiClemente's Transtheoretical Model of Change (1982). Tailoring client interventions and communications based on activation level has been shown to assist individuals to not only move forward in specific targeted areas, but in other domains as well (Hibbard et al. 2017; Hibbard, Mahoney, Stock and Tusler; Harvey, Fowles, Xi and Terry, 2012).

HWC and activation constructs

Client activation and engagement are potential outcomes of the partnership developed in coaching (Wolever et al., 2010; Wolever & Dreusicke, 2016; NBHWC Competency 2.9). Activation can be increased when interventions are matched to a client's current activation level followed by gradually building skills and confidence (Hibbard & Greene, 2013). This is the approach taken in some coaching interventions (e.g., NBHWC Competency 2.9, "Goals and Implementing Action", which includes the Transtheoretical Model).

Based on a qualitative study using 69 recorded coaching sessions, from 12 participants, designed to explore how client activation and empowerment are facilitated in HWC, Caldwell et al. (2013) suggest that the client-centric nature of HWC, and its encouragement around problem-solving, are key: in HWC, "the focus is on the goals the patient sets to address a particular health concern, and the focus of interaction is on generating and trying out potential solutions rather than … on the problem itself" (p. 54). Further, Caldwell et al. describe the processes in HWC that support client engagement as including both exploration of the client's experience and active intervention (see Box 3).

Box 3: HWC Processes Supporting Client Engagement

- Rapport building through personal chat
- A non-judgmental stance
- Overlap in speech (e.g., "uh-huh" as acknowledgment while listening)
- Reflective listening to confirm accuracy of understanding
- Questions exploring and clarifying intrinsic motivation
- Use of reframing to broaden perspective
- Encouragement/affirmation
- Provision of any suggestions only tentatively
- Requests for permission before sharing information
- Guidance supporting specifics in goal setting
- A focus on positive progress, no matter how small

Caldwell, K. L., Gray, J., & Wolever, R. Q. (2013, p. 55). The process of patient empowerment in integrative health coaching: How does it happen? *Global Advances in Health and Medicine*, *2*(3), 48–57. doi: 10.7453/gahmj.2013.026

Conclusion

As many as nine out of ten Americans have limited health literacy skills (U.S. Department of Health and Human Services, 2015). Health literacy can affect an individual's ability to make effective decisions and take actions important for health and wellbeing. With the rise in complexity of the health and wellness industry and healthcare delivery systems, poor health literacy may be having a negative impact on health outcomes and quality of life. This article explores the connection between HWC and health literacy, including select research on health literacy, and its related constructs, in relation to health outcomes, as well as select literature relating HWC to health literacy and its key constructs.

The relationship between health literacy competencies - accessing, understanding, appraising, and applying health-relevant information - and HWC is explored. The links between other key health literacy constructs - communication, empowerment, and activation - and HWC are also examined, highlighting the interconnectivity in these areas. Based on this exploration, it appears that HWC is an intervention that may support and enhance client health literacy.

Emerging evidence suggests that HWC is effective in fostering client motivation, as well as in improving both psychosocial and behavioural outcomes (Wolever et al., 2017). Moreover, as Wolever et al. (2017) describe, HWC has been linked to improvements in biological indices related

to chronic illness. These areas of effectiveness parallel processes of, and outcomes related to, health literacy, underscoring that HWC may not only be an intervention that supports individuals in meeting their health and wellness goals, but, by helping them navigate and effectively utilise information, supports, and services, it may also serve as an approach to improving quality of life and health outcomes.

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