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CASE STUDY

Case Studies: Person-Centered Health Coaching in People With Negative Social Determinants of Health

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Social determinants of health are the conditions in the environment that influence health outcomes, such as housing, transportation, and neighborhoods. In this report, we examine 3 cases of participants with social risk factors who participated in a health coaching intervention study. The study was a science-based, nurse health coaching model provided to older adult participants in a Midwestern state designed to equip and empower them to achieve and maintain their health and optimum function to support independent living at home. The program was an 8-week virtual coaching method using weekly, 30-minute, 2-way video coaching sessions with participants. For each of the 3 cases, we describe the patterns of engagement, early and later health goals as coaching progressed, and the types of outcomes achieved. From these case studies, we illustrate how social determinants may affect the types of goals, processes, and potential outcomes achieved by participants of health coaching programs. From these insights, we propose directions in health policy and services and future research considerations.

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INTRODUCTION

Social determinants of health (SDH) are the conditions in the environments that influence health outcomes, including safe housing, transportation, and neighborhoods; racism, discrimination, and violence; education, job opportunities, and income; and access to nutritious foods and physical activity opportunities.[1] Numerous studies suggest that SDH can influence health more than healthcare or lifestyle choices; indeed, they account for between 30% and 55% of health outcomes.[2] In this report, we examine 3 cases of participants with social risk factors in a research study that used evidence-based, high-level communication strategies employed in health coaching to elucidate how a nurse health coaching method influences engagement, the process of health coaching, and health outcomes for participants who face SDH.

METHODS

A recently published secondary analysis[3] of an RCT on nurse health coaching found that 12 individuals of the 56 in the intervention group who we identified as having social risk factors showed the same improvement in cognitive–behavioral outcomes as the entire sample. Because it is often thought that such individuals would not improve as well as more socially advantaged

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individuals, we wanted to explore the issues and context of how these individuals responded to a nurse health coach (NHC) intervention. The program was designed to equip and empower participants aged ≥50 years to achieve and maintain their health and optimal functioning to support independent living at home. The 8-week intervention protocol was delivered virtually using a 2-way video connection by trained NHCs and has been published elsewhere.[3,4]

Three cases were representative of participants with at least 3 areas of SDH: low income (<$20,000/year),[5] presence of health disparities, and social disadvantages. Health disparities were the constellation of health problems that may be explained by differences due to gender, race, ethnicity, education/income, disability, or location, that is, not merely by age or hereditary risk factors.[6] Social disadvantages were related to social isolation or circumstances that hampered their ability to access health care, public goods, or services such as grocery or transportation.[7]

Per Crowe et al.[8] guidelines on conducting case study research, we used the format through an intrinsic case study; that is, we selected each case on the basis of its own merits. Our cases were selected not because they were representative of other cases but because of their uniqueness, which is of genuine interest to the researchers. Each NHC

Table 1. Description of Case 1: Mary

NHC process flow	Client response
Background	Mary reported her marital/family status as single with no children. She has always had a low income, leaving her with no retirement savings other than Social Security. She lives in a multigenerational family household in an inner-city neighborhood. She described her neighborhood as unsafe for walking; therefore, she uses public transportation only. She has not been to a dentist in several years and finds it difficult to pay for prescriptions or over-the-counter drugs. She has not had recent appointments with her primary provider. She presented initially as feeling socially isolated (grieving the loss of people she knows during the pandemic) and disappointed with her life situation (having a low income that forces her to live with relatives).
Initial goals	Mary's initial goals were to improve her nutritional habits and to exercise indoors for 30 minutes twice a week.
Process of engagement	The NHC's empathic listening skills are critical to the establishment of trust, especially in people with SDH. Additional strategies early on focused on supporting autonomy, eliciting current strengths, and providing meaningful affirmations. Mary was interested in learning more about healthy eating and reading labels. Through the NHC's strategic evocation of change talk (a major goal of MI),[9] Mary's strength of commitment to her goal increased. She readily looked things up on the Internet and became visibly excited by what she was learning. She engaged in using the program's software application to track her progress and found this motivating as well. Subsequently, she decided to increase her exercise goal to 3 times a week.
Deeper meaning and later goals	As trust developed further between client and coach, with the coach addressing Mary's sense of personal agency (her belief that her efforts could truly improve her health), the focus of sessions shifted from the client's fear of her declining health to envisioning a positive, better future that would result from her new health habits. The NHC supported her decision making and self-efficacy through strategies aimed at increasing her proactiveness in setting/reaching goals and identifying the benefits of her actions.
	Despite a disruption in her progress caused by a family tragedy, the client was able to return to the program ready to engage again with her coach and to get back on track. This event reflects both Mary's resiliency in responding to a stressful life event as well as the positive impact/draw of the health coaching intervention. She added a goal to meditate daily to focus even more on a better future rather than dwell on all the regrets of her past. As the program advanced, with guidance from the NHC, she gained more insight into her mood and low self-esteem, ultimately leading to pondering the merits of mental health counseling. With continued coaching support, she made this important life choice and took steps to get this counseling.
Concluding outcomes	By the end of the program, Mary was fully achieving her diet, exercise, and meditation goals and reported a high level of confidence that she would maintain her behaviors after the program. This client responded to person-centered, strength-based coaching by making better decisions, including the choice of mental health counseling. This was a major and potentially life-altering step for Mary, addressing an aspect of her health with which she had struggled for most of her adult life. Because the coach had no preconceived judgments about her capabilities and used an empowering and guiding approach rather than an overly prescriptive and directive one, Mary was able to access and employ her bright and inquisitive mind to respond to the challenge of making rather sweeping health behavior changes that would put her in the driver's seat of managing her health and improve her future in important physical and emotional ways.

MI, Motivational Interviewing; NHC, nurse health coach; SDH, social determinants of health.

Table 2. Description of Case 2: Yvonne

NHC process flow	Client response
Background	Yvonne lives alone in a low-income neighborhood. She depends on the bus and carpooling for transportation. She has a significant physical disability requiring a walker for stability in ambulating.
Initial goals	Yvonne's initial goals were to eat 5 fruit and vegetable servings per day and to do 2 daily 15-minute sessions of exercise; these included hallway walking in her apartment complex, doing a flight of stairs, dancing, stretching, and band strength exercises. She described worrying about complications from her health problems that may lead to amputations, vision loss, or dialysis. She compared herself unfavorably with a much older person she knows who is independent and gets around without a walker, imagining that her life at that person's age would not be as independent.
Level of engagement	Yvonne was searching for the focus and control to start exercising regularly and to make healthier choices with food because she struggled with overeating and eating when she was not hungry. The trusting relationship with the NHC allowed the client to reveal that she blamed her past failures on poor self-discipline and will power—a perception that is a major inhibitor to behavior change. The NHC employed a cognitive restructuring strategy to assist Yvonne with reframing the issue as not a moral or character flaw but as simply a lack of identifying the right plan, approach, or support thus far. After probing for and discovering what had worked for her in the past, the NHC guided Yvonne to the insight that being persistent in making small steps rather than trying and failing to make big sweeping changes might be a better path to success for her.
	Subsequently, Yvonne made consistent improvements: reducing snacking and increasing fruits and vegetables. Despite her disability, exercise came more easily, and she progressed quickly to moderately intense activity for her. The NHC supported the different pace across goals on the basis of client desire, progress, and life events, modeling the idea of success being viewed as incremental and celebrating the commitment and effort during the process as equally important as the actual goal attainment.
Deeper meaning and goals	After the NHC encouraged more exploration, Yvonne identified stressors that were contributing to her overeating. She felt distracted and overwhelmed with social obligations because multiple friends and family members counted on her for support, which resulted in frequent home visits and phone calls. With support, she realized the importance of setting boundaries and began putting time limits on visitations and phone calls.
	Yvonne also felt overwhelmed by the clutter in her home. She revisited the concept of using baby steps to reach her goal and adopted multiple different small action steps, such as making the bed every day, cleaning her bedside table, and cleaning the kitchen counter. Ultimately, she set a goal to throw away at least 1 thing a day in her apartment, which worked for her.
Concluding outcomes	Yvonne stated that she had lost 17 pounds by the end of the program. This was over a 3-month period with the baseline measure at a doctor's visit 1 month before starting the 8-week coaching program. Her self-efficacy in managing her health had significantly increased owing to the changes she had made; she felt that her increased physical activity and consumption of fruits and vegetables along with her decreasing snacking were sustainable. She also displayed more confidence in managing her life overall. Combined with her new positive lifestyle habits, her newfound abilities to problem solving, finding solutions for overwhelming issues, and setting social boundaries have increased her self-esteem and belief in her ability to sustain her efforts.

NHC, nurse health coach.

chose 1 case they considered typical of the SDH subgroup to more fully illustrate the process, issues, and context of nurse health coaching. From these cases, we derive meaningful information about the strengths and barriers in working with this group of individuals and identify specific areas for further study.

In all 3 cases, the individuals are African American women, aged 60−72 years, and with some college education. In addition, each has 3 or more early-onset chronic diseases, such as hypertension, diabetes, chronic obstructive pulmonary disease, or obesity, and/or a level of physical disability. Although the NHC facilitated a discussion about lifestyle change, their goals were participant driven. The assigned names are not the participants' real ones. The individuals described in this paper each signed specific consents, approved by the IRB for Human Studies, for use of their information in this report.

RESULTS: THE PARTICIPANT CASES

The cases are described in Tables 1−3.

DISCUSSION

The promotion of population health requires a greater understanding of how to support individuals with social health risks who are vulnerable to health disparities. Although many interventions strive to reduce health disparity and SDH, little research has been published

Table 3. Description of Case 3: Ladonna

NHC process flow	Client response
Background	Ladonna is separated from her spouse, disabled with mobility problems, and walker dependent. She reported an income <$1,000 a month and has not worked for more than a decade. She is on Medicare/Medicaid for disability and receives SNAP support. She is dependent on public transportation because she was forced to give up her car owing to her inability to keep up with the loan payments. She lives with a family member and their children in a 2-story house. There is interpersonal family conflict, but she is overwhelmed with the challenges of trying to live independently.
Initial goals	Ladonna's goals were to become more independent and move to a less dangerous location into a living situation with less family conflict. In addition, she identified initial goals of eating more nutritious foods, learning meditation, starting chair exercises, and taking better overall care of herself.
Level of engagement	Ladonna was very engaged in the program from the start. She could readily identify the benefits of change; she recognized that improving her physical mobility, strength, balance, and stamina was key to accomplishing her goal of moving and living independently. She started making short walks in a safe environment without using her walker. Ladonna was ambivalent about exploring PT support to develop strength and balance. She had had a previous experience where she felt neglected by the physical therapist and attributed that to "getting poorer treatment when you're on Medicaid." The NHC validated her concerns and supported her autonomy/choice in this decision but also actively worked with her on envisioning the benefits of getting PT from a therapist who was attentive and skilled. This strategy of softening sustain talk (barriers against change) and evoking change talk (motivation for change) to help a client work through ambivalence is an advanced Motivational Interviewing skill.[9] Within a short period, Ladonna recognized that the benefits outweighed her concerns, and she worked with the NHC to get a PT referral to a facility known to be accommodating to Medicaid recipients.
Deeper meaning and later goals	Ladonna soon revealed that she wanted to move to the same location as another family member who lives in another state; one which was safe and would remove her from the conflict of her current situation. The NHC worked with her to get specific about the details of what it would take to prepare her for the move—financially, physically, and emotionally—essentially helping her to set a SMART goal.[10] In addition, through deepening trust built through empathic reflection, Ladonna revealed that she had chronic issues controlling her charitable giving to others in her community, even though she had so little herself. She also recognized that being overweight added to her disability and functional decline.
Concluding outcomes	Ladonna became empowered to actively pursue her goals that she knew would improve the quality of her life. She opened a savings account to save money and applied for a job that would allow her to save $600/month. The NHC supported her in starting psychotherapy through a subsidized, virtual program to better understand her continued impulse to give money to charity when she had so little to meet her own needs. Not only had she recognized that she was having trouble controlling this chronic behavior, but she also committed to addressing the issue head-on by getting help. She started eating more fruits and vegetables and started eating more fish rather than beef. She preferred not to focus on weight but did notice that her clothes were fitting more loosely and her nails and hair were healthier. She started dedicating more time to her favorite hobby because it assisted her in stress management. She used that time as quiet, alone time to think, setting boundaries with her family and neighbors to protect this valuable activity.

NHC, nurse health coach; PT, physical therapy; SMART, Specific, Measurable, Achievable, Relevant, and Time-bound; SNAP, Supplemental Nutrition Assistance Program.

regarding successful lifestyle interventions despite social risk factors. In addition, it has been established that there is much inherent bias in health care by practitioners toward underserved and poor populations, which can manifest itself by a lack of belief in their client's ability and inhibit efforts to engender empowering strategies to address difficult lifestyle-related changes with these clients.[11] Our objective in our case study review was to challenge the notion that people with SDH cannot make changes until circumstances improve. To the contrary, we found that our robust intervention (motivational interviewing plus other nurse strategies described in another paper) resulted in these individuals actually having the resiliency to persist with challenging lifestyle changes despite their social risk factors.

Participants had some college education; thus, their intellectual engagement and understanding of health may have been supportive factors in their progress. Barriers in all cases were financial, routine access to care, and intrapersonal—chronic low self-esteem, shame at their circumstance, and preoccupation with things other than their own needs, for example, personal finances or caregiving of others. We observed that the types of goals chosen and the strategies to address them were

influenced by both driving (e.g., self-efficacy, motivation) and restraining (e.g., hopelessness, low self-esteem) forces.

The first process observation we make is that the 3 women followed a pattern of engagement similar to those of others who we have coached across the demographic and social determinant spectrum. Similar to all participants, the initial goals of our case clients included better body weight management, healthier food choices, and exercise.[12] As the process of coaching continued, the personal narrative and deeper issues emerged. For clients with SDH, this engagement period may require more time if the client has had past negative experiences with care providers.

As the relationship developed, goals more deeply reflected the client's true concerns and issues and eventually aligned with health enhancements specific to their health status. For example, specific steps necessary to make a major move out of state (the dominant goal for one case participant) created the motivation to address the health behaviors required to attain that goal. With the client as the driver, we did not push any set of predetermined goals on the basis of their health history or health disparities. Yet, the coaching process creates an opportunity for the client to reflect on health as a fundamental requisite for achieving other life goals, independence, and self-determination. Avoiding judgment, bias, and preconceived notions about our clients with SDH is critical to client empowerment that is associated with significant and enduring change.[13]

The coaching intervention was successful in getting at the deeper story of the what and why of barriers and facilitators and enhanced the use of their intellectual skills and curiosity for learning and insight. The 3 individuals were able to use future envisioning of personal and contextual anchors, such as the use of a walking companion, to gain confidence in continuing and expanding the healthy behaviors beyond the program. In addition, the individuals all made significant gains in healthier choices, such as improving their eating/drinking and activity choices.

The long-standing self-esteem issues for the individuals led to not taking time to focus on their personal health, which was considered too self-indulgent. Therefore, supporting positive self-esteem through a variety of coaching methods was an important intervention for each of these individuals. Practical ways to find time every day to spend on their own health was uplifting and reinforcing their worth and value. Ultimately, the gains made in these clients' personal self-regard appeared to be the dominant force in their confidence to continue their healthier choices and even expand upon them. It was not the better health outcomes such as demonstrable weight loss that alone seemed reinforcing but rather their newfound sense of personal control and self-determination.

Whereas most interventions are designed for specific concrete behaviors, the current nurse coaching intervention was designed to treat several higher-order constructs that are linked to overall resiliency and activation. Because the nurse coach addressed the client's self-esteem, motivation, personal agency, and self-efficacy—above and beyond the actual lifestyle habit—the client was able to internalize an alternative perspective of their lifestyle management attempts as part of a larger picture, empowering them to envision themselves as worthy of a healthier, more robust persona.

Working with very tight financial resources was an ongoing consideration during coaching; it was a known reality to which the clients were accustomed to adjusting their choices. Healthier food choices were made using their regular grocery shopping sites and methods. Although our case participants needed and took advantage of instrumental assistance provided to them, such as Supplemental Nutrition Assistance Program and subsidized health services, our intervention appeared to be the additional support they needed to make substantial life and health changes that were of high importance to them.

These 3 participants adapted well to lifestyle change because they were used to adjusting to new and unexpected situations, indicating a resiliency borne from life challenges. Life experience and adaptability are resilience factors that proved advantageous to our case participants' progress. Indeed, these clients made significant life changes at a pace as fast or faster than those of other clients across the spectrum of social determinants. This suggests that SDH influences both the driving forces, such as resilience stemming from years of managing life's challenges, and the inhibiting side of change such as chaotic goal setting and low self-esteem.[4] This construct warrants further research in studies with participants who face social risk factors.

CONCLUSIONS

Although not intended to provide a population-level conclusion, these observational case studies do illustrate that health coaching by experienced and trained nurses can produce highly positive outcomes for people who face SDH, especially to enhance self-esteem, empowerment, and ongoing commitment to health behavior change. We recommend that future research focus on distinctions in process engagement and outcomes in

people across the range of social determinants. In addition, we recommend that nurse health coaching programs provide greater participation of individuals with social health risks through cost and access considerations because they achieve positive outcomes with the optimal approach and support.

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