

Original Article

Nutrient-Dense Foods Make You Feel Better: What Our Customers Tell Us

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When social media became widely available in the early 2000s, corporation-generated advertisements changed. Companies learned customer responses were believable, important for product design, and they led to sales. The purpose of this study was to conduct an Audit asking customers what changes they experienced after eating The Company's nutrient-rich meals, called Nutrient Complete Meals™. One Audit was for the general pool of customers, who regularly consumed The Company's meals. A second Audit was for a customer group, who regularly consumed a brain-targeted shake. Response rate to both Audits was 30%, which is twice the norm. The majority of the customers reported improvements in a wide variety of things: wellbeing (e.g., improved energy and sleep; feeling better); beauty (e.g., better looking hair, skin, and nails); satiety (e.g., fullness, reduced cravings); weight (e.g., weight loss, reduction in waist circumference); and general health (e.g., better medical results, lower blood pressure, and less joint pain). The Company's customers experienced these positive benefits within a few months, and the only intervention was the inclusion of Nutrient Complete Meals. The changes can be explained because the dietary habits of these customers were like most other Americans – lacking in nutrients and rich in things that promote chronic disease – salt, sugar, saturated fat, and excess calories. Eating the nutrient-dense foods allows the body to repair some of the damage caused by a poor diet, leading to an improved feeling of wellbeing and better health. Nutrient Complete Meals may provide a long-term solution to correct poor eating habits and improving health.

Key words: Nutrient-Dense Foods; Health Outcomes; Quality of Life Indicators

Background: Customers are Talking and being Listened to

For decades, corporate-generated advertisements were mainly relegated to print, billboards, and radio. But, with the advent of television in the 1950s, more advertising dollars switched to the visual broadcast medium, and it became the best way to promote a brand. Most ads were slick, marketing fetes that enticed consumers to buy the company's products. Ads were exciting and often had actors or beautiful people in them. Whether those promoting the products actually used them, was irrelevant.

All that changed in the early 2000s when social media became widely available and believable. Companies quickly learned that letting their customers do the talking about their products – good or bad – was far more effective than advertising practices of the past. Customer information could be a testimonial from one person, or survey data from many. Response rates from customer surveys are typically around 15% [1].

Today, because social media has led the way to social trust, the public uses consumer reviews of products to dictate purchases. Ninety-one percent of people regularly, or occasionally read online reviews, and 84% trust online reviews, which is the same level of trust they have for personal recommendations. As a result of customer reviews, people make a decision to purchase quickly: 68% form an opinion after reading between one and six online reviews [2,3]. Experts, who know about the products and tout their benefits, are believed less than regular consumers (63% of the time experts are believed compared to 84% of the time a consumer is). Nutrient is a privately-held company (hereafter referred to as The Company), which manufactures and sells Nutrient Complete Meals™ (www.nutrientfoods.com; <https://nutrientfoods.com/pages/nutrient-complete-meals>). Each Meal has fewer than 450 kcal, yet contains at least 10 grams of dietary protein and 20% Daily Value (DV) for each vitamin and mineral (except sodium and chloride), fiber, and omega-3 fatty acids. In addition, sugar and saturated fat are limited, and there are no artificial ingredients like flavors or preservatives; all Meals are GMO-free. Nutrient Complete Meals are appropriate for everyone aged 4 years and older.

Most individuals consume too much of things

deemed unhealthy like sodium, sugar, and saturated fat and too few essential vitamins and minerals [4]. Long-term, this nutrient-poor, unhealthy eating pattern increases inflammation, causing chronic conditions like obesity, cardiovascular disease (CVD), and type 2 diabetes; cancer; dementia; and accelerated aging [4-12]. In fact, 80% of chronic diseases are caused by a poor diet [6,12].

The purpose of this study was to determine whether consuming The Company's Nutrient Complete Meals results in feeling better and in improving health. To determine this, and in keeping with the times, we conducted an outcomes audit (hereafter referred to as The Audit) of customers, who regularly ordered and consumed The Company's foods. The data obtained are to be used in three ways. First, The Company was curious about how quickly changes occur in wellbeing and health after consuming the Nutrient Complete Meals. During the years before diseases manifest themselves, individuals often feel poorly and lack energy, and consuming the Nutrient Complete Meals would be expected to have a positive impact. The Audit will provide The Company the answer to, "How are we doing?" and hopefully support its mission: "Health Before Health Care."

Second, the customer Audit information will be helpful in identifying future areas of research. The Company conducts clinical research studies on individuals with a myriad of conditions who are consuming their foods. The Company has termed this process, Live Clinical™ studies [13]. The old model of using an academic center to conduct clinical research is arcane by today's standards. Academic centers are expensive, take a long time, and typically don't benefit the patient in the study. The Live Clinical model is less expensive and takes less time than the traditional model. A Live Clinical is fully transparent, and participants learn about themselves by regularly completing data reporting forms about how they doing from eating the Nutrient Complete Meals. The Live Clinical model has shown that Nutrient Complete Meals are efficacious at promoting weight loss and lowering blood pressure [14-16]. Third, the information obtained from the customer Audit will be used for Marketing, Sales, and Research and Development. This is the beginning of Big Data, where what the customer says matters. Ads can be targeted toward certain demographics, and Sales can approach selected physician practices. The

Company may also learn that products need to be redesigned or that new ones should be made.

METHODOLOGY

The Audits

In the Fall of 2017, The Company conducted online customer Audits. All customers had monthly shipments of The Company's foods to their homes and had at least three orders sent. Questions were written to obtain responses to changes since they began eating The Company's foods. The responses to The Audits were: Yes, noticed a difference; No, no improvement, and Not Applicable. The Company provided responders \$25 worth of its bars or cereals.

Two different customer Audits were administered, but the objective of each was to ask questions that are likely to change in response to consuming Nutrient Complete Meals. One Audit was sent to 556 regular customers, who ordered at least one of The Company's foods monthly, except its brain-targeted shake. A second Audit was sent to 142 customers, who ordered the brain-targeted shake monthly; they could also be receiving other of The Company's foods. The two Audits had many of the same questions that were related to general living, beauty/appearance, satiety, weight, and health. Customers who received the brain-targeted shake were asked an additional nine questions related to memory, focus, and concentration. In addition, all customers who completed The Audits, provided their age, gender, and how many of The Company's meals and brain-targeted shakes they consumed daily.

All participants were assumed to be healthy and using The Company's foods as intended and described on the label or packaging. Some questions were directed toward common health conditions that healthy people experience frequently like poor sleep, lack of sexual desire/function due to aging, and low energy (**Table 1**, Better Living Section). Other questions were observations by the customers such as changes in nail and hair growth, satiety, weight loss, lost inches, and puffiness around the eyes; these structure/function changes do not imply changes in any medical conditions (**Table 1**, Beauty/Appearance, Satiety, and Weight Sections). The health questions relate to things that people typically experience, but do not have specific diagnoses

from a physician (**Table 1**, Health Section).

NUTRIENT-DENSE FOOD: THE INTERVENTION

All customers received at least one of The Company's Nutrient Complete Meal each month; one group received a brain-targeted shake and could have received others as well. Each Meal contained 35% of the Daily Value (DV) for every vitamin and mineral, except sodium and chloride. The Company's bars had 25% DV for these nutrients. The Company offers a variety of 28 products like shakes (chocolate and vanilla), sauces (e.g., cheese, beef flavor) with noodles or rice, and hot and cold cereals (e.g., sugar-free oatmeal, apple cinnamon oatmeal, maple almond, chocolate). The brain-targeted shake was offered as chocolate or coffee flavor.

The Company's brain-targeted shake includes the same one-third DV of all nutrients as the other foods do. In addition, it includes BrainCare™, a proprietary blend of ingredients that support memory, focus, and concentration (<https://nutrientfoods.com/products/brain-shake-packs#modal>).

RESULTS

Customers Using Products Regularly, but not the Brain-Targeted Shake

The response rate to this customer Audit was 39% (215/556), and 52% of respondents were male. This group consumed 1 to 1.5 of The Company's meals daily. Average age was 55 ± 14 years. More than half of the customers experienced changes in Better Living questions: more than 90% had more energy and generally felt better (**Table 1**). These customers claimed that they looked better –58% said they had improved skin, 74% said they had stronger nails, and 72% said they had healthier hair. Under the Satiety section, respondents reported feeling full and satisfied (98%), having fewer mid-day energy crashes (93%), and feeling full (93%). From eating The Company's meals, 51% of lost weight and inches, 93% felt fuller longer, and 85% ate fewer snacks. Under the Health section, respondents reported: overall improved health (87%), felt that their bodies were stronger (75%), better digestion in 79%, less joint pain (64%), lower blood pressure (62%), and better medical test results (69%).

Table 1: Percentage of customer responding Yes to audit questions.

QUESTION	General Customer Responses	Brain-targeted Group Responses*
	YES, NOTICED A DIFFERENCE	YES, NOTICED A DIFFERENCE
Better living questions:		
After eating Nutrient Meals, have you experienced		
Improved energy	91	87
Feeling better	91	
Less stress	69	72
More passion	56	61
Better sleep	65	78
Better day after recovery from late night out	74	85
Faster recovery from injuries and/or workouts	69	89
Beauty/Appearance questions:		
After eating Nutrient Meals, have you experienced		
Improved skin quality/tone	58	73
Stronger, faster growing nails	74	81
Healthier, faster growing hair	72	74
Less puffiness in the morning	60	
Others commenting on improved skin/appearance	46	
Satiety:		
After eating Nutrient Meals, have you experienced		
Fullness and satisfaction	98	89
Fewer mid-day energy crashes	93	
Noticed feeling fuller, longer	93	
Had fewer cravings	87	
Felt taste buds changing – desiring less sugar	69	78
Weight questions:		
By consuming Nutrient Meals, have you		
Lost weight	51	50
Lost inches	51	50
Been eating better	93	95
Consumed fewer snacks	85	
Health questions:		
After using Nutrient meals for some time, have you experienced		
Less joint pain	64	70 (less pain)
Less body inflammation	66	
Better blood pressure	62	
Stronger body	75	67 (better muscle tone)

Improved digestion	79	77
Eating healthier diet if you have a chronic disease	70	
Better medical results	69	91 (stronger body; less sick)
Improved health	87	86
Improved focus	79	
Feeling better mentally	85	94 (improved mood)
Cognitive questions:*		
By consuming The Company's brain-targeted shake, do you experience		
Improved focus		87
Longer concentration		87
Better short-term memory		83
Better long-term memory		73
Improved multi-tasking		78
Faster recall of information		78
More alertness		87
Less forgetfulness		76
Improved mental clarity		84

Customers using the Brain-Targeted Shake

The response rate to The Company's Audit was 27% (38/142), and 59% of the respondents were male. This group consumed one brain-targeted shake daily. Average age was 58 ± 16 years. Customers reported improvement in things that would expect to occur from the brain-targeted shake: focus and concentration (87% each), better short-term memory (83%), better long-term memory (73%), improved mental clarity (84%), and more alertness (87%) (**Table 1**). They also experienced other benefits similar to those who did not use the brain-targeted product. For the Better Living questions, 87% had more energy, 72% experienced less stress, 78% reported sleeping better, and 89% recovered faster after workouts. In terms of Beauty/Appearance, 73% reported improved skin tone, 81% had faster growing nails, and 74% reported faster growing hair. Questions about satiation showed that 89% were full and satisfied and 78% noticed a change in taste buds in that they desired less sugar. Under questions dealing with weight, half reported weight loss and loss of inches and 95% reported eating better. For Health questions, 70%

reported less pain, 67% said they had better muscle tone, 77% had improved digestion, 91% had stronger bodies and were less sick, and 94% claimed improved mood.

DISCUSSION

The response rates to both customer Audits were about twice what is expected [1]. This would suggest that individuals, who began consuming healthy nutrient-rich meals, experienced benefits and wanted to share them with The Company. It is likely that if the Nutrient Complete Meals were having no effects, then the response rate would be much lower. We surmised that the dietary habits of these customers were like most other Americans in that they were low in nutrients and rich in things that promote chronic disease – salt, sugar, and saturated fat [4]. Eating the right foods allows the body to repair some of the damage caused from a poor diet, leading to an improved feeling of wellbeing and better health. Customers in both groups (using and not using a brain-targeted shake) experienced a wide range of seemingly unrelated benefits, yet the only intervention was the regular consumption of the Nutrient

Complete Meals. What was surprising was that these benefits under the Better Living, Beauty/Appearance, Satiety, Weight, and Health sections occurred quickly – sometimes in a matter of months.

Of particular interest was that half of the respondents reported weight loss, despite the fact that the foods were not specifically formulated that way. Weight loss was explained by the reports of increased satiety and fullness, and of fewer cravings and snacking. These observations are supported by science. We, and others, have shown that a nutrient-dense diet promotes significant weight loss, decreases in waist circumferences, and leads to satiation [14,15,17]. Most commercial diet plans lack all essential nutrients, which is the main reason they fail [18].

Strong scientific evidence also supports the changes observed in the Beauty/Appearance section. A lifetime of poor nutrient intake forces the body into nutrient-triage mode [5]. With continued lack of essential nutrients over many years, the brain sends the precious few available nutrients to the most vital organs like the heart, lungs, and liver. Lesser organs and tissues, like the hair, skin, and nails, suffer first and are unable to function optimally or undergo repair. Hair may gray early; skin may become excessively wrinkled, and nails may be soft and grow slowly. Consumption of the Nutrient Complete Meals over a few months led to improvements in these aspects of appearance.

Customers who consumed one brain-targeted shake daily for a few months, experienced improvements in concentration, focus, alertness, and memory. These findings are not surprising given that diets rich in essential nutrients, especially the anti-oxidants, and low in saturated fat are associated with improved cognition [19,20]. The Company's brain-targeted shake has this nutritional profile. To further explain the positive findings, the brain-targeted shake contains a proprietary blend of ingredients, BrainCare™, that have been shown to support brain health and function. These include acetyl L-carnitine, alpha lipoic acid, quercetin, coenzyme Q10, N acetyl cysteine, and phosphatidylserine (<https://nutrientfoods.com/products/brain-shake-packs#modal>).

These Audits provide new areas of research to investigate using The Company's Live Clinical model [13]. Research

studies are like those in an academic center – a hypothesis is generated, data collected and analyzed, and the results published. Recruitment of subjects comes from different sources, including social media. All data are self-reported to a private, study-specific site on The Company's website. The Company has already explored the effect of nutrient-dense foods on weight loss and reducing blood pressure [14-16]. Based on these customer Audits, future studies will focus on beauty and appearance, memory, and anti-aging.

CONCLUSION

Americans eat a nutrient-poor diet, which is also rich in salt, sugar, and saturated fat. From these Audit results, with the only intervention being Nutrient Complete Meals, it is apparent that in a few months the ill-effects of years of consuming a poor diet are abated. Benefits were observed in general feeling of well-being like better sleep and less stress, in weight loss and satiation, appearance of hair and nails, and health having better blood pressure readings and medical results. Diet is an important aspect of maintaining health and avoiding chronic disease. Since no one follows a healthy dietary pattern, The Company's Nutrient Complete Meals may be the best solution to help individuals eat healthier, live longer, and have fewer chronic conditions.

CONFLICT OF INTEREST

Mr. Marsland and Mr. Castleman founded Nutrient, the company from which its customers were audited for this study. Dr. Bell is a full-time employee of Nutrient.

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