"This is a non-final version of an article published in final form in Nutrition Today.

Meeting the Challenge of Providing Nutrition Services During the COVID-19 Pandemic

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Nutrition Today: 1/2 2021 - Volume 56 - Issue 1 - p 7-18

doi: 10.1097/NT.0000000000000455

https://journals.lww.com/nutritiontodayonline/Fulltext/2021/01000/Meeting_the_Challenge_of_Providing_Nutrition.4.aspx

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No funding was provided for this manuscript

Short title: COVID nutrition services

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Abstract

We, Registered Dietitian Nutritionists (RDNs), could have sat on the sidelines in the early days of the pandemic when many RDNs were not considered "essential" workers. Instead, RDNs used their abilities to innovate and adapt to ensure the public, their patients and clients received continuous nutrition services. Some of the strategies adopted were possible because of temporary or emergency flexibilities in policies. We present examples primarily from our outpatient practices with efforts by public health and inpatient RDNs acknowledged. We hope these examples will inspire all to do the work needed to provide increased access to medical nutrition therapy and nutrition education for all.

Introduction

Some hospitals, clinics, WIC programs, and public health agencies deemed their RDNs as essential workers, and their workload may have increased, others were furloughed, some were offered non-nutrition work, or others transitioned to remote work. We knew that the food environment changed for many individuals during the COVID-19 (COVID) lock down. It is almost ironic. One of the strategies RDNs often suggest to patients with poor adherence to their diet plans and goals is to "eat more meals at home." But it is clear as people joke about their COVID-15 (as in 15 pounds gained) that eating at home does not automatically guarantee a healthier weight or adherence to a meal plan. We know that

the nutrition needs of individuals do not go away, but in fact might increase with stress, food insecurity, and other factors like lack of knowledge about eating healthy on a budget at home or food preparation skills. (1-2). During the fall of 2020 the reports started to appear that supported the observations we have made. For example, Niles and coworkers (3) reported a 32% increase in household food insecurity in Vermont since COVID-19 with 36% classified as newly food insecure. Research reported from UT Southwestern Medical Center and also Johns Hopkins reported stress eating and binge-watching with snacking (4). Flanagan and coworkers (5) reported participants in their on-line surveys had healthier diets, snacked more and ate out less frequently. However, one-third of people with obesity gained weight during the lockdown, compared to about 21 percent of people with normal weight or overweight. Puhl and coworkers (6) found young adults who have experienced weight stigma may have increased vulnerability to distress and maladaptive eating, such as coping with stress by eating or binging during the pandemic. The researchers called for more support. Many individuals need more than the lists of strategies or advice given on blogs, websites, in newspapers and journal articles (1,2). How many times have we heard from our patients or clients, "I know what to do, I just don't do it." We have heard people during COVID say, "I know I should eat healthy, but I crave comfort foods." And we do know from our experiences many people really do not know what to do in a world where nutrition misinformation abounds; however, our patients and clients need the assistance of an RDN, nutrition or diabetes educator. In this article we present 16 cases demonstrating how RDNs and nutrition educators innovated and adapted their practice to continue serving patients and clients.

Telephone and Tele-health individual counseling

Case 1: The Situation

Early in the pandemic, it became clear that obesity is a risk factor for a more severe case of COVID. But as early as March 2020, RDNs were trying to help their patients continue their path to achieving a healthy weight and/or preventing weight gain.

John is a 36-year-old male with private insurance. He had been trying to lose weight for more than two years (Figure 1). His starting weight was 442 pounds and was 6 feet tall (BMI = 59). His problem list includes hypertension, sleep apnea, and obesity. His blood pressure was being managed with 50 mg Hydrochlorothiazide, daily.

He has visited with a RDN every two weeks and weekly when he is struggling when COVID 19 hit. He knew from experience he needed accountability to stay on track or he would quickly regain the lost weight. He does not have access to a scale that would accept his weight except at the Family Practice Center. About 6 months before the COVID crisis he was struggling and was started on Saxenda®, an FDA-approved, prescription injectable medicine that, when used with a low-calorie meal plan and increased physical activity, may help some adults lose excess weight. He did report that it helped decrease his appetite. He had agreed to follow the DASH eating plan but found it difficult and subsequently requested a trial with the popular Keto diet. The RDNs in the practice had developed a keto-like plan (See Figure 2) that had more meat than DASH but leaner meat than the popular keto diet books. Over time, they work with their patients to transition them to a more evidence-based approach like the DASH, MEDITERRANEAN or MIND approach. John was willing to cut out sweet cake and sweet drinks. He "hates" vegetables but was working to include more into his meal plan.

When COVID hit, he had lost 61 pounds and his BMI was 51. He was requesting regular visits and even though his RDN was still seeing a limited number of patients face-to-face, he was reluctant to come

inside the Center. He recognized his gender and obesity put him at higher risk for COVID. He was really worried about working from and eating at home and asked if he could attend his visits by phone.

The problem: a telephone visit with the RDN was not reimbursable by his insurance.

The solution: John agreed to come to the Center at the appointed time. The Center has a portable scale (weight about 20 pounds and cumbersome). He would weigh himself in the vestibule of the Center with a glass partition between it and the waiting room. The RDN would observe and record his weight in the electronic medical record. He would return to his car and continue his 15-30-minute visit with the RDN by telephone. They could look at his diet record logged on MyFitness Pal (7). The RDN would attach any new patient education handouts to his after-visit summary in the electronic record and/or deliver them to the hood of his car. John has continued to lose weight.

What the RDN had to do: The RDN was willing to carry a 20-pound scale to the lobby from the office; to take patient education materials to his car in order to ensure the visit could be reimbursed by his insurance.

Case 2: The Situation:

Patients referred by their physicians for medical nutrition therapy (MNT) are often resistant to making and keeping an in-office appointment. A SKYPE (7) visit reduced the barrier.

Robert, an 83-year-old overweight male with a history of severe protein energy malnutrition, prostate cancer, hyperlipidemia, stroke, and seizure disorder. His height was 5 ft 8 inches and weight of 212 pounds (BMI 32). His primary care physician offered him access to the Medicare Benefit--Intensive Behavioral Therapy for Obesity (IBTO). Thinking the RDN would take away all his favorite foods he told his primary care provider and family that he was not interested in being seen by the RDN. At the

insistence of his wife and daughter he made an appointment. When he learned he would not have to pay for the visit he kept the appointment but still expressed that his family "ambushed" him. Before his follow-up visit COVID hit and he was unwilling to come into the Center but agreed to try a virtual visit.

The Solution. Although this physician's office had not been offering Tele-med visits, it had some experience in Tele-health. As the medical world was scrambling to provide Tele-med and Tele-health services to their patients, there was a relaxation on the strict rules governing the security of the platforms. There was also improvement for reimbursement of visits that had a video component. The RDN could offer him a variety of platforms. He was familiar with Skype having used it to visit with his grandchildren, so he selected it. With the telephone as a back-up, they tried twice unsuccessfully to make a connection. His wife was undaunted and although it took 45 minutes to get it to work, Robert did visit with the RDN. The RDN noted that this was a completely different Robert. Sitting on his own, visiting on SKYPE, he shared he was more comfortable and became more engaged. He shared what and how much he was eating and what gets in his way of following a weight loss plan, specifically snacking and boredom. He was very transparent and identified what he was willing to and not willing to change. His wife listened in and went to the kitchen to bring labels of foods they had in their home. Both husband and wife shared a fear of going out due to COVID. The RDN helped them learn to shop for groceries online. With time, over several appointments which he kept, his wife learned to add items discussed to the grocery list while they talked.

To be reimbursed the visit needed to follow the 5A's (Ask, Advise, Assess, Assist, Arrange). The RDN negotiated with Robert three goals for change. He would purchase and cut-up fruit in baggies (he loves fruit but doesn't eat it). He would rid the house of stuff he had been mindlessly snacking on including crackers and pimiento cheese. Instead of three eggs for breakfast he would have one egg plus two egg

whites in morning, and sausage only on weekends instead of daily. His wife ordered egg whites online on their grocery order as she did not want to separate the eggs at home. She added fruits to the order and deleted the sweets they had been planning to order. He agreed to think about what type of exercise he could do and discuss at his next visit and he agreed to continue to be seen on the IBTO schedule. In August 2020 (5 months later), he weighed 200 pounds (BMI 27). His goal is to get his weight under 199 pounds.

What the RDN had to do: Initially, for the first 2-3 visits it took the RDN extra time to call the patient and his wife on the phone. She showed patience and provided clear instructions to talk them through the process of connecting via SKYPE (8) . In the early days of COVID, this RDN learned to use several platforms including SKYPE, WEB-EX (9), FACETIME (10), Doximity (11), ZOOM (12), Adobe connect (13) and Microsoft teams (14). She practiced with colleagues who were unfamiliar with these platforms until they could easily log in. She worked with the patients to transition them to the more cumbersome but secure platforms. One benefit to the practice was that then the patients were ready for their next physician appointment to have a smooth Tele-med visit.

Cases 3 and 4. The Situation.

Patients report they would not have continued visits or not consistently if they couldn't do them virtually. These are patients with children, full schedules, and living at a distance from the hospital-based Lifestyle Medicine clinic where several RDNs provide services.

Cases 3. Sheila is a 41-year-old female with 2 children who typically works from home. She is used to communicating with many professionals via telephone, FACETIME, and Skype. She needs to be available when the clients call and so booking a face-to-face appointment, driving to the center, waiting to see the RDN and returning home just doesn't work consistently for her. Since she is working on losing her

pregnancy weight, she doesn't have a lot to lose and so the time commitment for a face-to-face meeting is more than she can "afford". It took some time to develop a rapport with her since she and her husband, who does most of the grocery shopping and cooking, don't agree on the style of eating. She wants to eat more plant-based and he does not. It took several weeks of food logs to recognize she was eating lots of processed food/quick convenient foods and losing no weight. With the continued support each month from the RDN she was able to find a solution in which she could eat healthier and more plant based meals and her husband didn't have to cook every night, which was beneficial for both of them.

Case 4. Violet lives an hour away from the clinic so doing virtual visits saves her so much time. She is in the process of getting bariatric surgery for morbid obesity, so she must see the RDN for 4 visits prior to surgery. Her medication for her hypothyroidism had been at a dosage that was not working and making it difficult for her to lose any weight. However, the virtual video conferencing has led her to make many changes including decreasing her intake of simple carbohydrates and an increased intake of fruits and non-starchy vegetables. She and her husband are getting less "take out" because of discussions about easy healthy food prep at home. She has been receiving nutrition services virtually during her lunch break for 3 months. Violet admits if she had to take time off from work and drive into the clinic, she may not have made the progress required to be cleared for surgery. She has agreed she will continue with the visits post-surgery because she can do it virtually.

What the RDN had to do. The RDN needed to be well versed in the use of various platforms; willing to change scheduling procedures; and spend extra time emailing or snail mailing handouts. Most of this activity was not reimbursed and the RDN either needed to convince their supervisor to provide the time or be willing to do it on her own.

Telephone and Telehealth CASES 1-4 revisited

As early as 2008, Eakin and coworkers (15) published one of many studies that demonstrate adults patients, even from disadvantaged communities, can achieve modest improvements in diet and physical activity though a telephone delivered intervention—as good and sometimes even better than face-to-face counseling (16-23). Nutrition care delivered via telephone for other conditions, too, have been found to be effective (24-25). Some experts believe that using the telephone is a good place to start to take individuals across the digital divide (26). In addition to improved adherence to medical nutrition therapy goals, Benson (27) demonstrated RDNs could assist patients with medication counseling. In 2015, Rollo and coworkers (28) noted that video conferencing was underutilized in nutrition care, recognized the unique characteristics that arise when using video consultations for weight management delivered by an RDN, and developed a checklist to support RDNs in the delivery of effective and efficient virtual nutrition care. More recently several researchers demonstrated Telemedicine counseling and coaching can effectively assist patients in losing weight and in some study's metabolic markers (29-31). There is robust literature supporting the efficacy of telehealth services for promoting diet changes and weight management (32). Telephone counseling addresses barriers of geographic inaccessibility and patient and provider time constraints. And while organizations like the Academy of Nutrition and Dietetics (33) have provided their membership with a guide to practice Telehealth and Tele-nutrition (2020) as well as best practice tips (34), payer coverage and payment policies have limited the use of telehealth services. In some cases, reimbursement for Telehealth services provided by all providers are significantly less than face-to-face. Temporary flexibilities and changes to rules in different practice settings has allowed RDNS to further demonstrate how the use of Telehealth can improve care as well as increase the demand for Medical Nutrition Therapy (35). Mehta and coworkers (2020) have outlined how telehealth one-on-one visits have been used during COVID (36). The Academy of Nutrition and Dietetics has advice on how to harness the opportunities and momentum of Telehealth (33-35)

Diabetes Prevention and Weight Management Group Classes Transition to Virtual

Cases 5-10. The Situation: Diabetes Prevention.

The National Diabetes Prevention Program (National DPP) is a partnership of public and private organizations working to prevent or delay type 2 diabetes (37). One feature of the program, a CDC-recognized lifestyle change program, is that these programs are located throughout the United States

One program, the "Eat Smart, Move More, Prevent Diabetes" is a year-long, CDC-recognized diabetes prevention program based on proven strategies to achieve and maintain a healthy weight offered by NC State University (38). It has been offered online since 2016 and has served approximately 1, 800 participants. It has been offered via face-to-face classes since 2018 and has served about 102 participants. The classes are one hour long and meet approximately weekly for the first 16 weeks. The on-line program delivered through GoToTraining (LogMeIn product) platform also offers a private FACEBOOK page for each class and a MyProgressPortal where members communicate with the instructor outside of class. The face-to-face classes create an opportunity to establish rapport between the instructor and participants and among the participants themselves. Participants select a class member to be their "buddy" for social support. Then 4-6 lessons are held every three weeks and then 4 lessons are held monthly. The average size of the online class is 15, and the face-to-face class is 18.

Key concepts include planning and tracking eating habits and living mindfully to prevent diabetes. The program is delivered in a real-time, online format so participants see and hear their instructor during live sessions, with the ability to interact with the instructor as well as classmates. Participants work through

challenges together as a group and celebrate each other's successes. These classes are taught by a trained lifestyle coach and RDN who provides one-on-one support outside of class.

Twenty-seven residents of a 55+ active adult community began an in-person format class in mid-February 2020. Participants range in age from mid 50s to early 80s. In March when the governor's order restricted meetings of groups or more than 10 people due to the risk of COVID-19, the RDN instructor transitioned to the online delivery format retaining all but one of the participants. After 6 months all continued participating.

Case 5. Seventy -five-year-old Mrs. F would not have signed up for the online format. She is a retired nurse and "knows what to do" but reports that coming to the meetings and getting on a scale keeps her motivated. Being around other people helps, but she says it really is about someone (the instructor) checking in on her as she lives alone. Her initial reaction when she learned that the program was going virtual was that it would probably be ok because she knew with a stay-at-home order, she wouldn't be able to go out and do anything. Since COVID, she has been cooking more meals at home even though she gets bored with it and knows her eating habits are worse due to boredom and loneliness. Her BMI at program entry was 32.7 and at the 6-month mark remained essentially unchanged. She believes she would have gained weight if the program had stopped as her triggers for overeating are loneliness and boredom. She is not as social as she would like to be and notes a sadness over losing the ability to have fun as a senior, feeling stuck that she cannot go out for a cup of coffee. The online program is ok because she can exercise before the class and not have to worry about fixing her hair. Otherwise there is not much she really likes about the online program. It makes her sit too long. She does not use the FACEBOOK page nor keep up with her buddy. She misses the cohesiveness of the in-person class and the conversation that people have with each other and that the instructor has with the group. She does plan to stick with it for the next 6 months in hopes of losing weight, but she is bored.

Case 6. Seventy-one-year-old Mrs. M signed up for the program because her mother and grandmother had diabetes and her grandson has type 1DM. She would not have signed up for an online class and initially panicked at the thought of going virtual. Although she had an IPAD, she had no confidence that she would participate online. She says she is not very tech savvy and prefers social gatherings to exchange ideas. The buddy she met at the first class helped her transition. Mrs. M has taken more responsibility for her eating habits since COVID, including eating breakfast and snacking less on junk food. She has been very successful in the class starting with a baseline BMI of 38.7 and at 6 months measuring 30.7, a loss of about 40 pounds. She believes she would have lost some but not as much weight if the program ended because she was also doing weight Watchers. This program holds her accountable for tracking her food and exercise. She misses the personal contact of the face-to-face but says it works because they had a face-to-face contract to make the program personal when it went online. She likes the encouragement from others as well as swapping recipes. She does not use the FACEBOOK page.

Case 7. Seventy-nine-year-old Mrs. B is a 79-year old female who for the first time in over 40 years decided to do something about her weight. At baseline, her BMI was 37.7 and 32.0 at 6 months, a loss of 31 pounds. A friend who had taken the course said that the program was high quality, she lost weight and looked forward to attending. Although Mrs. B is comfortable with computers, she lives alone, and the class reportedly had a social aspect as well as it was held at a convenient location in their community center. If the class had stopped rather than transitioned to online, she would not have been successful, as she needs accountability and feels she gets great attention from the instructor through the MyProgress Portal. She doesn't use FACEBOOK often but stays in touch with the 6 buddies she made during the early face-to-face visits.

The problem. After 2 weeks, the Governor's order restricted meetings of groups or more than 10 people due to the risk of COVID-19. The Eat Smart, Move More, Prevent Diabetes program would need to shut down or meet virtually. The program attracted participants who were either not computer savvy, knew they required accountability or desired a social activity.

The solution. The Eat Smart, Move More Prevent Diabetes program already had several features that provided accountability and opportunities for socialization. MyProgress is a secure portal to record weekly numbers for physical activity, weight and received private feedback from instructor.

What the RDN had to do. The RDN needed to ensure that technical assistance was provided as needed to join the class. To foster connectedness similar to time for conversations before and after face-to-face classes among participants, the instructor allowed participants extra time to connect before and after the lesson by opening up the microphones for participants to engage in conversation not necessarily related to the class content. In order to continue social support outside of class, a secure portal called the My Progress Portal is used for participants to record their weekly numbers for physical activity and weight and receive private feedback and support from their instructor. Additionally, a private Facebook page was created for the class participants to share exercise videos, recipes, and other virtual opportunities. Since the main purpose of the Facebook page is for participants to communicate and share resources among themselves, the instructors report this requires about an additional 10 minutes per week to respond to participant posts or to create a brief post to inspire conversation among participants.

Case 8 The Situation: Weight Management Class goes Virtual with Drive Through Recipe Ingredient Pick-Up.

For the last 7 years an interprofessional team provides a free weight management class for any patient of the Family Medicine Center who cares to attend. The class meets the need of providing access to weight management services for those without insurance coverage as well as an educational activity for medical students. Under normal circumstances about 35 patients attend a weekly class presented by a RDN, exercise or behavioral specialist. Monthly there is a food demonstration providing participants a taste of a healthy dish—and the ingredients to take home and try the recipe. Many of these patients believe eating healthy is expensive and this activity gives them a financially risk-free opportunity to try a new affordable dish. The course delivery shifted to the WebEx platform with relative ease. The creating, taping, editing, and uploading a video of the food demonstration seemed to be a reasonable replacement for the hands-on food demonstration.

The problems: 1) The preparation of the videos required about two additional hours of the RDNs time. They used the phone to record the demo using a free APP iMovie. It was suitable for this activity because it allowed addition of text and music. However, this additional time took away from revenue generating work. The RDNs then searched and found suitable videos on Delish.com and Skinnytaste.com; however, then learned that most of the participants did not either have access to a device that could show the video, or they did not have a data plan. 2) At the beginning of COVID grocery stores were limiting the quantities many staple type items that were used in the recipes or didn't have sufficient quantities as supplies were stretched.

The Solutions: 1) The RDNs printed the recipes with very specific instructions and placed them in the recipe ingredient bag. They followed up at the next class period with a discussion of how the participants did in their preparation of the recipe. 2) The NC Cooperative Extension stepped in and

teamed up with local farmers who sell their produce at the local farmers market to provide the needed ingredients for the class. The first one required 34 dozen eggs, zucchini, onions, beets, turnips, radishes, cucumbers, strawberries, sweet potatoes, tomatoes and more than 100 pounds of cabbage. The class participants picked up their supplies during a scheduled drive-through at the Center.

Cases 8-10. Jane started taking part in the program after she was diagnosed as being pre-diabetic. She had recently moved from a northern community and had been enjoying the fried food and sweet tea offerings of her new town, gaining 20 pounds. She earned recognition as the "voice of motivation" for the class, especially regarding physical activity. She noted, "This program is a major source of support and I personally enjoy the accountability factor." She observed that it would have been easy for the Center to suspend the program and, "I totally appreciate that they didn't. It feels like I have the support of the community -- from the people involved with the program to the farmers and their contributions to our program, it has been tremendous." She lost 38 pounds and appreciated she could continue via WebEx phone connection. Tanisha joined the program 6 years ago and is maintaining a 25-pound loss. She stated, "It shows that they really care for their patients and I just thank God for them. I love them and I've loved the staff ever since I've been coming here. New responsibilities at home keep her from joining weekly. She is eager to return to face-to-face meetings since once she leaves her home, she can conduct her personal business. Mike was new to the program in fall 2019. He had no trouble transitioning to online and in fact was a great help to others. He remarked, "My diet's gotten much better. It used to be junk food, donuts, peanut butter and jelly sandwiches and toaster pastries. About once a week, I cook what I learn here. It tastes really good and it's been great for my weight, health, and energy level."

What the RDNs had to do: Remind herself and others that while the world and the health care

system has focused on COVID, people had health concerns before COVID, and these health concerns continue to be a challenge and will be when COVID is over. The team needed to recognize that individuals are stressed and may be eating more or less based on how they manage their stress and needed support and coping skills. They needed to move quickly to keep their patients engaged in the weight management journey but also find ways to both do not take extra staff time and still meet the needs of the patients participating. They were able to give personal encouragement as the patients collected their grocery bag. The RDNs also had to seek other avenues to purchase needed ingredients, work out ordering, payment, and delivery procedures. Farmers, patients and RDNs found this new partnership to be one they would hopefully continue during the growing season.

Group Classes Transition to Virtual CASES 5-10 revisited

As with one-on-one nutrition interventions there is evidence that group classes including DSME (39-40) could be satisfactorily delivered to a remote site with similar outcomes as face-to-face delivery. Although during the initial COVID lockdowns, the RDNs were faced with the choice of going virtual or postponing the classes, concerns about accessibility to the needed equipment and broadband internet service were raised. Almathami and coworkers (41) discuss those issues.

As with the Telehealth counseling sessions, the RDNs needed to find support for those who had equipment and access to make the transition to virtual classes. It is difficult to know how many residents cannot access video delivered care. In spring 2019, before COVID, 185 patients in two rural eastern North Carolina clinics that are members of the NC Association of Free and Charitable clinics were surveyed. Most (78.8%) said they owned a SMART phone. Most (63.7%) had a computer or regular access to a computer. Most (80.4%) had regular Internet access and 68.2% said they used social

media (42). That report did not however, indicate what type of costs are associated with use of their devices.

COVID with its social distancing strategies to limit the spread of the virus brings attention to the need to help patients cope with loneliness and social isolation. Earlier work by Lynch and coworkers highlighted the importance of social support found in group interventions for African Americans to improve their glycemic control (43). Many of the participants of the Eat Smart, Move More, Prevent Diabetes program joined the face-to-face delivery in part because of the opportunity for social interaction. Hwang and coworkers (2020) describe the adverse consequences, including poor dietary choices and sedentary behavior of loneliness and isolation (44). The ESMM team added features to their online intervention to address that concern. Going forward, they will explore the use of blended virtual and face-to-face to recruit and retain participants into the program. Venditti and coworkers (2020) have found that for elderly people that participated in a group intervention then were successfully supported in weight maintenance through telephone contact (31). Food demonstrations have become popular elements in group weight and diabetes classes. Educators are sharing resources such as a webinar demonstrating how to deliver virtual cooking classes (45-46).

Other Efforts to Provide Needed Nutrition Services

Case 11 The Situation. Reducing Community Risk for COVID Fatigue

Helping the community remember healthy eating is important. As a public service one RDN has published a weekly article in the local newspaper since 1986. The family medicine team was bemoaning the fact that so few people in the community were wearing face masks. One said to the RDN, "you have

a bully pulpit, why don't you use it!" Since that date in April the column has opened with a healthy eating during COVID tip and a reminder to follow the 3 Ws (wear a face covering, wash your hands, wait 6 feet), eat healthy and be physically active.

What the RDN had to do. She had to convince the newspaper editor to donate the extra space for the COVID message.

Case 12. The Situation. Staying in Touch when going virtual is not an option.

"Healthier Lives at School and Beyond", a tri-fold partnership between East Carolina University, the Center for Rural Health Innovation, and Duplin County Schools, is a grant-funded school-based telemedicine program, now in its fifth year (47-48). It is designed to expand access to quality health care services (acute minor medical, behavioral health, and nutrition education) in rural areas without adequate opportunities. The program services, available to approximately 10,000 students and 1,000 teachers/staff during normal school hours, offers population-tailored nutrition education via telehealth over a HIPPA-compliant platform. With the closure of schools due to COVID the RDNs had to find alternate ways of connecting with the children and their families outside of school buildings where Wi-Fi access is readily available and reliable. While not all parents were eager to continue with the services at home due to myriad of stressors and barriers such as lack of access to internet, no childcare, and requirements of homeschooling, many did request health and wellness information. That information included budget friendly recipes and shopping lists for local stores. The RDNs increased the frequency of production and distribution of their wellness newsletter from every 6-7 weeks to weekly. The newsletters were shared with school staff as well as the students' parents. Additionally, bi-monthly virtual group support sessions co-led by the RDNs and behavioral health therapists are now being offered to all staff and faculty (47-48). Furthermore, the team traveled with a pediatrician to several elementary schools across the district to provide physicals prior to the state deadline for any student in

need. Because of these efforts, 305 of complete physicals results in nutrition referrals, all of which will be delivered via telehealth and will support the original school-based model of care delivery.

What the RDN had to do. The RDNs recognized that many families did not have the devices or connections needed to receive the telehealth services from home. Additionally, they recognized families had other constraints keeping them from full participation. Therefore, it was necessary to reimagine how to reach staff, faculty and students and their families during a time when schools were shut down and hybrid and/or remote learning would become the new norm.

Case 13. The Situation. WIC Services were uninterrupted but not everyone knew. WIC participants are accustomed to face-to-face visits to obtain their benefits as well as nutrition education. The local WIC office remained open for face-to-face services however, fewer women in our state were able/willing to attend the clinic where they typically received education and information about their benefits. (1). It became clear that not all clients were aware they had benefits as the state was automatically issuing them. So, efforts were made to ensure they knew the benefits were added directly to their eWIC account and that the Bnft* is their best tool for WIC. Since clients did not need to come to the office for their benefits, the WIC team provided education on the phone and through mailings. In addition, all WIC staff contacted as many of the recipients as they could reach using the Stated Issued Report to ensure the participants were aware that their benefits were loaded. For women needing breast pumps, curbside and drop off services were offered by the nutrition and breastfeeding staff (49).

What the RDNs had to do. The WIC staff spent more time engaging in social media and mail to alert women of their benefits. They spent much time on the telephone completing assessments and providing nutrition education that would have normally, and more efficiently, been completed in the office.

Cases 14, 15 and 16. The situation and solutions. Seizing the opportunity when it knocked...sharing RDN expertise with physicians

Case 14. While the number of physicians recognizing the role of nutrition in preventing and managing chronic conditions is growing, the amount and quality of nutrition training in medical school, residency and CME programs remains limited. Many clinicians still do not provide evidence based dietary guidance to their patients. Faced with questions from his patients about which dietary supplements will prevent or cure COVID, one nutrition friendly physician in the practice requested a patient education handout as well as a primer for the clinicians on dietary supplements. The RDNs, already with full schedules, responded to the request within 48 hours and the handouts were widely distributed throughout the medical community and to patients. The primer served as the basis for several regional newspaper articles and posts by local bloggers.

What the RDN had to do. 1) For the dietary supplement primer for the outpatient clinic it took the RDNs willingness to respond quickly to draft the patient education handout based on current knowledge and access to resources, and engage physicians and medical librarians who have worked cooperatively in the past to quickly review and quickly respond to the critique.

Case 15. The inpatient team at the local hospital, as in many hospitals throughout the country, were tasked to find appropriate nutrition strategies for treating these complex COVID patients in the critical care state. After an extensive review of the scientific literature, it was noted that there where was very little data regarding the safety and efficacy of nutrition interventions for COVID 19 (50). The health care team consulted with RDNs for information about nutrition interventions including administration of pharmacologic doses of micronutrients. At the time, data on the use of vitamin D and zinc was limited and based on interventions in other viral infections. Thus, a protocol was developed based on the

dosages used in these other viral diseases by two RDNs. Controversies arose over the use of pharmacologic doses of intravenous ascorbic acid. After an extensive review and evaluation of the literature, the decision was made not to include the routine use intravenous ascorbic acid. The nutrition aspects and supporting data of the COVID protocol were presented at Internal Medicine Grand Rounds for the Brody School of Medicine's faculty, staff, students, and community physicians (50). The RDNs took the opportunity to address nutrition as a key component in recovery of critically sick patients while there was a keen interest in learning about it (51).

What the RDN had to do. The RDN was responsible for an extensive review and evaluation of the scientific literature along with recommending for or against specific nutrients and doses and interprofessional conferencing with the infectious disease physicians and pharmacists.

Case 16. HIV Outpatient Clinic. Patients seen in the HIV clinic posed a unique challenge. The disease process itself results in compromised immune function. Protection of our patients was our primary concern while providing optimal nutrition care. As a result, the clinic moved to Telehealth for most of the patients. They continued to see those patients receiving high risk nutrition interventions in the clinic.

What the RDN had to do. In addition to the efforts described above to help patients access Telehealth, the RDN prepared information for a booklet designed for those patients with HIV who are immunocompromised.

A FINAL COMMENT

We are beginning to see evidence that supports our observations that stay-at home orders changed health behaviors. Reports of the impact COVID-19 has had on the quality of diet and weight do vary

from study to study. COVID-19 presented challenges and opportunities for the nutrition community to demonstrate its ability to innovate and adapt to provide nutrition care to our patients and communities. We report only a few cases to illustrate what RDNs have accomplished. Some of the innovations were simple while others more complex. There are additional stories and experiences on the website of the Food & Nutrition Magazine (52) and the Academy of Nutrition and Dietetics (53). Bonci (2020) presented the results of an online survey commissioned by the California Prune Board to understand the impact of COVID-19 on the dietetics profession as well as consumer interests and behaviors during the pandemic. The survey was answered by 1,076 in the dietetics profession (54). While only a few think that Telehealth individual and group classes can totally replace in person visits or face-to-face programs, all are hopeful that previous barriers that limited access to Telehealth and Telenutrition services, like requiring video documentation of weights, or poor reimbursement will not be reinstated. It has been shown that disparities in access to Internet and video visits may exist disproportionately across the US and races (55). Mehta and coworkers suggest that it makes sense to continue telehealth services after the effects of the pandemic to keep the framework for group classes in place and to work toward finding the best combination of telehealth and in-person visits to meet the needs of the patient (36). The Taskforce on Telehealth Policy (56), although not specifically mentioning nutrition services, suggested that reducing restrictions resulted in improved access, safety, convenience, efficacy, no-show rates, greater adherence to chronic disease management plan, and patients experience of care. They call for a permanent change in policy that allows for various types of clinicians and protocols that eliminate unnecessary restrictions.

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Figure 1. Weight record for case 1

Figure 2. Keto plan

Acknowledgements

We would like to acknowledge Jana Schellinger MLIS, AHIP who contributed to the literature review; Dr. Paul Cook, Lauren Chamber, Nichole Allen, Michelle DeHart, David Laurent for contributions to the supplement protocol.