SAMPLE BIOPSYCHOSOCIAL PROJECT

(Actual project completed by a Loyola Student. Please note: the APGAR Tables are not included in this example, however they are required to be included with your written project.)

Clinical data of present illness

Mrs. C is a 55-year old African American clinic receptionist with a history of hypothyroidism, hypertension, oropharyngeal carcinoma s/p chemo and radiotherapy (1997), uterine fibroids s/p hysterectomy (2008), cholecystectomy (2004) and gastritis (1997) now presenting to follow-up on left foot pain and swelling that began with gradual onset a year ago. Mrs. C described her foot pain as a dull ache on the bottom of her feet and ankle of 3/10 severity, worsened by long periods of standing. She had tried to take ibuprofen for the pain, with minimal relief. Worsening pain drove her to present to the clinic several months ago and she was given a referral to physical therapy. She just recently completed 4 weeks of sessions that occurred twice per week, and now reports that her pain has completely resolved. She is now walking 2 miles daily for exercise without any pain.

Today, she also says that she has noticed her hair thinning for the past month on the top of her scalp. She has not noticed clumps of hair falling out. She denies recently making drastic dietary changes, taking new medications, using new hair products, or being more stressed out than usual.

She also notes feeling continued bloating and halitosis, which have been chronic since she developed gastritis from her cancer treatment in the 90s. Her reflux symptoms are otherwise well controlled, and on the occasion that she does experience heartburn, it resolves withPrevacid 30 mg PRN. She was recently given a GI referral, saw a gastroenterologist at West Sub, and is currently waiting for the results of an H. Pylori test. She has had, three past H. Pylori tests – one in 1997 that was positive, one in 2010 that was positive and one in 2006 that was negative. She was treated with antibiotics in the past. She had a routine colonoscopy 5 years ago that was normal.

She also has noticed a small skin tag that developed in her left axilla that she would like removed for cosmetic reasons. She denies any pain, drainage or erythema at the site of the lesion. She has had similar lesions before that have been removed.

Mrs. C is taking Synthroid 125 mcg daily for her hypothyroidism. Her TSH is monitored regularly and is well controlled. She takes 10-12.5 mg of Lisinopril-HCTZ daily for her hypertension (diagnosed in 2003), which has also been well controlled. She is not taking any other medications aside from Prevacid 30 mg as needed for heartburn. Mrs. S notes that her family history is significant for several siblings with diabetes, heart disease and hypertension. Her mother died from complications of diabetes at the age of 72, and her father died of an MI at the age of 80. She has no known allergies. She denies any history of tobacco, illicit drug use, or alcohol abuse. She lives at home with her husband of 24 years, her 22 y/o twin daughters and 24 y/o son who will soon be leaving for college.
On physical exam, Mrs. C was pleasant, talkative and not in any acute distress. Her vital signs were stable and within the normal range (T: 98.3 F, P: 80, RR: 20, B/P 120/80). Some thinning of the hair on the vertex of her scalp was noted, without any obvious bald spots. No rashes, lesions or scarring were otherwise noted on her scalp. There was no hirsutism. Her thyroid size was within normal limits and without palpable masses or lesions. Her lungs were clear to auscultation bilaterally. Normal S1 and S2 heart sounds were auscultated without murmurs, rubs or gales. Her abdominal exam was normal, without hepatosplenomegaly or tenderness to light or deep palpation. Normoactive bowel sounds were auscultated in all four quadrants. A nontender 3 mm pedunculated skin lesion was noted in the left axilla, without erythema, purulent drainage or hyperpigmentation. She had full strength and range of motion in both ankles, and lower extremity edema was absent. Pedal pulses were 2+ and equal bilaterally. She denied any tenderness to palpation or pain during movement of either foot. The results of her H. Pylori test were still pending.

**Three generation genogram**

See attached

**Family and occupational assessment**

Family System APGAR Score = 7 (Moderately dysfunctional)

Work System APGAR Score = 4 (Dysfunctional)

**Stressors**

1. **Family**

Although Mrs. C loves her family, they are currently her most significant source of stress. She has five adult children and five grandchildren. Currently, her 22-year-old twin daughters and 24-year old son still live at home with her and her husband of 24 years. Mrs. C is a tidy person who likes to keep things organized. Her children often frustrate her when they leave messes around the house and expect her to constantly clean up after them. She also becomes irritated when she arrives home after a long day of work longing for her personal space and solitude, only to cook and clean for her children. When Mrs. C reminds them that they are old enough to take responsibility for themselves, pick up around the house and generally be more independent, she finds that it goes “in one ear and out the other.” When she looks to her husband for support in communicating her frustration to her children, he constantly takes their side and fears disciplining them. Thus, Mrs. C always feels like the “bad guy” for having to serve as the sole disciplinarian. Furthermore, Mrs. C feels that her husband often unfairly directs anger toward her when there are conflicts with the children. Mrs. C attributes the beginnings of this dysfunctional dynamic to her development of oropharyngeal cancer in the 1990’s. During that time, she was extremely weak and nauseous due to the intense chemotherapy and radiation treatment she underwent. Her children were too young to understand her illness, and often became afraid and uncomfortable when they witnessed her vomiting. She felt that this drove her children away from her and toward her husband. Her husband, emotionally preparing himself to take the children back to
Puerto Rico and care for them himself if she succumbed to cancer, encouraged the children’s dependence on him. She worries that the stress from family conflict negatively affects her health, specifically that it raises her blood pressure.

2. Work

Mrs. C has worked as a clinic receptionist at a family medicine clinic for 16 years. Although there are reasons that she loves her job, she finds the social aspects of her workplace environment generally stressful. She often feels that her female co-workers frequently gossip about others and are untrustworthy. She also has sensed jealousy from other co-workers, who resent her for her constant positive attitude and special bond with many of the patients that come into clinic. Mrs. C is also an efficient, fast worker and often has to pick up the slack of one of her co-workers, who works very slowly. It frustrates her that this particular co-worker doesn’t seem to have the same passion for people and enjoyment of her work in which Mrs. C takes special pride.

3. Health/Weight

Mrs. C’s chronic problems such as hypertension and hypothyroidism are currently well controlled, and although the hair thinning, skin tag and bloating/halitosis have been irritating, she doesn’t currently have any acute health complaints that are severely distressing. However, her health has been a significant source of stress in the past. Most recently, her chronic left foot pain affected her daily functioning and generally bright, positive personality. She noticed herself taking on the sick role, being more sedentary and generally “shutting down.” She talked less, and had less desire to interact with others. Now that her foot pain has completely resolved, she feels she is back to normal. She also has a chronic, mild level of stress due to her obesity. She knows how important it is to lower her risk of diabetes and MI given her significant family history, yet finds the necessary lifestyle changes daunting. She has tried to increase the amount of walking she does, and would like to start jogging in order to lose weight, but she worries the foot pain may return. She has had several failed attempts to diet in the past. Although she has recently increased her intake of fruits and vegetables and reduced her intake of fried, fatty foods, she fears she is actually continuing to gain weight as she ages. She cites that her biggest challenge is the cultural and symbolic importance of food in her family.

Resources

1. Religion/Faith

Mrs. C is a proud member of an Episcopal church on Chicago’s west side. She has sang in the choir since 1999 and is heavily involved in the church community. Mrs. C calls on her support system through church and her faith in God to help her survive difficult times. She believes that her faith gave her the strength to overcome cancer. Having a strong faith has allowed her to develop a sound perspective on life’s highs and lows and the necessary coping skills to deal with challenges, including those related to her health. Despite her stressful workplace environment, Mrs. C loves her job because it allows her the opportunity to share her ministry. When she sees that a patient in the clinic has just received a devastating diagnosis or has recently lost a loved one, she takes them into the hallway, hugs them and
shares with them the story about how her faith gave her the strength to survive cancer. The patients respond positively to her message and develop a strong bond with her. Mrs. C says the “feeling of being needed” gives her a sense of satisfaction and purpose.

2. Family

Although Mrs. C’s family dynamic can cause her stress, her husband and children are also her main source of social support. She is also extremely proud of her 5 children, and her 5 grandchildren bring her joy. Although three of her children live in the home, all five have jobs. She has a loving relationship with her husband of 24 years, who supported her faithfully and worked two jobs to make ends meet during her cancer treatment.

2. Finances

Mrs. C says although she doesn’t consider herself “rich,” she and her husband have well-paying jobs and feel financially comfortable. They are able to pay bills and afford some luxuries in addition to the necessities. She feels blessed that her financial situation is not a source of stress.

3. Interests/Hobbies

Mrs. C loves singing in the choir. She has performed all over the Chicago area and has been featured on several CDs. She has close bonds with the rest of the members of the choir and experiences intense joy through worshipping with song. She also loves shopping in thrift stores. Every Saturday morning, she will go to a specific thrift store on the North side of Chicago to browse the racks, finding treasures and socializing with the other frequenters of the store. She considers these trips to the thrift store her “me” time, where she can relax and focus on something that makes her happy.

4. Dr. L

Mrs. C has a close patient-physician relationship with Dr. L, and feels confident in the care she receives at the clinic. Most recently, Dr. L helped Mrs. C to resolve her foot pain by referring her to physical therapy. Dr. L will continue to serve as a resource for Mrs. C’s health needs as they arise.

Patient’s Perspective of Illness

As someone who has experienced serious life-threatening illness in the past (oropharyngeal cancer), Mrs. C is relatively content with the current state of her health. Although some of her issues today are mildly bothersome, she generally feels well. She is thrilled that the foot pain is resolved, and has been able to exercise regularly by walking 2 miles a day. She would like to begin jogging in order to lose weight now that she no longer has foot pain, but is concerned that the pain may return due to the impact on her joints. She also would like to be reassured that the hair loss is not something she needs to worry about. The chronic bloating and halitosis have been more irritating than concerning for Mrs. C. She feels that she has a solid understanding of her chronic conditions such as hypertension and
hypothesis thanks to Dr. L, and takes her medications for these conditions compliantly. She does worry about her obesity given that diabetes and heart disease have been so prevalent in her family, and would like to work on healthy lifestyle change. She has already begun to increase her intake of fruits and vegetables and reduce her intake of fried, fatty foods, but she is not entirely confident that she can commit to making more drastic changes at this time.

Assessment and Plan

1. **Left Foot pain and swelling:** Mrs. C’s left foot and ankle pain were likely due to osteoarthritis. She reports at this visit that it has completely resolved after the 8 physical therapy sessions she attended over a 4-week period. She continues to perform strength exercises at home and understands the importance of RICE (rest, ice, compress, elevate) in the event of a future injury or return of pain. She has been walking two miles daily and would like to start jogging. Mrs. C was encouraged to purchase appropriate running shoes if she plans to jog. She was educated that an elliptical or swimming are better options, as they will generate less impact on her joints.

2. **Non-scarring alopecia:** The differential for non-scarring alopecia includes anagen effluvium, androgenetic alopecia, chemical alopecia, mild folliculitis, inherited disorders of the hair shaft, telogen effluvium, alopecia areata and traumatic alopecia. Mrs. C’s history was negative for new medications or hair products, recent stressful life events or dietary changes. On exam, some mild, diffuse thinning of the hair was noted on the vertex of her scalp but there were no obvious bald spots and no scars. Her alopecia had a gradual onset and insidious course around the time of menopause. These characteristics best fit the picture of androgenetic alopecia, although Mrs. C’s physical exam was negative for any other signs of virilization such as acne or hirsutism. Mrs. C’s TSH was rechecked today to rule out hypothyroidism as a cause for her hair loss and to ensure that her hypothyroidism continues to be well controlled on Synthroid. Mrs. C was counseled to avoid the use of hair treatments and tonics, as they may worsen her alopecia. Given that Mrs. C has no other signs of androgen excess or nutritional deficiency, no additional labs will be ordered at this time to further evaluate her alopecia.

3. **Bloating/Gastritis:** Although pain from heartburn is well controlled onPrevacid, bloating has been a chronic problem for Mrs. C since her chemotherapy treatments in the late 90’s and has recently been worsened since she increased her intake of fiber in an effort to eat healthier. Mrs. C just recently saw a gastroenterologist and the results of her most recent H. Pylori test are still pending. Mrs. C was encouraged to try over the counter Beeno after eating vegetables to see if it reduces her bloating. She was also encouraged to continue taking her Prevacid as needed for heartburn. She will be informed of the results of her H. Pylori test when they become available. If the results are positive, we can treat her with the appropriate antibiotic regimen.

4. **Acrochordon in the left axilla:** The small pedunculated, non-tender, non-irritated skin lesion Mrs. C wished to have cosmetically removed was noted on physical exam. Its location in the axilla (an area of friction) and appearance were consistent with the diagnosis of acrochordon.
8. Family and work stressors: While Mrs. C loves her family and reports general satisfaction with her work, she does report social conflicts in both contexts. She is consistently stressed about being seen as the “bad guy” by her adult children who live at home when she disciplines them, especially because her husband does not support her in communicating the same message of wanting them to take more responsibility for themselves. She is troubled by the feeling that her husband may have a closer relationship with his children because he refuses to discipline them and because of the residual effects of her cancer on her family dynamic. Although work brings her a great deal of joy by allowing her the opportunity to share her faith with patients in difficult situations, dealing with her untrustworthy and gossiping coworkers frustrates her. Mrs. C believes that her blood pressure rises in response to these social stressors. Mrs. C was counseled today to schedule a time to discuss her frustrations openly with her family in a comfortable setting, instead of waiting until she has lost her temper and cannot express her feelings calmly and rationally. If the non-confrontational family discussion does not lead to an improvement in the dysfunctional family dynamic, Mrs. C may should follow-up with behavioral health at our clinic to develop healthy coping mechanisms to manage stress from conflicts with her children.

5. Hypothyroidism: Mrs. C’s last TSH level was checked in January of this year and was within normal limits (3.55) at that time. As mentioned earlier, Mrs. TSH was rechecked today to ensure that her hypothyroidism continues to be well controlled with Synthroid 125 mcg PO daily. She was prescribed a refill and encouraged to continue taking her medications as directed.

6. Hypertension: Mrs. C’s blood pressure was 120/80 today. Her hypertension is well controlled on Lisinopril-HCTZ 10-12.5 MG tabs PO daily. She was encouraged to continue taking her medications as directed.

7. Obesity: Mrs. C’s BMI today was 36, categorizing her as obese. Over the past few months, she has tried to make dietary changes including increasing fiber in her diet through fruits and vegetables and decreasing fried/fatty foods. She has also increased her walking to 2 miles per day. However, she has not yet seen any changes in her weight and fears she is unable to make more stringent changes to her diet. The biggest challenge for her in making the necessary lifestyle changes for significant weight loss is the cultural and symbolic importance of food in her family. Mrs. C diet was reviewed today. She was further educated on diet and exercise and her questions were answered. She was encouraged to set two tangible goals to follow-up on at her next visit. She will substitute her evening snack of 5 taquitos with healthier options such as a banana with 1 tablespoon of peanut butter. She will also replace her 1 sugary soda/day with Crystal Light. She was also encouraged to inform her family of her goals and garner their support her in accomplishing them.

Mrs. C’s acrochordon was excised today for cosmetic reasons. She was counseled on appropriate wound care.
9. **Health Maintenance:** Mrs. C is due for a mammogram, as her last mammogram was in September of 2011 and was read as a category BIRAD2. She was given a referral for her next mammogram today. A lipid panel was also drawn today. She is up to date on her colonoscopy screening (which was performed 5 years ago and was normal) and diabetes screening (which was performed in January of 2012 and was negative for diabetes). She does not need a pap smear as she has had a full hysterectomy.

**Feedback**

This project has truly demonstrated to me the therapeutic power of understanding a patient in his or her full biopsychosocial context. For instance, by understanding Mrs. C’s worldview and specific stressors and resources, I was able tailor my counseling on diet and exercise to her specific needs. In addition, the rapport I established through gathering that information rendered my advice more meaningful to her. Learning of Mrs. C’s history of cancer and the integral role her faith played in coping with the traumatic experience of illness allowed me to better understand her perspective on her current medical problems, and would allow me to accurately predict what her response might be to future health issues. If Mrs. C was to be diagnosed with cancer or some other acutely life-threatening condition, I would know to emphasize the importance of maintaining her ties to the church community and continuing to practice her faith, as these strategies have been effective in the past.

What I have gained from this project is a new awareness of the interdependence of physical, emotional, psychological and social health. It has driven home the point that to emphasize only the medical or physical aspects of a human being during a patient encounter is shortsighted. My goal as a third year medical student is not only to develop my style as a clinician, but as a healer. Emphasizing the psychological and social aspects of patients will not only allow me to establish rapport, but will allow me to truly treat them as unique individuals. I can tailor my advice to meet their specific situations. I can more effectively explain their health conditions through understanding their worldview and previous experience with and response to illness. I can more effectively engage their families by understanding the relationships and dynamics that comprise them. All of these abilities are no less important than effectively understanding objective laboratory data or physical exam findings. In fact, I find that these abilities are what comprise the “art” of medicine.