CASE REPORT

Case Report of Hemoglobin A1c and Weight Reduction in Integrative Health Coaching

关于综合健康辅导中血红蛋白 A1c 和重量降低的病例报告

Caso clínico del descenso de peso y del nivel de hemoglobina A1c en una actividad de formación sanitaria integral

Cynthia Moore, MS, RD, CDE, FADA, *United States*

ABSTRACT

Integrative health coaching (IHC) offers significant health improvement in biometric measures without pharmaceuticals. In this case of newly diagnosed impaired glucose tolerance (IGT) with obesity, IHC used the patient's strengths to reverse IGT, prevent frank diabetes, and reduce weight by 40 lbs or 21% of her original weight. This intervention included a client self-assessment and 14 in-person health coaching sessions over 11 months. IHC provides a framework to accomplish short-term goals and identify and overcome barriers while drawing on the strengths and aims of the individual.

摘要

综合健康辅导 (IHC) 可在不施用药物的情况下，在生物计量指标上实现显著的健康改善。在此病例中，患者新近被诊断出罹患糖耐量受损 (IGT) 且伴有肥胖，IHC 利用患者的优势倒转了 IGT 的病况，预防了显性糖尿病并使体重降低了 40 磅（或原体重的 21%）。该等干预包括患者自我评估和为期超过 11 个月的 14 次亲身健康辅导疗程。IHC 可提供一个框架以实现短期目标，并在利用有关个人优势和目标的同时识别和克服障碍。

SINOPSIS

La formación sanitaria integral (IHC) consigue una mejoría sanitaria significativa en las mediciones biométricas sin productos farmacéuticos. En este caso recién diagnosticado de intolerancia a la glucosa (IG) con obesidad, la IHC utilizó los puntos fuertes de la paciente para invertir la IG, evitar una diabetes manifiesta y reducir el peso en 18 kg o en un 21 % de su peso original. La intervención incluyó una autoevaluación de la cliente y 14 sesiones presenciales de formación sanitaria a lo largo de 11 meses. La IHC proporciona un marco para conseguir objetivos a corto plazo, así como para detectar y superar obstáculos, al mismo tiempo que se aprovechan los puntos fuertes y los objetivos del individuo.

Author Affiliation
University of Virginia Nutrition Counseling Center, Charlottesville.

Correspondence
Cynthia Moore MS, RD, CDE, FADA
Clp6g@virginia.edu

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The author completed the ICMJE Form for Disclosure of Potential Conflicts of Interest and disclosed no conflicts of interest.

INTRODUCTION

The client was referred by her physician for lifestyle health coaching for blood glucose elevation and weight management. She agreed to an initial 3 month contract of bimonthly coaching sessions.

PRESENTING CONCERNS

The client was female, white, postmenopausal, and aged 68 years. Her initial aims were to improve mobility, return her blood sugar to normal, and lose weight. She wanted to be able to "stand long enough" to prepare a meal for guests, walk to the mall, or attend church without being in pain. She noted severe pain in her neck and back. She noted that she had always used food "as a crutch." Her background included a college education and work as an administrative assistant for a major health maintenance organization in California. She had retired and relocated to the east coast within the prior 2 years. She was divorced with two adult children. She had participated in Weight Watchers as a weight management strategy in the past.

CLINICAL FINDINGS

The client's medical history included breast cancer and treatment and treatment for sleep apnea, hypertension, and gastroesophageal reflux disease. Surgical procedures included high tibial osteotomy and anterior cruciate ligament reconstruction on her right leg, hernia repair, appendectomy, oophorectomy, complete hysterectomy, adenoma removal, tonsillectomy, and adenoidectomies.

Lab values that were out of normal range included hemoglobin A1c (HbA1c), blood urea nitrogen (BUN), total cholesterol and low-density lipoprotein cholesterol (LDL-C), and creatinine.

Comorbidities included severe spinal and cervical stenosis, left hip pain with movement or when resting, and osteoarthritis in the hands, spine, hips, knees, and feet. She also reported a severe bunion on her right foot and kidney disease (stage 2-3).

She was taking eight prescription medications as well as a multivitamin-mineral supplement and calcium. On initial physical examination, her height was

determined to be 5 ft, and she weighed 187 lbs with a body mass index (BMI) of 36.5, which indicates class II obesity.

DIAGNOSTIC FOCUS AND ASSESSMENT

This patient had been diagnosed with diabetes or prediabetes at the time of referral. She reported losing 3 to 4 lbs on her own and had increased the number of daily meals she ate from two to three. I assessed her readiness to change (using the Transtheoretical Model of Prochaska and DiClemente that identifies an individual's readiness to change via these stages: precontemplation, contemplation, preparation, action, maintenance and relapse). She was in the action stage of change on decreasing portions and reducing wine consumption and other food/beverage changes. She was in the contemplation stage of change with exercise. The focus of diagnosis and assessment included weight, HbA1c lab work, self-assessment of current and desired states of health using the Duke Integrative Medicine's Wheel of Health, and the client's progress toward her personal goals (being able to stand and prepare a meal without back pain, being able to stand during church services, being able to walk to a Spanish class at the community college, etc).

THERAPEUTIC FOCUS AND ASSESSMENT

The primary interventional focus was integrative health coaching (IHC) as an addition to standard medical interventions and care. IHC is a contractual partnership between the client and the integrative health coach, generally for an initial period of 3 months. Coaching offers structure and accountability to clients as they move toward their goals.

The IHC intervention begins by clarifying the client's "vision of health" through a questionnaire, responsive client listening, and guided imagery facilitated by the coach. During IHC, the client's values are highlighted and a self-assessment questionnaire is completed on current-vs-desired states of health in nine elements of health: mindful awareness, movement/exercise/rest, nutrition, physical environment, relationships and communication, spirituality, personal and professional development, mind-body connection, and professional care (prevention and intervention; conventional and complimentary approaches). By the second or third session, the client has chosen a focus in one of the nine areas of health and specific desired outcomes and SMART (small, measurable, achievable, realistic and target-dated) goals, are established. Subsequent sessions use motivational interviewing, active listening, shifts in perspective, and other strategies to inspire the client and provide structure to help him or her achieve the desired outcomes. The coach aids the client by acknowledging progress and bringing a variety of skills to partner with the client in overcoming inner and external barriers. The coach-client relationship and the personal strengths of the client are primary resources; the client is in the "driver's seat," and the coach is a skillful ally. IHC also may include client-driven learning about specific areas in health if that is part of manifesting the vision of health. Each participant is given a Personalized Health Plan manual (PHP) that includes educational resources on each of the nine areas of health as well as the assessments and forms used in the IHC process. Mindfulness and the practical application of nonjudgmental awareness are central to the IHC offered by Duke Integrative Medicine–trained integrative health coaches. (See the roundtable discussion for information on Duke Integrative Medicine's IHC training program).

Prior to and concurrent with IHC, the client in this case used the following related self-care practices: healthful food choices, prayer, church attendance, social connections, and pleasurable pursuits.

At the time IHC was initiated, the client was not able to do much exercise because she had cervical stenosis and back pain. Her ability to exercise improved, and she was able to use exercise as a strategy as the coaching period continued. Exercise ultimately became a key achievement and a pillar of her improved health.

The IHC intervention included the following in-person sessions:

1. an initial 1.5-hour session for assessment and review of a preliminary health coaching questionnaire followed by 5 minutes of guided imagery, all to help clarify the client's vision of health and the key personal values; and
2. the signing of a 3-month contract consisting of five additional sessions ranging in length from 45 to 75 minutes. The client completed a "current and desired states of health" assessment to help focus the goal-setting portion of the coaching. During this time, the client set small, measurable goals and accomplished them. Some sessions included strategies to overcome internal and external barriers to accomplishment, perspective changes, etc.

Eight additional sessions were added on a month-to-month basis. The total period of intervention was 11 months and 14 sessions. There were two periods of interruption, both related to client travel: the first between sessions 6 and 7, and the second between sessions 12 and 13.

Health coaching is a client-driven intervention, and in this case, client adherence was excellent. The coach's role is to help identify the focus that will serve the client, to assist with the preparation steps required for success by slowing the process to include planning, and to help the client to navigate barriers. There were no noted adverse effects of IHC. The cost to the client was $300 for the initial contract period and $400 for the month-to-month sessions, for a total of $700 for the 14 sessions.

OUTCOMES

Client-reported benefits/outcomes included the following:

IHC helped me better understand myself and the ways that I cope with the vicissitudes of life. It also gave me a bag of tricks to help me keep on track—keeping a food journal, using EBT [Emotional Brain Training]-learned ways of making requests to get the support I need and to secure understanding from friends and family about my dietary restrictions and permission from them to bring my own food to gatherings or to refuse tempting desserts. It gave me support when my weight loss was less than I had expected and helped me see my accomplishments and not just my failures. It gave me the confidence that I can lose weight again as needed after a surgery or a crisis. Lastly, it helped my regain my self-esteem and my confidence in being the "master of my fate."

Clinician-reported outcomes included the following:

- Normal blood glucose (HbA1c dropped from diabetic/prediabetic levels [6.3%] to normal [5.2%] within 3.5 months).
- 40-lb weight loss from 187 lbs to 147 lbs, a 21% loss during the treatment period (the client's BMI changed from an obesity class II at 36.5 to a BMI of 28.9 [overweight]).
- Increase in exercise activity (from little exercise to 1.5 hours five times/week).
- Reduction in pain (from a high of 6-7 on a 10-point scale during first sessions to 0-2 by the 6th month).
- Client reported success in meeting her goals of being able to walk to Spanish class and feel less pain when engaged in cooking or attending Mass—in general, a gain in strength and mobility for the myriad personal, family, and intellectual pursuits that added to her quality of life.

FOLLOW-UP

The clinical course included the following patient-elected activities: requesting physician referral to a supervised exercise program, enrolling in Emotional Brain Training (EBT), completing the introductory EBT course and intermediate training, and pursuing physical therapy. Pain in the spine/back improved significantly according to the patient; however, hip pain increased toward the end of the coaching session. Hip surgery was planned.

DISCUSSION

The strengths of this case report include the patient's achievements in modifying lifestyle behaviors and that these behaviors extended past the 6-month mark where weight loss and other metabolic markers often return to baseline. The patient was able to employ noninvasive, nonpharmacological, nonsurgical methods with the help of IHC in conjunction with her own strengths, motivation, and adoption of related healthy lifestyle behaviors.

Limitations of this case report include the author's inability to quantify the specific benefit of IHC as distinct from the other factors known to produce metabolic change (nutrition, exercise, EBT) as the client used these concurrently. Since the aim of coaching is to enable clients to make and sustain the lifestyle behaviors that get results, separating IHC from the benefits of diet and exercise is an inherent limitation of health coaching studies.

Relevant literature on IHC shows it has been tested in group settings for efficacy with diabetes and cardiovascular risk factors. Wolever et al reported a significant reduction in HbA1c after 6 months of telephonic IHC coaching.[1] In 2011, Duke Integrative Medicine researchers followed 63 individuals who received telephonic IHC and noted a reduction in diabetes and stroke risk as well as improvements in mood, aerobic exercise, and activation toward self-management of health.[2] Cardiovascular risk dropped from 9.3% to 7.8% in subjects who worked with an integrative health coach to construct a personalized health plan.[3] Overweight subjects who partnered with an integrative health coach lost more weight than those who received usual care.[3]

RATIONALE FOR CONCLUSIONS

Laboratory values and the client's weight on a reliable clinic scale indicate these endpoints of improved weight and blood glucose control were achieved. Based on research with self-efficacy, it is likely that when a client is able to build on his or her own strengths and empowerment (as is the aim in IHC), self-care behaviors are enhanced and physical and mental health factors improve. The sustained partnership of client and coach, skillful use of overcoming inner and outer barriers, and employing varied perspectives, motivational interviewing, and effective goal setting may be some of the valuable success subfactors measured by IHC endpoints or outcomes.

The primary findings in this case included a reduction in weight and glucose/HbA1c in a client who was in the contemplation and action stages with lifestyle behaviors when she was referred for IHC. She was able to produce a more significant drop in HgbA1c (1.1%) than most blood glucose–lowering medications and a 21% reduction in body weight that parallels the weight loss generally only achieved and maintained through gastric bypass surgery. The client made and sustained these changes in less than 1 year in the context of IHC.

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