

## Chapter Two – Literature Review

Chapter two includes definitions of key concepts; current research on nutrition and mental health; how social workers are taking action regarding nutrition-related issues in the micro, mezzo, and macro levels; nutritional programs in research and federal food assistance programs; populations most researched; and recommendations for social workers regarding nutrition.

### Definitions

There were several keywords or phrases that continued to appear in current literature focusing on social work and nutrition. It is important to discuss and define these keywords or phrases because they serve as a foundation for the literature review. The majority of articles failed to define basic words such as nutrition, diet, collaboration, or multidisciplinary work. Nutrition and collaboration or multidisciplinary work are the focus of this research. The term “diet” is frequently used in the field of social work, such as with assessment or intake tools.

**Nutrition.** Nutrition serves several different functions in the human body. Nutrition is our fuel for survival; it allows us to restore and replenish energy. Nutrition helps us repair after injury or illness. Nutrition aids in the fight against illnesses. We receive nutrition through food or supplementation (Tran, 2014). Nutrition is critical in maintaining health. Nutrition is also essential for growth (Edwards & Cheeley, 2016). Overall, there are two parts to nutrition: 1) consuming food, or energy sources; and 2) the body’s response to the food, or what the body does with the food.

**Diet.** The word “diet” is everywhere – on television, in advertisements, and on social media. The term has many different meanings, clarified for the purpose of this literature review.

Overall, diet includes eating habits, the frequency of meals, types of food consumed, and portion sizes (Wen, Tchong, & Chong, 2015).

**Collaboration or multidisciplinary work.** More often than not in social work, practitioners work in multidisciplinary team environments, especially in schools, hospitals, or criminal justice settings. Coordinating care with other professionals such as doctors, teachers, probation officers, or dieticians is important to serve the client's best interest. Interdisciplinary collaboration is when social workers work together with other professionals from different disciplines toward the same goals. Interdisciplinary collaboration is a process (Bronstein, 2003). Collaboration in social work simply means to work with a client or other professionals to serve the client. Similarly, multidisciplinary work means that there are many, or multiple disciplines working together. An example of this is social workers, doctors, and dieticians working together on one client's case. Healthcare professionals and researchers have been calling for interdisciplinary collaboration in food security and providing quality care, for example, long-term home parental nutrition and adult hospital nutrition (Karunasagar & Karunsagar, 2016; Tappenden et al., 2013; Winkler & Guenter, 2014).

## **Nutrition and Mental Health**

Current research focusing on nutrition and mental health is on the rise (Clark, Bezyak, & Testerman, 2015; Harbottle, 2011; Newton, 2013; Tran, 2014). Social workers and other mental health professionals are becoming more aware of how nutrition impacts mental health. Reviewing research about their connection emphasizes the importance of integrating nutrition and social work. Deficiencies in vitamins or minerals, nutrition's impact on physical and mental health, the benefits of eating healthy, and maternal diet are the areas that have been discussed the most in the current literature.

**Vitamin/mineral deficiencies.** There are several vitamin or mineral deficiencies that can lead to symptoms that mimic mental illness or exacerbate existing mental illness. Several vitamin and mineral deficiencies can lead to depression or symptoms of depression. For example, vitamin B, vitamin D, folate, magnesium, or chromium deficiencies can lead to depression (Dog, 2010). Iron deficiency can lead to symptoms of depression such as fatigue, apathy, or poor concentration. Zinc deficiency can lead to behavioral or sleep disturbances, which can impact mood (Bener, Ehlail, Bener, & Hamid, 2014; Dog, 2010; Harbottle, 2011; Weinst & Silverno, 2015; White, Cox, Peters, Pipingas, & Scholey, 2015; Yousatzai et al., 2013).

Similarly, certain foods can mimic symptoms of mental illnesses, or exacerbate ongoing mental illnesses. Knowing this is significant for social workers conducting assessments, making diagnoses, or creating a treatment plan. If social workers are unaware of a vitamin or mineral deficiency, clients may not be receiving appropriate treatment. An example of foods mimicking mental illness is when the consumption of caffeine can lead to symptoms of anxiety, or increase anxiety levels (Dog, 2010). Foods high in sugar lead to a blood sugar spike followed by a crash. The blood sugar spike mimics symptoms of anxiety or exacerbates ongoing anxiety. The crash can lead to symptoms of depression (Simulation IQ, 2013). Alcohol can impact mood and deplete the body of vitamins and minerals, such as zinc and thiamin. These deficiencies can lead to depression, aggression, or irritability (Harbottle, 2011). Research suggests that out of all of the mental illnesses, there is a connection between depression and a poor diet. Specifically, a diet high in saturated and trans fats, processed foods, and foods low in vitamins and minerals.

Lastly, society tends to believe that being deficient in vitamins or minerals means being underweight. In reality, individuals can be deficient and be of a healthy weight, obese, or

underweight. The CSWE (2014) indicated that hunger or a lack of access to healthy food could lead to a variety of physical illnesses along with depression, aggression, or other mental health issues. Simply being aware of how deficiencies are related to mental illness can be beneficial to social workers in practice.

**Nutrition and physical/mental health.** Current literature indicates that physical and mental health and nutrition are related. Nutrition influences physical health. Physical health has an impact on mood, self-esteem, and mental health (Newton, 2013). More specifically, nutrition directly impacts the neurotransmitters of the brain, or brain functioning (Tran, 2014). Mental health can also impact nutrition. For example, individuals struggling with depression may have a lower appetite, therefore consuming fewer nutrients. Deficiencies in vitamins or minerals could increase ongoing depression (Harbottle, 2011). Current research has found a link between poor nutrition and severe mental illness (Clark, Bezyak, & Testerman, 2015). Overall, nutrition, physical health, and mental health are all interwoven. They cannot be separated like they currently seem to be in the field of social work. Having a basic understanding of nutrition and physical health aids in effectively treating mental illness.

**Benefits of eating healthy.** There are numerous benefits involved with healthy eating. Individuals can prevent or reduce mental illness with an increased consumption of fruits and vegetables (Dog, 2010; Harbottle, 2011; Tran, 2014). A better overall mood is another byproduct of healthy eating. Another benefit is for ongoing mental illness, such as ADHD. Furthermore, symptoms of ADHD may respond to supplementation of certain nutrients (Charlton, 2015). Finally, a nutritious diet may have several long-term benefits. Healthy eating may prevent or delay cognitive decline (McNaughton, Crawford, Ball, & Salmon, 2012). The Mediterranean Diet has been known to be beneficial for the aging population due to its emphasis

on fish, vegetables, and oils. These food groups protect the brain against neurodegenerative diseases (Charlton, 2015). It seems that research has not been able to document whether or not social workers were aware of these benefits, or whether or not they had integrated related knowledge into practice.

**Maternal diet.** Research focuses heavily on maternal diet. Horton (2013) has noted that maternal diet impacts the child throughout their childhood. Prenatal and postnatal diet impacts a child's mental health. Specifically, vitamin supplementation during pregnancy helps the child develop critical organs in a healthy way (Yousafzai, Rasheed, & Bhutta, 2013). Maternal diet is an area that social workers could further examine or explore, but it is unknown whether or not they do. Research primarily has been on the Women, Infant, and Children (WIC) Supplemental Nutrition program (Gjesfjeld, Weaver, & Schommer, 2015; Tabb et al., 2015).

### **Populations Most Researched**

The populations most researched were children, families, and the elderly. By far, children were the most researched out of the three. Children and the elderly are both vulnerable populations in relation to nutrition. Nutritional status of both populations will have a large impact on their future life trajectories. Nutritional requirements of children and the aging population are very different (Rizzo & Seidman, n.d.).

**Children and families.** Current literature primarily focuses on children, families, nutrition, and social work. There are a few domains that current research highlights 1) child protective services, or welfare work and nutrition; 2) nutrition in schools, and 3) nutrition in home settings.

The ongoing child obesity crisis and food insecurity drive current research on children, families, and nutrition. There were numerous programs throughout the literature that were

attempting to combat the obesity crisis in middle and high schools (Diehl, 2014; Heo et al., 2016; Hoying, Melnyk, & Arcoleo, 2016; Melius, 2013; Newton, 2013; Pappas, Ai, & Dietrick, 2015; Towery, Nix, & Norman, 2014; Walther et al., 2014). All programs had a positive impact on students in some way – physically, mentally, or emotionally. For example, Diehl (2014) found that students improved physically after participating in a HealthCorps program. Specifically, stress levels were lower than before HealthCorps, blood pressure improved, and flexibility increased. Other programs found an increase in nutrition-related knowledge, increase in healthy eating behaviors, and a decrease in depression or anxiety (Heo et al., 2016; Hoying, Melnyk, & Arcoleo, 2016).

Food insecurity among children is the other major area. Food insecurity can impact school performance just as much as obesity, which is why schools are analyzing the effects of food insecurity (Fram et al., 2014; Martinez & Kawam, 2014). Research suggests that children or adolescents tend to hide the issues due to embarrassment, shame, guilt, and stigma surrounding food insecurity (Fram et al., 2014). As a result, teachers, counselors, or other school staff may be unaware that an issue exists. Bernel et al. (2014) observed that food insecurity in children is associated with altered activities, school absenteeism, and stunting. Due to social workers' special value and skill set, school social workers or other social workers could be gatekeepers in combatting food insecurity and other issues associated with food insecurity (Sherman, 2016).

Literature has identified many factors that contribute to poor nutrition in children and families. Common contributors may include but are not limited to: skipping meals, lack of physical activity, the cost of healthy food, access to healthy food, lack of nutrition-related knowledge, and many other factors (Casey, Cook-Cottone, & Beck- Joslyn, 2012; Diehl, 2014;

Edwards & Cheely, 2016; Fram et al., 2014; Heo et al., 2016; Hoying, Melnyk, & Arcoleo, 2016; Juby & Meyer, 2010; Martinez & Kawam, 2014; Melius, 2013; Newton, 2013; Pappas, Ai, & Dietrick, 2015; Sealy & Farmer, 2011; Tanihata et al., 2012; Towery, Nix, & Norman, 2014; Walther et al., 2014; Wen, Tchong, & Ching, 2015). However, current research has been lacking on how social workers are currently taking action to combat issues of child obesity and food insecurity Juby & Meyer, 2010; Melius, 2013; Pappas et al., 2015.

**The aging population.** The aging population was the second most emphasized group in the literature on nutrition and social work. One of the major issues with the elderly and nutrition was malnutrition. Older adults may not be able to cook or shop for themselves, there may be a lack of nutrition-related knowledge, or they might have a lack of supports (Rizzo & Seidman, 2016). The aging population could be battling a physical or mental illness that impacts their eating behaviors. Jih et al. (2016) incorporated culture and nutrition with the aging population, and addressed that different cultures may have very different eating habits, perspectives on nutrition, or diet. Overall findings have shown that older adults lack in nutrition education, physical activity, fruit, and vegetable consumption, which all impacts quality of life (Jih et al., 2016; McNaughton et al., 2012; Rizzo & Seidman, 2016). So, it is obvious as to what the issues are regarding the aging population and nutrition, but it is not documented how or if social workers are addressing these issues, for instance, working in the interdisciplinary team, making referrals, or facilitating nutrition-related wellness activities (Casey et al., 2012; Diwan, Perdue, & Lee, 2016).

## **Programs**

There are two categories of programs throughout the current literature on nutrition and social work. One is food assistance programs, which are known nationwide. The second is

nutrition programs, which are with smaller groups of individuals. The nutrition programs have primarily been implemented in schools or communities, whereas the food assistance programs target larger, more diverse groups of people in the United States.

**Food assistance programs.** Food assistance programs are programs which help individuals, families, children, and communities gain access to food. However, there are several barriers to accessing food, especially healthy foods. The food assistance programs that will be discussed only help with the financial aspect of obtaining food. As mentioned previously, barriers to food may include geographic location, lack of transportation, the cost of food, and many others.

Juby and Meyer (2010) discussed food assistance programs related to children and families, including the National School Lunch Program and the Fresh Fruit and Vegetable Program. The National School Lunch Program allows families that are struggling financially to have their children's lunches discounted or free, and families with several children in school especially benefit from it (Tran, 2014). The Fresh Fruit and Vegetable Program is in place to combat the ongoing child obesity epidemic (Juby & Meyer, 2010; USDA, 2016).

Other studied food assistance programs are WIC and the Supplemental Nutrition Assistance Program. WIC is in place to help those nutritionally at risk, such as low-income women, especially those that are pregnant, breastfeeding women, infants, and children (Juby & Meyer, 2010; Tran, 2014; USDA, 2015). The Supplemental Nutrition Assistance Program was formerly known as the Food Stamp Program. It is essentially the same concept as WIC, but it serves a larger population. It caters to low-income families and adults so that they can meet their basic food-related needs (Leung et al., 2015; Tran, 2014; USDA, 2016).

The food assistance programs relate to nutrition and social work in several ways. Case management often utilizes federal programs. Furthermore, they are major programs that social workers utilize in practice, and are prevalent in the current research focusing on nutrition and social work (Juby & Meyer, 2010; Leung et al., 2015; Tran, 2014).

**Nutrition programs.** Current research has shown that nutrition-related programs are on the rise, especially in schools. Schools are targeted because of the child obesity crisis, increasing mental illness among children or adolescents, and the fact that many children eat two of their three meals at school. All programs in current research seemed to be beneficial for children's physical health, mental health, or stress levels (Diehl, 2014; Heo et al., 2016; Hoying, Melnyk, & Arcoleo, 2016; Pappas, Al, & Dietrick, 2015; Towery, Nix, & Norman, 2014). The participants of nutrition-related programs also receive some nutrition education. Overall results have shown that program participants increase their intake of healthy foods and have an increased understanding of health and nutrition afterward (Diehl, 2014; Heo et al., 2016; Hoying, Melnyk, & Arcoleo, 2016).

Nutrition programs have also targeted individuals with severe mental illness. Clark, Bezyak, and Testerman (2015) found that a hands-on cooking class with demonstrations was beneficial for participants. Nutrition-related knowledge, shopping behaviors, and cooking abilities improved after being in the program. Nutrition programs are another area related to social workers. However current research does not adequately document such a practice and issues around it.

### **How Social Workers Are Taking Action**

There are few studies conducted on how social workers integrate nutrition into practice. There are some conflicting statements in the literature on social work collaboration with

nutritional specialists. Rizzo and Seidman (2016) have reported that social workers often collaborate with nutritional specialists when working with the aging population. On the other hand, Shor (2010a; 2010b) indicated that social workers do not collaborate enough when it comes to nutrition.

The biggest two areas where social workers are taking action is in psychoeducation and connecting clients with resources (Casey et al., 2012; Jih et al., 2016; National Association of Social Workers [NASW], 2016). An example of psychoeducation in this area is educating clients about the benefits of healthy eating and exercise (Jih et al., 2016). As for connecting with resources, social workers often assist clients in finding food pantries (Yao et al., 2013).

Huskamp (2013) provided the most noticeable observation on how they integrate nutrition into practice, and the findings were various yet not conclusive. The majority of participants indicated that there is a nutrition section on the intake and assessment forms. Some social workers stated that they are not responsible for the nutritional domain of client's lives. Others go for a holistic approach, integrating yoga, deep breathing, or exercise into their practice. All of these findings indicate that there needs to be more research in the area of nutrition and how social workers *currently* integrate it into their practice.

### **Recommendations for Social Workers**

The majority of current literature on nutrition and social work focuses on what social workers should be doing, rather than what they are doing about nutrition-related issues. Since most of the research focused on children or adolescents, the majority of recommendations targeted those populations. However, research has also suggested that social workers improve upon their knowledge of nutrition in social work practice.

There are several settings where social workers practice with children – in schools, home visits, family counseling, or individual counseling. Research suggests that social workers should be more involved with nutrition in the school setting (Edwards & Cheely, 2016; NASW, 2016; Newton, 2013). School social workers should be more involved because school is where some children eat most of their meals. Several studies indicate that social workers are beginning to take action in some way. Social workers are increasing nutrition-related education; working to improve nutrition programs for children; advocating for at-risk children; increasing prevention work, and addressing stigma related to obesity or food insecurity (Edwards & Cheely, 2016; Juby & Meyer, 2010; Lawrence, Hazlett, & Abel, 2012; NASW, 2016; Newton, 2013).

Outside of working with children and adolescents, there are many other actions social workers should take. Social workers should have a basic understanding of nutrition-related concepts as it could be relevant to any specialty of social work, especially with children, the elderly, or individuals with severe mental illness. Social workers should increase their collaboration with nutritional specialists; utilize a holistic approach in practice in order to serve the client's best interest; increase emphasis on "bio" in the biopsychosocial assessment; increase nutrition-related involvement in the community, and assist with nutrition-related policymaking (Acevedo, 2014; CSWE, 2016; NASW, 2016; Shor, 2010a; 2010b; Siefert, 2013; Simulation IQ, 2013; Tran, 2014; Yousafzai et al., 2013). All of these recommendations make it appear as though social workers are doing little to nothing about nutrition in practice. However, there is a lack of research to show what social workers are doing, or have done in the past.

## Gaps in Literature

There are several gaps in the current literature on social work and nutrition. These gaps include, but are not limited to 1) populations researched; 2) social work practice; and 3) social work education. These gaps

**Populations researched.** Regarding social work and nutrition research, there are two populations in the spotlight over all other populations: children and the elderly. Both of these populations are important and at risk for poor nutrition. However, it is unknown where adults, other than pregnant women, stand regarding nutrition. Furthermore, there is not research on whether there are nutritional issues that social workers should address or be aware of with adults and nutrition. Lastly, while a lot of the research seemed to focus on the child obesity crisis, obesity as a public epidemic affects more than children. Adults are also struggling with obesity; physical issues associated with obesity; mental health related impacts of obesity; and stigma associated with obesity.

**Social work practice/evaluation.** Nutrition and social work practice is the biggest gap in the current literature. There were few studies on how social workers integrate nutrition into practice. The studies that do exist were small scale, limited by geographic location, or culture. Current research has focused too heavily on what social workers should be doing in practice, rather than documenting and analyzing actions taken regarding nutrition and social work practice. It would be beneficial to understand how social workers incorporate nutrition into practice because physical health, mental health, and social equality correlates with diet in many different ways.

There is a lack of evaluation regarding social work and nutrition. Since there is a gap regarding social work practice and nutrition, a gap in evaluation is unavoidable. If social

workers are incorporating nutrition at the micro, mezzo, and macro levels, the impact is unknown. Current research has only focused on evaluating the impact of specific nutrition programs, usually those facilitated in middle or high schools. Overall, there needs to be an increase in the analysis of nutrition and social work at all levels. One of the starting points could be in social work education. Evaluation of social work education about nutrition could also help with understanding how many social workers know about nutrition, whether they would be comfortable incorporating nutrition into practice, or where they stand on the subject.

**Social work education.** Similar to social work practice, there is also a gap in the literature on nutrition and social work education. There were no studies focusing on nutrition education in social work curriculum, although, studies recommend that social workers increase their basic understanding of nutrition. A foundational understanding of nutrition concepts may allow social workers to understand and appropriately integrate nutrition into their practice. Furthermore, social workers can better diagnose by learning the difference between mental illness and nutritional deficiency. Finally, there does not appear to be a current standard for nutrition in social work education in graduate or undergraduate social work programs. There is no evidence as to whether or not social workers attend training or take continuing education courses on nutrition.