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Mental Health Care in Geriatrics

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Mental Health Care in Geriatrics

My original intent of this independent study project was to experience and map the interdisciplinary avenues in which older individuals receive mental health care at UCSD and in the San Diego community. I designed my own rotation where I rotated through Senior Behavioral Health Program at the UC San Diego Hillcrest Medical Center, the UC San Diego Senior Intensive Outpatient Program at Hillcrest, the VA outpatient geropsychiatry clinic, MARC (Memory, Age and Resilience Clinic which provides Geriatric Psychiatry, Geriatric Medicine, Neuropsychological testing and social work assessments), and SNF visits with geriatric medicine. I also spent a day with the social worker of Senior Behavior Health and two days at the Glenner Center's senior day program. I attended geriatric psychiatry weekly didactics and a dementia caregivers support group. To augment my experience, I read *Chicken Soup for the Soul: Living with Alzheimer's & Other Dementias: 101 Stories of Caregiving, Coping, and Compassion*. To convey my experiences best, I will tell the stories of patients who I cared for and followed through different levels of care/interdisciplinary fields and patients who exemplified important topics in geriatric care. I will weave into these stories literature review and current guidelines of practice when relevant.

Dementia Care

Screening for cognitive impairment

When designing this rotation, I was under the false impression that older adults are routinely screened for cognitive impairment much like adults over 50 are routinely screened for colon cancer. This was not true in the primary care setting. During my time in outpatient geriatrics and at SNF visits with Dr. Neel, I learned that screening is not performed routinely at a specific age but rather when there is reason to suspect cognitive impairment. I interacted with many patients who were continuing to perform all ADLs and IADLs independently and the patient themselves and/or their family members had no concern for abnormal behaviors or memory issues. These patients were not screened and the time was spent addressing predominantly medical concerns.

Currently, the US Preventative Services Task Force concludes that there is insufficient evidence to assess the balance of benefits and harms of screening for cognitive impairment (1). This recommendation is for the community dwelling, general primary care population older than 65 years and without signs/symptoms of cognitive impairment. While the evidence was insufficient, the UPSTF did recognize and publish some benefits to screening. Detecting early cognitive impairment may help clinicians and caregivers anticipate difficulties understanding or adhering to therapy. It may also help patients and caregivers anticipate and plan for future issues arising from progression of cognitive impairment. Not all patients, however, progress from mild cognitive impairment to dementia. The annual conversion rate is approximately 10% (2). Screening can also help identify reversible or treatable causes of cognitive impairment or dementia. It is estimated that 9% of dementias are reversible (3), with common causes being vitamin B12 deficiency, normal pressure hydrocephalus, thyroid dysfunction, polypharmacy, and depression.

The only cases where I personally used screening tools in the outpatient or SNF setting, such as the Montreal Cognitive Assessment (MoCA) or St. Louis University Mental Status Examination (SLUMS), were when the patient, their family members, or we (as the clinicians) were concerned about abnormal behavior or memory issues. For example, there was a patient I was seeing at a SNF who was admitted for PT after a hip fracture as a result of a fall. She was 85-years-old and lived alone in an expatriate community in Mexico. She could not recall basic details of her most recent hospitalization prior to the hip fracture and admitted to having difficulties with memory and finances. I saw her multiple times during her SNF admission and each time she would tearfully tell me about how her husband passed away 6 years ago. She also had additional risk factors for cognitive impairment including age and prior stroke. Because of this history, a MoCA was administered and she scored a 13/30. We strongly advised that she enter assisted living and to stop driving in Mexico given her level of impairment but she refused and demonstrated the capacity to do so.

This patient and several other patients illustrated a major teaching point of assessing for capacity in patients with dementia. Prior to this rotation, I was not familiar with the distinction between

capacity and competence. I was also unaware that patients with dementia could still have capacity to make many decisions. This motivated me to look into capacity, especially as it pertains to older patients and patients with dementia.

Capacity: Capacity refers to a patient's ability to understand, appreciate, and manipulate/apply information in order to form a rational decision (4). There are four major components of capacity, as first defined by Applebaum and Grisso in an NEJM article in 1988 (5): 1) the ability to communicate a choice 2) the ability to understand the relevant information 3) the ability to appreciate a situation and its consequences 4) The ability to reason rationally. It is important to emphasize that decision making capacity is specific to single decision. For example, I had a patient with dementia who was able to understand and consent for treatment of pneumonia with antibiotics but was unable to understand his extensive subclavian vein thrombosis and weigh the treatment options of vascular intervention vs. anticoagulation. Patients with cognitive impairment are at greater risk for lacking decisional capacity, however, it cannot be assumed in all cases and must be explored. There are different and formal ways to assess capacity. I have only seen and practiced capacity assessed through an informal clinical interview format but there are also specific tools created to help clinicians. The most popular tools are the Aid to Capacity Evaluation (ACE) and the MacArthur Competence Assessment Tool (MacCAT). The ACE tool is shorter and can be administered and scored in 5-10 minutes while the MacCAT can take up to 30 minutes (6). While more objective and stepwise in nature, these assessments are comprised of similar questions asked in a clinical interview and scoring still requires clinical judgment. Related but distinct from capacity is competency. Competency is a legal term and is defined as "having sufficient ability [and] possessing the requisite natural or legal qualifications" to engage in a given endeavor (4). The definition is broad and includes not just medical decisions but also the ability to stand trial, enter into a contract, etc. The court determines competency and if the patient is deemed incompetent, the court assigns a surrogate decision maker.

Diagnosis of minor cognitive impairment and dementia

Dementia diagnosis occurs in many settings, however, patients usually present first to their primary care physicians. From there, depending on the resources available or known to the physician, patients can be then be referred to individual specialists, such as neurologists, geriatric psychiatrists and gerontologists, or more comprehensive memory clinics. Memory clinics have an interesting history. They were first established in the UK in the 1980s. The first of these clinics were intended to be hospital-based specialized services for clinical drug trials. The first clinics in the US were similarly housed within academic institutions conducting Alzheimer's disease research. These first clinics had the goals of providing diagnosis and treatment services as well as evaluating efficacy of new therapeutic agents. Nowadays, memory clinics are generally less involved in research and not always affiliated with academic centers (7, 8). However, research oriented memory clinics still do exist. The National Institute on Aging funds specific Alzheimer's Disease Centers (ADCs) at academic medical centers in the US. There are currently 32 ADCs in the country (9). UC San Diego School of Medicine is one of these designated sites, the Shiley-Marcos Alzheimer's Disease Research Center.

UC San Diego also has a less academic and more diagnostic driven memory clinic called the Memory, Age, and Resilience Clinic (MARC). The patients are typically referred to MARC by their primary care provider for concern of cognitive impairment. The first appointment is with the geriatric psychiatrist for initial intake and physical exam. The second and third appointments are for neuropsychological testing with a psychologist and a history and physical with a geriatric internist. The patient also completes laboratory tests to rule out medical causes dementia and a volumetric MRI to assess structural changes in the brain. Patients also meet with a social worker to assess and discuss resources available. The fourth appointment is reserved for a family conference where the results of laboratory tests, imaging, and specialist opinions are summarized for the patient and family and, if indicated, recommendations are made for future care.

I picked two very different patients to follow through their MARC appointments. The first patient was a friendly and chatty 66-year-old lady who was referred from her PCP for memory complaints despite a normal MOCA. She arrived with her husband who had no concerns about her memory but

wanted to support her. Her main complaints were that she was no longer as good at spelling, which was most noticeable during crossword puzzles, and she had difficulty with word finding during conversations. The patient, however, also had chronic pain treated with opiates and depression. She had no impairments in ADLs/IADLs. I attended this patient's neuropsychological evaluation, which consisted of 1.5 hours of language, memory, and executive functioning testing as well as a more comprehensive anxiety and depression questionnaire. Because this was my first time observing neuropsychological testing, I had no reference point for how well the patient was doing. She would complete the initial tasks with ease and as the tasks became harder the patient would have difficulty. I remember reflecting to myself that she was performing many of the memory and executive functioning tasks better than I would. After the completion of her tests, the psychologist turned to me and said "I still have to score all the tests but she did extremely well and better than everyone I've ever tested here at MARC." As it turns out, she performed average to very superior compared to her peers with comparable education. I saw this patient again for her geriatric medicine consultation where we talked more about her pain. She had weaned off of opiates in the last 6 months but was currently taking gabapentin 900 mg TID instead. She was also taking hydroxyzine for interstitial cystitis. From a medical standpoint, these two medications could have been contributing to her memory complaints. Her volumetric MRI reported her hippocampal volume to be at the 52nd percentile. Her social work consultation was further explored her support system and her functional abilities. In her final synopsis / feedback session, the patient was told she has normal cognitive abilities though pain, depression, and medications may negatively impact her perceived cognition.

The second patient I followed through MARC was opposite in almost every way. She was a healthy 79-year-old female with a history of glaucoma and hypertension presenting with her daughter for her initial geriatric psychiatry intake. She did not understand why she was at the clinic aside from telling us her adult children were concerned about her recent behaviors and that she had a family history of Alzheimer's dementia. She was defensive when questioned about her ADLs/IADLs. She reiterated several times that she was functioning well enough to manage her own business and recently passed a driving test. The patient's daughter attempted to give examples of her mother's worrisome confusion and disorientation but the patient defended her behavior in every situation. For example, the patient was on a trip to see her daughter and grandchildren in Israel, became disoriented, and began following a complete stranger. She had to be redirected by a family member. She defended herself by saying she was asking for directions, momentarily thought he was a police officer, and realized she was mistaken without anyone's assistance. The daughter and her siblings also noticed their mother has been asking the same questions, attempting to turn on the oven with a candle, and unable to clean her home resulting in a vermin infestation. The patient seemed to both remember and have an alternative explanation for every scenario. It was difficult for me to assess if the patient felt accused, misunderstood, embarrassed, or perhaps a combination of all of these emotions. When she came for her neuropsychological testing, she was agitated by the tasks and was only able to complete 4 of the tests before refusing further testing. She scored low average on the Mattis DRS-2 and additional testing showed mild to moderately impaired memory and confrontational naming. At her geriatric medicine consultation, the patient was again defensive and asserted that she was healthy. Her volumetric MRI showed hippocampal volumes in the 12th percentile. A DMV report documenting a diagnosis of dementia was completed. During the family conference, the patient and family members were educated on ways to improve safety while maintaining independence at home and regional organizations with resources and caregiver support groups.

I found that these two patients and their contrasting clinical pictures illustrated very important concepts. The first patient was extremely cognizant of her perceived deficits even though her husband and daughter were unaware. In contrast, the second patient was unaware and denied she had deficits or abnormal behaviors while all three of her children were concerned. I had learned through geriatric lectures in medical school that classically a distinguishing feature between normal aging and dementia was insight and personal vs. family concern of memory loss. In fact, this lack of insight or anosognosia is common and reported to be as high as 80% in patients with Alzheimer's dementia (AD). Anosognosia has been shown to correlate with AD disease severity and is also

present in other forms of dementia (10). A study comparing patients with behavioral variant of Frontotemporal Dementia (bvFTD) to patients with AD found that anosognosia is more common in patients with bvFTD (11). Patients with vascular dementia, however, often have relatively preserved insight as compared to AD (12).

Both these patients, and almost all patients at MARC, receive a volumetric MRI study of the brain. The purpose of this advanced MRI is to investigate structural or vascular abnormalities and to quantify atrophy. There is a progressive loss of neurons and synapses in AD, which eventually becomes detectable atrophy on high resolution MRI. The affected structures are the memory related areas of the medial temporal lobe, specifically the hippocampus and entorhinal cortex. The technology and software used at MARC is called Neuroquant, which is an FDA approved software that quantifies atrophy and compares to a normative database adjusted for age, gender, and intracranial volume to give a percentile. Neuroquant and other similar automated structural labeling software programs have been validated against manually segmented volumetric measurements (13, 14). Neuroquant costs on average \$437.20 for the screening non-contrast MRI brain and an additional \$83.68 for application of the software and report (15).

Community resources for patients and caretakers

Adult day programs: I was fortunate enough to spend 2 days at the Glenner Center's Adult Day Care Program at the Hillcrest location. The center is open Monday through Friday from 9 am – 5pm. Adults can participate in the program for half days or full days and 1 to 5 days per week. The cost of the care is \$95/day and \$65/half-day. At the Hillcrest location, families either pay out of pocket or via long-term care insurance. For VA patients, the VA reimburses the Glenner Center for \$80/day. They serve breakfast, lunch, and snacks. A nurse is on staff to administer oral medications. There are activities such as morning news report, music therapy, exercise, and games that vary each day. While the facility is not locked, there are alarms that alert staff to participants and families coming in and out of the building. Participants have a dementia diagnosis and there is no age minimum. An example of this was a participant in her early 50s who was diagnosed with frontotemporal dementia. She lived at home with her husband, but because he worked fulltime, she needed supervision and stimulation during work hours. There was a wide spectrum of participants. I remember chatting with a participant who was in his 70s. I was not able to tell he had any cognitive impairments without doing formal testing but he did reveal to me his wife started being concerned about his memory and being home alone. He appeared to me as high functioning at least in his ability to hold a conversation, iPhone skills, and long-term memory. The man told me about how proud of his stepdaughter he was for recently graduating from law school and taking the bar. He also showed me how he adjusts the volume of his hearing aids with an app on his iPhone. We played a "finish the idiom" game where a word was omitted from an idiom and he finished all of them, even the most obscure ones. A funny and memorable idiom he answered was "A woman's place is in the ____." Without missing a beat, he yelled, "Wherever the hell she wants! That phrase is so sexist." In contrast, I worked with a participant who had lost his ability communicate verbally and had dysphagia. To my lovely surprise, I also saw a patient there who I had cared for at UCSD Senior Behavioral Health Unit. He was already attending the Glenner Center twice a week prior to his hospitalization. This patient was unsteady on his feet but very mobile. He was always attempting to leave the unit at SBH, but he was kept so busy and stimulated at the Glenner Center that he never wandered. The staff told me he was a great dancer and missed dancing with him when he was hospitalized. It was wonderful to have continuity with this patient and see him thrive in environment where he was clearly more familiar and comfortable.

The Glenner Center is planning on building a 1950-60s San Diego themed Town Square in Chula Vista as part of their adult day care program. It is scheduled to open in 2018. The Town Square will have a real movie theater, a Seaport Village style restaurant, a hospital staffed with a real nurse, and a miniature Balboa Park. I was at the Glenner Center on the day they received their beautiful black 1959 Thunderbird for the Town Square. Their plan is to have the Tbird serve as a car for participants to tinker with while they are at adult day care. During my third year rotation at SBH, I presented on levels of care from in home support and modifications to memory care units. I compared

our run-of-the-mill memory care units with the model facility outside of Amsterdam called De Hogeweyk, nicknamed Dementia Village. This facility is modeled after a village complete with a functional supermarket, salon, theater, and café. The residents live in houses of 6-7 other residents and a few caretakers. The houses are designed based on different decades or themes and residents are housed where they feel the most comfortable. Caretakers wear normal clothing and act as if they are regular members of the community or employees of the shops. I was so excited to hear this year that a smaller version of this was coming to San Diego through the Glenner Center.

I was interested in learning more about the efficacy of reminiscence therapy and other non-pharmacologic interventions for dementia in light of my experiences at the Glenner Center. The three broad categories of non-pharmacologic interventions are occupational therapy, exercise therapy, and cognitive stimulation and rehabilitation. There is a significant amount of overlap between these categories. Occupational therapy focuses on improving the ability to perform ADLs to enhance or maintain independence and reducing the burden on the caregivers by increasing knowledge of dementia and ability to handle behavioral issues (16). Simple examples of modifications that can be made include caregivers limiting the selection of clothing for patients who forget the season or simplifying crossword puzzles for patients who once enjoyed difficult crossword puzzles. A single blind randomized control trial on 135 patients with mild to moderate dementia living in the community showed despite patients' limited learning ability, OT (10 sessions in 5 weeks) improved daily functioning, reduced caregiver burden, and effects were still present at 12 weeks (17). The intervention utilized compensatory strategies to improve the patient's function as well as environmental modifications within the patients' home to adapt the environment to the patients' limitations. I participated in various forms of exercise therapy with my patients and participants both in the inpatient and community settings. Besides the physical health benefits of exercise, I wanted to know the evidence behind exercise therapy as it pertains to dementia. A randomized control trial just published in February 2017 found that a 6 month supervised exercise program had positive effects on functional ability. Overall there was no significant improvement in memory, executive function, or depressive symptoms between exercise and non-exercise groups, but the individual participants who achieved gains in cardiorespiratory fitness had improved memory and reduced hippocampal atrophy. A Cochrane review completed prior to the aforementioned study found no clear evidence of benefit from exercise on cognitive functioning for patients with dementia. There was improvement in ADL performance but little to no evidence suggesting improvement in neuropsychiatric symptoms, depression, mortality, caregiver burden, caregiver quality of life, caregiver mortality, and use of healthcare services (18). Some studies have demonstrated fewer falls in patients who were randomized to an exercise program (19, 20). Cognitive stimulation and rehabilitation focuses on activities that stimulate thinking and memory. Examples of activities include discussion of past and current events, word games, puzzles, baking, and gardening. A Cochrane review in 2012 concluded cognitive stimulation improves cognitive function with effects lasting 1-3 months as well as quality of life and well-being. There was no evidence to suggest improvement in mood, ADLs, and behaviors (21). Reminiscence therapy belongs under the wing of cognitive stimulation and is defined by the APA as "the use of life histories – written, oral, or both – to improve psychological well-being. The therapy is often used with older people." Some examples that I've personally experienced with patients and participants were the "finish the idiom" game, music therapy with sing-a-long old tunes, and sound clips from familiar places (diner, airport, race track). A Cochrane review specifically on the effects of reminiscence therapy for patients with dementia found improvement in cognition and mood lasting 4-6 weeks after treatment, improved functional ability, and lower caregiver strain (22). More recent reviews also continue to suggest that reminiscence therapy can improve mood and some cognitive abilities (23, 24).

Caretakers support groups: During my rotation, I read a book called *Chicken Soup for the Soul: Living with Alzheimer's & Other Dementias: 101 Stories of Caregiving, Coping, and Compassion*. This collection of stories gave me deeper appreciation for the tremendous sacrifices family members to

care for their loved one. To see and hear about this firsthand, I decided to attend a support group ran by the Glenner Center. This was a life changing experience. The participants were all women. Most of the women were married to men who had developed some form of dementia. One participant had a mother that developed dementia. Some women still cared for their husbands at home and they were still functioning well enough to be left alone for a few hours a day. Others needed help to care for their husbands 24/7. Still others had husbands who were living in memory care facilities. The last group of women had husbands that had already passed away. One of the participants talked about attending a reunion in Pittsburgh and that her husband was going to be staying at a memory care unit for respite during the trip. She was very anxious about him transitioning well to a new surrounding but he went to stay a couple days before the trip and has been doing well. The other members of the group were incredibly supportive of her worries but they continued to encourage her trip. Another participant talked about recently placing her husband in a memory care unit permanently. She was tearful when describing the event and her emotions from the entire week. She said she had been trying to keep busy all week, which has been difficult because she had been caring for her husband for so many hours a day. The facility recommends family members not visit for at least a few days to a week to help the resident transition. She was calling everyday to check on him and has felt like "a bad person for not visiting" but also realized it may be for the better. The first few days her husband were asking staff for a ride home but is now accepting this is his new home. Another participant talked about the 1-year anniversary of her husbands' passing. She still attends the support group every week because she still feels support from the community and wants to offer her experiences to help others.

Studies on the efficacy of support groups for caregivers of patients with dementia show improvement in psychological well-being, depression, burden, and social isolation (25, 26). Other interventions have also been tested. A Cochrane review examining telephone counseling interventions found moderate evidence that telephone counseling reduces depressive symptoms for caretakers (27). This may be an attractive option for individuals who are less likely to seek face-to-face counseling due to time, geographic isolation, fear of privacy, or social anxiety. A study conducted on perceptions of telephone counseling found that clients valued the convenience of ability to talk to a counselor same-day, calling when convenient, and ease of calling from home (28). I decided to personally look into support groups and telephone or internet based support groups available in the San Diego area. Many agencies, private citizens, and professionals offer support groups at various times of the day and week throughout the greater San Diego area. There are specialized support groups for Spanish speakers and also for specific dementias or stages of dementia. For example, I found two Spanish specific support groups: Casa Familiar Recreation Center in San Ysidro on Tuesdays at 10 AM & Americare Adult Day Health Care in San Marcos on Wednesdays at 2 PM. There is a Lewy Body and Frontotemporal Dementia specific support group at Alzheimer's San Diego's Shiley Center for Education and Support on Wednesdays at 2 PM.

The websites I found most useful for finding a variety of support groups and calendars that are frequently updated are listed here:

<http://www.alzsd.org/services/support-discussion-groups/>

<https://caregivercenter.org/support-groups/>

<https://glenner.org/today/#family-caregiver-support-groups>

For caregivers who prefer the comfort of their own home or have other reasons they cannot or do not want to attend an in person support group, there is a San Diego specific telephone support group as well as national online support groups / forums. The Alzheimer's Association San Diego and Imperial Chapter has a monthly telephone support group for caregivers on the first Monday of the month at 1pm. The national website also has online support groups and forums. Information can be found here:

http://www.alz.org/sandiego/in_my_community_102121.asp

Levels of Care:

Prior to this rotation, I was aware of different levels of care but didn't fully appreciate how much family involvement and finances dictated where a patient resides. I cared for three patients who really

stood out because of their disparate circumstances. I had the pleasure of seeing one patient, who I mentioned in the Adult Day Care section, in multiple settings. I first met him in SBH when he was admitted for behavioral disturbance. I also saw this patient at the Glenner Center and at his geriatric primary care appointment after his hospitalization. He was initially brought to the ED by his son. His MOCA was 4/30 on admission. I found out the patient lives with two sons and receives nearly 24/7 supervision. Both sons attend school or work so they arranged for the patient to have 2 days a week at the Glenner Center and respite care from both the county and the Alzheimer's Association. During nights and weekends, the sons care for and supervise their father. This incredible coordination of care allowed this patient to reside at home. In contrast, I also cared for a patient who lived alone and was brought into the ED by police after a welfare check. The police had documented that his house was filthy and without food. When the patient arrived, he appeared malnourished and very hungry. He had no documented next of kin and stated he had 3 siblings in other states but did not want them contacted. His MOCA was 13/30. He was able to hold simple conversations and answer straightforward questions. Because no one else could care for him, unlike the first patient, he received a public guardian and required placement in a dementia specific care facility. The third patient falls someone in the middle. He was actually a patient I helped admit to SBH during my third year rotation but cared for him again recently at a nursing home visit at the Silverado memory care facility. He also lived alone but had two very devoted friends who helped him seek care because he was experiencing paranoia and visual hallucinations. During his admission, one of his friends became his DPOA for healthcare decisions, chose the Silverado facility, and even paid the down payment. It was a joy to see this patient again and he even seemed to remember me. He was still in good physical health and did not have much functional decline.

An important concept exemplified by the first patient is "aging in place." The CDC defines aging in place as "the ability to live in one's own home and community safely, independently, and comfortably, regardless of age, income, or ability level (29)." According to the AARP, almost 90% of elders over the age of 65 want to stay in their home for as long as possible and 80% believe their current home is where they will always live. Aging in place, as I found out through research, is a complicated issue involving both household accommodations to evolving needs of an elder and public policy. A 2011 research report conducted and written by the National Conference of State Legislatures (NCSL) and the AARP Public Policy Institute analyzed state and city level policies implemented to improve the ability to age in place (30). They tackled three main areas: land use, transportation, and housing policies. An example of a land use policy is designing mixed-use neighborhoods, that is, neighborhoods that have essential services and mass transit options. Another example is joint use of public facilities. This includes using schools during off hours as community gathering centers for older adults. In terms of transportation policy, a major area of focus is planning "complete streets," which are streets that accommodate all users regardless of age and ability. Lastly, housing policy includes affordable developments and accessibility to services. For example, the state of Florida designates and provides grants to communities that combine housing with services. These communities are called "Communities for a Lifetime." They are developed to support aging in place and also to have more social and community life. These policies do not specifically address modifications for cognitive impairment but are still critical to maximizing the years older adults can stay within their home.

The current average monthly cost of assisted living and nursing home in the San Diego area is \$4,000 and \$7,300 (semi-private room), respectively (31). In order to stay at home, the services needed by older people with functional or cognitive impairment must be arranged and, together with rent or mortgages, should not exceed the cost of higher level of care. The real estate website Redfin recently did a study on cities with the most access to technology-based resources such as Uber for transportation, Instacart for grocery deliveries, CareLinx for in-home caregivers, etc., and gave price comparisons for 10 major cities. Unfortunately, San Diego did not make the top 10 however the cost analysis is interesting and applicable. Results can be found here:

<https://www.redfin.com/blog/2015/08/the-10-best-cities-for-technology-assisted-living.html>.

Mood Disorders

Inpatient Treatment:

While at the Senior Behavioral Health Unit, I took care of only a few patients with major depressive disorder. None of these patients had new diagnoses, and in fact, were well known with multiple admissions in the past for worsening depressive symptoms. One patient suffered from major depressive disorder that manifested as low motivation, irritability, anhedonia, anorexia with malnutrition, and increased sleep. She was admitted for ECT treatment with good effect in the past. This time because she was refusing to eat and severely malnourished, she required involuntary ECT. She was an interesting lady that taught me about ECT but also about patience and persistence. She had been a former ballroom dancer and lived her fiercely devoted long-time boyfriend and dance partner. Aside from her slender figure and British properness, it was hard to imagine my patient dancing. She was incredibly depressed. She said very few words, made no eye contact, and attempted to avoid all social activities. Speaking to her was like talking to a wall, and as cheerful as I am, I left her room feeling glum. In total, it took 15 ECT treatments to get her near baseline. At first she began speaking more, then smiling, then eating more, then participating more, and finally making a few spontaneous jokes.

Electroconvulsive therapy treatment is a safe and effective treatment for depression. I learned that there is no standard number of treatments for ECT. While most patients may need between 6-12 treatments, others may require less or more (32). Multiple studies have also evaluated and established that ECT is a safe and effective for elderly patients (33-35). In fact, patients of older age may be more likely to achieve remission and may have more rapid remission than younger patients (36, 37). Another recent retrospective chart review by Rosen et al. compared rehospitalization rates between geriatric and non-geriatric patients receiving ECT found geriatric patients had lower rates of rehospitalization (6.2 vs. 22%) (38). In terms of efficacy compared to pharmacotherapy for the geriatric population, a recent RCT compared 6-week course of ECT with 12-week pharmacotherapy and found ECT patients remitted faster (mean 3.07 weeks vs. 3.95 weeks, $p=0.008$) and with higher remission rate (63.8 vs 33.3%) (39).

Outpatient Geriatric Psychiatry:

I attended both VA and the UC San Diego La Jolla geriatric psychiatry clinics during my rotation. Most (~80%) of the encounters I participated in were for evaluation or follow-up of cognitive impairment. There were only a few patients I saw for mood disorders, specifically depression and/or anxiety. I saw one patient who was perhaps more complicated than the standard younger patient with major depression. Prior to her husband's death last year, she was well and without any prior episodes of depression. After her husband passed, she has felt unable to process his death and regularly struggling with low motivation and sense of purpose. She also was having disturbing, intrusive thoughts of becoming a nun. On exam, the patient appeared sad with congruent/constricted affect, had prolonged speech latency, exhibited increased tone in her right upper extremity, and had a subtle resting tremor. Her MOCA was a 19/30 but neither her nor her family were concerned about any functional losses. She was a mixed picture, which is not uncommon for older patients. It was true she had multiple symptoms of depression but there were symptoms suggestive of perhaps a previous stroke contributing to RUE rigidity or Parkinson's disease. Her low score on the MOCA suggested cognitive impairment but depression itself or in combination could also result in a low MOCA score.

This patient probed me to look into depression and its association with cognitive impairment or dementia. Depression is known to occur in patients with cognitive impairment and dementia. However some studies have found depression coincides with or follows cognitive impairment while others have found it precedes or is perhaps an Alzheimer's disease prodrome (40-43). A recent study attempted to quantify the risk of developing dementia in patients who have had midlife vs. late life depression. In patients with midlife depression, the hazard ratio for developing dementia was 1.19

compared to 1.72 for late life depression. In patients with both midlife and late life depression, the hazard ratio was 1.77 (44).

Not surprisingly, depression in patients with dementia is underdiagnosed and undertreated because of overlapping symptomology. Symptoms such as apathy, poor memory or concentration, lack of insight can confuse the picture (45). A recent study published in the Journal of the American Geriatrics Society compared the accuracy of different tools used to screen patients with dementia for depression. The following diagnostic tools were studied with sensitivity and specificity of the most accurate tests in parenthesis: Montgomery Asberg Depression Rating Scale, Cornell Scale for Depression in Dementia (CSDD) (84%, 80%), Geriatric Depression Scale (GDS) (62%, 81%), Center for Epidemiologic Studies Depression Scale (CES-D), Hamilton Depression Rating Scale (HDRS) (86%, 84%), Single Question, Nijmegen Observer-Rated Depression Scale, and Even Briefer Assessment Scale-Depression. The authors attribute the higher discriminatory ability of the HDRS and CSDD to the incorporation of the interview as part of the tool (46).

Intensive Outpatient Program:

I attended the UC San Diego Senior Intensive Outpatient program through the UC San Diego Senior Behavior Health Program for a few mornings during my rotation. The program is designed as an alternative to, or bridge from, inpatient treatment for older adults who have depression, anxiety, or maladaptive patterns of coping and who do not have cognitive impairment. The treatment team, patient, and family together decide how many days a week are best for the patient and this can range from 2-4 days/week. The patients are seen by a psychiatrist and nurse regularly to optimize medications and discuss their progress. They attend several hours a day of group therapy, mindfulness exercises, and coping skills building activities led by a social worker. I found the IOP to be one of the most rewarding places to be. It was an environment where the patients found strategies to help themselves and support from each other. I especially enjoyed watching patients support each other. There was a new patient attending IOP for the first time. She seemed extremely anxious to be there and most likely anxious in general. She was continuously fidgeting with her hands and looking around cautiously. When it was her turn for the "check in," all she was able to say is "Hi I'm ____ and I have anxiety. I'm nervous to be here." After she said this, multiple patients in the group told her they also suffer with anxiety but the skills they have learned from coming to these sessions have helped them recover and cope every day. I could feel her anxiety level drop after hearing this. She also smiled for the first time. Seeing patients gain insight into how thoughts drive their behavior was also just as rewarding. I participated in a reflection activity where the patient writes down nouns, adjectives, and activities of their "ideal self," circle what they already are, and underline what they are not or prevented from being due to anxiety or depression. Next, they write down how depression and anxiety hinders them and list strategies to overcome it. The patient sitting next to me underlined cello player. She wrote depression and anxiety made her feel less creative. She believes she can overcome it by starting small and playing scales first. Witnessing her process this task and come up with strategies for herself was extremely rewarding.

Closing Statements

My motivation for this project was, in part, because I love spending time with older patients. I also felt my exposure to older patients receiving the spectrum of mental health care was limited after having only seen patients in the inpatient setting. I am tremendously grateful for the lessons my patients taught me over the course of my 2-month rotation. While I am pursuing pediatrics, I will still utilize the knowledge I've gained on levels of care, treatment options, importance of interdisciplinary involvement, and local resources in helping my patients' families and my own friends and family seek health care. There are certainly settings and populations that I was not able to see in the time span of this rotation. I initially had the idea of seeing underserved patients, specifically, the San Diego homeless population, and understanding the resources available. I arranged to see patients in the primary care + psychiatry clinic at St. Vincent de Paul but was only able to see patients under age 55. Still, I am so thankful I was able to dedicate any amount of time during my senior year caring for and

learning from older people. I am also grateful to the professionals, including physicians, nurses, social workers, occupational therapists, and psychologists, who devote their career to caring for the geriatric population.

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