Capstone Experience

Montana State University

Bozeman Deaconess Diabetes Center

Supervisor Les Jones, PA-C, RD

Supervisor Arleen Ellison, RD

Stephanie E. Johnson

NUTR 426

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Letter of Introduction

The first interaction I had with Les Jones was last semester after her presentation:

Dear Les,

I am one of Coleen's students and I just have a few more questions for you. All of these can be answered through email but if you ever have free time I would love to talk more with you.

- I am writing my macro nutrient research paper on the connection between insulin resistance and cholesterol levels. (Ex. Why are people with diabetes and low cholesterol being put on statins?) You kept saying it was a blood vessel disease, which would clearly relate the two but I don't understand why/how it is a blood vessel disease.
- Also, I would like about to here about what's it's been like to be a PA & RD.

Thanks for coming and talking to our class. It was great to hear from someone so passionate and currently working in the field.

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"Many wonderful things will never be done if you do not do them."

Thank You

Dear Bozeman Deaconess Diabetes Center,

Thank you so much for allowing me to observe in your office. I learned an amazing amount of invaluable information for my future. I enjoyed every moment I was there and was so impressed with how well you are able to help so many people. I hope to someday make that type of impact on my patients.

Will you please fill out the following evaluation of my performance during my time in your office and return it to me. I can come pick them up at your office; they can be mailed (723 South 13th Ave, Bozeman, MT 59715), or scanned and emailed back to me.

Again, I truly appreciate the opportunity you allowed me to have. Thank you,

Stephanie Johnson
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Learning Objectives

1. Apply the nutrition care process to diabetic patients and include assessment, diagnosis, intervention, evaluation, and monitoring.
2. Learn about the dynamics of playing a dual role, an RD and a PA-C, in health care and it effects one daily work.
3. Learn the standard diabetes education protocol and how to be sensitive to their new diagnosis.

Daily Journal

Patient notes are as complete as I could make them in the time I had with patient information.

Day One – March 12, 2012

8:00am – 3:00pm, 7 Hours Total
Les Jones PA-C, RD & Arleen Ellison, RD

AB was a 74-year-old woman with T2DM that lived alone. She lost her husband a few years ago and this had made it difficult on her eating situation. She did not feel like cooking just for herself. Les counseled her on how to eat better alone and exercise. She also asked if she would like to she the dietitian, which she declined. We looked at her feet to make sure there were no open sores.

LC was a 65-year-old woman that was very recently diagnosed with LADA. She had been on specific carbohydrate amounts at each meal to match her insulin injections. The patient mentioned interest in a pump because she hated giving herself shots multiple times a day. Les ended up explaining the pump using her own as an example. She said that normally she would not do it but this woman was diagnosed in a similar fashion to her and she really understood what she was going through. Think empathy is so important in medicine; you should never forget you are working with an actual person.

MM was an 81-year-old male with T2DM that wanted off his basal insulin, Actos. They were unable to take him off of his basal insulin because he has not taken his blood glucose at regular enough intervals and his food records were incomplete. When he comes in with more complete records, they will be able to properly adjust his insulin.

BC was a 60-year-old male on a pump. He has had T2DM for many years now and recently has been presenting with many low blood glucose levels. Because he has had diabetes for so long, he does not notice his lows until his BG is <50 mg/dL. This can be very dangerous because it allows for very little time to take in glucose before he may be unable to help himself. Since his last visit, he has only had two lows, which was a huge improvement over the previous visit. He had not been recording his nighttime snack nor insulin injection so it was difficult to decipher what caused the lows.

PL was a 40-year-old female on Victoza and Levemir. She had been very tired recently.

Day Two – March 13, 2012

8:00am – 6:00pm, 10 Hours Total
Les Jones PA-C, RD & Arleen Ellison, RD

SS was a male with T2DM that was having difficulty counting carbohydrates on a regular basis. They changed his carbohydrate ratio to 1:10 and his correction factor to 1:36.

RM was a middle aged female with T2DM. She had been on Victoza for about 6 months and had lost 46 pounds. This was partially due to her hard work and great response to the medication.

LK was a girl in her early twenties with gestational diabetes. Because of her pregnancy, she was unable to take her normal medications. She had narcolepsy and anxiety, which she was not currently being medicated for and it was very obvious. She spoke very slowly and was unable to give us much information about her life. She was having a difficult time remembering to record her food intake so we suggested texting herself because she was able to have her phone with her at work.

NC was an older female that was on a scooter. Her A1C had increased since her last visit so her basal insulin was increased and she was encouraged to have a more regular snack at night so her blood sugars would not be so varied in the morning.

PD was a middle aged female with T2DM that was a baker until recently. She was having a difficult time taking her insulin at the correct times because of her work schedule. She was also moving to Big Timber so her treatment was going to be more difficult to keep up with. She had recently been given a Cortizone shot, which had put here glucose levels in the 400's.

DB was an older male with T2DM that is was professor of agriculture. He was fairly rigid with the changes he was willing to make but Les was able to gently explain the importance of the changes and he agreed to make them. The main change he needed to make was to use a different syringe for his basal and bolus insulins. One degrades the other, so, if you only use one needle you will only get the benefit of one type of insulin.

LG was an older woman T2DM that had gastric bypass four years ago. She has been doing well since but said it is very hard work after having the bypass. "It is not the easy way out," she said. She was on Victoza, which seemed to help her keep her weight in check.

JK was a female in her late 20's with gestational diabetes. This was her first visit to the doctor about diabetes. She met with Les who explained how and why people get gestational diabetes and eased the patients mind. Then we went and visited with Arleen who gave her all of the nutrition information needed. She seemed slightly overwhelmed but confident enough to make good decisions for her baby.

KC was a male in his 40's with prediabetes. This must have been a life changing diagnosis because he began to work out regularly, lost 50 pounds, and lowered is A1C to 5.5.

At this point I had been in the office for 8 hours. Les and Arleen recommended that I go and observe the prediabetes class given by an RD. I grabbed my stuff and ran down the hall to attend the meeting. There were four different patients in the class all of which had been diagnosed with prediabetes. The class was two hours and taught very basic nutrition and how to use a Glucometer. This class was full of amazing, very important information for those with prediabetes. I feel that most people should go through this class if they have risk factors for diabetes. The next day I asked about more information on the class. I found out that it costs $150 per person, which may explain why there were only four people attending.

Day Three – March 14, 2012

8:00am – 1:00pm, 5 Hours Total
Sebastian White, NP & Arleen Ellison, RD

DU was a male in his early 20's with T1DM. He had not been in for over a year and he had begun to have bumps on his belly at his injection sites. I was not allowed in when they were examining them and was not able to follow up on the patient.

AW was a young (mid-twenties) female with T1DM and she had a pump. Her basal-bolus ratio was 63:34. They usually like to see this ratio around 50:50, so her basal insulin was decreased and she was encouraged to increase her bolus doses. She was also wearing a continuous glucose monitoring system, which monitors the glucose levels of the interstitial fluid. They gave her this because her glucose was getting very low at night and her boyfriend was having difficultly waking her in the mornings sometimes.

BB was an older male with T2DM. His glucose monitor showed some lows after he had been in the hot tub. The hot tub often lowers BG and I learned that it is very important to watch kids with

diabetes in the bath. Because BB had macrovascular changes, they are less aggressive with his diabetes treatment. Aggressive diabetes treatment for patients with macrovascular problems increases the risk of mortality and statins can contribute to an increase in glucose levels as well.

MB was 15-year-old female that was diagnosed with T1DM at the Belgrade Urgent Care two days ago. She had an A1C of 13. This was a new consult were everything about diabetes and diabetes management was thrown into one visit. I was exhausted after the visit because it is scary. You want to make sure that the patient receives every piece of information they need but you do not wan to overwhelm them because there is so much information. T1DM can be brought on by sickness or significant emotional events. She had just been in a basketball championship and had the flu. We taught here about food, insulin, how to take insulin, how to check her blood glucose, and so much more. The family was wonderful to work with. The RD said that she had been in visits like that where the patient and parents were balling. I feel that we did a great job communicating with them and making them feel comfortable about the situation. We also made it clear that they could call anytime and to update us very regularly until the next visit.

At the end of this day I attended a Nutrition class for recently diagnosed diabetics. This was with a different RD. She was very nice and clear with all of her information but I was not as inspired as I was by the class the day before.

Summary of Experience

All of the learning objectives for this project were met throughout my experience at the Bozeman Deaconess Diabetes Center. The first objective was to use the nutrition care process on a diabetic patient and this can be seen in the following section.

The next objective was to observe the duel role of someone that is an RD and a PA-C. Les Jones is a PA-C and an RD. At the diabetes center she mostly plays the role of the PA-C. She said once in awhile she clocks in as an RD and then makes RD wages. If she gives nutrition counseling during visits with patients, she removes Arleen Ellison from the process. It works better for her to work as a PA-C the majority of the time. She mentioned that it is also difficult to bill when she gives nutrition counseling because the patient has to pay for time with the PA-C and not the RD.

The third objective was to learn how they go about educating diabetics about their condition and how they work with newly diagnosed patients. Each person at the center had a slightly different way of working with the patients but all of them were very understanding and forgiving. Diabetes, along with all chronic diseases, cen be frustrating for the patient and the doctor. Everyone, providers and patients, want the situation to get better but it generally just stays the same. You can always be doing better with diabetes with management so it is discouraging to see the blood glucose values, which are very rearing are better. I liked that the providers took a team approach. They did not ever blame the patient or make them feel like they had failed. I feel that it is important to make the patient feel safe and let them know they are not alone.

The most interesting patient we saw was a 15-year-old girl that had just been diagnosed with diabetes at Urgent Care two days prior. They did not allow me to go in for the initial consult with the doctor but I was able to observe the RD consult. It is a huge life change to go from eating normally with out concern to having to give yourself shots at every meal and counting carbohydrates. There was so much information to give them I could not believe it. They had them make an appointment for the following week and told them to call as often as needed.

The most difficult part of the entire process is charting. It is time consuming and requires that you remember everything detail about the visit. As a PA-C, Les must have all of here charts approved by an MD. The program that Bozeman Deaconess uses is older and fairly complicated. This makes charting take even longer and is more frustrating. Every provider I have followed has to spend many hours working on charts after work. The easiest part of the day was interacting with the patients. Connecting with people is one of my favorite parts of life.

I was best prepared for counseling the patients in nutrition. When I sat in on Arleen's visits with the patients I was able to give useful input to almost everyone. I did not understand carbohydrate ratios and correction factors before I went to the diabetes center but they use

both of those terms with almost every patient and I gained a much better understanding of these concepts.

My favorite part of the week was attending the pre-diabetes class because I believe that millions of Americans need to take that class. There was a wide range of people in the course all of which had a fasting blood glucose reading greater that 100 mg/dL. They were given nutrition education and glucose meters. The RD taught them how to use the meters and record their blood glucose levels. They were to have a follow up class in one month. This sort of education is so important for everyone with prediabetes or before prediabetes. With prediabetes, the pancreas has already begun to work harder but the problem is still reversible. I also found it very interesting to learn about how the providers can do different things to make the insurance company work for the patient. One patient wanted to go on a pump but pumps are very expensive and usually require an insurance contribution. To get a pump she needed to lower a certain lab value. Arleen was able to explain what to do the day before that lab was taken to make it come out the way they needed, which involved eating and drinking a certain way.

After the capstone week, I feel that if I were to go into dietetics, I would be a clinical dietitian. I think it would be easiest to specialize but a more general practice may have interesting challenges that may not be available to a specialized dietitian. I feel that in clinical dietetics, you would be able to see your impact on the patient better. If you get to meet with someone on a regular basis or control there intake, you know that they are getting what they need nutritionally.

Nutrition Care Process

Day One – LC

Assessment

Diet History	Anthropometrics	Biochemical	Physical	Client History
Humalog - mealtime Lantis – 4u am, 3u pm CHO – 0.5/15 Correction Factor – 0.5/50	66", 121# BMI – 19.6 IBW – 130 %IBW – 93%	BP – 112/66 A1C – 8.9	Tingling in hands and feet	65 years old Female LADA

Diagnosis

- Impaired nutrition utilization related to compromised endocrine function, LADA, as evidenced by an A1C of 8.9 and a weight loss of 7 pounds.

Intervention

- Switch client to variable carbohydrate and correction factor graph so she can eat what she wants and control blood glucose levels better.
- Coordinate with provider on carbohydrate ratio and correction factor changes.
- Keep food records and carbohydrate amounts to as a setup to getting a pump.
- Be very supportive of patient as she is frustrated and disappointed in her situation.

Monitoring and Evaluation

- Continue to monitor her weight, BMI, and A1C.
- Monitor blood glucose records and change carbohydrate ratio or correction factors as needed.
- Continue goal setting, problem solving, and support.

Day Two – LK

Assessment

Physical	Client History
Tired Slow reactions	Mid-twenties Female Gestational Diabetes

Diagnosis

- Food and nutrition knowledge related deficit related to lack of prior exposure to accurate nutrition related information as evidenced by poor glucose control and irregular eating habits.

Intervention

- Recommend eating at regular times throughout the day as opposed to eating one or twice a day intermittently.
- Educate her on healthy meals that will be good for her and the baby.

Monitoring and Evaluation

- Monitor her blood glucose levels and diet history.
- Make regular appointments to help keep her on track with eating for her and the baby.

Day Three – MB

Assessment

Diet History	Biochemical	Client History
Regular meals throughout the day Consuming lots of water	A1C – 13	15 years old Female T1DM

Diagnosis

- Impaired nutrition utilization related to compromised endocrine function, T1DM, as evidenced by an A1C of 13.

Intervention

- Educate the patient and her mother on healthy eating for diabetes, insulin types and amounts, carbohydrate counting, and give a variable graph so she does not have to alter her food intake greatly.

Monitoring and Evaluation

- Monitor her blood glucose levels, A1C, and diet history.
- After she has become more comfortable with T1DM management, educate her on glucose management during exercise and other activities.