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Nutritional Coaching Process Improve Nutritional Habits and Body Composition without a Diet Prescription Even 36 Weeks after the Last Sessions

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Abstract

One of the most important contemporary health problems is the global prevalence of overweight, but nutritional consultation per se has continuously failed to yield consistent and lasting results. The aim of this case report is to evaluate nutritional coaching (NC) in promoting sustainable lifestyle changes. The subject of this study had previously engaged into a series of different diet regimens, all of which failed in achieving the proposed aim. Nutritional intake, body composition, quality of life was assessed at baseline, after 12 weeks of NC and 9 months after finishing NC. 12 sessions (one per week) of NC (employing health coaching techniques) promoted reductions in body fat mass in 12 weeks (-6 kg) that was even greater 9 months after finished the sessions (-10 kgs). Nutritional habits also improved, as the subject showed decreased total energy intake, fat intake. The coaching program was able to induce immediate health benefits; by adopting a strategy in which the patient is at the core of promoting his/her own lifestyle changes. These behavioral changes seem to be much more sustainable than just following a diet prescription. The nutritional coaching strategy detailed was effective at helping our patient developing new eating patterns and improving related health parameters.

Keywords: Nutritional coaching; Eating habits; Lifestyle; Weight loss

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Introduction

The prevalence of overweight and obesity has been increasing at an alarming rate. Increasing proportion of fat and the increased energy density of the diet, together with reductions in the physical activity levels, are the major contributing factors to the rise in the average body weight of populations, in both developed and developing countries. Thus, the best way to handle that is through behavioral changes [1]. The enormous potential effects of health behavior changes on mortality, morbidity, and health care costs provide ample motivation for the concept of lifestyle medicine, i.e., evidence-based practice of assisting individuals and families to adopt and sustain behaviors that can improve health and quality of life [2]. The need to lose weight is well understood, however the process is difficult and a recent estimate reveals less than 1 in 100 persons will be successful in achieving sustained weight loss to normal weight [3].

However, Field and colleagues [4] showed, on nearly 17,000 children between ages 9-14 years, that dieting was a significant predictor of weight gain. The authors concluded, "…in the long term, dieting to control weight is not effective; it may actually promote weight gain".

Moreover, Mann and colleagues [5] in their paper "Diets are Not the Answer" reviewed 31 studies of the long-term outcomes of calorie-restricting diets and concluded dieting is a consistent predictor of weight gain. They noted up to two-thirds of the people regained more weight than they had formerly lost. The authors concluded that "dieters were not able to maintain their weight losses in the long term, and there was not consistent evidence that the diets resulted in significant improvements in their health". Weight regains or weight cycling is also associated with increased health problems such as stroke, and diabetes [6] and lowered high density lipoprotein cholesterol [7]. Hence, not only is obesity a health threat, but repeated unsuccessful attempts to lose weight apparently may contribute to further health problems.

The practice of dieting often comes down to simply limiting caloric and food intake. Whether advised by a dietician or self-induced, it forces people to follow a prescription and modify their daily

routine to conform to the diet. Such a plan might foster in the patient the notion that food is an enemy, thereby provoking dramatic food intake reduction. The traditional dietitian consultation, as well as that of other health care professionals, imposes an acute intervention strategy and the process usually results in an unsuccessful weight loss. The importance of an intervention resulting in new eating habits [6], forged upon a relationship with a health professional, yet driven by the patient, is potentially important to improving the success rate of weight loss attempts. In such a setting, doctors do not simply give a pill to treat disease, but actually help patients care for themselves and guide them to effectively influence their own health [8]. This helping relationship concept is based on theories of health coaching, in which a coach assists a coach who is driving his/her own process of healthy behavior change. Another feature of health coaching is bringing in additional therapies to assist with successful behavior change. A recent study with pediatric cancer survivors reported a strong association between complementary medicine and lifestyle therapies, identifying those with commitment to general wellness. The authors concluded that the use of one-on-one therapy may promote adoption of other therapies and this potential synergistic effect should be targeted in interventions [9].

Health and wellness coaching involve a process facilitating healthy, sustainable behavior changes by challenging a patient to listen to their inner wisdom, to identify personal values, and to transform personal goals into action. Health coaching draws on the principles of positive psychology and the practices of motivational interviewing and goal setting [10]. Health coaches educate and support patients to achieve their health goals through lifestyle and behavior adjustments. Rather than teaching a skill or prescribing a plan, this process encourages individuals to explore inner strengths, thereby improving confidence and making improvements from within [11].

Yet it was understood that in the long term, discussing nutrition and body composition might trigger a synergistic effect, rendering the patient prone to adopting other healthy behaviors. One such nutritional coaching model allowed the establishment of a coach-patient relationship employing health coaching tools such as motivational interviewing, wellness vision sharing, and goal setting. The hope is that nutritional coaching helps a patient finding inner motivation and the necessary tools to achieve self-determined goals, empowering achievement of better eating habits and, thus, weight loss. Therefore, the aim of this study was to examine the effects of nutritional coaching process on the eating habits and body composition of an obese, weight-loss resistant patient during the process and 9 months after the end of the coaching sessions.

Methods

This study was an in-depth, single case investigation on nutritional coaching intervention effects. The coaching process lasted 12 weeks. Data, both clinical outcomes and coaching results related to visioning, goal-setting and quality of life evaluation were collected before, immediately after the coaching intervention and 9 months after the sessions had been finished. The study was approved by the Ethic and Research Committee of School of Physical Education and Sport (University of Sao Paulo). The patient was informed of the experimental procedures before giving his informed written consent to participate.

Presenting concerns

The patient was a 28 years-old man. Over the years, he was subjected to various and numerous nutrition interventions in order to modify body composition. He had already succeeded in losing weight, yet every time all weight was regained in within 2-6 months. Therefore, it is clear that all previous interventions failed in rendering sustainable nutrition modifications adopted by the patient as a new habit.

Timeline-assessments

The patient was interviewed to evaluate daily nutritional routines and also submitted to anthropometric measurements. Nutritional intake was assessed by 24 h-recall at baseline, after 12 weeks of sessions (POST 12) and 36 weeks (POST 36), after the final coaching session. Body composition, skinfold, girths and breadth were measured and Kerr´s protocol was used to calculated muscle, fat and residual mass at baseline, after 12 weeks of sessions (POST 12) and 36 weeks (POST 36) after the final coaching session. The plan was to assess the quality of the body composition change. The World Health Organization Quality of Life questioner -shorter version (WHOQOL-bref) were used to assess the individual's perceptions in the following broad domains: physical health, psychological health, social relationships, and environment.

Nutritional coaching intervention

After completing initial evaluations, the patient went through 12 nutritional coaching sessions, scheduled for 45 minutes each, one per week, over 12 weeks. The majority of the sessions were carried out face-to-face and few of them (two) were electronic (Skype conference). During the nutritional coaching sessions, general coaching strategies and tools were employed such as motivational interviewing, decisional balance [12], positive psychology [13] (gratitude, three blessing exercise), ambivalence, nonviolent communication, mindfulness [14], and strategies to change habits [15]. No diet was prescribed by the coach, and the patient continuously brought up questions and propositions on how, where, and when he could start to change his nutritional habits. The patient, rather than the coach, presented arguments for change.

The coach conducting all sessions was certified by Sociedade Brasileira de Coaching, a Brazilian school, itself certified by Association for Coaching. She was also certified as a Wellness Coach by Well coaches. The coach had been practicing the technique for 1 year at the commencement of this study and worked at Institute Vita. The patient did not pay any fee/compensation for the coaching sessions. To further detail the nutritional coaching process, one of the first steps was to establish the readiness of the patient to change and with that purpose we adopted the Transtheoretical Model [16]. Understanding the stages of change augments the efficacy of appropriate coaching techniques and prevents the premature adoption of new equivocal behaviors that might discourage change. Another important first step was to establish a trusting relationship with the patient by building rapport, employing techniques such as: genuineness, eye contact, good energy, warmth, good quality of voice, a feeling of connectedness, being comfortable and relaxed, mindful listening, being supportive, and adopting positive body language and physical gestures. Creating a rapport is a crucial step in the changing process. Frequently people do not believe they can change, neither do some health professionals. Restoring hope and belief through empathy, to create connection is very important. With a relationship forming, a next step was to create a wellness vision which is a statement by the patient, revealing aspirations to reach his/her highest potential. In the present context the patient was asked

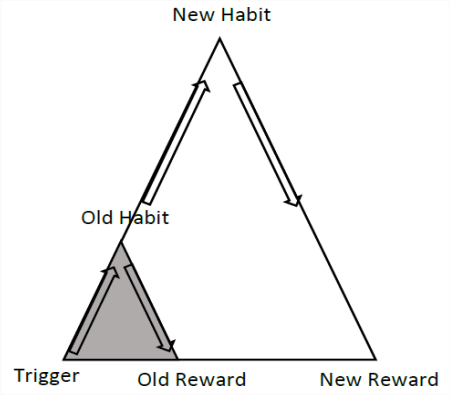

Figure 1: Schematic relapses during the process of creating new habits.

Table 1: Dietary characteristics.

	Baseline	POST 12	POST 36
Energy Intake –EI (Kcal/day)	2250	2000	1800
Fiber (g/day)	10	22	29

Note: POST 12 = twelve weeks of coaching; POST 36 = 36 weeks after finishing the sessions.

to focus on nutrition, diet, and weight loss but a complete wellness vision can include physical, emotional, social, spiritual and financial realms of life. Motivational Interviewing was a primary tool used and is characterized by a focus on the present rather than the past. The emphasis is on communication, concentrating in internal motivating factors and on the exploration of individual core values and goals. Finally, our coaching sessions heavily relied on goal setting: a collaborative effort for behavior change between coach and patient. Using motivational interviewing the patient's strengths, values and desires are determined and then the vision is set in place. After this, specific short term goals are set so that the patient is able to move in the direction of his newly formed vision.

During the sessions, the coach worked with motivational interviewing principles and avoided arguing for change while using open-ended questions, statements, reflections, and believing in the patient's ability to change. Between sessions, the patient and coach exchanged messages via email and text to update tasks. A website called Coach Accountable® was set up and used to remind the patient about what was discussed in the last session. This regular communication between the coach and patient was an integral part of the strategy adopted.

During the nutritional coaching process relapses happen usually because of the immediate rewards that the old habits provide. As illustrated, old habits as eating chocolate when anxious yield immediate pleasure, while the new habit to deal with the same trigger (anxiety) will bring a reward that is not so immediate. For this reason, helping clients to connect with a new vision (of new rewards) and keeping that alive during the entire process is so important (Figure 1).

Results

Coaching findings

Patient's wellness vision was "I am 10 pounds lighter; I play football without losing my breath. My motivators are to have physical condition to play my football, feeling more comfortable". Patient also declared: "I am so tired about feeling pain during the match. I really want to lose weight, enhancing the quality of my diet".

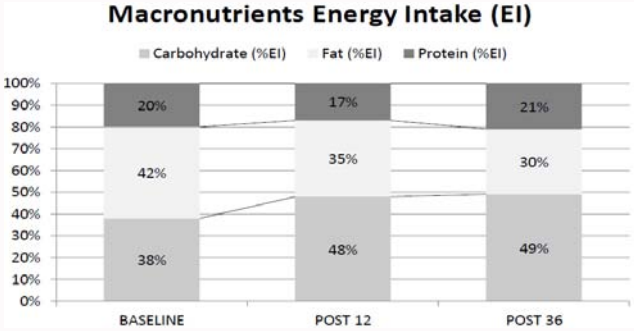

Figure 2: Macronutrients and energy intake over time. Baseline, POST 12 = twelve weeks of coaching; POST 36 = 36 weeks after finishing the sessions.

Table 2: Body composition characteristics.

	Baseline	POST 12	POST 36
Body Weight (kg)	84	77.7	68
BMI (Kg · m^{-2})	27.1	25.1	22
Waist Circumference (cm)	87.5	81.5	75

Note: Baseline, POST 12 = twelve weeks of coaching; POST 36 = 36 weeks after finishing the sessions; BMI (Body Mass Index).

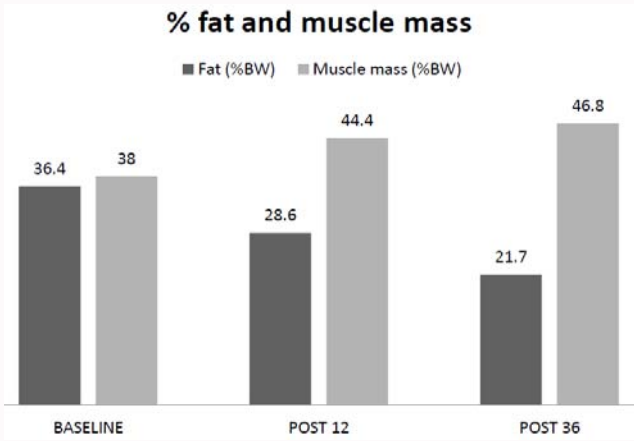

Figure 3: Body composition over time. BW-body weight; baseline, POST 12 = twelve weeks of coaching; POST 36 = 36 weeks after finishing the sessions.

The patient started the program playing one football match per week. During the program he increased the football match sessions to 2 per week and also started a gym program 3 times per week (running 30 minutes and weight lifting 30 minutes).

Clinical findings

As shown in Table 1, total energy intake was reduced from baseline to 12 weeks, and this effect was even more pronounced 36 weeks after finishing the nutritional coaching program. In the same way, Figure 2 shows that fat intake was also reduced and protein, carbohydrate and fiber (Table 1), increased towards healthier proportions in diet.

Table 2 illustrates the effects during the coaching process on body composition, weight and fat mass over 12 weeks and 36 weeks after finishing the process. A reduction in body weight was accompanied by a decrease in fat mass, while the percentage of muscle mass increased (Figure 3). The intervention period was also accompanied by a reduction in waist circumference. It is well established the reducing waist circumference reduces the risk of cardiovascular diseases due to the fact that this specific anatomical store of fat expansion is

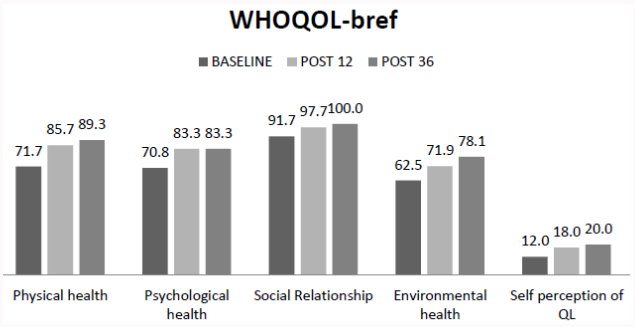

Figure 4: WHOQOF-bref (baseline, POST 12 = twelve weeks of coaching; POST 36 = 36 weeks after finishing the sessions).

associated with inflammatory responses in the body [17].

The World Health Organization (WHO) has defined quality of life as "an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns" [18]. This questionnaire is one of the best known instruments that has been developed for cross-cultural comparisons of QOL and is available in many languages. The questionnaire contains two items from the Overall QOL and General Health and 24 items of satisfaction that divided into four domains: Physical health, psychological health, social relationships and environmental health. Domain scores are scaled in a positive direction (i.e., higher scores denote higher QOL). Figure 4 demonstrates that the nutritional coaching period was also associated with a favorable modification in the self-perception of quality of life evaluated by WHOQOF-bref. The patient increased his scores in all domains and in his self-perception of quality of life.

Discussion

We detailed a nutritional coaching process in an earlier publication [19] that resulted in beneficial clinical outcomes for a patient proven resistant to traditional dietary intervention. Apple and others [20] also demonstrated the effectiveness of health coaching for the purpose of long-term weight loss while another study demonstrated positive outcomes of a coaching program on physiological endpoints (BMI reduction) and behavioral outcomes in terms of improved dietary intake and physical activity, improved quality of life, self-reported well-being, as well as satisfaction outcomes [21]. Our results now show a long-term effect (36 weeks after finishing the sessions) in weight-loss, demonstrating that it is possible to empower the client (not patient, because he is not passive in the process) with the coaching process, as to ensure the maintenance of the results for a long time.

Engaging in the nutritional coaching process, with a focus on eating behaviors, may trigger a synergistic effect leading to adoption of other healthy lifestyle changes. We found this to indeed be the case, as our patient also enhanced physical activity habits and his self-perception of quality of life. The association between addressing nutritional goals using coaching strategies and adoption of other healthy lifestyle changes may be highly beneficial to change patient health status and to bring new strategies and habits into the patient´s life. Sometimes, nutritional problems are reflecting life imbalance between the many roles that we have to play. Simplifying this with a diet prescription is to lose the entire individual context and to disregard that food is, frequently, the solution that people find to deal with stress, anxiety and so on.

Obesity and related lifestyle disorders, along with strategies for weight loss are among the top challenges facing employee wellness programs and public health in general. The traditional physician advice to "lose weight" often results in more risk because of the likelihood of weight loss-regain cycling [6]. Dieting does not work, since it has a beginning and an ending. Moreover, there are reports stating physicians often lack the knowledge and skill to counsel a patient about lifestyle interventions [22]. Coaching, and nutritional coaching specifically, holds promise for health care professionals. This strategy provides a technique intended to empower a patient, as to make healthy lifestyle changes bringing new potential for weight management success. Accordingly, physicians should be encouraged to refer obese and overweight patients to those with nutritional coaching abilities, so that clinical advice for weight loss will stand a better chance of success and endure. It is well established that changes in lifestyle such as being more active reduce all causes of mortality [23]. Unlike dieting in the conventional ways, which may make people fatter [24].

Conclusion

The specific nutritional coaching intervention, while also inducing positive changes in nutrition behavior, improved self-perception of quality of life that extended up to 36 weeks after the end of the intervention. The coaching process supports the development of a relationship, while encouraging a patient to identify his/her vision, needs, and goals. Moreover, coaching aims to help in organizing routines and priorities, while putting the patient in control of their health destiny. Unlike dieting in the conventional ways, nutritional coaching promoted improved body composition, beneficial lifestyle changes, and better health, all of which last longer than common diet prescription.

References

1. Mokdad AH, Marks JS, Stroup DF, Gerberding JL. Actual causes of death in the United States, 2000. JAMA. 2004; 291: 1238-1245.
2. Lianov L, Johnson M. Physician competencies for prescribing lifestyle medicine. JAMA. 2010; 304: 202-203.
3. Fildes A, Charlton J, Rudsill C, Littlejohns P, Prevost AT, Gulliford MC. Probability of an obese person attaining normal body weight: Cohort study using electronic health records. Am J Public Health. 2015; 105: e54-e59.
4. Field AE, Austin SB, Taylor CB, Malspeis S, Rosner B, Rockett HR, et al. Relation between dieting and weight change among preadolescents and adolescents. Pediatrics. 2003; 112: 900-906.
5. Mann T, Tomiyama AJ, Westling E, Lew AM, Samuels B, Chatman J. Medicare's search for effective obesity treatments: diets are not the answer. Am Psychol. 2007; 62: 220-233.
6. French SA, Folsom AR, Jeffery RW, Zheng W, Mink PJ, Baxter JE. Weight variability and incident disease in older women: the Iowa Women's Health Study. Int J Obes Relat Metab Disord. 1997; 21: 217-223.
7. Olson MB, Kelsey SF, Bittner V, Reis SE, Reichek N, Handberg EM, et al. Weight cycling and high-density lipoprotein cholesterol in women: Evidence of an adverse effect. A report from the NHLBI-sponsored WISE Study. Women's Ischemia Syndrome Evaluation Study Group. J Am Coll Cardiol. 2000; 36: 1565-1571.
8. O'Hara BJ, Phongsavan P, Gebel K, Banovic D, Buffett KM, Bauman AE. Longer Term Impact of the Mass Media Campaign to Promote the Get Healthy Information and Coaching Service®: Increasing the Saliency of a New Public Health Program. Health Promot Pract. 2014; 15: 828-838.
9. Karlik JB, Ladas EJ, Ndao DH, Cheng B, Bao YY, Kelly KM. Associations

Between Healthy Lifestyle Behaviors and Complementary and Alternative Medicine Use: Integrated Wellness. J Natl Cancer Inst Monographs. 2014; 323-329.

10. Boardman T, Catley D, Grobe JE, Little TD, Ahluwalia JS. Using motivational interviewing with smokers: do therapist behaviors relate to engagement and therapeutic alliance? J Subst Abuse Treat. 2006; 31: 329-339.

11. Starr J. The coaching manual: the definitive guide to the process, principles, and skills of personal coaching. 2nd edn. Harlow: Pearson Prentice Hall. 2008.

12. Botelho R. Motivational Practice Guidebook. 2nd Edn. USA: MHH Publications. 2004.

13. Seligman MEP. Authentic Happiness: Using the New Positive Psychology to Realize Your Potential for Lasting Fulfillment. New York: Atria paperback. 2004.

14. Kabat-Zinn J. Full Catastrophe living (revised edition). New York: Batan Books. 2013.

15. Duhigg C. The power of habit. Why we do what we do and how to change. London: Randon House Books. 2013.

16. Prochaska JO, Norcross JC, DiClemente CC. Changing for good: A revolutionary six-stage program for overcoming bad habits and moving your life positively forward. New York: Harper Collins. 1995.

17. Després JP, Lemieux I. Abdominal obesity and metabolic syndrome. Nature. 2006; 444: 881-887.

18. [No authors listed]. What quality of life? The WHOQOL Group. World Health Organization Quality of Life Assessment. World Health Forum. 1996; 17: 354-356.

19. Lancha AH, Sforzo GA, Pereira-Lancha LO. Improving Nutritional Habits With No Diet Prescription Details of a Nutritional Coaching Process. Am J Lifestyle Med. 2016.

20. Appel LJ, Clark JM, Yeh HC, Wang NY, Coughlin JW, Daumit G, et al. Comparative effectiveness of weight-loss interventions in clinical practice. N Engl J Med. 2011; 365: 1959-1968.

21. Aoun S, Osseiran-Moisson R, Shahid S, Howat P, O' Connor M. Telephone Lifestyle Coaching: Is It Feasible as a Behavioral. Change Intervention for Men? J Health Psychol. 2012; 17: 227-236.

22. Huang J, Yu H, Marin E, Brock S, Carden D, Davis T. Physicians' weight loss counseling in two public hospital primary care clinics. Acad Med. 2004; 79: 156-161.

23. Matthews CE, George SM, Moore SC, Bowles HR, Blair A, Park Y, et al. Amount of time spent in sedentary behaviors and cause-specific mortality in US adults. Am J Clin Nutr. 2012; 95: 437-445.

24. Karim NA. Dieting Makes People Fat. J Obes Weight Loss Ther. 2015; 5: 242.