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PERSPECTIVES OF SOCIAL WORK STUDENTS ON NUTRITION AND THE NUTRITION EFFECTS ON MENTAL HEALTH

Diana Tran
misstrandiana@gmail.com

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PERSPECTIVES OF SOCIAL WORK STUDENTS ON NUTRITION
AND THE NUTRITION EFFECTS ON MENTAL HEALTH

A Project
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Social Work

by
Diana Tran
March 2014

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March 2014

Approved by:

Dr. Teresa Morris, Faculty Supervisor, Social Work

Dr. Laurie Smith, Director of Social Work,

California State University, San Bernardino

Dr. Rosemary McCaslin, M.S.W. Research Coordinator

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ABSTRACT

Nutrition is related to the mental well-being of clients. However, the nutritional views and practices of social workers in the mental health field have not been thoroughly explored. By using the post-positivist paradigm, 15 mental health social work students were interviewed for their perspectives regarding nutrition and nutrition's effect on stress. Their main ideas were identified, connected, and organized to develop a theoretical statement. The resulting theory focused on the development of social work students' perspectives in applying nutrition into their mental health practice. The students were influenced by a variety of background factors, including their education, barriers to applying nutrition into their mental health practice, and solutions to the barriers. Background factors affected the students' thoughts on nutrition, including their abstract thoughts, food, eating behaviors, and general well-being. The students' thoughts influenced their application of mental health treatment with nutrition and its compounding variables. Lastly, the students suggested nutrition and mental health treatment approaches, which consisted of providing nutrition assessments, discussions, education, demonstrations, linkages, and macro interventions.

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DEDICATION

To the wonderful people throughout my life:

My bạn thân (best friend) and bạn trai (boyfriend), Brian,
who brings me strength and happiness as I go further in my journey.

My ba (father), Thanh,
who provided me with his underlying love and support.

My má (mother), Thien Oanh,
who gave me purpose to make a difference in this world.

My bà nội (grandmother), Cuc,
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CHAPTER ONE

ASSESSMENT

Introduction

The assessment chapter introduces the research focus, paradigm, and theories used to carry out this study. Background information is provided for a thorough understanding of the research focus. Finally, the chapter includes the potential contributions of this research study to social work practice.

Research Focus and/or Question

This research study explored the perceptions of mental health social work students on nutrition and the nutritional effects on stress. The participants were interviewed to share their thoughts, opinions, and experiences relating to the subject matter.

Nutrition

Nutrition is the study of how food and nutrients influence the human body (Natow & Heslin, 2006). Food is a type of "material consisting essentially of protein, carbohydrate, and fat used in the body of an organism to sustain growth, repair, and vital processes and to furnish energy..." (Merriam-Webster, 2013b). Nutrients are materials or components that nourish the body (Merriam-Webster, 2013c). A variety and sufficient amount of nutrients are needed for the body to "function, repair itself, produce energy, and grow" (Duyff, 2012, p. 17). Nutrients

are subcategorized into macronutrients as well as micronutrients and consist of carbohydrates, proteins, fats, vitamins, minerals, and water (Duff, 2012; Hark & Deen, 2005).

Macronutrients. Macronutrients are calories derived from carbohydrates, proteins, and fats (Hark & Deen, 2005; Natow & Heslin, 2006). A calorie is a measuring unit of heat or energy derived from the food's chemical bond and provides energy for the body to function (Merriam-Webster, 2013a; Natow & Heslin, 2006). According to Natow and Heslin (2006), carbohydrates are composed of "sugars, starches, and fibers" that provide the body with a source of energy. There are two types of carbohydrates, simple and complex. Simple carbohydrates have a basic chemical structure of one or two sugars and are easily digested into energy that can be used immediately (Harvard School of Public Health, 2013a). Simple carbohydrates can be found in many foods, such as baked potatoes, french fries, and pastas made of white flour (Foster-Powell, Holt, & Brand-Miller, 2002). Complex carbohydrates contain three or more sugars in their chemical structure, take more time to digest, and have more nutrients than simple carbohydrates (Harvard School of Public Health, 2013a). Complex carbohydrates are found in bran cereals, oatmeal, and whole grain foods (Foster-Powell, Holt, & Brand-Miller, 2002).

Proteins are composed of amino acids that build and maintain the body's cells, tissues, and substances (Natow & Heslin, 2006). Some sources of protein are nuts, beans, fish, and chicken (Harvard School of Public Health, 2013b).

Another macronutrient, fats, provide energy and fatty acid nutrients to the body, maintain the temperature of the organs, and assist the body in digesting fat soluble vitamins and develops cells (Natow & Heslin, 2006). Fats are obtained from oils, nuts, and meats, and are subcategorized into three types of fats: saturated, monosaturated, and polysaturated fats (Natow & Heslin, 2006).

Micronutrients. Micronutrients are vitamins and minerals that sustain the body and its ability to function (Duyff, 2012; Hark & Deen, 2005; Natow & Heslin, 2006). Vitamins are composed of fat and water soluble compounds that can be modified and damaged within the body (Natow & Heslin, 2006). Vitamins are derived from unprocessed, natural foods and can be produced by the body by itself (Merriam-Webster, 2013e).

Minerals cannot be modified or damaged by the body (Natow & Heslin, 2006). They are categorized based on the amount needed to be consumed every day (Blake, Munoz, & Volpe, 2009). Major minerals (e.g., sodium, potassium) are consumed in larger amounts than 100 milligrams and are found in fruits, vegetables, dairy, eggs, and meats (Blake, Munoz, & Volpe, 2009). Trace minerals (e.g., zinc, copper) are consumed in smaller amounts than 20 milligrams and are found in fruits, vegetables, beans, and meats (Blake, Munoz, & Volpe, 2009).

Stress

Stress is the mental and physical reaction to actual or perceived stimuli, changes, and demands in life that disrupts a person's balance (American

Psychological Association, 2013a; Donatelle, 2012; Lazarus & Cohen, 1977).

Stressors are the stimuli, changes, and demands in the environment that causes the person to experience stress (Lazarus & Cohen, 1977).

Types of Stress. There are two types of stress, eustress and distress (Donatelle, 2012). Eustress is positive stress that promotes growth, pleasure, and well-being (Donatelle, 2012). On the other hand, distress is negative stress that causes harm and anxiety (Donatelle, 2012).

Types of Distress. There are two types of distress, including acute and chronic stress (Donatelle, 2012). Acute distress is a severe form negative stress that occurs immediately and for only a short duration of time (Donatelle, 2012). For example, acute distress can occur when watching a horror film and skiing down on a slope (American Psychological Association, 2013b; Donatelle, 2012). The typical symptoms of acute distress are mild and take form of emotional (e.g., irritability), muscular (e.g., shoulder tension), digestive (e.g., heartburn), and cardiac (e.g., blood pressure) issues (American Psychological Association, 2013b).

Chronic distress is negative stress that may not seem severe to the person; however, it weakens a person's physical health and continues to occur "indefinitely" (Donatelle, 2012). An example of chronic distress is the loss of a parent who struggled with terminal cancer and having to deal with that loss (Donatelle, 2012). Chronic distress may lead to "suicide, violence, heart attack, stroke, and, perhaps, even cancer" (American Psychological Association, 2013b,

p. 2).

Biological and Psychological Stress Responses. Stress begins with the ability to sense and perceive the world (Feldman, 2009). Sensation occurs when a source of physical energy, or a stimulus, activates a sense organ (e.g., eyes) in the body (Feldman, 2009). Then the stimulus is perceived, which is the "interpretation, analysis, and integration of stimuli by the sense organs and the brain" (Feldman, 2009, p. 91). The stimulus becomes a stressor when it is viewed as a threat and the body has limited means to cope with it (Feldman, 2009).

When the person is resting or becomes exposed to a demanding stimulus, or stressor, the brain is constantly activating the autonomic nervous system (Donatelle, 2012). The autonomic nervous system permits the brain to communicate with the "glands, organs, and smooth muscles" of the body to "function without conscious effort or awareness" (Freberg, 2006, p. 49, 51). The autonomic nervous system is composed of the sympathetic and parasympathetic nervous systems (Freberg, 2006).

During mild stress levels, the parasympathetic nervous system is operating and helps the body to rest, restore, and store energy (Donatelle, 2012; Freberg, 2006).

When exposed to a stressor, the body activates the sympathetic nervous system and tries to maintain homeostasis by applying the general adaptation syndrome (Donatelle, 2012). The general adaptation syndrome consists of an

alarm stage, resistance stage, and exhaustion stage (Donatelle, 2012).

In the alarm stage, the person is exposed to a stressor, which triggers the sympathetic nervous system (Donatelle, 2012). The sympathetic nervous system stimulates the body to fight, freeze, or flee from danger (Freberg, 2006; Siegel, 2010). The sympathetic nervous system suppresses unnecessary bodily functions (e.g., digestion) and sends more blood and oxygen to the brain, heart, lungs, and muscles (Freberg, 2006).

During the resistance stage, the body strives to obtain homeostasis by resisting the stressor's influences and using coping skills (Butler, 1993; Feldman, 2009). After the body and its sense organs have been exposed to the stressor for a long duration of time, the body becomes less heightened because it is used to the unchanging stressor (Donatelle, 2012; Feldman, 2009). This adjustment process is called adaptation (Feldman, 2009). However, the other organs continue to respond to the stressor while the body becomes more adapted (Donatelle, 2012).

Stress management is the process of limiting exposure to stress and learning strategies to deal with the stress (Feldman, 2009). There are healthy approaches to deal with stress, such as emotional-focused coping and problem-solving coping (Feldman, 2009). Emotional-focused coping entails changing a person's thoughts and feelings regarding the stressor in order to reduce stress (e.g., thinking optimistically) (Feldman, 2009). Problem-focused coping changes the person's behavior in order to manage his or her stress (e.g., planning)

(Feldman, 2009). If the person cannot successfully cope with the stressor, he or she becomes overwhelmed and transitions into the exhaustion phase (Butler, 1993; Feldman, 2009).

The exhaustion phase happens when the body becomes worn out from consuming all of its mental and physical energy to deal with the stressor (Butler, 1993; Donatelle, 2012). When the body is exhausted, the immune system weakens, blood pressure increases, and the ability to control blood sugar levels decline (Donatelle, 2012).

Factors of Stress. There are many factors that contribute to stress, including gender, age, care giving, working, and experiencing a cataclysmic event (Feldman, 2009; Helpguide, n.d.). Women are more prone to stress than men because women have more family and social concerns (e.g., providing child care, working at home and at work) compared to men who have financial concerns (e.g., traditional role as a breadwinner) (Helpguide, n.d.).

Aging contributes to stress because people have to deal with major events (e.g., death of a partner) and health-related issues (e.g., cancer) (Helpguide, n.d.). Health issues are stressing because the person must be aware of their physical abilities and limitations, and learn to adapt to these changes (Helpguide, n.d.).

Care giving is another contributing factor of stress because it can be emotionally taxing (e.g., grief) to and adds additional responsibilities for the care giver (e.g., providing care for his or her children and parents) (Helpguide, n.d.).

Work also causes stress because there are work demands, fears of job loss, and economic challenges (Helpguide, n.d.).

A cataclysmic event is a major source of stress because the event affects numerous people unexpectedly (Feldman, 2009). Cataclysmic events can include tornadoes and terrorists attacks (Feldman, 2009).

Benefits of Stress. Eustress is a type of stress that helps the person to grow, experience pleasure, and improves well-being, as previously stated (Donatelle, 2012). Eustress motivates a person to manage these stressors because they are beneficial (Donatelle, 2012). Some examples of eustress are “getting married” and "getting a promotion from work" (Donatelle, 2012, p. 46).

Stress was beneficial from an evolutionary standpoint. The short-term exposure to stress allowed the humans’ ancient ancestors to escape danger, such as threats of being killed by an enemy or an aggressive animal (Donatelle, 2012). The ancestors protected themselves by fighting, freezing, or running away in order to deal with the threatening situation (Donatelle, 2012; Siegel, 2010).

Consequences of Stress. When faced with a stressor, the body's adrenal glands release a hormone to activate the sympathetic nervous system (Feldman, 2009). The person will start to experience these physical ailments:

. . . headaches, muscle tension, neck or back pain, upset stomach, dry mouth, chest pains, rapid heartbeat, difficulty falling or staying asleep, fatigue, loss of appetite or overeating 'comfort foods', increased frequency of colds, lack of concentration or focus, memory problems or

forgetfulness, jitters, irritability, short temper, and anxiety. (American Psychological Association, 2013a)

After immediate and extended durations of stress, the body's performance declines due to the prolonged release of stress-related hormone (Feldman, 2009). Prolonged stress weakens the body tissues (e.g., heart), creates susceptibility towards diseases, and increases the risk for "high blood pressure, heart disease, obesity, diabetes and suicide" if the stress is not addressed and treated (American Psychological Association, 2013a; Feldman, 2009).

Nutrition and Stress

The brain, nerves, and other parts of the nervous system are composed of nerve cells, or neurons (Gustafson, 2007). Part of the neuron is insulated with unsaturated fats to ensure the neurons are able to communicate efficiently (Mental Health Foundation [MHF], 2006). In between each neuron is a space, or synapse, where neurological messages are sent from one neuron to another by neurotransmitters, or neurological chemicals (Gustafson, 2007; MHF, 2006). Neurotransmitters are composed of amino acids, which are generally obtained from a diet (MHF, 2006). For example, the amino acid phenylalanine produces neurotransmitters that contribute to feelings of motivation (MHF, 2006). In addition, the growth, maintenance, and health of the brain, nerves, and neurological chemistry come from eating food with high levels of energy and nutrients (Gustafson, 2007; MHF, 2006).

Food Affects Neurotransmitters. Different types of foods affect the

person's brain and mental well-being (MHF, 2006). Foods have multiple effects on the brain which includes changing the brain's chemical balance, damaging the brain cells, displacing the brain's nutrients, and balancing the neurotransmitters in the brain (MHF, 2006).

Changing the Brain's Homeostasis. There are certain foods that temporarily release neurotransmitters into the brain (MHF, 2006). For example, chocolate increases noradrenalin neurotransmitters, which temporarily improves the person's mood (MHF, 2006). The brain adjusts to the increased levels of neurotransmitters that the food produced, by producing lesser amount of its own neurotransmitters to maintain homeostasis (MHF, 2006). This decrease of neurotransmitters by the brain is identified as down-regulation (MHF, 2006).

When the person becomes deprived of neurotransmitters after the food's temporarily effects disappear, the person will crave a similar type of food in order to compensate for the limited amount of the neurotransmitters (MHF, 2006).

Damaging the Brain Cells. Certain types of foods can harm the brain (MHF, 2006). Foods can contain saturated fats from butter and whole milk and trans fats from unsaturated vegetable oil (MHF, 2006). When digesting these foods, they release oxidants, or unstable molecules that are missing an atom (MHF, 2006). The body compensates for the missing atom by damaging and taking the atom from the cells, tissues, and DNA essential for the brain to function (MHF, 2006).

Displacing Nutrients from the Brain. There are some foods

responsible for taking nutrients away from the brain (MHF, 2006). The brain is made up of 60 percent fat excluding water, consuming fats affect how the brain is structured and composed (MHF, 2006). When high amounts of saturated fats are consumed, the brain becomes more rigid (MHF, 2006).

When trans fats (e.g., processed cakes and "ready meals") are consumed, they displace the essential fatty acids within the brain (MHF, 2006). Hence, the essential fatty acids are not able to convert into nutrients for the brain, which lowers the effectiveness of the brain's functions (MHF, 2006).

Balancing Neurotransmitters. When certain foods are eaten frequently, they can nourish the brain (MHF, 2006). These foods cause the brain to balance its level of neurotransmitters instead of down-regulating them (MHF, 2006). For example, Holford stated that eating "dark green vegetables, seeds [and] nuts, potatoes, bananas, [and] eggs" can prompt the brain to produce GABA neurotransmitters (as cited in MHF, 2006, p. 40). Holford also stated that when the brain is deprived of GABA neurotransmitters, the person can become anxious, irritable, and critical towards his or her self (as cited in MHF, 2006).

Antioxidants. Consuming foods with antioxidants help to protect the cells and other parts of the body from the damaging effects of oxidants (MHF, 2006).

Nutrients Affecting Mental Health. Nutrients are food components that allow the body to "function, repair itself, produce energy, and grow" (Duyff, 2012, p. 17; Merriam-Webster, 2013c). Mental health can be improved by nutrients as

well, especially when “complex carbohydrates, essential fats, amino acids, vitamins and minerals and water” are consumed (MHF, 2006, p. 6).

Complex Carbohydrates. The brain is mostly made of glucose, which is a form of sugar (MHF, 2006). Glucose can be found in foods with complex carbohydrates (e.g., whole grains, vegetables), which gives the brain a source of energy (MHF, 2006). When complex carbohydrates versus simple carbohydrates are digested in the body, the complex carbohydrates slowly release glucose so the brain can receive a regular and stable level of energy to function (MHF, 2006).

Essential Fatty Acids. Without accounting for the water content, the brain is made up of 60 percent fat and 20 percent of that fat consists of essential fatty acids, such as omega-3s and omega-6s that are found in seeds and vegetables (MHF, 2006). Fat is needed for the brain to function because it insulates the neurons, or nerves cells, so they can communicate with each other effectively (MHF, 2006). Fish consumption, another source of omega-3 essential fatty acids, has been found to improve mood (MHF, 2006).

Amino Acids. Neurotransmitters, which are responsible for neurons to communicate with each other, are made up of amino acids (MHF, 2006). Many amino acids are created within the body and some are derived from sources of protein (MHF, 2006). So if not enough amino acids are consumed, the body will not produce enough neurotransmitters for the neurons to communicate effectively (MHF, 2006). For example, Christensen stated “...tyrosine [amino acid]

(which converts to dopamine, noradrenaline and adrenaline [neurotransmitters]) improves mental and physical performance under stress better than coffee” (as cited in MHF, 2006, p. 42).

Vitamins and Minerals. Both vitamins and minerals contribute to a variety of neurological processes (MHF, 2006). Some vitamins are antioxidants. Additionally, vitamins and minerals convert “...carbohydrates into glucose, fatty acids into healthy brain cells and amino acids into neurotransmitters” (MHF, 2006, p. 44). For example, vitamin B15 deficiency can cause stress. Holford believed that eating whole grains and vegetables can provide these nutrients and help address their stress indirectly (cited by MHF, 2006).

Water. The brain is composed of many nerve cells, or neurons, and 80 percent water (Gowin, 2010; MHF, 2006). Neurons need a balance of water and other elements to maintain their structure and to function properly (Campbell et al., 2008; Gowin, 2010). The neuron’s structure is held together by a permeable cell wall, or membrane, that allows for water to go in and out of the cell (Campbell et al., 2008). If the neuron holds too much water, then the cell will burst (Campbell et al., 2008). On the other hand, if the neuron holds a small amount of water, then the cell will shrink and become damaged (Campbell et al., 2008). A balance of water and other elements are needed in order for neurons and other cells to maintain their structure and functions (Campbell et al., 2008; Gowin, 2010).

In conclusion, the nervous system is a network of neurons that

communicate with each other (Gustafson, 2007). The neurons communicate by using neurotransmitters that affect a person's mood, thoughts, and behaviors (Gustafson, 2007). So when an inadequate amount of nutrients are consumed, the nerves within the brain and body weaken and become damaged (Gustafson, 2007). Inadequate nutrition also negatively affects the functioning of the brain, such as the ability to recall memory and solve problems (Gustafson, 2007). In the end, inadequate nutrition contributes to the development and maintenance of stress and other mental health symptoms (Bottomley & McKeown, 2008).

Food and Nutrition Policies and Programs

The United States Department of Agriculture (USDA) has established various food and nutrition policies and programs for struggling individuals, families, and communities (Siefert, 2008). The following food programs were developed and funded by the federal government: farm subsidies, Supplemental Nutrition Assistance Program (SNAP), the National School Lunch Program (NSLP), the School Breakfast Program (SBP), Child and Adult Care Food Program (CACFP), Summer Food Service Program (SFSP), Special Milk Program (SMP), Special Supplemental Nutrition Program for Women Infants and Children's (WIC) program, WIC Farmers Market Nutrition Program, Food Distribution Program on Indian Reservations (FDPIR), Elderly Nutrition Program (ENP), and The Emergency Food Assistance Program (TEFAP) (Siefert, 2008).

Farm Subsidies. Farm subsidies were created to help farmers grow commodity crops and receive a stable income despite the changing demands of

the economic market (Juby & Meyer, 2010). Commodity crops do not usually include nutritious foods like fruits and vegetables (Juby & Meyer, 2010).

Supplemental Nutrition Assistance Program. The Supplemental Nutrition Assistance Program (SNAP), formerly known as Food Stamps, assist low-income individuals and families to purchase food with Electronic Benefit Transfer (EBT) cards (USDA, n.d.g; USDA, n.d.h). These individuals are qualified based on their household income, cost of living, and citizenship or immigration status (USDA, n.d.g). When these individuals participate in the program, they are expected to "register for work, to take part in employment/training programs... and to accept or continue suitable employment" if they are capable of working and are between the ages of 16 to 60 (USDA, n.d.g, p. 1).

National School Lunch Program. The National School Lunch Program (NSLP) gives financial assistance and commodity crops to public schools, not-for-profit private schools, and "residential child care institutions" in order to provide lunches for children (Juby & Meyer, 2010; USDA, n.d.b).

In the NSLP, the schools offer low-cost or free lunches to low-income children and provide snacks to children during after school programs (USDA, n.d.b). Children who have a poverty level under 130 percent qualify for free lunches, whereas the children who have a poverty level between 130 to 185 percent qualify for low-cost lunches (USDA, n.d.b).

The Food, Conservation, and Energy Act of 2008 improved the lunch program by offering fresh produce to promote healthier eating and provided more

free and reduced-cost lunches for the children (Juby & Meyer, 2010).

School Breakfast Program. The School Breakfast Program (SBP) is similar to the National School Lunch Program. The SBP is a federal assistance program that provides children with a morning meal through their public schools, not-for-profit private schools, and “residential child care institutions” (USDA, n.d.c, p. 1). This provides children an opportunity to purchase breakfast. But similar to the NSLP, children below the poverty level of 130 percent receive a free breakfast and children between the poverty level of 130 to 185 percent receive a low-cost meal (USDA, n.d.c).

Child and Adult Care Food Program. The Child and Adult Care Food Program (CACFP) is a federal food assistance program that provides meals and snacks for children in day care and emergency shelters and for adults in day care (USDA, n.d.a). The eligibility for free or low-cost meals and snacks is based on the children's and adults' household income (USDA, n.d.a).

Summer Food Service Program. During the summer and long vacation breaks from school the Summer Food Service Program (SFSP), a federal program, provides two meals or a meal with a snack to individuals living in low-income areas (USDA, n.d.f). Adults with mental and/or physical disabilities who participate in educational programs and children qualify for the SFSP (USDA, n.d.f). These summer meals are provided by “schools, local government agencies, residential and non-residential camps, and faith-based and other provide nonprofit organizations” (USDA, n.d.f, p. 1).

Special Milk Program. The Special Milk Program (SMP) allows qualifying “schools, childcare institutions, and eligible camps” to offer milk with Vitamins A and D to qualifying children for free or at a reduced cost (USDA, n.d.d, p. 1). Children are only eligible when they are not participants of other federal food programs (USDA, n.d.d).

Special Supplemental Nutrition Program for Women, Infants, and Children. The Women, Infants, and Children's (WIC) program provide common food items for those who are "pregnant, postpartum, or [are] breastfeeding" and to "children under the ages of five" (Juby & Meyer, 2010, p. 379). After the Food, Conservation, and Energy Act of 2008 was established, the WIC program began to offer "fruits, vegetables, and whole grains" to its participants and allow the participants to replace dairy milk for soymilk (Juby & Meyer, 2010).

WIC Farmers Market Nutrition Program. The WIC Farmers Market Nutrition Program offers its recipients 30 dollars a year to spend on fruits and vegetables at the produce stands and at the farmers' markets (Juby & Meyer, 2010; USDA, n.d.j).

Food Distribution Program on Indian Reservations. Low income Native Americans and non-Native Americans residing on the reservations or in supported areas by the reservations, or reside in Oklahoma, qualify for food assistance (USDA, 2013). The Food Distribution Program on Indian Reservations (FDPIR) was established to address the food and nutrient needs of this population because of their limited access to SNAP agencies and stores (USDA,

2013). Native Americans and particular residents are provided with an option to choose their foods from a list and to have these foods delivered on a monthly basis (USDA, 2013).

Elderly Nutrition Program. The Elderly Nutrition Program (ENP) provides the elderly with meals within group settings or at their homes (United States Department of Health and Human Services on Aging [DHHS], 2009). These meals are required to meet at least a third of the nutrition standards set by various agencies, including the Food and Nutrition Board of the Institute of Medicine of the National Academy of Sciences (DHHS, 2009). These food services also provide health and nutrition services, including “screening, assessment, education, and counseling”, linkage to community services, and visits from volunteers and staff to assess their well-being and environment (DHHS, 2009, p. 2).

The ENP is for individuals at the ages of 60 or older, but primarily focuses on assisting individuals with low-income, residing in rural areas, and minorities (DHHS, 2009). Since some minorities have a lower life expectancy, the age requirements for this program can be reduced (DHHS, 2009).

The Emergency Food Assistance Program. The Emergency Food Assistance Program (TEFAP) provides no-cost food assistance for emergency purposes and nutrition services for low-income individuals (USDA, n.d.i). The organizations that offer the food are generally food pantries (which give unprepared foods to individuals to take home) and emergency or soup kitchens

(which give individuals cooked meals to consume on site) (Nord et al., 2005; USDA, n.d.i). The requirements for participating in the program are established by the states, but are generally based on income (USDA, n.d.i).

Food, Nutrition, and Social Work Studies

Research studies have focused on the micro practices of social work professionals and students with an emphasis on nutrition, the collaborative efforts of social workers with dietitians and nutrition experts, and the integration of nutrition into social work education.

Micro Practice. In a research study from Israel, Shor (2010a) studied 126 undergraduate social work students that applied nutrition at their internships. These students worked with families and children that were susceptible to nutrition challenges. These students were given questionnaires on nutrition knowledge and practice for two years (Shor, 2010a).

The students rated nutrition as a moderate-to-high level of importance when providing treatment to children who have a nutrition risk (Shor, 2010a). But when it came to the students' actual practice, 65.5 to 76.8 percent of students rarely or did not apply nutrition to their social work practice (Shor, 2010a). Most of these students placed more emphasis on psychosocial matters than on nutrition.

However, when the students practiced nutrition, they did so without collaborating with a nutrition specialist (Shor, 2010a). Most of the students (80 to 87.2 percent) "rarely or never collaborated or referred to a nutrition specialist"

(Shor, 2010a, p. 652). The students reported barriers with applying nutrition because their education did not provide enough knowledge in nutrition, rather than experiencing institutional barriers (Shor, 2010a).

There was an association between nutrition being important and an increased frequency in nutrition being practiced (Shor, 2010a). There was also an association between nutrition being important and the social work student being more likely to have to collaborate with a nutrition specialist (Shor, 2010a). However, there was no relationship found between how often nutrition was practiced and having a limited knowledge in nutrition (Shor, 2010a).

Collaboration. Shor (2010b) studied the collaboration between social workers and dietitians when teaching nutrition to low-income families because these two professions rarely collaborate (Shor, 2010b). There were 11 social workers and 11 dietitians that partnered together to educate 11 groups of low-income parents and children, which were a total of 126 individuals (Shor, 2010b). The parents and children lived in a low-income area of Jerusalem, Israel (Shor, 2010b).

There were a total of six sessions with each session being an hour and half long (Shor, 2010b). The first part of the session taught parents how to improve their children's nutrition, how to cope with having limited resources, and improving the parent-child relationship during dinner time (Shor, 2010b). As for the children, their first session taught them what types of food were considered to be healthy (Shor, 2010b). Then the second part of the session involved the

parents and children cooking and eating their meals together (Shor, 2010b).

The social workers and dietitians were assigned as co-leaders for the nutrition education group (Shor, 2010b). All of the co-leaders got together to learn about group work and discuss their collaborative experiences with each other (Shor, 2010b). Some of the co-leaders met more often than what was required (Shor, 2010b).

Shor (2010b) had the professionals write about their positive and negative experiences with collaboration into their journals. The professionals were interviewed to discuss their positive and negative experiences with collaborating, roles in the collaboration, contributions, suggestions for improvement, and what they have learned from the collaboration and from working with low-income parents and children (Shor, 2010b).

Shor (2010b) identified issues with the social worker and dietitian collaborating together. First, the social workers experienced role confusion in their collaboration (Shor, 2010b). Second, the dietitians had little experience working with the low-income population and had difficulties modifying their interventions to work with this population (Shor, 2010b). But both of professionals agreed that their goal was to provide nutrition education for the families.

Social Work Education and Collaboration. Bonifas and Gray (2013) studied how social work students learned about interdisciplinary practice. The participants of this study were second year Master of Social Work students who specialized in general and behavioral health (Bonifas & Gray, 2013). These

students were subjected to a quasi-experiment with a pre- and post-test on interdisciplinary knowledge. These tests were developed by an interdisciplinary team (Bonifas & Gray, 2013).

Before the treatment, the students took a Myer Briggs Personality test to learn about their personalities and the strengths and limitations of their personalities within a teamwork and healthcare setting, and read three assignments pertaining to the role of the social workers in an interdisciplinary healthcare setting (Bonifas & Gray, 2013).

The daytime students were placed into the "interprofessional" treatment, which had "social work, medicine, nursing, pharmacy, and nutrition" students take a three-hour interdisciplinary seminar together (Bonifas & Gray, 2013, p. 480). The seminar was taught by a faculty member or practitioner, and had an expert teach and interpret the results of the Myer Briggs test (Bonifas & Gray, 2013). The students learned about the different roles of each profession, discussed a clinical case study within a small group, and summarized their discussions on interdisciplinary collaboration and the role of the different professions (Bonifas & Gray, 2013).

The evening students experienced the "uniprofessional" condition (Bonifas & Gray, 2013, p. 481). This entailed having the social work students follow typical coursework with an additional interdisciplinary course session for three hours (Bonifas & Gray, 2013). These students learned about the different roles of each professional, researched the requirements for each professional to practice, and

discussed and watched videos about a clinical case regarding a social worker's role in the interdisciplinary team and ways to address problems with teamwork (Bonifas & Gray, 2013).

In conclusion, the students in the interprofessional condition improved their "attitudes and values" towards working in an interdisciplinary collaboration, but their knowledge of other professional roles and training did not improve (Bonifas & Gray, 2013, p. 476). The uniprofessional group was more likely to recognize the roles and training of other professionals, but were less likely to have a change in attitude and values towards working in an interdisciplinary collaboration (Bonifas & Gray, 2013).

Food and Nutrition Interventions for Social Workers

The American Dietetic Association made recommendations to address food and nutrition insecurity applicable to social workers doing micro and macro level work (American Dietetic Association, 2006; Siefert et al., 2007; Siefert, 2008).

On a micro level, interventions for nutrition consisted of referring vulnerable populations to food and nutrition programs and providing them with food and nutrition education (American Dietetic Association, 2006).

Within the community, social workers were recommended to support food and nutrition programs, including community gardens, food assistance programs, food cooperatives, and parent organizations to encourage healthy eating habits in children (American Dietetic Association, 2006; Siefert et al., 2007).

The macro interventions consisted of funding food assistance programs by educating “professionals, legislatures, policymakers, and community members about the effects of household food insufficiency on mental health”, encouraging vulnerable populations to use food and nutrition programs, restricting the marketing of unhealthy foods, and advocating for those who are at-risk for nutrition and food issues (American Dietetic Association, 2006; Siefert et al., 2007, p. 9). These approaches were achievable by participating in and working with dietetics associations, food assistance programs and agencies, and organizations that focused on reducing hunger (Siefert, 2008).

For example, Juby and Meyer (2010) proposed two nutrition interventions through policy, including supporting the fat tax initiative and expanding the WIC program. The fat tax initiative was an effort to tax unhealthy foods, which had the potential to cause them to become a less desirable option for low-income individuals (Juby & Meyer, 2010).

Another option was to expand the WIC Farmers Market Nutrition Program by allotting the recipients more than 30 dollars per year towards fruits and vegetables at their farmers' market (Juby & Meyer, 2010). The expanded WIC program could also have provided preventative services to address malnutrition and obesity (Juby & Meyer, 2010).

Current Research

In conclusion, there has been limited research that focuses on the social workers students' perceptions regarding nutrition and nutrition-based mental

health interventions. As previously stated, Shor (2010a) demonstrated that social work students placed moderate-to-high levels of importance on nutrition and felt that their limited nutrition knowledge was a barrier. However, these research findings were based on closed-ended survey questions that broadly covered their perceptions on nutrition and the barriers towards applying nutrition in their social work practice.

In this study, the current researcher will explore the social work students' perceptions on nutrition, barriers they have experienced when applying nutrition to their social work practice, and suggestions for addressing these barriers. In addition, the researcher will focus the social work students' nutrition perceptions, behaviors, and nutrition-focused interventions within the context of mental health and stress.

Paradigm and Rationale for Chosen Paradigm

The perspectives of the mental health social work students on the topics of nutrition, nutrition influences on mental health and stress, and nutrition interventions utilized in their mental health practice will be explored. In order to capture the thoughts and opinions of the participants, the researcher adopted the post-positivist paradigm. This paradigm is a perspective and approach to research designed to look at and understand the participants' reality (Morris, in press).

The views of the participants were gathered in a natural setting because this is where the relationship between nutrition and mental health are experienced, and because the post-positivist paradigm assumes that the participants' views can only be gathered in this way (Morris, in press). Therefore, the researcher interviewed the participants in their natural environment in order to gather their true perspectives on nutrition and mental health. This data is called qualitative data, because it is in a form of words (Morris, in press). The qualitative data was analyzed to discover common themes and use them to form a theory (Morris, in press).

The post-positivist paradigm was adopted because it is an exploratory approach to research that allowed participants to fully express their thoughts on nutrition and mental health practices. Additionally, the post-positivist paradigm allows for the development of a theory. The theory for this research was based on the relationship between nutrition and mental health and how it can be used in further research on nutrition and mental health treatment for clients.

Literature Review

The following research describes the relationship between nutrition and stress by addressing how food, nutrients, and nutrition education can affect the clients' level of stress.

Types of Food

Stress levels are affected by the types of food that people eat. In Belgium,

Michels et al. (2012) explored how emotions, such as stress, affect the children's eating behaviors. These children and their parents participated in the study by taking assessments on the children's body composition, eating habits, emotions, and coping skills (Michels et al., 2012).

After using the Spearman correlation and regression analysis, Michels et al. (2012) discovered that the children's issues, stress, and other negative emotions were often related to their emotional eating. So the children with more personal issues were more likely to eat fatty and sugary foods (Michels et al., 2012). Yet when the children were exposed to smaller amounts of events, they were more likely to eat a higher amount of fruits and vegetables (Michels et al., 2012).

Michels et al. (2012) identified the children's stress to be responsible for their behavior in eating comfort foods. These researchers explained that eating was a coping skill for stress because it distracts the children from their stress (Michels et al., 2012). The researchers also indicated that the consumption of comfort foods was a learned behavior and became associated with pleasure (Michels et al., 2012). So when the children ate comfort foods, the eating behavior eased their stress by providing a sense of pleasure (Michels et al., 2012).

Michels et al. (2012) also explained that the children's stress levels contributed to their behavior in eating comfort foods. When children experienced a high amount of stress, they would be able to recognize their stress better

(Michels et al., 2012). So the children's eating behavior depended on their insight on whether their hunger was triggered by stress or not (Michels et al., 2012).

Work stress contributed to the consumption of fats, sugars, and calories (Wardle et al., 2000). Wardle et al. (2000) conducted a six month, cross-sectional, longitudinal study on adults who were working in London's retail industry. In the study, the adults were weighed and reported their food intake with the assistance of a dietitian, their amount of work, and their perception towards their stress, emotional health, eating behavior, and appetite (Wardle et al., 2000).

After gathering information from the working adults, the data was analyzed using repeated-measures analysis of variance (Wardle et al., 2000). Wardle et al. (2000) indicated that retail workers with a higher work demand were more likely to consume greater amounts of sugar, calories, and saturated fats (Wardle et al., 2000). When the workers experienced personal, academic, and work stress, they were also more likely to eat sugary, fatty, and caloric dense foods (Wardle et al., 2000). Wardle et al. (2000) suspected that the retail workers developed these eating behaviors in order to cope with their stress.

Nutritional Content

Eating a nutritious diet has been determined to help reduce and manage mental stress. For example, Hwang et al. (2010) conducted a cross-sectional study on women's limited consumption of nutrition and its association with stress. The previous researchers gathered a sample of Vietnamese women who married

Korean men and immigrated to Korea (Hwang et al., 2010). Hwang et al. (2010) assessed these women's demographics, levels of stress, eating behaviors, nutritional intake, medical information, and blood samples.

Hwang et al. (2010) calculated the findings by using a chi-square test. The researchers discovered that women experienced the most stress when they skipped a morning meal, had inconsistent eating patterns, ate limited amounts of dairy and varied foods, smoked, and had cultural changes in their diet when compared to the women with the least amount of stress (Hwang et al., 2010). The highly stressed women consumed limited amounts of macronutrients ("energy, carbohydrates, protein, [and] fat") and micronutrients ("calcium, zinc, thiamin, riboflavin, and foliate") versus the least stressed women (Hwang et al., 2010).

Based on the assumptions of Hwang et al. (2010), the women's immigration and acculturation attributed to their stress. Their immigration and acculturation limited their access towards nutritious foods and their own cultural foods (Hwang et al., 2010). The previous researchers explained that the women may demonstrate limited social skills to obtain the social support they need to adjust to their new environment, such as getting access towards nutritious foods (Hwang et al., 2010).

Macronutrients. Macronutrients consisted of carbohydrates, proteins, and fats that provide energy for the body to function. Morgan et al. (2009) involved healthy United States Army soldiers in a "double-blind, between-subjects,

placebo-controlled design" who were given one of the following beverages that consisted of: six percent of carbohydrates, 12 percent of carbohydrates, or a placebo (p. 134). The soldiers took a cognitive test to measure their ability to pay attention, learn, recognize, visual search, memorize, respond immediately and emotionally, and think creatively (Morgan et al., 2009). After conducting a general linear model univariate analysis of variance, the soldiers who consumed a carbohydrate beverage were able to manage their cognitive stress better than those who have taken the placebo. Yet the findings for the less stressful cognitive tests demonstrated a smaller effect with the carbohydrate beverage. So overall, the carbohydrate beverages provided the soldiers with energy to cope with their psychological stress.

Micronutrients. Micronutrients were the vitamins and minerals that supported the body's processes. In the nutritional study by Rucklidge et al. (2012), the adult participants, who recently experienced a 6.3 earthquake, were randomly placed into a treatment group or were selectively placed into a control group. The treatment groups received either of the following multivitamins: Berocca, a low dose of CNE4, or a high dose of CNE8 (Rucklidge et al., 2012). For the next four weeks, the adults in the treatment group were expected to take a prescribed amount of pills every day and to take surveys every week (Rucklidge et al., 2012). Yet on the other hand, the control group took surveys on a weekly basis (Rucklidge et al., 2012). The surveys asked for their demographics, diet, experiences with depression, anxiety, and stress; exposure

to traumatic and other events, and side effects from taking the multivitamins (Rucklidge et al., 2012).

The researchers calculated their findings with a "compound-symmetric variance–covariance structure" with post-hoc tests (Rucklidge et al., 2012, p. 446). After the adults were treated with micronutrient supplements, there was a reduction in their psychological symptoms, including stress (Rucklidge et al., 2012). The group who took a higher concentration of supplements improved their "stress, anxiety, avoidance, and arousal" (Rucklidge et al., 2012, p. 451). Rucklidge et al. (2012) discovered that the micronutrient supplementation can provide relief in a person's stress and anxiety, especially after experiencing a troubling event.

Nutrition Education

Winterdyk et al. (2008) had one of four stress interventions applied to the college students, which included nutrition, exercise, relaxation, and cognitive behavioral techniques. The students received stress management training, practiced the stress management technique two to three times per week for the next six weeks, and submitted a daily reflective journal entry after receiving the training (Winterdyk et al., 2008). As a result of the study, every stress management technique improved the college students' distress, anxiety, stress, and self-care (Winterdyk et al., 2008).

In a pilot study for a program, Gretchen-Doorly et al. (2009) had nine participants with schizophrenia attend an hour of discussion and another hour of

activity on a weekly basis for the six weeks (Gretchen-Doorly et al., 2009). These sessions focused on creating a goal, exercising, eating healthy, managing stress, and joining in on a celebratory lunch (Gretchen-Doorly et al., 2009).

Gretchen-Doorly et al. (2009) used a paired-samples t-test to determine that the education in nutrition, fitness, and coping skills helped decreased their overall perceptions of their stress, gain a better control of their health, and take further responsibility for their health. These studies show the significance in nutritious consumption of food and providing nutrition education and practices to alleviate stress (Gretchen-Doorly et al., 2009). Based on the previous studies, the types of foods and nutrients consumed and the exposure to nutrition education can help clients manage their symptoms of stress.

Theoretical Orientation

The current research is based on the biopsychosocial perspective. The biopsychosocial perspective is a theoretical orientation that accounts for client factors (biological, psychological, and social factors) and their interactions (University of Rochester Medical Center, 2013). Additionally, it focuses on the factors' influence on clients' health, disorder, and treatment (University of Rochester Medical Center, 2013). The biopsychosocial perspective is applicable to this study because it provided support for integrating nutrition, which is a subcomponent of biological studies, with the psychological and social aspects of mental health knowledge and practice.

In order to apply this perspective towards the clients' stress, the biopsychosocial stress vulnerability model was applied to this study. First, the model focuses on the clients' vulnerabilities to stress, which includes biological (e.g., neurological development), psychological (e.g., personality traits), and social (e.g., poverty) factors (Camden and Islington National Health Service Foundation Trust [CINHSFT], n.d.). Second, the model accounts for the clients' exposure to stressors (e.g., life events), which taps into the clients' biopsychosocial vulnerabilities (CINHSFT, n.d.).

Third, the external stressors and biopsychosocial factors cause the clients to develop mental health problems (e.g., anxiety) (CINHSFT, n.d.). Fourth, the clients learn to manage their problems (e.g., develop coping skills, socialize with others) or they will not be able to adjust and can accumulate more difficulties (CINHSFT, n.d.). In conclusion, the biopsychosocial perspective and vulnerability stress model explains the factors behind the clients' stress and supports the rationale for researching social work students' perspectives of nutrition and its influence on stress.

Contribution of Study to Micro and/or Macro Social Work Practice

By exploring the perceptions of mental health social work students with regards to nutrition and the nutritional influences on stress, this study can help determine the benefits towards educating mental health consumers on nutrition, incorporating nutrition into the mental health field, and strengthening the

relationships between mental health social workers and dietitians.

The perceptions of mental health social work students can help determine if they can benefit from additional education in nutrition. This education can be obtained by integrating nutritional content into social work education curriculum and attending nutrition-based trainings. Nutritional knowledge can improve the social workers' ability to assess nutritional needs (e.g., considering how nutrition can affect the clients' stress) and intervene on nutritional challenges (e.g., referring the clients for nutritional resources and to see a dietitian).

Nutrition can be addressed within the clinical field as well. For example, the intake assessments can be improved to measure the clients' nutritional needs. The new assessment items can explore the clients' access to nutritious food and clean water, amounts of food and meals eaten on a daily basis, consumption of fresh fruits and vegetables, and intake of vitamins and supplements.

This research can encourage closer relationships between the mental health social workers and dietitians. When mental health social workers discover the clients' nutritional limitations, the social workers can collaborate with dietitians or recommend the clients' to see a dietitian. On the other hand, the dietitians can collaborate with social workers to promote healthier eating behaviors and provide linkages to nutritional food services.

Summary

The current researcher explored the mental health social work students' perceptions of nutrition and the nutritional effects on stress. Nutrition helps to support and maintain bodily functions. Stress is the perception and response to the demands or stimuli in the clients' environment. Nutrition education and consumption (e.g., carbohydrates, multivitamins) have been shown to help reduce clients' stress. Yet when fatty, sugary, and caloric-dense foods were consumed, the clients generally experienced more stress. To explore the participants' perceptions, the biopsychosocial perspective, biopsychosocial vulnerability stress model, and post-positivist paradigm were applied to this study. The researcher expected this study to further integrate nutrition and mental health services for clients.

CHAPTER TWO

ENGAGEMENT

Introduction

The engagement chapter introduces the research site and discusses the preparations and technology used to communicate with the gatekeeper and participants of the research site. In addition, preparations were made to address the potential diverse, ethical, and political challenges.

Study Site

The research site was located at a public university in Southern California. Mental health social work students from the university's Master of Social Work graduate program participated in this study.

According to the public university's student demographics for fall 2012, 62 percent were female and 38 percent were male participants. The racial makeup of this student population was 49 percent Hispanic (N=9,010), 22 percent White (N=3,932), 8 percent African-American (N=1,449), 6 percent Asian (N=1,175), 6 percent unknown, 5 percent non-resident (N=959), 3 percent two or more races (N=497), 0.2 percent Native/Hawaiian Pacific Islander (N=40), and 0.3 percent Native American (N=54). Most were full-time students (82 percent) versus part-time (18 percent).

Engagement Strategies for Gatekeepers at Research Site

The researcher submitted her research proposal to the California State University (CSU), San Bernardino's School of Social Work Institutional Review Board (IRB) Sub-Committee. The IRB Sub-Committee requested additional changes from the researcher, such as submitting a letter of approval from a research site and making corrections to the documentation. The researcher consulted with her research advisor, Teresa Morris, Ph.D., made corrections to her proposal, and resubmitted her proposal to the IRB Sub-Committee.

Prior to communicating with the gatekeeper, or the Director of a social work program, the researcher anticipated that the Director may express some concerns. The researcher recognized that confidentiality may be a challenge for the university. First, the study's abstract was published online in a thesis and dissertation database and the entire study will be printed and stored in the CSU San Bernardino's library. Second, the research was presented at CSU San Bernardino's Poster Day for her social work program. The researcher ensured that the university's confidentiality would be protected by only identifying the university as a public university located in Southern California.

The researcher engaged in communication with the gatekeeper to inquire if her study could be conducted at the university. The engagement process began with contacting the office assistant at the social work department to schedule an appointment with the Director. During the meeting, the researcher presented and discussed her research study at length. The meeting also gave

the Director the opportunity to address any questions, comments, and concerns regarding to the study.

The researcher received an approval letter from the university's Director. This letter permitted the researcher to conduct her study at the university, recruit social work students for her study, and advertise the study by placing fliers in their mailboxes and in their resource room.

Self-Preparation

The researcher prepared to engage with the social work Director before and after their meeting. Before the engagement process, the researcher developed the study's topic of nutrition and the nutritional effects on stress by reviewing past literature, wrote the study's procedures, and created a list interview questions for the participants. The researcher also developed questions and talking points for her meeting with the Director. Following the meeting, the researcher provided a written outline of the research procedures to the Director.

Diversity Issues

There were similarities and differences between the researcher and the Director. They were similar in regards to their gender and profession. The researcher and Director were both female social work professionals. Their shared profession allowed for efficient communication through a mutual understanding of clinical and professional language.

The differences between the researcher and Director were age, ethnicity, cultural background, and level of education. The researcher was a young adult, Asian American student with a collectivist and individualist upbringing and a Bachelor's degree. The Director was a White American adult with an individualistic background and a Doctorate degree. Despite these differences, there were no diversity issues during their engagement. This can be attributable to their shared social work background and their understanding of diversity issues.

Ethical Issues

The National Association for Social Workers (NASW) and Institutional Review Board (IRB) establishes ethical guidelines for conducting research. According to the NASW (2008), the researcher was responsible for evaluating current intervention practices, being knowledgeable of current social work literature, and contributing additional knowledge to the field of social work. This study contributed to the social work field by challenging current mental health practices which overlook nutrition and its influence on the clients' mental well-being.

Involving participants in the study required the researcher to consider the potential risks that they may be subjected to, such as "unwarranted physical or mental distress, harm, danger, or deprivation", and to ensure they have access to proper supportive services when needed (NASW, 2008). In order to better

protect the participants, the researcher developed ways to reduce their exposure to these risks through IRB approval, informed consent, and confidentiality.

First, the researcher obtained an approval from the Institutional Review Board (IRB) in order to conduct this study. The IRB ensured that pursuing this study allowed for more benefits than risks and that the researcher had established adequate procedures to protect the participants.

Secondly, the mental health social work students were given informed consent that identified the potential risks for in participating in this study. The participants were warned that they may be exposed to intense engagement, or interview process, due to the qualitative nature of this study. This intense engagement stems from the researcher's vested interest in completing the study and interested in the topic.

Thirdly, to lessen the risk of intense engagement, the researcher stated these concerns in the informed consent (which were read to the participants), notified the participants that interview was broken down into small sections with breaks, provided verbal reminders to take a break throughout the interview, reminded them that they can discontinue participating at any time. In addition, if the study was stressful on the participants, then the researcher would have excused them.

Thirdly, the researcher protected the participants' confidentiality by warning them of the risks with maintaining confidentiality, excluding the identifiers from the data, and destroying the data after the study was completed (NASW,

2008). The researcher locked all hard copies of data (e.g., interview notes) in a filing cabinet and password protected the interview audio recordings on the computer. When the study was completed, the data was deleted from the computer and the research documents were shredded.

Political Issues

There are potential political or macro-level challenges that may occur during the study, such as the power differences between the researcher and the gatekeeper (Morris, in press). The researcher was only a graduate student; however, the gatekeeper was the Director of a social work program. The researcher communicated with the Director in a respectful and professional manner in order to alleviate this potential challenge.

The sensitive content of this study was another political challenge. During the study, the researcher asked the participants about their general and social work education, such as inquiring if they have received a nutrition education from their social work program and how the social work program can better address their nutritional needs. These research questions and findings could be seen as criticisms of the social work program. However, there were no political challenges that occurred during this study.

The Role of Technology in Engagement

Technology assisted the researcher in communicating with the Director

efficiently. The researcher used a cell phone, computer, and email to contact the Director. This technology allowed the researcher to schedule appointments and to email documents to the Director.

Summary

The engagement with the Director required much preparation, including developing a research proposal, discussion topics, and a written outline of the research procedures. The researcher also prepared for potential diversity, ethical, and political challenges that may occur as she engaged the Director. The engagement was simple yet effective because the researcher focused on her similarities with the gatekeeper, addressed the gatekeeper's concerns in a respectful manner, and utilized technology to coordinate communications.

CHAPTER THREE

IMPLEMENTATION

Introduction

The implementation chapter indicates the approaches used to study the perceptions of mental health social work students on nutrition and the influences of nutrition on stress. This chapter reviews how the researcher selected the participants, gathered, recorded, and analyzed the data; terminated and followed up with the participants, and disseminated the research findings.

Research Site

The sample and data were gathered from various research sites. The mental health social work student sample was derived from a public university located in Southern California. This university was selected for its population of social work graduate students who were studying and/or providing mental health practice.

The data was collected over the phone. This gave participants the opportunity to select a comfortable and convenient location, which was generally at their home or in their car. Some participants completed the interview while they were in the grocery store or at their workplace. The researcher was located at her home, park, library, or public university. The interviews were held at different locations because participants had very busy schedules and were

widely distributed across Southern California.

A challenge with conducting the interviews over the phone was that the participants sometimes did not select a quiet location, so there were instances where participants would be interrupted (e.g., receiving a phone call, listening to a family member talk to them) or distracted (e.g., driving, shopping).

Study Participants

The study's participants were graduate social work students at a public university in Southern California. These participants also met the criteria for currently or previously providing mental health services, or focusing on mental health in their social work studies.

This study consisted of more females (n=14) than males (n=1). The racial demographic of the participants were 40 percent Hispanic (n=6), 33 percent White (n=5), 7 percent African-American (n=1), 7 percent Asian or Pacific Islander (n=1), and 14 percent consisting of two or more races (n=2). The participants were interns at a mental health outpatient agency or were substance abuse counselors. The participants' average age was 30.57 years and their ages ranged from 23 to 50 years. The demographics of the participants are displayed in Table 1.

Table 1

Demographics of the Participants (n=15)

	n	%
Age		
21 years - 30 years	10	66.7
31 years - 40 years	2	13.3
41 years - 50 years	3	20.0
Gender		
Female	14	93.3
Male	1	.7
Ethnicity		
African American	1	.7
Asian/Pacific Islander	1	.7
Hispanic	6	40.0
White	5	33.3
Two or more ethnicities	2	13.3
Undergraduate Degree		
Criminal Justice	1	.7
Human Services	2	13.3
Psychology	3	20.0
Psychology and Child Development	1	.7
Social Work	5	33.3
Sociology	3	20.0
Undergraduate College Attended		
Private University and Community College	1	.7
Public University and Community College	7	46.7
Public University	7	46.7
Year in Social Work Program		
Full-time: 2 Year Program		
1st year	1	.7
2nd year	10	66.7
Part-time: 3 Year Program		
1st year	0	.0
2nd year	2	13.3
3rd year	2	13.3
Mental Health Covered in Social Work Courses		
Yes	13	86.7
No	1	.7
Did Not Ask	1	.7

<i>Demographics of the Participants (n=15)</i>		
	n	%
Mental Health Experience		
0 years - 5 years	7	46.7
5.1 years - 10 years	4	26.7
10.1 years - 15 years	1	.7
15.1 years - 20 years	1	.7
Did Not Ask	1	.7
Non-Mental Health Social Work Experience		
0 years - 5 years	12	80.0
5.1 years - 10 years	3	20.0

Selection of Participants

The participants were selected based on criterion sampling, which involved the researcher to seek specific characteristics for participants (Morris, in press). The participation criteria for the graduate social work students required either work experience in the mental health field or mental health study. These criteria were established to pinpoint participants who were able to relate their perceptions, knowledge, and practices of mental health social work to nutrition and nutrition's influence on stress. Another criterion was the selection of participants based upon race and ethnicity in order to ensure that the study represented a diverse collection of perspectives.

The criterion sampling was approached by posting fliers in the participants' resource room and in the participants' mailboxes. The fliers briefly stated the study, the participation criteria, and the researcher's contact information. In addition, the participants were also recruited through publicizing the study on a social networking website, in the classroom, and over the phone. The researcher responded to participants by phone, text messaging, and email.

The process of engaging the participants first entailed introducing the researcher (when applicable) and then having the researcher ask questions to determine if the participants met the participation criteria. If the participants were satisfied the participation criteria, then further details about the study and an invitation to participate in the study was presented and discussed. A \$5 Starbucks gift card was offered to encourage participation in the study.

Data Gathering

This study used qualitative data gathering procedures that are unique to the post-positivist studies. According to Morris (in press), qualitative data is verbal and written information that can be collected through the process of interviewing. The purpose of gathering and analyzing qualitative data was to find the consistencies in the perceptions of the mental health social work students.

Interview preparation involved gathering nutritional and mental health information from the previous literature (e.g., peer-reviewed journal articles, websites, and books), developing structured, interview questions; and reviewing the interview questions with her research advisor. Structured questions were used to ensure that the participants were asked the same or similar questions. As the data collection and analysis progressed, the researcher modified the interview questions as she was exposed to more information from the participants. For example, some of the questions were modified in order to aid the participants' ability to understand and answer the interview questions.

The structured questions were combined into a data gathering instrument (see Appendix A.) The instrument explored the participants' demographics (e.g., education level, clinical experience) and the factors associated with the participants' nutritional and mental health knowledge and practice (e.g., current nutritional knowledge and practice, perceptions of nutrition and its influences on mental health). The instrument also consisted of throwaway questions, which reduced the intensity of and sensitive topics addressed in the interview (Morris, in

press). For example, one throwaway question asked why the participants were interested in working in the mental health field.

"Skilled questioning" and "active listening" were used when interviewing the participants (Morris, in press). The researcher used skilled questioning, such as reformatting the question and providing examples, when the participants did not understand the question or avoided answering the question. Active listening was accomplished by taking notes, saying verbal cues, and paraphrasing what the participants said.

Sampling and data collection were completed when repetitive themes appeared in the data (Morris, in press). The sampling also could have been discontinued due to limited resources and time; however, this would have negatively affected the quality of the research (Morris, in press). Fortunately, the data in this study revealed repetitive themes, so the sampling and data collection was completed after interviewing 15 participants.

Phases of Data Collection

Data collection was the process of interviewing the participants in order to gather qualitative information on nutrition and stress. The phases of data collection included preparation, recording, interviewing, and reflection.

Preparation

Preparation for the interview was a time consuming and labor intensive process. A week before the interview process began, the researcher scheduled

appointments to conduct interviews with the participants.

On the day and within the hour of the interview, the researcher sent emails and text messages to remind the participants of the interview. The researcher sought for a quiet location to conduct the interview over the phone, gathered interview questions and informed consents, and retrieved papers and pens to take notes.

In the beginning of the interview, the researcher greeted the participants and outlined the interview process to help them feel more comfortable. The participants listened to the informed consent being read and provided a verbal agreement to the informed consent. This informed consent addressed the confidentiality and well-being of the participants as they participated in the study.

Recording

Recording was the next phase of data collection. Audio recording allowed for an efficient and accurate way to collect qualitative data during the interview process. In addition, the note taking helped the researcher to process the information during the interview. Unfortunately, these recording approaches had the potential to create discomfort for the participant and create a distraction for both the researcher and participants (Morris, in press).

The researcher attempted to help the participants feel more comfortable during the interview and recording process. First, the interview and audio recording was set up over the phone, which allowed the participants to be interviewed in an environment of their choosing (e.g., their home) and feel as if they

were having a typical phone conversation. Second, the researcher developed rapport with the participants by making small talk with them, such as asking how they were doing, talking about school-related matters, and inquiring about their week. The researcher also outlined the interview process to the participants.

Interviewing

Interviewing was used to gather qualitative data from the mental health social work students. The interview process consisted of a beginning, middle, and end.

The beginning of the interview started with a greeting, an introduction to the researcher (if needed), and thanking the participants for volunteering their time for this study. Next, the beginning section consisted of introducing the research topic, discussing and reviewing the informed consent, stating that audio recording and note taking will be utilized, and asking if there were any questions or concerns.

To ease the participants into the interview, the researcher asked how the participants were doing. If the researcher had an established relationship with the participants, then she discussed the topics that they had in common. The interviewing began with asking demographic questions, such as the student's birth date, to build rapport.

During the middle portion of the interview, the researcher continued to ask essential and throwaway questions. The essential questions were questions that focused on the research subject matter. So many of the interview questions were

essential and addressed the student's nutritional knowledge, practices, and perspectives. In addition, throwaway questions were asked throughout the interview to lessen the impact of the intensive interviewing and sensitivity of the subject matter, and to maintain focus. Both parties were able to take a break at anytime.

The end of the interview transitioned the participants out of the study. Additional throwaway questions were asked, such as "What do you feel to be important in conducting mental health practice?" Then summarizations of the student's responses were stated in order to gain clarification. The researcher also requested feedback, questions, and concerns about the interview.

Contact information was provided in case the participants had additional questions, comments, or concerns. The participants were thanked and sent a \$5 Starbucks gift card, a thank you card, and a debriefing form. Reflection also allowed the researcher to explore if the data gathering was beneficial for this research study, to process her thoughts and feelings, and to evaluate the interview (Morris, in press).

Data Recording

Data recording in post-positivism includes utilizing a recording service and writing in journals. In this study, data was collected using a service that recorded audio over the phone and by note taking. Note taking assisted the researcher in processing the information presented during the interviews. For example, the

note taking encouraged the researcher to seek clarification for details stated by the mental health social work students.

Journals were another form of maintaining records. The journals included communications with the Director and the mental health social work students, the rationale behind certain decisions made, data gathering, and the researcher's thoughts and feelings about the research experience (Morris, in press). The two types of journals that were utilized were narrative account and reflective journals.

The narrative account journal involved writing down the observations of the research experience, which included the interactions with the Director and the mental health social work students (Morris, in press). Each journal entry included the source of the information, the date and time of the meetings and interviews, the transcript of the interviews, and the analysis of the qualitative data.

The reflective journal described the researcher's reasoning for selecting the biopsychosocial theory, utilizing criterion sampling, gathering data through interviews, and analyzing with bottom-up approach (Morris, in press).

Data Analysis Procedures

The post-positivist paradigm combined qualitative data gathering and analysis throughout the research process (Morris, in press). In other words, when an interview was conducted with a mental health social work student, the data from the interview was transcribed, analyzed, and coded.

Transcribing qualitative data required the use of technology. This included listening to the interview through computer audio software. The audio software allowed the researcher to adjust the speed and volume of the audio file. The audio was played and typed into word processing software, Microsoft Word, and later transferred into Atlas.ti for qualitative analysis.

The bottom-up approach of qualitative analysis was used to interpret the collected data. This approach was beneficial for an explorative study of the social work students' knowledge and practice of clinical nutrition in clients with stress, and to generate a theory to explain the results (Morris, in press).

According to Morris (in press), there are multiple non-linear processes for the bottom-up approach to data analysis, including open coding, axial coding, and selective coding.

Open coding was the process of analyzing the interview content, gathering main ideas, and then organizing these ideas into categories and dimensions. For example, the ideas from this study were Education, Barriers, and Solutions. Axial coding involved creating and describing the relationships between the categories. For example, there was a relationship between Barriers and Solutions because they help to assess and problem solve the issues with providing nutritional mental health practice.

Selective coding helped to develop and refine a theoretical statement from the main ideas and their relationships. Pertaining to the previous example, the concepts of Education, Barriers, and Solutions affected the nutritional

perspectives that the participants and clients had. So the core category was factors, as each concept affected the individuals' perspective on nutrition.

Summary

Implementation was the research method chapter. The participants were selected through criterion sampling of being mental health social work students. Their demographics, knowledge, and practices were collected in an interviewing process. This data was recorded through an audio recording service, note taking, and journaling.

CHAPTER FOUR

EVALUATION

Introduction

The evaluation chapter presents a qualitative analysis and interpretation of the collected data. This chapter also contains recommendations for micro and macro practice that are based on the current research findings.

Data Analysis and Interpretation

The bottom-up approach of qualitative analysis was used to interpret the data and to generate a theory from the findings (Morris, in press). There were three non-linear processes for the bottom-up approach to this data analysis, including open coding, axial coding, and selective coding (Morris, in press).

Open coding was utilized when analyzing and categorizing the interview content (Morris, in press). Then the relationships between the categories were identified and described using axial coding. Finally, selective coding involved refining the major categories and developing a theoretical statement.

Open Coding and Axial Coding

Open coding entailed analyzing the interviews, and placing the ideas into categories and dimensions (Morris, in press). Then axial coding connected the open codes and describes their relationships. Hence each of the following sections will state the axial codes and then will list the open codes within each

axial section.

Nutrition Education. The "nutrition education" code represented how the participants learned about nutrition. The open codes for "nutrition education" included "self", "family", "friends", "class", "nutrition experts", "health professionals", "fitness trainers", "media", "programs", and "none", which are displayed on Figure 1.

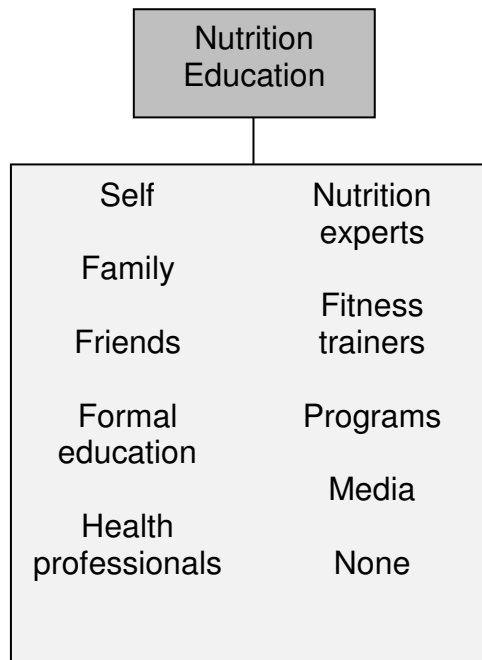


Figure 1. Nutrition Education.

Self. The participants have learned about nutrition through their own personal experiences and through conducting their own literature research. The open codes for this section were self, life, and research. For example, Participant 9 said how he or she accumulated nutritional knowledge from his or

her life experience (personal communication, March 2013). Participant 10 reported self-learning about nutrition because he or she wanted to eat healthier (personal communication, March 2013).

Family. "Family" includes relatives that assisted the participants in expanding or limiting their education of nutrition. The open codes included grandfather, grandmother, father, mother, and sister. The family code was represented when Participant 4 mentioned, "My sister is studying nutrition, so she's always talking to me about really technical things. So I learn" (personal communication, March 2013). Participant 5 shared that food was very important in his or her culture, so when the student's grandparents developed medical conditions, the student tried to help his or her grandparents to eat healthier and more nutritiously (personal communication, March 2013). On the other hand, family members can restrict the student's nutritional knowledge.

. . . I grew up in a family that doesn't really value nutrition. I actually grew up [with] really bad foods.... I grew up with my dad, so sometimes I would have to make my own meals ...like Top Ramen. I really didn't really start eating vegetables until I was an adult. [...] [T]o this day when I go to family functions, they don't eat healthy. (Participant 9, personal communication, March 2013)

Friends. Another code that was identified was "friends" because the participants communicate with their friends who were knowledgeable about nutrition. For example, Participant 5 said some of his or her nutritional knowledge

was derived from his or her friends, who focused a lot on nutrition (personal communication, March 2013). Participant 10 stated similar comments as well, "You talk to friends who eat organic or eat healthy" (personal communication, March 2013).

Formal Education. "Formal education" refers to taking courses at an educational institution. The open codes consisted of class and course. This code was selected because the participants learned about nutrition from their classes. For example, Participant 15 said, "I took Nutrition 101 from when I was getting my associates" (personal communication, March 2013). This code was also selected because Participant 1 has taken nutritional courses as well, as the participant said, "So in general, I actually have taken nutrition classes.... So I actually know a lot. I just don't practice what I know" (personal communication, March 2013).

Health Professionals. The researcher selected "health professionals" as a code because the participants learned about nutrition from their medical professionals. The open code included doctor, which originated from Participant 7 sharing his or her experiences with the doctor. Participant 7 said, "[I was g]oing to the doctor, and being told to eat better. I've been diagnosed as pre-diabetic.... Doctors [were] giving me literature on what kinds of foods are better for me and why" (personal communication, March 2013). Participant 12 shared that he or she may have learned about nutrition from the doctor as well (personal communication, March 2013).

Nutrition Experts. The code, "nutrition experts", refers to clients who were studying nutrition or were nutritionists themselves that provided further nutritional knowledge to the participants. Nutritionists and knowledgeable on nutrition were open codes for this section. Participant 7 shared that she or he have met with multiple nutritionists, "I've been diagnosed as pre-diabetic, so I've been [to] a few nutritionists" (personal communication, March 2013). Participant 8 learned about nutrition from others who were studying it (personal communication, March 2013).

Fitness Trainers. "Fitness trainers" code was selected because the participants have received their nutritional knowledge from physical and cardiovascular exercise instructors. The open code for this section was fitness trainer. A student indicated how nutrition was part of her weight management plan, "...I've consulted with two or three different personal trainers, and have always included nutrition in my weight loss plan and lifestyle changes" (Participant 8, personal communication, March 2013). This code was also constructed because another student consulted with fitness trainers. The student indicated, "Other times, I ask [the] other personal trainers that actually went through a college course [and] have a little bit more knowledge on [nutrition, and] ask them.... And they're pretty knowledgeable about nutrition" (Participant 14, personal communication, March 2013).

Programs. Participants have also learned about nutrition from government, agency, and private programs, which was why the "programs" open

code was selected. Participant 8 shared his or her experiences with Women, Infants, and Children (WIC) program, "As a part of going through WIC, I've gotten nutrition education there because they actually have classes on proper nutrition for mothers and children and pregnant mothers" (personal communication, March 2013). Participant 11 also received his or her nutrition education through programs as well.

I remember I took one at Kaiser Permanente, but they didn't teach me anything different that Weight Watchers hasn't already taught me. And I believe Weight Watchers is an educational class. Every time you go, [there are] meetings that people [are] sharing their experiences, what is working, what hasn't, [and] how foods affect you. [T]hey send out emails and all that stuff to explain about foods. (personal communication, March 2013)

Media. "Media" was a selected, open code because the participants have gathered their nutritional knowledge from various media sources. Participant 7 stated that she or he learned about nutrition from "some media" (personal communication, March 2013). Participant 8 expanded more and learned about nutrition from readings, such as newspaper articles (personal communication, March 2013).

None. "None" code was identified from a student discussing his or her limited experiences with learning about nutrition. The open code for this section was no nutrition. Participant 6 answered, "I haven't learned about

nutrition. I haven't had any classes on it. I haven't spoken to anybody about it. [...] I've never really talked about it" (personal communication, March 2013).

Solutions. The "solution" to addressing the relationship between nutrition and mental health in social work practice can be approached in various ways. These "solutions" can be addressed by learning about nutrition through "social work education", "research", and "consultation", as displayed in Figure 2.

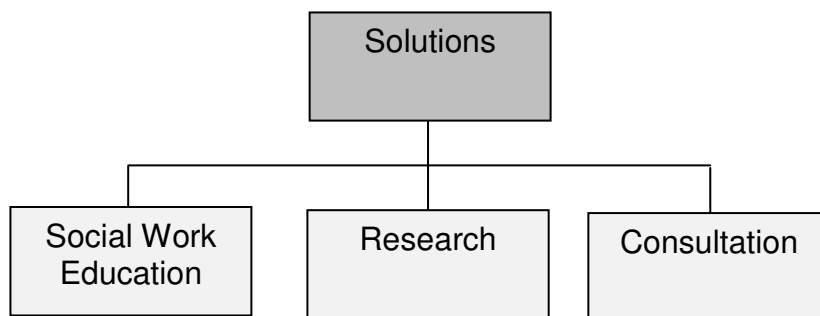


Figure 2. Solutions.

Social Work Education. According to the participants, the social work education addressed little to no nutritional content. In order to bring about nutritional improvements towards their social work education, the education system can account for the following open codes: methods, content, and benefits.

Approaches. The code, "approaches", was selected because the participants shared methods to how the social work program can integrate nutrition into their education. The open codes for "approaches" included class, orientation, seminar, speaker, training, options, and resources. Participant 6

shared the idea of adding a seminar, training, or course for the social work students to learn about nutrition, so they apply the information for themselves and with their clients (personal communication, March 2013). Another student shared a similar idea, "Like on the days we do a DSM training, we can also have... seminar training on the relationship between nutrition and mental health. And it doesn't necessary have to be specifically focused on mental health disorders, but mental health period and stress and overall nutrition effects" (Participant 8, personal communication, March 2013).

Content. The content referred to the participants focusing on what can be taught within the social work program that is related to nutrition. The open codes for this section included nutrition, benefits, mental health, and self-care. This code was selected because participant 13 shared what nutrition topics can be covered, such as specific foods that will help improve the clients' mental health, and integrating the topic when mental health issues are discussed in the program (personal communication, March 2013). Another participant also mentioned how nutrition can affect mental health, "Maybe just incorporate it more... like how nutrition influences mental health and show us if you eat certain ways, how it can affect your mood and other symptoms" (Participant 4, personal communication, March 2013).

Benefits. Benefits refer to how the participants felt about integrating nutrition into social work education would benefit them and their clients. The open codes for this section included clients and students. This code

was selected because Participant 3 saw how nutrition can benefit the student's health, as he or she said,

They can... teach easy ways [for] students to make healthy meals on a budget because students don't have a lot of money and they don't have a lot of time. [...] But if there's a class that's just like a little seminar, not only do they talk about the benefits of eating healthy but also gave a few recipes or a few tips, that would be very helpful. (personal communication, March 2013)

Participant 7 saw how teaching nutrition can benefit the social work students, by stating,

But, at least, to have some core education about nutrition so we can give basic, general information to our clients that will help us [to] be more marketable as social workers and be more effective with the clients we work with. (personal communication, March 2013)

Research. The "research" code was identified because the participants thought of conducting research to expand their knowledge on nutrition. Though Participant 4 prefer the integration of nutrition in social work education, he or she also stated,

So just... incorporating more knowledge about it would be helpful.... I mean we could always look it up anyways, but it will help us have a basic knowledge about it and then we can use that with our clients to help them too. (personal communication, March 2013)

Participant 3 thought that conducting his or her own research can benefit the client, as he or she said, "Well, I would look up some places myself in the area that is accessible to them and I would do my own personal research and then be sure that I can tell [the] client" (personal communication, March 2013).

Consultation. "Consultation" is the process of gathering knowledge from another professional, such as a dietitian, to better assist the client. The consultation open code was derived from Participant 2 discussing about consulting at his or her mental health agency, "Sometimes you meet with a nutritionist to talk about their diet..." (personal communication, March 2013).

Participant 14 consulted with a personal fitness trainer about a client's health, "Other times, I ask other personal trainers that actually went through a college course that have a little bit more knowledge on ask them if I have a patient that has a thyroid problem, or patient, client, I'm used to working at the hospital" (personal communication, March 2013).

Barriers. The "barriers" are the challenges in integrating nutritional practices in the mental health field. These "barriers" were predominantly in the areas of "assessment", "therapy", "client and personal experience", "culture", "student", "family", "education", and "environment", which are displayed in Figure 3.

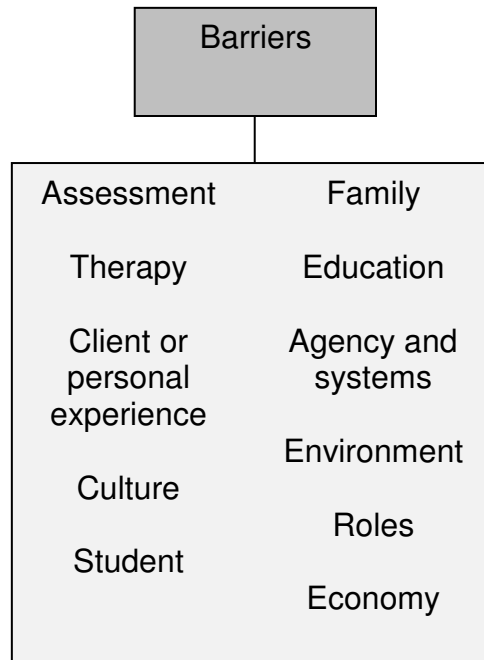


Figure 3. Barriers.

Assessment. "Assessment" is a process of gathering the clients' biological, psychological, social, spiritual, and environmental background that can help address the clients' mental health needs. The open codes for the assessment are appearance, priorities, demands, time, and no nutrition. This code was selected because Participant 6 recognized that the mental health assessment does not account for nutrition (personal communication, March 2013). Participant 6 said, "But we don't ask any questions regarding the type of food[s] they're eating.... We're just concerned with whether they're eating and actually having the supply [of food]" (personal communication, March 2013).

Therapy. "Therapy" is the process of reducing and developing coping skills to address the clients' mental health. The open codes for therapy

included assessment, priorities, and time. Participant 5 focused on the clients' preferences in therapy instead of nutrition because he or she said,

I think... we're just working on the presenting problem or the goals that they have.... So maybe I just focus more on that and help reduce their symptoms and things. But yeah, I haven't really explored their nutrition that they're receiving at home and stuff like that. (personal communication, March 2013)

Participant 1 shared that applying nutrition in brief therapy was a challenge because the student had limited time and needed to prioritize his or her focus in the sessions (personal communication, March 2013).

Client and Personal Experience. "Client and personal experience" accounts for the challenges that the participants and clients have experienced or may experience when applying nutrition into their lives or in their mental health treatment. The open codes for the "client and personal experience" consisted of the following: appearance, demographic, eating behaviors, response, knowledge, resources, priorities, and mental health. This code was selected because the clients may not disclose their diet to the social worker, as Participant 1 stated, "I think it's something that maybe the client feel is a necessity to tell the social worker" (personal communication, March 2013). Another nutritional barrier was the clients' limited knowledge on nutrition, as Participant 8 indicated, "[W]hen interviewing clients, sometimes they don't know where to go for food resources. [...] So, I mean, asking clients themselves, do you know where else to get food

might be somewhere to start" (personal communication, March 2013). Participant 10 experienced a similar experience as well, as she or he reported,

[For o]ne client in particular, it is apparent that her nutritional, or lack of nutrition, almost put her in the hospital, because she is almost malnourished. Because of her mental health challenges, she makes very poor food choices. And so we do talk about nutrition, specifically with that client, because it is such an issue. [...] She was also hospitalized for malnutrition because she was just not eating enough and eating the proper healthy foods. [...] [T]hey, meaning the client[s]... don't sometimes grasp the importance of nutrition. (personal communication, March 2013)

Culture. "Culture", such as its expectations and norms, was identified by the researcher as a factor that impeded nutritional practice. The cultural open codes consisted of embarrassment, undervalued, common sense, food, expectations, and society. Culture was focused on because Participant 7 said, "...I'm Mexican, so everything's high cholesterol, beans and tortillas, and deep fried foods. [...] They actually look at you weird if you start to eat healthy" (personal communication, March 2013). Culture was also the focus of another participant when it came to discussing about teenagers:

And with the students, we didn't really talk about nutrition at all. A lot of them would eat [be]cause they're high school kids, so it was kind of typical. I didn't really think past any of... them eating Ding Dongs and Hot Cheetos puffs and Top Ramen. Those are kind of the things that high

school kids would eat in general. So that actually never really occurred to me. [...] They're 15 year olds. I was eating Hot Cheetos and Top Ramen at that time too. Yeah, I didn't discuss nutrition with a minor at all. (personal communication, March 2013)

Student. The "student" code refers to the mental health social work students who have barriers of their own in addressing nutrition in their mental health practice. The open codes included assumptions, impartiality, education, priorities, expectations, knowledge, experience, confrontation, scope of practice, and no nutrition. The "student" code was identified because mental health professionals and students often have a limited awareness on how mental health and nutrition are connected. Participant 12 shared, "I just don't think it's... ever come up. I don't think that in mental health, people often put two and two together. So maybe people aren't seeing nutrition as like, let's say, a factor to whatever presenting problem..." the clients have (personal communication, March 2013). Another student indicated that nutrition may not be important in his or her mental health agency,

I think we just don't ask. It's not something that's considered to be important. Our [clinical] location is more of a medication location, so we're more concerned with our clients taking medication.... We really don't get into a lot of other stuff. [...] [F]ood and nutrition, they're not a priority. (Participant 8, personal communication, March 2013)

Participant 1 also expressed that mental health professionals and students are not prioritizing nutrition because they want to ensure that the clients were safe and could function versus going in-depth with the clients' nutrition (personal communication, March 2013). In a different perspective, Participant 4 wanted to remain impartial with the clients as the participant indicated, "Well, I think that's hard because... we're not suppose to force our judgment on people. So if they're struggling with depression or whatever... I know that if they're eating better, or exercising more, it would make them feel better" (personal communication, March 2013).

Family. "Family", which is an open code, consisted of family members and upbringings that placed challenges on the student's practice of nutrition. The upbringing barrier was recognized when the participant expressed the following: "So we grew up with my mom. She was always working... so she didn't realize how bad certain foods were for us. So we would have a lot of fast food and quick meals..." (Participant 4, personal communication, March 2013). Participant 11 also shared his or her challenges with family members as well, when he or she indicated,

I wasn't around the people who supported me losing weight. My husband was not interested in losing weight. His diet consists of grease and sugar. So without having that support, it made it difficult for me [be]cause I felt like I was doing an endless battle. (personal communication, March 2013)

Education. "Education" of the participants was also a barrier towards nutritional practice in mental health. The open codes for nutrition were priorities, ignorance, and access. This "education" code was selected because Participant 6 shared, "I think some of the barriers to [nutrition] would be, I don't want to say it would be on anyone else, but I would have to get education on how to conduct an interview with a client in regards that" (personal communication, March 2013). Participant 2 also experienced a limited nutrition education in her or his social work education and believed that nutrition should not be taught in the social work program (personal communication, March 2013).

Environment. The clients' environment, such as having limited resources, can contribute to the limited nutritional mental health practices in participants' life. The open code for "environment" included resources, stressors, and food. The environment code was focused on because Participant 14 shared, "I know that stress can change... the way that you eat. [...] So I can imagine when... a lot of people are stressed, they either eat too much or eat too little" (personal communication, March 2013). Similarly, Participant 13 shared, "Well, I feel that stress and food kind of just go together. [T]here's always a comfort food [that] people always say that they always go to" (personal communication, March 2013).

Roles. "Roles" in the mental health field dictate whether nutrition is applied in practice or not. The open codes for "roles" are protective services, case manager, doctor, health worker, nurse, nutritionist, social worker, parent,

significant person, client, and teacher. This code was selected because Participant 2 believed a social worker should focus on therapy and a doctor should focus on nutrition instead (personal communication, March 2013).

Participant 10 shared similar opinions,

Well, I think when a doctor or a nurse talk[s] to them about nutrition, they might get into the bio component of it: [i]f you eat nutritionally, or you stay away from sodium, then your blood pressure will go down... [or] how it relates to the biology of the your health, whereas a social worker might not be able to get into the same components of that. (personal communication, March 2013)

Agency and Systems. The "agency and systems" can also negatively affect nutritional practices in mental health. The open codes for the "agency and systems" included resources, demographic, and administration. This code was selected because a participant indicated,

I know at the substance abuse treatment center facility, they had a meal plan that was made for them, but it wasn't really nutritious foods. [I]t was more of the cheap food that they could get because low budgeting and things like that. (Participant 14, personal communication, March 2013)

Participant 7 shared a different perspective related to the agency, "Often times, [the] administration is more concerned about numbers, and so therefore you're put into a situation that you have to hurry up and gather what they think of being

pertinent information, such as their mental health symptoms" (personal communication, March 2013).

Economy. The "economy" is a barrier towards nutrition because nutritious foods are expensive to purchase. Participant 1 shared, "It's cheaper maybe to buy 'mac' and cheese than [it is] to buy fish, chicken, [and] vegetables" (personal communication, March 2013). Participant 9 also expressed similar concerns as well,

But it's really sad because a lot of nutritious food[s are] extremely expensive. And if people can barely buy regular groceries, then there's no way they're going to be able to buy healthy or organic produce or anything like that. (personal communication, March 2013)

Foods. "Foods" are consumables that promote and/or limit nourishment and satisfy hunger. These open codes consist of "healthy foods", "unhealthy Foods", and "specific foods", which are displayed in Figure 4.

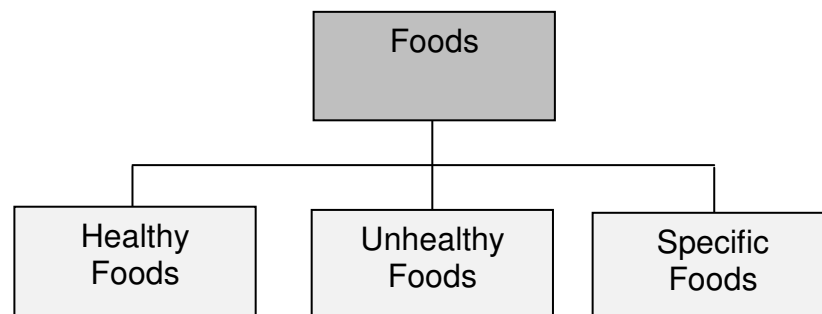


Figure 4. Foods.

Healthy Foods. “Healthy foods” are defined by the participants and include the following: fruits, vegetables, good carbohydrates, lean proteins, vitamins, water, and unprocessed foods. The “healthy foods” code was selected because Participant 3 shared nutritious food items, which the participant said:

Lots of vegetables [sic]. You need vitamins. You need fruit. Animal products can be good for some people in small amounts. You need to have a good balance of good, whole foods. So I avoid processed food; anything... artificial, like preservatives. Anything that's made with lots of sugar, or starch, or, you know, just processed stuff, like crackers, cereal, and granola bars. All of that stuff, I just avoid. And I try to eat foods that have not been processed, so simple protein and fruit. And make different dishes with that. And try to keep it basic as much as possible. (personal communication, March 2013)

Participant 7 also provided his or her views on “healthy foods” as, “Water is very important; drinking right amounts of water. And, you know, that's it. That's just healthy raw foods, compared to fast food, processed foods, is the best way to go” (personal communication, March 2013).

Unhealthy Foods. “Unhealthy foods”, according to the participants, are the foods that are not considered to be nutritious. These open codes consist of the following concepts: bad carbohydrates, bad fats, sugars, and processed foods.

This code was selected because bad carbohydrates and processed foods were considered to be unhealthy (Participant 5, personal communication, March 2013). Participant 11 contributed that fatty foods were also unhealthy, which the student said, "I just try to stay away from ground beef. I don't eat burgers. I try to eat turkey burgers or lean meat" (personal communication, March 2013).

Specific Foods. "Specific foods" are particular foods that notably affect the clients' mental health. The open codes for these foods were alcohol, caffeine, sugar, and chocolate. The code was selected because Participant 10 stated the following, "I was going to say sometimes people think that when you're stressed out, drinking alcohol helps... in moderation" (personal communication, March 2013). Participant 3 reported similar stress-reduction effects with other foods. Participant 3 said:

And it's funny because when I'm stressed, like when it's Finals or I have a lot of things to do, I'll crave. Stress makes me want sugar or something bad for me. And I'm not like the only one. I know a lot of friends who are doing this. When they're stressed, they're going to go out and pig out on the fries, and a burger, and a shake. For some reason, it triggers eating bad foods. But then eating bad foods... just makes it worse and it turns into this whole cycle. It's funny. Stress can trigger those cravings as well. I think it's just a comfort food. (personal communication, March 2013)

Participant 1 noted similar effects with chocolate, "It's not healthy, but sometimes I'll eat chocolate and chocolate makes me happy (personal communication,

March 2013). On the other hand, Participant 10 mentioned that the following increases stress, "When you're stressed, I think caffeine can make you more stressed" (personal communication, March 2013).

These "foods" can be demonstrated on a continuum, with "healthy foods" on one end, and "unhealthy foods" on the other end. Yet in the middle of the continuum are "specific foods", which help the clients to manage their stress initially, but also have its vices as well.

Eating Behaviors. "Eating behaviors" refers to food consumption behavior. This axial code includes "amount", "variety", "diet", and "habits", as displayed in Figure 5.

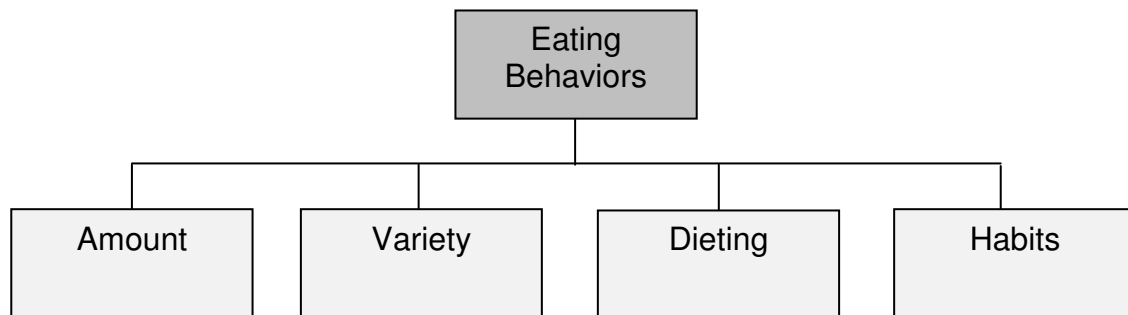


Figure 5. Eating Behaviors.

Amount. "Amount" open code describes how much food is consumed by clients. The "amount" open code includes measure, moderation, not eating, under eating, overeating, and limited. "Amount" was selected because the student recognized the importance of moderate eating, "Ultimately, you need to have proteins, 'carbs', fruits, veggies, and all of the main food groups in

moderation. And don't overdo them" (Participant 8, personal communication, March 2013). Participant 13 also addressed moderation, "So I know there's a caloric intake, on how to watch calories, and stuff" (personal communication, March 2013). The student also addressed the behavior of not eating, "If I don't eat, I get [much] stressed and stuff" (Participant 3, personal communication, March 2013). Participant 4 also recognized how much food eaten has an effect on a person, as he or she stated, "I think it's possible that overeat[ing] or under eat[ing] can put on more stress on a person's body" (personal communication, March 2013).

Variety. The researcher identified "variety" as a code because the participants emphasized the importance of eating various types of food. The codes for "variety" included variety and balanced. These codes were selected because Participant 3 suggested having some amount of foods from each food group (personal communication, March 2013). Participant 5 also discussed a similar idea, "But then I think it is important to have like everything kind of so like all the food groups, have a little bit of everything in it" (personal communication, March 2013).

Dieting. "Dieting" pertains to the specific types of foods consumed in a meal plan in order to obtain a goal, such as losing fat. The open codes for "dieting" include dieting and low carbohydrates. "Dieting" was demonstrated when a participant shared his or her awareness of dieting, "There [are] all these different diets and all these different meals plans" (Participant 8, personal

communication, March 2013). "Dieting" was also derived from another participant's experience with dieting, "Well, I've tried several diets and all that stuff. Then I... joined Weight Watchers. And Weight Watchers taught me a lot about nutrition" (Participant 11, personal communication, March 2013).

Participant 12 described a type of diet, the Atkins diet, which consisted of eating a smaller amount of carbohydrates and sugars, and a greater amount of proteins (personal communication, March 2013). Participant 5 recognized that others may diet as well, such as reducing their carbohydrate intake and other types of food (personal communication, March 2013).

Habits. "Habit" refers to the clients' routine for food consumption. The open codes for "habits" are habits, patterns, and routine. According to Participant 15, "eating patterns" of the clients are inquired by the agency's assessment (personal communication, March 2013). "Habits" was also selected because Participant 6 recognized that routines can prevent people from improving their nutrition (personal communication, March 2013). Participant 6 stated,

When you just stop getting by and you take more time out for yourself, you will automatically set yourself up to benefit, whether it's eating better, lower stress management, and just overall. If you allow yourself to just get outside of doing the daily routine, you can get away from that. That's an automatic because you're more in tuned with yourself. (personal communication, March 2013)

While recognizing that behavioral patterns need to be changed, there needs to be an educational aspect to it as well. Participant 14 shared,

And then when I started training a few years back, I barely learned how to change my eating habits to benefit it, like stabilizing your weight, and being healthy so that your body can digest more food easily while you sleep and throughout the day. (personal communication, March 2013)

Abstract Thoughts. "Abstract thoughts" refers to the student's views on nutritional thinking itself. The open codes for "meta" consisted of "common sense", "developmental", and "exercise", which are displayed in Figure 6.

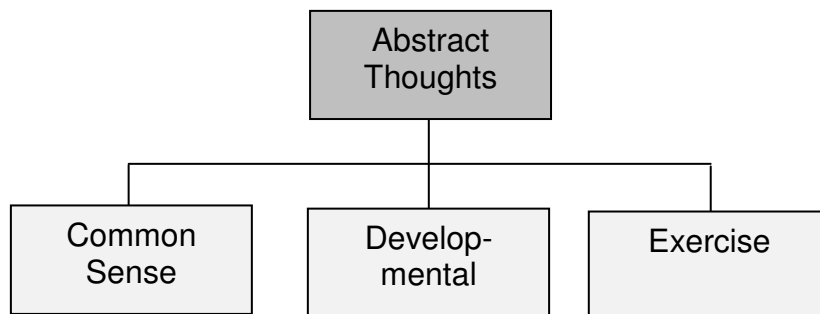


Figure 6. Abstract Thoughts.

Common Sense. "Common sense" is an open code derived from the participants' view on how the general public would perceive about nutrition. Participant 9 believed that nutrition was common sense, "They've done a lot of studies about how if you eat healthy and [if] you take care of yourself. I mean, this isn't even anything that needs to be studied" (personal communication, March 2013). However, Participant 8 commented that nutrition being common

sense is a misconception (personal communication, March 2013). From his or her experience, Participant 8 was taught about nutrition on a basic level versus in depth because of this misconception (personal communication, March 2013).

Developmental. "Developmental" accounts for how the participants' thought about nutrition throughout their own lives and how their thoughts have changed overtime. The open codes for "developmental" were appearance and age. Participant 9 indicated how he or she continued to learn about nutrition, "So I can't say there is time or place that I've learned about it. It's just been on-going throughout my life, and I'm just still learning. [Age] years old and still learning about nutrition" (personal communication, March 2013). Another participant also noticed age as a factor in how nutrition is perceived, as he or she said, "The older you are, the healthier you need to eat because of your age. Everything just starts falling apart on us including our minds..." (Participant 10, personal communication, March 2013).

Exercise. "Exercising" are physical activities that promote strength, cardiovascular health, and overall physical well-being. Interestingly, "exercise" was an open code because when nutrition was discussed, the participants discussed about exercise as well. When Participant 5 was discussing about nutrition, she or he commented, "And also exercising and being mobile and stuff is really important" (personal communication, March 2013). Participant 4 also discussed how nutrition and exercise can help reduce the clients' mental health

symptoms and improve the clients' mood (personal communication, March 2013).

Health. "Health" refers to how foods can influence the person's general health and functioning. The open codes for "health" include "physical health", "mental health", and "medication treatment", which are displayed in Figure 7.

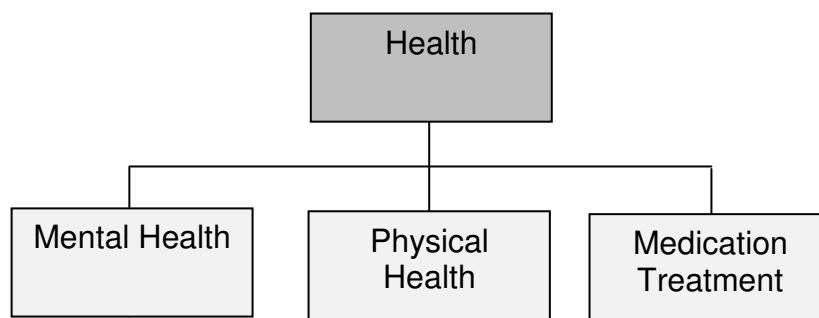


Figure 7. Health.

Mental Health. "Mental health" refers to how nutrition and mental well-being can influence each other. The open codes for "mental health" are stress, relaxation, self-esteem, concentration, memory, motivation, mood, and psychosis. This code was selected because the brain needs nutrients, as shared by Participant 11,

Well, my general knowledge of nutrition is [...] if we don't eat properly, we're not going to function properly. Our brains don't gets the nutrients that it needs to keep us going, especially when we have stressful and full schedules and responsibilities. (personal communication, March 2013)

The “mental health” code was also derived from the participant recognizing how “healthy foods” and “unhealthy foods” can contribute to mental health symptoms, which the participant said,

Well, I think it can. It plays a big part. Like I said before, like, if they're eating a lot of fatty, processed food, it will make them feel more sluggish. And I think it can lead to more of a depression. You know, they feel tired, then they don't want to get up, and they just kind of contribute more to that. And then, if they're eating a well-balanced meal, then, throughout the day, they're eating less processed food and more whole foods, then they would just feel a little better. (personal communication, March 2013)

This relationship between nutrition and mental health has been considered in a participant's internship. Participant 2 indicated that at her internship, some clients were placed on a special diet because nutrition can somewhat affect the clients' mental illness and physical health (personal communication, March 2013). On the other hand, nutrition can be influenced by the person's mental disorder. As Participant 8 indicated,

I'm not saying that there should be a nutrition class specifically, but maybe a better understanding of how nutrition affects different disorders, but then again, how does disorders them self affect nutrition. Like, for example, if you have somebody with schizophrenia, they might not necessary eat certain foods because they believe it's poisoned, or their delusional or whatever. Or they just might be fixated on certain foods that [...] they eat.

And so in cases like that, the disorder prevents the good nutrition. So I believe there should be some sort of education on how one affects the other, and vice versa. (personal communication, March 2013)

Additionally, the researcher noticed that many of the participants understood that nutrition can affect mental health. However, most participants were not able to thoroughly explain this relationship. Conversely, most participants recognized that mental health affected nutrition. For example, when Participant 3 experienced mental stress, the participant would get food cravings and will eat junk food (personal communication, March 2013).

Physical Health. The researcher identifies the “physical health” code because nutrition can affect a person's physical well-being. The open codes for “physical health” include the following: jittery, energy, sleep, appearance, and physical health itself. This code was selected because nutrition can prevent some health issues, as stated by Participant 5, "So if you don't have good nutrition or a well-balanced diet, then it can lead to other health problems: diabetes and stuff like that" (personal communication, March 2013). Participant 2 also reported that having good nutrition can reduce stress because the clients will not develop diabetes or other ailments (personal communication, March 2013). Even after being diagnosed with a specific health issue, nutrition will be needed to improve the person's health. As Participant 10 stated,

I think we need to really be conscious of the foods that we eat, so we can function better or [it will] inhibits us physically and mentally. But, you know,

I can't point out specifics other than what I just said. But it can cause heart disease. It can cause diabetes. If you're susceptible to that [...] you just got to really be cognizant of what goes into your body. (personal communication, March 2013)

Medication. "Medication", an open code, pertains to the psychiatric medications clients take and the role of nutrition in medication. For example, clients need to eat properly when they take their medication (Participant 3, personal communication, March 2013). Participant 3 stated, "[F]ood does affect some of the medication[s]. You have to take food. And then you have to make sure you're eating properly, or else it will have some very bad effects" (personal communication, March 2013). Participant 2 indicated his or her similar thoughts on nutrition and medication as well, "So if they're not eating [...] they're not gaining the nutrition that they need. But then [...] if the medication is pretty much strong, they need something in them. [...] It affects them" (personal communication, March 2013). On the other hand, medications have side effects, like weight gain, so nutrition can assist the person to manage their side effects. Participant 2 stated that weight gain is a common side effect of psychotropic medication, so clients can eat nutritiously to manage their weight, and relieve the stress associated with their weight gain (personal communication, March 2013).

Nutrition Treatment. The "nutrition treatment" referred to the mental health interventions for helping clients. The "nutrition treatment" includes "approaches" and "variables", as displayed in Figure 8.

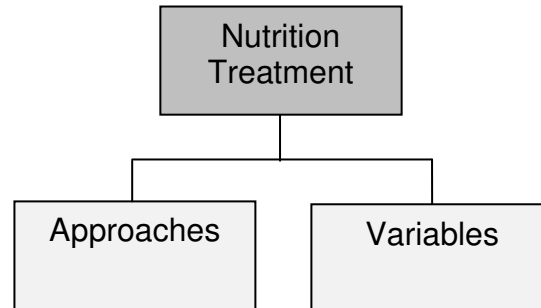


Figure 8. Nutrition Treatment.

Approaches. "Approaches" are the approaches to providing a combination of nutrition and mental health treatment for the clients. The open codes for "approaches" include the following: assessment, discussion, demonstration, education, linkage, macro, and not nutrition. One modality that was discussed by a participant was applying nutrition into assessments, as Participant 5 said, "Maybe if you ask [or] more is explored during the assessment, maybe the therapist would be more aware when there's a problem with their nutrition. So maybe they're more likely to explore [it] during [the] sessions" (personal communication, March 2013). Another participant suggested linking the clients to nutritional services,

Well, depending on their financial status, they may be eligible for CalFRESH, So definitely that would be my first. I would try to get them

hooked up to that. And if they have the financial resolve[d] then the discussion would take place about their nutritional habits and discussing the value of nutrition, of course. (Participant 10, personal communication, March 2013)

Participant 4 mentioned that nutrition can be discussed in the therapy session, "Well, I guess if they did mention something about nutrition or what they're eating, I can educate them a little bit about the choices that they are making. And then maybe even us[e] problem solving..." (personal communication, March 2013).

Variables. "Variables" are the client factors that can affect his or her treatment. The open codes pertaining to "variables" included appearance, culture, diet, eating behavior, knowledge, preferences, risk, approach, barriers, people, stress management, non-judgment, resources, and skills. Participant 12 addressed how culture can affect the clients' nutrition, "And you have to take into consideration of their culture, like not a lot of cultures they eat, you know, whatever foods their accustomed to so we may not see their food as healthy but that's what they've always been eating" (personal communication, March 2013). Participant 11 identified that food resources can be a part of the clients' mental health treatment, "And if somebody discloses that they you know are having trouble putting food on the table, or providing their food with lunches, that kind of stuff, then we can provide resources and referrals for that" (personal communication, March 2013).

Selective Coding

Based on the open and axial coding, the researcher developed a theory on the participants' common experiences related to applying nutrition in mental health practice. Many participants experienced “factors” that affected their “nutrition thoughts”, which then influenced their “nutrition treatment”. The “factors” were the “nutrition education”, “barriers”, and “solutions”. Their “nutrition thoughts” consisted of “food”, “eating behaviors”, “abstract thoughts”, and “health”. Their “nutrition treatment” were the nutritional mental health practices that were utilized in the past or could be utilized in the future. The diagram in Figure 9 demonstrates the important codes and their relationship.

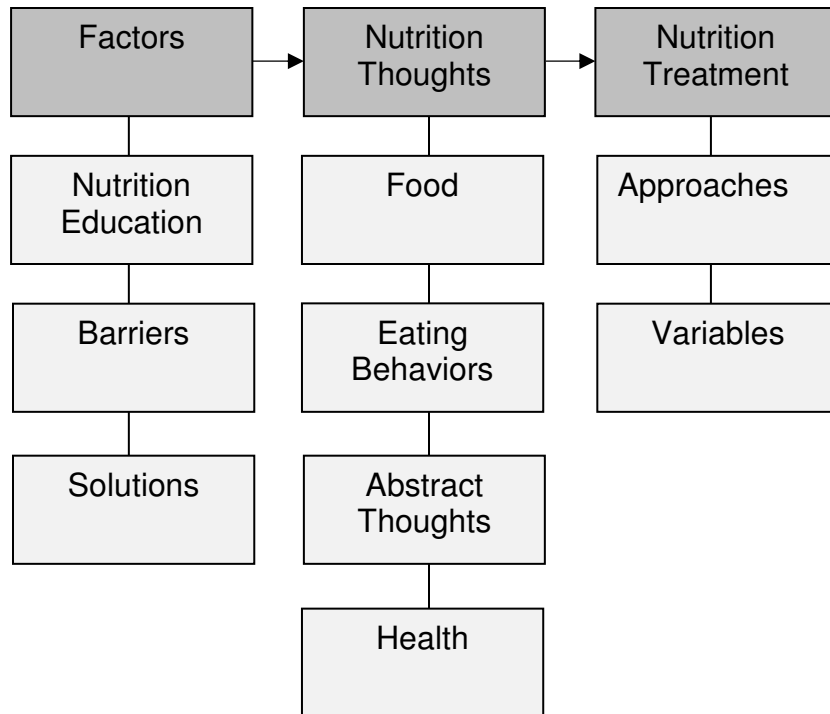


Figure 9. Theory and Its Components.

Factors. The researcher found that most participants received some "nutrition education" in the past. The participants received their "nutrition education" from their independent research, social support, formal education, medical professionals, nutrition experts, nutrition programs, and the media. Additionally, most participants connected their current "nutritional thoughts" with their past "nutrition education."

Many participants had experienced past or present "barriers" that affect their outlook on nutritional mental health practice. These "barriers" were personal experiences with nutrition, clients and their clients' personal challenges, their own approaches to mental health practice, limitations of their education, agency demands, and limited environmental resources. Most participants believed that these "barriers" impeded their "nutrition thoughts" and, in turn, their "nutrition treatment".

The researcher discovered that most participants were able to theorize "solutions" to manage their past and present nutrition "barriers". The participants' "solutions" were conducting independent research, consulting with medical professionals and nutrition experts, and encouraging providers of social work education to address nutrition content alongside mental health content. As a result, many of the participants expressed that these "solutions" would address the "barriers" that prevent them from having a more holistic view of nutrition in their "nutrition thoughts" and then lead them to implement "nutrition behavior"

within their practice.

Nutrition Thoughts. Most participants had "nutrition thoughts" that stemmed from their experiences with "factors". Their "nutrition thoughts" included types of nutritious foods, eating behaviors, abstract thoughts on nutrition, and the influence of nutrition on general health. For example, some participants found that they had a limited understanding of the relationship between nutrition and mental health. The participants felt that their "nutrition thoughts" affected their application of "nutrition treatment" into their mental health practice.

Nutrition Treatment. The researcher found that many participants indicated that their "nutrition thoughts" influenced their "nutrition treatment" in their mental health practice. The participants identified the various intervention approaches and variables they considered when applying "nutrition treatment". In conclusion, many participants indicated that there were "factors" that impacted their "nutrition thoughts" and "nutrition treatment" when providing mental health treatment for their clients.

Implications of Findings for Micro and/or Macro Practice

This study has implications for both micro and macro practices. These implications consist of incorporating nutrition into mental health assessments, discussions, education, and case management, by using various treatment methods within the scope of social work practice. There are also implications for expanding the student's knowledge by encouraging independent literature

research and by consulting with others regarding nutrition.

Assessment

The participants suggested assessing the clients based on their appearance, diet, eating behaviors, knowledge, resources, risk, culture, preferences, and social support.

Appearance. The clients' appearance should be considered, especially if the clients are underweight, overweight, or obese (Participant 4, personal communication, March 2013). Gaining this knowledge can help the social work students determine if the person experiences symptoms of depression or an eating disorder.

Possible questions to ask clients are: Have you gained or lost weight? How much weight did you gain or lose?

Diet. By exploring the clients' diet, the social work students can identify the types of foods, the foods' nutritional values, and vitamins that the clients are consuming (Participants 3 & 6, personal communication, March 2013). Possible questions to ask clients are: What kind of foods are you eating? How often do you eat fast-food? Are you taking vitamins and supplements?

Eating Behaviors. The social work students also focused on ascertaining the clients' appetite, the amount of times they have eaten, and when they last ate (Participants 8 & 15, personal communication, March 2013). Possible questions to ask clients are: How many meals do you eat per day? When did you have your last meal?

Knowledge. The clients may have limited knowledge on nutrition and how it affects their mental health symptoms (Participant 4, personal communication, March 2013). Possible questions to ask clients are: What do you know about eating healthy? Do you know how food can affect your mental health and your medication? Do you know where you can get healthy foods?

Resources. The clients may have limited resources to obtain nutritious food (Participants 1, 3, & 8, personal communication, March 2013). Possible questions to ask clients are: Do you have access to food? What are the challenges for you in obtaining healthy foods? Are you aware of food assistance programs, transportation services, and in-home services? Are you currently seeing a medical doctor?

Risk. The clients can be at risk for severe disability or malnourishment (Participants 8 & 10, personal communication, March 2013). Possible questions to ask clients are: When was the last time you ate? How many meals are you eating per day? What amount of food are you eating per meal? What kind of food are you eating?

Culture. Culture can influence what and how a person eats (Participant 12, personal communication, March 2013). Possible questions to ask clients are: What cultural foods do you eat? Do you participate in any cultural or religious rituals that pertain to food?

Preferences. The clients can be particular with the type of foods they eat (Participants 8, personal communication, March 2013). Possible questions to ask

clients are: What do you like to eat? What do you hate to eat?

Social Support. The clients can have limited social support as they transition into a healthier lifestyle (Participant 11, personal communication, March 2013). Possible questions to ask clients are: How do your significant other, family, and friends feel about you changing your diet? Do they help you?

Discussion

The social work students can discuss nutrition topics with their clients (Participants 1 & 14, personal communication, March 2013). The nutrition discussion topics include the clients' nutrition, eating behaviors, priorities, risks, social support, and barriers. For example, the social work students will want to discuss nutritional goals and barriers with the client.

Education

Clients can have limited knowledge of nutrition and its influence on their mental health. The social work students can educate the clients by talking about nutrition, how it impacts mental health, and share the benefits of nutrition (Participant 7, personal communication, March 2013). If the clients are interested in adapting a nutritional diet, the social work students can also educate the clients on selecting nutritious foods, budgeting, preparation, and cooking. The social work students can also educate the clients about stress management techniques if the clients utilizing food as a coping strategy for stress.

Case Management

The social work students can link the clients to various food resources,

whether it is through their agency, community, or other programs, such as Meals on Wheels and food stamps (Participants 8, personal communication, March 2013). The social work students can also provide connections to transportation and at-home services. If the clients are interested, the social work students can also provide cooking resources, such as websites with nutritious recipes and other educational materials.

Treatment Methods

The social work students can address nutritional mental health with clients, parents, and groups (Participants 5 & 11, personal communication, March 2013). For example, a participant shared that an agency demonstrated how to make snacks and provided the parents and children the opportunity to make those snacks together (Participant 11, personal communication, March 2013).

Research, Training, and Consultation

If the social work students have limited knowledge on nutrition, the social work students can do their own research, take courses and trainings, and consult with medical professionals and dietitians on nutrition (Participants 2 & 7, personal communication, March 2013). The researcher suggests attending trainings on applying nutritional interventions into mental health practice.

Referral

The social work students may not be interested in incorporating nutrition into their mental health practice (Participant 2, personal communication, March

2013). In these cases, the researcher will recommend and encourage the social work students to refer the clients to another social worker, case manager, dietitian, and/or medical practitioner who can address the clients' nutritional needs.

Summary

In the evaluation chapter, the researcher used open, axial, and selective coding to analyze the qualitative data and develop a theory. The theory described and explained the social work students' perspectives and application of nutrition in their mental health practice. There were factors of education, barriers, and solutions that influenced the social work students' thoughts on nutrition, which, in turn, affected their nutrition treatment in their mental health practice. Nutrition can be integrated with mental health practices, such as mental health assessments, discussions, education, case management, and referrals.

CHAPTER FIVE

TERMINATION AND FOLLOW UP

Introduction

The termination and follow up chapter focuses on sharing the research findings with the participants and their agency. The chapter also focuses on ending the study relationship with the participants and their agency.

Termination of Study

The researcher ended her relationship with the participants when the interview was completed. She thanked the participants over the phone and sent each of them a thank you card, debriefing form, and five dollar Starbucks gift card.

Communicating Findings to Study Site and Study Participants

The findings for this study were reported to the social work students in the form of a research poster and presentation. The presentation for the social work students consisted of making a poster by summarizing the chapters of assessment, engagement, and implementation; compiling the nutrition and mental health findings into a summary with a diagram; and adding visual graphics of various nutritious foods. The presentation was practiced to ensure that the information was conveyed professionally at the California State

University, San Bernardino's Social Work Research Poster Day 2013.

Ongoing Relationship with Study Participants

The post-positivist study did not maintain an ongoing relationship with the mental health social work students. The relationship discontinued when the interview was completed and a thank you card, debriefing form, and gift card were sent to the participants.

Dissemination Plan

Dissemination refers to the efforts undertaken to increase the likelihood that these research findings will be utilized in the form of evidence-based practice (Morris, in press). In order to disseminate the findings, the researcher played the role as a salesman (Morris, in press). In the context of this research, the researcher encouraged others to apply nutrition in their practice. The researcher posted the research findings for the social work students to access on a social media website, Facebook.

The researcher also included other information that pertained to this study; research literature regarding the relationship between nutrition and mental health literature, nutritional resources for the social work students' clients, and nutritional trainings for the social work students, such as body-mind therapy training. Providing this information to the social work students was designed to increase the likelihood that the social work students will apply nutrition to their mental

health.

Summary

The termination and follow up chapter focused on communicating the research findings to the social work students at their research poster presentation event. The researcher posted her findings and supplemental information regarding nutrition and mental health in a social networking website for the social work students to see. The relationship with the participants discontinued when the interviews were completed and thank you cards were delivered.

APPENDIX A
INFORMED CONSENT



CALIFORNIA STATE UNIVERSITY, SAN BERNARDINO

SOCIAL WORK INSTITUTIONAL REVIEW BOARD SUB-COMMITTEE

College of Social and Behavioral Sciences
School of Social Work

APPROVED 2/28/13
IRB# 2013-06

INFORMED CONSENT

The study in which you are being asked to participate is designed to investigate the perceptions of mental health social work students on nutrition and stress. This study is being conducted by Diana Tran under the supervision of Dr. Teresa Morris, Professor of Social Work, California State University, San Bernardino. This study has been approved by the School of Social Work Sub-Committee of the Institutional Review Board, California State University, San Bernardino.

PURPOSE: The purpose of the research is to broaden the social work education and mental health field to consider the nutritional needs of the mental health consumers.

DESCRIPTION: This is an audio recorded interview on your views on nutrition and stress.

PARTICIPATION: Participation is voluntary so your refusal to participate or to discontinue at any time will involve no penalty or loss of benefits to which you are otherwise entitled.

CONFIDENTIALITY: Confidentiality means identifiable information will be collected from you. The researcher will make every effort to prevent anyone outside of the project from connecting your responses to you. In order to maintain confidentiality, the documentation, audio, and audio devices will be locked into a brief case and will later be transported into a locked filing cabinet. Then the audio will be encrypted and stored on a password protected computer to provide security to the audio files.

DURATION: The expected duration of your participation is approximately one hour.

RISKS: There is potential discomfort from participating in a one hour long interview and with an intensive engagement. In order to accommodate to your needs, you are welcome to ask for a break at any time. The researcher will also suggest breaks throughout the interview as well.

BENEFITS: There are no personal benefits for participating in this study. A \$5 Starbucks gift card will be provided to thank you for your time.

VIDEO/AUDIO/PHOTOGRAPH: This interview will be audio recorded. So I understand this research will be audio recorded. Initials _____

CONTACT: If you have pertinent questions about the research and research participants' rights, please contact Dr. Teresa Morris, Professor of Social Work, California State University, San Bernardino, at (909) 537-5561 or tmorris@csusb.edu.

RESULTS: If you would like to obtain a copy of the results of this study, please visit Dr. Teresa Morris at School of Social Work, California State University, San Bernardino, 5500 University Parkway, San Bernardino, CA 92407-2397 in Room 403 of the Social and Behavioral Sciences (SB) building after September 2013.

Signature: _____ Date: _____

909.537.5501 909.537.7029

5500 UNIVERSITY PARKWAY, SAN BERNARDINO, CA 92407-2393

The California State University - Bakersfield - Channel Islands - Chico - Dominguez Hills - East Bay - Fresno - Fullerton - FullertonSB - Long Beach - Los Angeles - Mariposa - Modesto - Monterey Bay - Northridge - Pomona - Sacramento - San Bernardino - San Diego - San Francisco - San Jose - San Luis Obispo - San Marcos - San Bernardino - Stanislaus

**AUDIO USE INFORMED CONSENT FORM
FOR NON-MEDICAL HUMAN PARTICIPANTS**

As part of this research project, I will be making an audio recording of you during your participation in the research study. Please indicate what uses of this audio you are willing to consent to by initialing below. You are free to initial any number of spaces from zero to all of the spaces, and your response will in no way affect your credit for participating. I will only use the audio in ways that you agree to. In any use of this audio, your name would *not* be identified. If you do not initial any of the spaces below, the audio will be destroyed.

The audio can be studied by the research team for use in the research project. Please initial: _____

I have read the above description and give my consent for the use of the audio as indicated above.

The extra copy of this consent form is for your records.

SIGNATURE _____ DATE _____

APPENDIX B
LETTERS OF APPROVAL



February 27, 2013

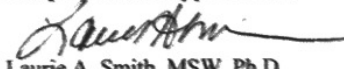
College of Social and Behavioral Sciences
School of Social Work

To Whom It May Concern,

I give my permission for Diana Tran to conduct her research with School of Social Work Students as participants. She will use the following procedures:

1. The fliers inviting participation will be placed in each social work student's mailbox and will be posted in the resource room.
2. The flier consists of the following information: topic of the research, participant criteria, reward (\$10 or \$5 gift card to Starbucks), and Ms. Tran's contact information for the study, which includes an email address and a phone number.
3. Depending on the amount of student response she receives, she may also communicate with professors to see if she can make an announcement about participation in her research.
4. The flyer instructs willing students to contact her and she will schedule to meet with them at a quiet, mutually agreed upon location.
5. The interview should take an hour at most with breaks provided.
6. She will provide an informed consent for the study and a permission form for audio recording the interview.
7. She will discuss the research expectations (e.g., can leave the study at any time), procedures, and answer any questions that the student may have.
8. The content of the questions includes asking about their demographics, knowledge and experiences with mental health, and their perceptions towards the connection between nutrition influencing stress and its management.
9. She will thank and debrief the student, and will provide the gift card.
10. She will add the materials into a locked briefcase in order to protect the documents.

Thus, the only part that she really needs permission for is to place flyers in student mailboxes and post them, I approve this.


Laurie A. Smith, MSW, Ph.D.
Professor and Director
School of Social Work
California State University, San Bernardino
lasmith@csusb.edu
(909) 537-3837

909.537.5501

5500 UNIVERSITY PARKWAY, SAN BERNARDINO, CA 92407-2393

The California State University - Bakersfield - Channel Islands - Chico - Dominguez Hills - East Bay - Fresno - Fullerton - Humboldt - Long Beach - Los Angeles
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CALIFORNIA STATE UNIVERSITY, SAN BERNARDINO
SCHOOL OF SOCIAL WORK
Institutional Review Board Sub-Committee

Researcher(s) Diana Tran
Proposal Title Feasibility of MH SW students
on university
SW 206

Your proposal has been reviewed by the School of Social Work Sub-Committee of the Institutional Review Board. The decisions and advice of those faculty are given below.

Proposal is:

- approved
- to be resubmitted with revisions listed below
- to be forwarded to the campus IRB for review

Revisions that must be made before proposal can be approved:

- faculty signature missing
- missing informed consent debriefing statement
- revisions needed in informed consent debriefing
- data collection instruments missing
- agency approval letter missing
- CITI missing
- revisions in design needed (specified below)

[Signature] _____ 2/20/13
Committee Chair Signature Date

Distribution: White-Coordinator; Yellow-Supervisor; Pink-Student

APPENDIX C
PARTICIPANT RECRUITMENT MATERIALS



Nutrition and Stress

Do you help people with their mental health?
Or are you focusing your studies on mental health?
Want to trade your smarts for a **\$5 STARBUCKS GIFT CARD?**

If you are a social work student that:

- Practices in mental health field **OR**
- Previously practiced mental health field **OR**
- Studying mental health

Then please contact me at:
nutritionandstress@gmail.com
(909) 542-8833

This study has been approved by the School of Social Work Sub-Committee of the California State University, San Bernardino Institutional Review Board.



Nutrition and Stress

Do you help people with their mental health?
Or are you focusing your studies on mental health?
Want to trade your smarts for a **\$5 STARBUCKS GIFT CARD?**

Please contact me for an interview if you are a social work student that:

- Practices in mental health field **OR**
- Previously practiced mental health field **OR**
- Studying mental health

This study has been approved by the School of Social Work Sub-Committee of the California State University, San Bernardino Institutional Review Board.

Nutrition and Stress nutritionandstress@gmail.com 909-542-8833
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Nutrition and Stress nutritionandstress@gmail.com 909-542-8833
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Nutrition and Stress

Do you help people with their mental health?
Or are you focusing your studies on mental health?
Want to trade your smarts for a \$5 STARBUCKS GIFT CARD?

- If you are a Master of Social Work student that:
- Practices in mental health field OR
 - Previously practiced mental health field OR
 - Studying mental health

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This study has been approved by the School of Social Work Sub-Committee of the California State University, San Bernardino Institutional Review Board



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APPENDIX D
INTERVIEW INSTRUMENT

Beginning of the Interview

Building Rapport

1. Throw away question: How are you doing?
2. Throw away question: Discuss the topics shared between the researcher and mental health practitioner if a relationship is previously established.

Demographics

1. What is your full birth date?
2. What is your race and ethnicity?
3. What institution did you attend or currently attend to receive your Masters of Social Work education?
4. What was your previous work experience in mental health? How many years did you devote to the mental health field?
5. What was your previous work experience in your area of expertise? How many years did you devote to your area of expertise?

Middle of the Interview

Theoretical Orientation

1. How do you feel about using the biopsychosocial perspective towards clients with anxiety?

Nutritional Knowledge

1. What does your knowledge of nutrition entail? Please describe.
2. If applicable, where and how did you learn about nutrition?
3. Throw away question: Why did you decide to become a mental health practitioner?

Nutritional Practice

1. What does your typical intake assessment involve asking?
 - a. If applicable, how have you asked your clients if they have socially appropriate means of food access? Please describe.
 - b. How about their dependents, like children and older adults?
2. If they do not have socially appropriate means of getting access to food, what action would you take?
 - a. If applicable, how have you explored what the clients' diet entails?
3. What are the barriers towards exploring your clients' nutrition?
4. How would you address these barriers in asking your clients?
5. Throw away question: Performing mental health practice can be stressful, so what are some things you do to make you happy?

Clinical Nutrition

1. In what ways do you think that nutrition can affect the client's mental well-

being? How about clients with anxiety symptoms?

Ending of the Interview

Throw Away

1. What do you feel to be important in conducting mental health practice?
2. What are some of the strengths that you bring into this mental health field?
3. What are your plans for today (or tonight)?
4. Do you have plans for the weekend?

Feedback

1. Before we conclude this interview, are there any suggestions or concerns you would like to share? Your comments or questions would be greatly appreciated, especially as I go on to interview other clients.

APPENDIX E
DEBRIEFING STATEMENT

DEBRIEFING STATEMENT

The Perceptions of Mental Health Social Work Students on Nutrition and its Effects on Individual Stress

This study you have just completed was designed to explore the perceptions of mental health social work students on nutrition and its effects on individual stress. In this study, the student's knowledge on clinical nutrition was explored. This information collected will help determine if there is a need to further educate practitioners on their nutritional knowledge and practices. These findings can further the development of mental health practice to assist individuals with nutritional needs, such as utilizing an assessment with an nutritional component, linking the individual to food programs, or referring the individual to a nutritionist.

Thank you for your participation and for not discussing the contents of the nutrition and stress questions with other mental health students. If you have any questions about the study, please feel free to contact Dr. Teresa Morris at (909) 537-5561. If you would like to obtain a copy of the results of this study, please visit Dr. Teresa Morris at California State University, San Bernardino, 5500 University Parkway, San Bernardino, CA 92407-2397 in Room 403 in the Social and Behavioral Sciences (SB) building after September 2013.

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