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The Mental Health And Medication Experiences Of Youth In Foster Care

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**THE MENTAL HEALTH AND MEDICATION EXPERIENCES
OF YOUTH IN FOSTER CARE**

by

CAITLIN WATERS

THESIS

Submitted to the Graduate School

of Wayne State University,

Detroit, Michigan

in partial fulfillment of the requirements

for the degree of

MASTER OF SOCIAL WORK

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MAJOR: SOCIAL WORK

Approved By:

Advisor

Date

DEDICATION

This thesis is dedicated to children in residential foster care. You are each my motivation and inspiration.

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CHAPTER 1: INTRODUCTION

Foster care youth frequently experience maltreatment and traumatic experiences; oftentimes this leads to emotional and behavioral issues. National survey data on youth in child welfare suggests that nearly half of youth in the foster care system have clinically significant emotional or behavioral issues (Burns et al., 2004; Leslie, Hurlburt, Landsverk, Barth, & Slymen, 2004). Experiences of youth in care include abuse, neglect, domestic violence, and poverty. Youth in care often have histories of complex trauma due to abuse, neglect, domestic violence, and poverty. Greeson et al. defines complex trauma as recurrent interpersonal distressing or disturbing events early in life, oftentimes perpetuated by caregivers (2011). This definition is further defined as experiencing two or more traumatic experiences. These traumatic experiences include: sexual abuse, physical abuse, emotional abuse, neglect, or domestic abuse (Kisiel et al., 2001) Studies indicate that high prevalence of trauma exposure are associated with increased risk of negative mental health outcomes. These outcomes include, but are not limited to, internalizing issues, severe post-trauma stress, and at least one psychological diagnosis (Greeson et al., 2011).

Many foster care youth are medicated due to the complex trauma they experience. These youth are documented to be medicated at two to three times the rate as their non-foster peers (e.g. Leslie et al., 2011; Zito et al., 2003). In addition to the high rates of medication prescription to address symptoms of mental disorders, research has depicted that prescription of multiple medications (polypharmacy) is also a common occurrence in foster care. Zito and colleagues (2008) assert that most foster youth are prescribed two or more medications and multiple medication classes were being prescribed for the same psychiatric diagnoses.

Polypharmacy is an increasingly utilized practice that may lead to overmedication. Overmedication can broadly be defined as exceeding the recommended dosages for psychotropic medications per the standards set forth by the FDA. Yet these guidelines do not go far enough, especially when practices of polypharmacy are in use. States having varying and changing standards of what overmedication looks like for youth in care. There is also concern that psychiatric medications are prescribed to youth as a behavioral control rather than to reduce symptoms of mental disorders. In one study, two-thirds (67.2%) of clinicians believed that medications were often used as a substitute for other treatments (Moses & Kirk, 2006). Other research suggests reducing medications does not increase the incidence of misconduct (Bellonci et al., 2013); yet there continue to be high prevalence rates of youth on medications in residential treatment facility and foster placements.

Importance of the Study

Although there is research around rates of prevalence, polypharmacy, and medication utilization in foster care placement (Leslie et al., 2011; Zito et al., 2008), there are few studies that use case file review of child welfare records to understand the relationship between medication use and negative behaviors. This relationship is important to study because the incidence of negative behavior leads to placement instability (Rubin et al. 2004). Huefner et al. (2012) uses case file review to assess medication utilization rates in relation to a treatment progress checklist. In this study data was collected from a secure intensive residential treatment center for youth ages 7-18. Huefner et al. (2012) sampled data from the first two weeks and last two weeks of behavior while in residential treatment. While this methodology provides a snapshot of pre and post services, it does not provide a time-lapsed view of behavior change.

National attention to these concerns has prompted policies to promote informed consent and understanding of medication management procedures, yet little research has been conducted specific to youth experiences of polypharmacy or overmedication. This study will help to fill an important gap in research around polypharmacy efficacy in youth in foster care and medication reduction efficacy.

Purpose of the Current Research

The proposed study seeks to answer the question: What procedures and practices have been performed related to medication use and behavior management in residential treatment facilities? Specifically, this study seeks to understand how youth experience mental health and medication services and determine the relationship between decreased medication use and incidence of negative behavior.

CHAPTER 2: LITERATURE REVIEW

Mental health is an important aspect of the overall health of any population. Mental health is an area of particular interest in a vulnerable population such as foster care youth due to increased incidence of violence and abuse. Nearly seventy five percent of youth entering foster care exhibit behavioral and social problems that warrant mental health services (Landsverk et al. 2006). Due to the complexity of trauma experienced by youth in foster care, youth are likely to experience placement instability (Rubin et al. 2004). A review of the literature will help elucidate the issues around the mental health services of youth in foster care and the multitude of mental health experiences that are an integral part of this lived experience.

Mental Health and Trauma

The experience of child maltreatment can profoundly affect emotional and behavioral outcomes. Chronic abuse has a direct effect on the mental health and psycho-social outcomes of foster youth such as substance abuse, criminal justice involvement, and lack of education (Garcia et al., 2015). Greeson et al. (2011) examined trauma histories, trauma exposure, and posttraumatic stress, and behavioral and emotional problems with 2,251 youth in foster care. Seventy percent of the youth had experienced complex trauma or multiple interpersonal trauma resulting in emotional, behavioral, interpersonal, psychological, and cognitive dysregulation (Cook et al., 2005). Youth with complex trauma presented with much higher rates of internalizing behaviors, and symptoms consistent with clinical diagnosis (Greeson et al., 2011). Also, the rate of posttraumatic stress was found to be 1.5 times higher for youth who experienced complex trauma. Complex trauma must be taken into consideration when assessing the mental health needs of foster youth. Youth in foster care may present more behaviors as a result of the trauma they have experienced. With this in mind, physicians possess much diagnostic discretion

and should be cautious with diagnosis and consider the ecological and historical factors which impact diagnosis and related treatment. Among foster care youth, presenting issues are a significant predictor of psychotropic medication prescription (Warner, Song, & Pottick, 2014); an understanding of whether complex trauma factors into the root causes of presenting problems would serve to increase the efficacy of the prescribed treatment.

Garland and colleagues (1996) focused attention on the relationship between maltreatment experiences and the mental health service utilization of youth post-placement. More than 700 youth who were in placement at least 5 months, were assessed with the Child Behavior Check (Achenbach, 1991) and caregiver interviews. Data for frequency of service utilization, types of maltreatment, and patterns of maltreatment were also collected. In their findings, the most common maltreatment experienced was neglect and caregiver absence, which was experienced by 40% of the youth sampled. Though the pattern of neglect and caregiver absence occurred most frequently within the sample, mental health service utilization occurred at the lowest frequency rate for this maltreatment type. Youth who experienced abuse (physical, sexual, or otherwise) presented with higher rates of mental health services utilization ($\chi^2(4) = 44.26$).

Overall results indicate that youth in foster care have a 56% mental health service utilization rate within six months of removal from placement, which is 10 times the rate for youth that have not been placed in foster care. Researchers suggested that this service utilization might be indicative of foster care youth having multiple maltreatment experiences that have had a compounding effect (Garland et al. 1996). They further note that complex maltreatment experiences put youth at higher risk for maladaptive outcomes post-removal from foster care. While the Garland et al. study was conducted with a large sample size, it is limited in that it only

accounts for the experiences of youth in San Diego, California and may not be applicable to other geographic locations. Furthermore, there is not an agreed upon way to access service utilization data and, also, there a varied range of operational definitions for mental health services.

Youth in foster care are also impacted by placement instability and possible ongoing exposure to abuse, which has an impact on their mental health. Separation from families can be a traumatic experience compounding the initial trauma maltreatment. Garcia et al. (2015), using the Composite International Diagnostic Interview tool, interviewed 1,068 foster care alumni to assess the effects of adverse childhood experiences on mental health outcomes. Findings demonstrate the correlation between traumatic experiences such as placement instability and a higher likelihood of a psychiatric diagnosis. Furthermore, findings indicate that poor mental health of a parent and chronic abuse have a damaging effect on the mental health of foster care alumni. This study garnered important themes of foster care youth with regard to mental health. Though these findings provide a base of knowledge from a specific foster care treatment model, the experiences in this placement may not reflect those of youth in alternative placements.

Assessment and Intervention

Complex trauma is experienced by many foster care youth, and its effects on mental health are significant it is imperative to have access to appropriate assessment and treatment for trauma experienced by foster youth.

Diagnosis. Scozzaro and Janikowski (2015) randomly selected 200 case files of youth placed in foster care and created a survey for the respective caseworkers to complete regarding the mental health of youth on their caseload. Of the 200 case files selected, 128 caseworkers returned a completed survey for the selected files. Data from mental health diagnosis indicated

that 59% of the sample population had a mental health diagnosis. This rate is consistent with research findings over the past two decades, and is much higher than the estimated 13-20% of the population of youth in the US, who have a mental health diagnosis (National Research Council and Institute of Medicine, 2009). The researchers noted that the current body of research indicates that 33% of the youth in foster care population have three or more mental health diagnoses (Scozzaro and Janikowski, 2015).

Warner, Song, and Pottick (2014) collected data from youth receiving outpatient mental health care across the United States in a federally funded study that used a two-stage sample design. For their weighted sample of 92,810 youth in foster care, 99.6% were diagnosed with at least one psychiatric diagnosis. Behavior disorders among youth in foster care were diagnosed as the primary diagnosis for 34.9% of their sample (Warner et al. 2014). As a limitation of using Medicaid data, only claims payable were included in their sample. Foltz and Huefner (2014) sampled 74 youth placed in residential foster care, of which all of the youth sampled had at least one psychiatric diagnosis. Although samples in these studies varied they indicate the high rate of psychiatric diagnosis among foster care youth.

As much as half of the U.S. population meets diagnostic criteria for one or more mental health disorder, at least once in their life span (Kessler & Wang, 2008). The Diagnostic and Statistical Manual for Mental Disorder (DSM) provides a common language for diagnosis, yet diagnosis itself can be subjective. This may be due to a therapist's concept of how symptoms should present, often without consideration of criteria that would exclude a child from diagnosis (Bruchmüller, Margraf, & Schneider, 2012). To negate this kind of subjectively, Bruchmüller, Margraf, and Schneider (2012) suggest further training to help avoid unnecessary biases in diagnosis. Achenbach (2007) urges the importance of multiple assessment sources such as

caregivers, teachers and children. This collaborative approach can ensure youth are being diagnosed appropriately, where consideration is given to genetic makeup.

Treatment. Although multicomponent treatment best addresses the mental health needs of youth (Scozzaro & Janikowski 2015) psychiatric medication often remains a first-line method of treatment. Data from psychotropic medication use from Scozzaro and Janikowski's (2015) study indicated that 42% of their sample received medication as the only form of treatment. Only 25% of youth in various foster care placements were receiving both counseling and psychotropic medication concurrently.

The general U.S. population of youth receive psychotropic medication at a rate of only 4%, yet Warner, Song, and Pottick (2014) found that in a weighted sample of the 92,810 youth in foster care, 73% were prescribed one or more psychotropic medication but only 56.8% were receiving individual therapy in addition to medication. Foltz and Huefner's (2014) study found an even higher rate of usage; of the 74 foster care youth in their sample, 86.6% were prescribed at least one psychotropic medication, with 6.8% of youth in receipt of five or more medications. These rates noted in the literature are significantly higher for foster care youth than non-foster care youth. The researchers raised a question regarding the use of disparate assessments for youth in care versus youth not in care. Implications of this study include a pressing need for increased use of evidence-based treatments in least restrictive environments to promote positive outcomes for foster care youth. This study provides a solid base of data with findings that are comparable to national studies.

Psychotropic Medication Prescription

The use of psychotropic medication for youth in foster care is a common and increasing practice subject matter encompasses prevalence rates, safe and efficacy, adverse effects, and use of polypharmacy practices.

Prevalence rates. In surveying the research around rates of medication among foster care youth, various milieus have been studied including group homes, therapeutic foster care, non-familial foster care placement, and residential facilities. In a study examining both youth in therapeutic foster care and foster youth in group homes facilities found that youth in group homes are more likely to be prescribed psychotropic medications than their therapeutic foster care peers. Breland-Noble et al. (2004) sampled 304 youth of which 184 were in therapeutic foster care and 120 resided in group homes. They found that the use of psychotropic medication was more frequent among youths under the age of 13. They found that of the youths placed in therapeutic foster care 67% were taking psychotropic medications and 77% of youths in group homes were actively taking psychotropic medications. Though this study sampled both therapeutic and group home foster care youth, the difference across the two groups can only be speculated. The sample population also included a large subsample of severely disturbed youth, of which the study findings could not be generalizable to other residential settings.

Zito et al. (2003) assessed Medicaid data of psychotropic medication use for a 10 year period from 1987 to 1996 for 900,000 youth under the age of 20. In their sample of Medicaid enrollees from a Midwestern state, they found a 2-fold increase of psychotropic medication use during the decade studied, with a prevalence rate of 28.3% in 1987 to a prevalence rate of 62.6% in 1996. In their sample of Medicaid enrollees from a mid-Atlantic state, they found a 3-fold increase, with a prevalence rate of 18.4% in 1987 to a prevalence rate of 61.6% in 1996. This

research is crucial to the literature due to the sample population being both large and spread out over the totality of 2 U.S. states, which greatly increases the ability of the findings to be generalized to the population as a whole. Further, the longitudinal nature of the study is helpful in identifying the trend toward increased psychotropic medication usage among youth. The trend they noted in their conclusions was that throughout the 1990s, psychotropic medication utilization rates among youth nearly reached adult utilization rates during the same period. While these data provide a comprehensive addition to the research knowledge base, the rates may have changed since this study was conducted.

Safety/efficacy. High rates of medication prescription has caused more attention to be placed on the safety and efficacy of these medications for youth. In a study using National Ambulatory Medical Care Survey data, Olfson, Blanco, Liu, Moreno, and Laje (2006) found that between 1996 and 2000 the number of youth on Medicaid prescribed second-generation anti-psychotic medications increased by 494%, and 160% for first-generation antipsychotic medications. In light of this dramatic increase in second-generation antipsychotic use, Olfson and colleagues (2006) further data from the National Ambulatory Medical Care Survey, in 2000 to 2002, that medications accounted for 92% of medications prescribed to youth in office-based practice. The researchers claim that there have been some recent clinical trials that provide some support for short-term use of second-generation antipsychotics for psychosis and disruptive behavior, however the researchers did not provide information regarding those clinical trials (Olfson et al. 2006). Typical practice for youth psychotropic medication prescription is based on studies and clinical experience for off-label use. Practicing evidence-based medicine should be used to provide research-proven treatments (Brown, 2005).

Adverse effects. In a study about atypical antipsychotic use among youth in Canada, Panagiotopoulos, Ronsley, Elbe, Davidson, and Smith (2010) reviewed 42 randomized clinical trials, finding five main areas of concerns regarding the use of atypical antipsychotic medications of youth. The authors found that youth taking atypical antipsychotics had rapid increase in waist circumference, which is an indicator of possible metabolic syndrome. In clinical trials of olanzapine, clozapine, risperidone and quetiapine there was report of diabetes and diabetic ketoacidosis in youth (Panagiotopoulos et al. 2010). Significant also, is that their review of clinical trials found that atypical antipsychotics promote insulin resistance in youth. Lipids are also another area of concern with evidence demonstrating an increase in cholesterol in youth prescribed olanzapine and quetiapine. In clinical trials, youth ages 13 or older are more likely to develop incident hypertension (Panagiotopoulos et al. 2010).

Youth taking atypical antipsychotics are more likely to develop metabolic syndrome, which is when obesity is present with two other compounding factors present such as high blood pressure, high triglycerides, low HDL- cholesterol, or high fasting glucose. Panagiotopoulos and colleagues' (2010) study provides a large body of information based on the comprehensive review of over 40 randomized clinical trials. The researchers note that while there is a preponderance of evidence refuting the efficacy of atypical antipsychotics with youth, there are many other psychotropic medications, commonly prescribed, that are of interest particularly in relation to their effects on youth (Panagiotopoulos et al. 2010). This study also brings to light that many of these medications, while they may work for symptom management in the short-term, have little or no empirical backing for long-term use in youth populations.

Adverse effects are possible with any psychotropic medication, but more health concerns are present when potent or multiple psychotropic medications are being prescribed to youth

(Huefner, Griffith, Smith, Vollmer, & Leslie, 2014). Research offers a sobering look into the detrimental effects psychotropic medication can have. Cummings (2012) cited some of the risks of taking psychotropic medications ranging from constipation, restlessness, and fatigue. Of the more serious complications caused by psychotropic medications are impaired motor skills, convulsions, liver damage, and suicidal thoughts. More rarely these medications can cause tardive dyskinesia, which is a neurological disorder presenting with involuntary movements of the face, mouth, tongue, and jaw.

Polypharmacy. Many topics are coalesced around this issue of increased psychotropic use including the practice of polypharmacy (the practice of using multiple psychiatric medications for a single diagnosis) or concomitant psychotropic medication use (utilizing the multiple classes of medications for a diagnosis). In a 2011 study conducted by the Government Accountability Office of the six selected states across the US, it was found that the prescribing of psychotropic medications to youth in foster care did not meet established guidelines of American Academy of Child and Adolescent Psychiatry. An extensive study was conducted assessing Medicaid data from a sample of 472 foster care youth between the ages of 0 to 19 from a southwestern US state. Zito et al. (2008) found that of the foster youth who were dispensed psychotropic medications, 41.3% received three different classes of these medications during the year sampled, and 15.9% received four different classes of medications concomitantly. In their findings concomitant use of psychotropic medication, where three or more drug classes were prescribed, varied little by diagnosis. The researchers suggest that this finding raises a question of whether the medication is being prescribed on the basis of diagnosis or on the basis of symptom presentation.

In a therapeutic foster care sample of foster care youth, Brenner, Southerland, Burns, Wagner, and Farmer (2004) assessed the medication use of 240 youth through foster parent surveys. The targeted youth ranged in age from 2 to 21 years old. Surveys recorded medication use of youth within the last two months of care. Among the sample youth, 142 (59.1%) took a psychotropic medication within the last two months with 86 (60.6%) reporting taking two or more medications. Among youth on psychotropic medication, approximately 40% were on one medication, 36% were on two, and 25% were on three or more. There was a high use of polypharmacy practices among this sample.

This phenomenon of polypharmacy was also reiterated in another recent study that found that youth experience of antipsychotics was one of polypharmacy, where many youth had exposure to several classes of psychotropic medications (Murphy et al., 2015). Interviews were conducted with youth who had recent experience of taking antipsychotics. They were asked question regarding their medication use. Many themes arose from the interviews ambivalence in regards to medication use, desire for alternatives and gaps in support. Foltz and Huefner (2014) cite that there is no evidence to support the use of three or more psychotropic medications in youth. The authors further raised concerns regarding polypharmacy and the increased likelihood of adverse events, competing neurochemical influences, and unknown outcomes for youth (Foltz & Huefner 2014). The authors even went further to note that the practice of polypharmacy should be carefully re-evaluated until safety can efficacy can be established (GAO, 2011).

Management/Stability

Management of mental health disorders in foster care must include explicit informed consent, appropriate use of psychotropic medication, and adherence to policy and guidelines to protect this vulnerable population. Appropriate monitoring and informed consent are also

important considerations with psychotropic medication prescription. Experts with the U.S. Government Accountability Office (GAO; 2014) were enlisted to review 24 case files from five states across the U.S. They assessed appropriateness of medication and dosage, justification for concomitant medication prescription, informed consent practices, use of evidence-based therapies, and oversight. In their findings, 13 of the 24 cases indicated appropriate prescription monitoring by medical professionals, nine cases were partially monitored and two cases provided no evidence of monitoring. Evidence for appropriate dosage among case files showed that 13 files had supportive evidence for dosage, while 11 cases were only partially supported by documentation. Findings indicate that only five of the 20 cases utilizing practices of concomitant medication use were mostly supported and 14 cases documented only partial support of concomitant psychotropic medication prescription (GAO, 2014). Among informed consent data, 11 cases provided partial documentation for informed consent, while seven cases provided no documentation of informed consent occurring. Evidence-based therapy use was determined to be mostly provided in only three of the 15 cases (GAO, 2014).

Naylor et al. (2007) examined psychotropic medication consent and oversight for child welfare-involved youth, through open-ended questionnaires sent to officials responsible for mental health and medical policies or services in 29 states. Eight states require legal guardian or parental consent, seven states require caseworker authorization, and six states require a court order. The role and responsibilities for psychotropic medication management have not been clearly defined, which complicates informed treatment (Cummings, 2012). Data collected for psychotropic medication oversight indicate that 11 states have implemented monitoring programs for psychotropic medication use while three states have created databases to monitor psychotropic medication use. Naylor et al. 2007 discussed that improved oversight could have

positive effects for continuity of care, placement stability, reduced need for hospitalization, and decreased incidence of drug reactions and interactions.

Behavior management. Many foster youth exhibit externalizing behaviors which can be disruptive and impact placement stability. Newton, Litrownik, and Landsverk (2000) assessed the mental health experiences of youth in care to examine the relationship between negative behaviors and placement instability. Their sample included 415 participants who remained in care for at least five months from 1990 to 1991. They utilized The Child Behavior Check List (Achenbach, 1991) to assess behavior problems. Information regarding change of placement was taken from case records for the first 18 months after entering into care. Findings indicate a correlation between placement instability and behavior problems of the 415 youth surveyed. Their findings suggest that unstable placement histories have an effect on internalizing and externalizing behaviors. Among the entire sample, externalizing behaviors were seen to be the strongest indicator of placement change. These findings help elucidate problem behaviors presented within the foster care treatment milieu in relation to stability of placement. Though this study did assess a year of data, further longitudinal studies need to be conducted to understand placement stability further.

Other research has examined the relationship between medications and behaviors. Bellonci et al. (2013) sampled 531 youth who were admitted to two residential treatment programs. Level of medication was recorded at time of admission, then medication levels were assessed at time of departure. The researchers created four categories: medication reduction, medication maintenance, no medication, and medication increase to understand the changes in medication use over the course of the youths' stays. Medication use data were compared to the data collected for occurrence of assaultive behavior and physical restraints. Their findings

indicate that the medication reduction group had the most substantial reduction in both assaults and physical restraints. There was an average of 1.8 fewer psychological assaults and 1.1 fewer physical restraints found in the medication reduction cohort (Bellocini et al. 2013). The sample consisted of youth who were referred from higher levels of care and presented with a history of assaultive behavior. The sample population was drawn from two separate treatment milieus, one in the Midwest and one in New England (Bellocini et al. 2013). While these findings were taken from a residential treatment program, they may not be generalizable to other treatment milieus.

In a study conducted by Huefner, Griffith, Smith, Vollmer, and Leslie (2014), 228 youth were sampled from 2005 to 2007 at an intensive residential treatment center. Their findings indicate that medications can be reduced for most youth without increased emotional and behavioral problems. Among the population sampled, personal restraint was decreased significantly for all groups except the medication increase group (Huefner et al. 2014). Important implications of this research demonstrate the efficacy of necessary medication reduction. While this study provides preliminary evidence of medication reduction efficacy, these reductions occurred within a clinically-direct psychoeducational treatment environment. Further research needs to be conducted to show if this phenomenon is consistent within other treatment milieus. An important factor to be considered in a discussion of medication reduction is the principle of sufficiency, which states treatment should involve minimally sufficient intervention (Huefner et al. 2014). The goal of sufficiency is to solve a problem without creating dependency or consequences. One way to practice sufficiency may be through medication reduction, prescribing the least amount of medication necessary to achieve a desired treatment goal (Huefner et al. 2014).

Policy/Guidelines

Understanding the factors affecting the mental health use of youth in foster care, it is crucial to ensure an increased level of safe guards for this population. An important policy for protocols and monitoring of medications for youth in foster care emerged in 2011 with the passage of the Child and Family Services Improvement and Innovation Act. This act calls for increased monitoring and complete documentation of services rendered by physicians to foster care youth. The general principles of psychotropic medication prescription in a youth population include (AACAP, 2001a, 2001b, 2004; Crismon et al., 2007):

- A comprehensive evaluation before the medication prescription
- A DSM-IV-TR psychiatric diagnosis before prescription
- Counseling or psychotherapy should occur concurrently
- Target symptoms and treatment goals should be identified
- Consider side effects and benefit-to-risk ratio
- Informed consent prior to medication use
- Mental health and treatment literacy provided to patient and caregivers
- All side effects documented
- Appropriate monitoring of indices and labs
- One medication change at a time
- Dosage should start low and increased carefully
- Appropriate clinician follow-up

Michigan guidelines. Congruent with an increased need for monitoring Michigan has implemented guidelines for psychotropic medication use with the foster population. The Michigan Department of Health and Human Services (DHHS, 2015) explicitly states that

psychotropic medication may never be used as a behavior management tool outside of a therapeutic goal. Prior to medication prescription youth must have a current physical, a mental health assessment, and an appropriate information process explaining the purpose and effects of medication use (DHHS, 2015). These implemented DHHS guidelines which were created by the Texas Department of Family and Protective Services and The University of Texas at Austin College of Pharmacy. These guidelines provide a base level direction for medication use. If these guidelines are exceeded, the medication regimen will be reviewed by a DHHS medical consultant (Crimson et al., 2007). Medication regimens requiring review due to exceeding guidelines include:

- prescribed four or more concomitant psychotropic medications
- prescribed two or more concomitant anti-psychotics
- prescribed two or more concomitant mood stabilizer medications
- prescribed two or more concomitant anti-depressants
- prescribed two or more concomitant stimulant medications
- prescribed two or more concomitant alpha agonist medications
- prescribed psychotropic medications in doses above recommended dose

These guidelines set forth are a starting point to address the mental health and medication use disparities between foster youth and their peers. While the current guidelines provide for some level of monitoring of psychotropic medication use, further policies and guidelines are needed to ensure the protection of foster youth.

The multiple service systems experiences by foster care youth present challenges for the diagnosis and treatment of mental illness in foster youth. To address the disparities present in medication use and prevalence rates further research is needed. The safety of youth in foster care

is paramount. Guidelines around medication utilization only begin to bridge the gap of disparity experienced by foster care youth.

CHAPTER 3: METHODOLOGY

The objective of this study is to understand foster care youth's mental health and psychotropic medication use while in care. Observing the medication use and the presentation of negative behaviors may provide insight into practices of medication management and mental health support that impact youth in foster care. This study seeks to answer the question: what are foster care youth's mental health and medication use while in placement? Specifically, this study seeks to observe the relationship between decreased medication use and incidence of negative behavior. This study uses quantitative research methods to observe the relationship between medication use and presentation of negative behavior for foster youth in residential placement.

Participants

After receiving IRB approval (Appendix A), case files of foster youth were reviewed (n=27). Using a convenience sample, 27 foster care case files were drawn from all discharge youth who have resided in placement at a residential foster care facility in an urban city in a mid-west state. This facility is home to 8-12 residents at one time and is an all-female facility. Youths placed at this agency are between the ages of 11-18, and it has been in existence since February, 2014. The study site serves youth with legal statuses including temporary court wards and permanent court wards.

Instrument

A case record review tool (Appendix B) was used for quantitative data collection. Data collected includes demographics, medication use, conduct and incident reports, diagnosis and change in diagnosis. All of the data collected was for the duration of time they spent in care at the agency. Demographics included date of birth, date of intake, date of discharge, length of time in out of home placement, number of previous placements, number of previous psychiatrist,

number of previous counselors, number of previous hospitalizations, gender, and race/ethnicity. Medication use was collected for dosage of each medication recorded by milligrams. Data was collected each time a medication changed, including the new dosage of each medication prescribed. Number of conduct reports were collected by month and incident reports were recorded based on category of the incident. These categories include: incident, accident, illness, medication, and AWOL reports. Data for each report type was collected by month for the duration of time in care at the agency.

Data Analysis

After case file data was collected with the case record review tool, data was analyzed using SPSS. For data analysis descriptive statistics and non-parametric bivariate analysis was used to observe medication use and mental health in foster care youth. The dependent variable was number of conduct reports. The independent variables were number of medication at intake and number of medications at the end of the observation period. For analysis, the number of medications prescribed was dichotomized to create a variable with only two categories (Field, 2009). With dichotomizing a new set of nominal variables and number of conduct reports written was observed for analysis. For these variables, the non-parametric Mann-Whitney test was used to observe the differences between two samples (Field, 2009). The study collected descriptive statistics on diagnosis at intake, number of diagnoses, change in diagnosis, medication at intake, medication changes, number of conduct reports, and number and kind of incident reports.

The collection and analysis of the case record review data will serve to understand current practices employed around medication use in residential foster care.

CHAPTER 4: RESULTS

Twenty-seven case files were reviewed for this study. Descriptive statistics were run on specific case review questions to include participant's demographics, diagnoses at intake, diagnosis change, number of medications at intake, number of conduct reports, and number of incident reports.

Demographics

All of the participants were female ($N = 27$), with 72% ($N = 18$) being African American. Participants ranged in age from 9 to 18 years old with a mean age of 14.75 ($SD = 2.17$) with 83% ($N = 26$) of participants between the ages of 13 and 18. The number of years in out-of-home foster care ranged from less than a year to 16 years, with the average 4.52 years ($SD = 4.92$). Of these years spent in out of home foster care, participants spent from 0-19 months residing at the agency with an average stay of 4 months ($SD = 4.72$). This is a first foster placement for four participants; although the mean number of previous placements was 8.42 ($SD = 8.00$), and one youth had 29. Please refer to Table 1 for additional demographic information.

Table 1

Sample Characteristics Distribution (N=27)			
Variable	<i>M(SD)</i>	Frequency	Percent
Age	14.75(2.17)		
Years in Foster Care	4.52(4.92)		
Number of Previous Placements	8.42(8.00)		
Number of Month At Agency	4.00(4.72)		
Race/Ethnicity			
	African American	18	62.06
	Asian	2	6.89
	White/Caucasian	6	20.68
	Latino/a or Hispanic	1	3.44
	Multiracial	2	6.89

Diagnosis at Intake

A frequency distribution shows the mental health diagnosis at intake in Table 2. There were a total of 62 total diagnoses at intake including 14 different diagnoses, as categorized by the Diagnostic and Statistical Manual of Mental Disorders (DSM-5). Diagnosis categories included: disruptive, impulse control, and conduct disorders; personality disorders & mood disorders; depressive disorders; trauma and stress disorders; anxiety disorders; neurodevelopmental disorders; and bi-polar and related disorders. The most frequent diagnoses at intake were post-traumatic stress disorder (PTSD) (N = 12) and mood disorder with (N = 10) diagnoses at intake. Other prominent intake diagnosis include attention deficit hyperactivity disorder (ADHD) (N = 8) and oppositional defiant disorder (N = 7).

Table 2

Frequency Distribution of Intake Diagnosis (N=26)		
Variable	Frequency	Percent
Disruptive, Impulse Control, and Conduct Disorders		
Oppositional Defiant Disorder	7	10.94
Conduct Disorder	5	7.81
Intermittent Explosive Disorder	1	1.56
Disruptive Behavior Disorder	1	1.56
Personality Disorder		
Borderline Personality Disorder	1	1.56
Mood Disorders		
Mood Disorder	10	15.63
Depressive Disorders		
Major Depressive Disorder	3	4.69
Depression	2	3.13
Dysthymic Disorder	2	3.13
Trauma and Stress Disorders		
PTSD	12	18.75
Adjustment Disorder	3	4.69
Reactive Attachment Disorder	1	1.56
Anxiety Disorders		
Anxiety Disorder	1	1.56
Neurodevelopmental Disorders		
ADHD	8	12.50
Bi-Polar and Related Disorders		
Bipolar Disorder	5	7.81
No Diagnosis	2	3.13

The number of diagnoses at intake varied from no diagnosis (N = 2) up to 5 diagnoses (N = 1). In this sample 69.23% (N =18) of participants had two of more diagnoses, and eight participants who had four of more diagnoses.

Change in Diagnosis

There were no more than one change in diagnosis for each participant during the duration of care at the agency. There were a total of 14 changes in diagnosis. The most common was an additional diagnosis of PTSD in 21.43% (N=3). Other diagnosis changes included the diagnosis

of ADHD, Bi-Polar, Conduct Disorder, and Major Depressive disorder occurred in less than 15% (N=11) of cases during a diagnosis change.

Psychotropic Medications at Intake

The number of prescribed psychotropic medications ranged from none to four. Most clients were prescribed two psychotropic medications 26.92% (N=7) zero medications 26.92% (N=7). The medications participants were receiving at intake varied greatly. There were a total of 20 different psychotropic medications prescribed at the time of intake with a total of 45 psychotropic medication prescribed to 20 participants at the time of intake. As indicated in table 3, these medications were categorized by class: stimulants, anti-psychotics, anti-depressants, mood stabilizers, and anti-hypertensive agents. The anti-hypertensive category encompassed one medication that was a non-stimulant used to treat ADHD. The most common medications prescribed, were Aripiprazole (Abilify; N = 6), Trazadone (N = 7), and Quetiapine (Seroquel; N = 4). Sixty four percent (N = 32) of medications did not change during the course of care at the agency. Twenty percent (N=10) decreased in dosage and 16% (N=8) increased in dosage during the observation period. Two of the ten residents who experienced medication changes, had three or more medication changes over the observation period.

Table 3

<i>Frequency Distribution of Psychotropic Mediations Prescribed At Intake (N=26)</i>		
Class	Name	Frequency
Stimulants		
	Amphetamine	1
	Methylphenidate	2
	Lisdexamfetamine	1
Anti-psychotics		
	Aripiprazole	6
	Quetiapine	4
	Lurasidone	3
	Olanzapine	1
	Risperidone	2
	Haloperidol	2
	Fluphenazine	1
Anti-depressants		
	Citalopram	2
	Fluoxetine	1
	Imipramine	2
	Sertraline	1
	Trazadone	7
	Vilazodone	1
Mood Stabilizers		
	Lithium	2
	Valproate Semisodium	1
	Benzotropine	3
Anti-Hypertensive		
	Guanfacine	2
No Medications		7

Behavior Reports

At this agency, there were two forms of reports used to record behavioral incidents. Conduct reports were used to report any negative behavior, while incident reports were used to report events including: incidents, accidents, illness, medication errors, and absence without legal permission (AWOLP).

The agency opened its doors to serve foster youth February 2014, serving three clients. In 2014, there were a total of 15 conduct reports reported for three different participants. As the size of the agency increased, so did the number of conduct reports. The agency's capacity grew as referrals were accepted for admits. In 2015, there were 97 conduct reports from a total of 12 participants, with an average of eight reports per participant. Conduct reports can serve as one indicator of externalizing behaviors of youth.

As described in Table 4, there were two years of incident reports reviewed for previous residents. While there were 61 incident reports in 2014, there was a slight increase to 69 reports in 2015. Incident reports, classified as incident, accident, illness, medication errors, and other decreased by nearly half from 2014 to 2015 (43 to 26 reports, respectively). There also were slightly more AWOLP the first year at eight reports, compared to five in 2015. The location of the incidents is consistent across both years, with 50 in 2014 and 59 in 2016 taking place at the residential agency setting. Reports for medication errors increased from 3 in 2014 to 17 in 2015.

Table 4

<i>Frequency Distribution of Incident Reports</i>		
Variable	2014	2015
Type of Report		
Incident	43	26
Accident	3	5
Illness	3	6
Medication Error	3	17
AWOLP	8	5
Other	1	0
Location of Report		
Residential	50	59
School	9	4
Other (Appointment, Home Visit)	2	6

Bi-variate Analyses

The data collected was examined using non-parametric testing to observe the relationship between given variables. Non-parametric testing fit for this study because the statistical procedures that do not rely on the assumption of normal sampling distribution (Field, 2009). The Mann-Whitney test used to look at the differences between two independent samples (Field, 2009).

Medication Prescription at Intake. In 2014, the number of conduct reports ($Mdn = 0$) did not differ significantly from those participants who were taking medication at intake ($Mdn=2$) $U= 60.50$, $z= -.723$, ns , $r= .14$. Furthermore, in 2015, the number of conduct reports ($Mdn= 0$) did not differ significantly from those participants who were not taking medication at time of intake. $U= 65.50$, $z= -.274$, ns , $r= .05$.

Medication Prescription at Discharge. In 2014, the number of conduct reports ($Mdn = 0$) did not differ significantly from those participants who were taking medication at discharge ($Mdn=2$) $U= 79.50$, $z= -.106$, ns , $r= -.02$. Furthermore, in 2015 the number of conduct reports ($Mdn= 0$) did not differ significantly from those participants who were taking medication at discharge $U= 80.50$, $z= -.028$, ns , $r=-.01$.

CHAPTER 5: DISCUSSION

This study was designed to observe the use of psychotropic medication and incidence of conduct reports among youth in residential foster care. Observing the use of medication and incidence of conduct both raise concern and provide insight into the experience of youth in care.

Diagnosis

There were two main variables that evaluate diagnosis, both at intake and at discharge. There were 64 diagnoses at intake and an additional 14 diagnoses prior to discharge. The two most prevalent diagnoses at intake were post-traumatic stress disorder (N =12) and mood disorder (N =10), which is consistent with previous research with this population (Floersch et al. 2009). In the current study, diagnoses were mainly changed during hospitalization. Information on diagnoses was limited during case file review, because many files did not have previous psychiatric evaluations present, especially when residents were temporary court wards. Few records reviewed held previous mental health history beyond the last psychiatric evaluation.

Many of the participants experienced comorbidity, which is the occurrence of two or more simultaneous diagnoses. The occurrence of comorbidity was about 70% (N =18) in this study. In Foltz and Huefner (2014), the rate of comorbidity was upwards of 90%. This large disparity between studies could be attributed to the larger sample size in Foltz and Huefner's study (2014), who observed a total of 48 participants who received residential treatment. This finding is important because it is consistent with literature indicating that youth in care experience comorbidity at higher rates than their non-foster care peers (Foltz & Huefner, 2014). The typical occurrence of multiple diagnoses for youth in care may be due in part to the inconsistent and often disrupted mental health services for youth in care.

Medication Dosage and Use

This study found high rates of medication prescription as well as practices of polypharmacy, which is described as prescription of multiple medications concurrently and is more common among foster care recipients (Zito et al. 2008). 342 or 73% of foster youth were prescribed two or more medications from multiple medication classes for the same psychiatric diagnoses. This is consistent with findings in other studies of foster youth in group homes where 77% of youth were prescribed psychotropic medication (Breland-Noble et al. 2004). The findings in this study show a typically lower rate of polypharmacy than similar studies. A study conducted by Brenner et al. 2004 found that 61% of youth in their sample were taking two or more psychotropic medications, while this study recorded a rate of only 54%. Similarly, findings from another study show a polypharmacy rate of nearly 70% (Foltz & Huefner 2014). This may be due in part to a higher rate of psychiatric diagnosis among foster care youth; this study may have showed a lower incidence of polypharmacy due to a high admittance of temporary court wards.

Conduct and Incident Reports

Conduct reports are one indicator use to assess to occurrence of negative behavior while in care. In this study, there were much lower rates of conduct reports in 2014 than there was in 2015. In 2014, there were 15 conduct reports and in 2015, there were 97 conduct reports. This may be in part to the greater number of residents as the agency grew, although it is notable that two residents amassed over 15 conduct reports each for a total of 39 incident reports in 2015. Further investigation may be useful to categorize the type of conduct report. While this kind of categorization is not provided for on the conduct report form itself, it may provide greater information into what kind of misconduct is occurring.

There was a similar occurrence of incident reports in 2014, and 2015, (61, 69 respectively). In 2015 there were 17 medication errors as opposed to 3 reports for the previous year. This maybe an underreporting for 2014, but an interesting finding. The vast majority of incident reports were occurring at the residential facility, as opposed to at an appointment, home visit, or a school setting. There were nine incidents reports at school in 2014, this may be due in part to some residents attending school off campus, which was curtailed in 2015. Although information was collected from incident reports, these reports span across multiple categorizations. Further investigation is needed into the incident reports to understand if these incidents were related to misbehavior. Due to the fact that most of the categories of incident reports would not report misbehavior.

Bi-variate Analysis

Utilizing non-parametric data analysis the findings indicated that there was no statistical significance between use of medication at intake and at discharge, in relation to the number of conduct reports. The findings suggest that the number and aggregate dosage of medications each participant was prescribed does not impact the occurrence of conduct reports among youth in this observational study, which is consistent with Bellonci et al. (2013) who found that decreased assaults and physical restraints were not correlated with decrease in psychotropic medication. While there was not a statistically significant correlation found the medication reduction group experienced the most reduction in assaults and restrains, their findings support this with 1.8 fewer assaults and 1.1 fewer restraints in their sample population (Bellonci et al. 2013). These reductions may be due in part due to extraneous variables for example short length of stay and multiple placements which is experienced by many youth in foster care. Although the sample in this study was small the investigation into this relationship is important to understand how

medication affects behavior, specifically to understand if medication reeducation reduces occurrence of conduct reports. Given a larger sample size, a significant relationship may exist between number of medications and number of conduct reports. Further investigation is needed into what variables may facilitate these concurrent reductions.

Limitations

Although this study was able to observe mental health and medication use for foster care youth, there are limitations that caution interpretation of findings. As a descriptive study, this study reviewed the mental health and medication use while in residential care. Due to the small sample size of 27 participants, statistics were limited to non-parametric statistics. This small sample size was due to the nature of the facility. The residential facility is a private facility which as a part of its mission keeps resident admission below 12 residents at a time. This factor limited the amount of participants available in a two year observation period. This residential facility has only been in operation since February 2014, and is only a preliminary view of previous residents at this facility. With a longer observation period, more participants would be included in the sample size that could have yielded more case file reviews. Furthermore, it was determined that only previous residents would be included in this study, to protect confidentiality of those residents currently at the facility. If current residents been included parametric statistics could have been used.

Choosing to participate with a homogenous female only residential facility eliminated the opportunity for the observation of mental health and medication use among the male population in foster care. This study also utilized only quantitative case file review which does not address the nature of foster care youth mental health experiences. With use of qualitative methods, the experience of medication use and mental health experience in care may be better understood.

Quantitative data is limited in its ability to explore the nuance behind the number which could be used to further elucidate the research question. As a part of the case file review there were a few variables that were included on the tool but were not collected due to the data not being available in the case file reviews is expected. These variables of numbers of previous counselors, psychiatrists, and hospitalizations may have provided insight into mental health history and should be examined in future research.

Social Work Implications

The results of this study provide a look into mental health and medication use for youth in care. Although the findings from this study were not statically significant, the descriptive statistics described in this study provide a preliminary base of information and direction for future studies. The findings provide important implications into social work practice, policy, and social work education.

Practice. There are important implications from this study for social work practice. In this study there was a high rate of polypharmacy. Seven youth were taking two or more psychotropic medications concurrently. The occurrence of polypharmacy among youth is common, yet there is efficacy and safety questions. To address these safety concerns, practitioners should take an active role in medication management, along with prescribing psychiatrists, to ensure medications are prescribed when necessary but not overprescribed. Utilizing sufficiency, “treatment should involve the minimally sufficient intervention to solve a problem without creating dependency or unwanted consequences” (Huefner et al. 2014, pg.682). Counseling should always be used as a first line course of treatment, especially when medications are being utilized.

Findings from this study indicate high levels of PTSD diagnosis. As an implication of these findings, creating a comprehensive training around PTSD symptoms, treatment and effective interventions would be beneficial to the sample population. Caregivers need to be educated about the symptoms of PTSD to better recognize and respond to the effect of trauma these youth have encountered. Clinical staff need to be trained in evidence-based interventions for adolescents in order to effectively work with this population. Caregivers need to be trained in how to effectively assist youth in manage symptoms. This training ensures that both care givers and clinicians have appropriate knowledge of the primary diagnosis of this residential population. Evidence-based training provides a base of knowledge for the behaviors management instead of relying on medications alone.

Policy. Nationally efforts have been made through the 2011 Child and Family Services Improvement and Innovation Act (AACAP, 2005). This act created policy for protocols and monitoring of medications for youth in foster care. These provision help narrow the gap between the pattern of medication use for youth in foster care placement and their non-foster peers. The implemented guidelines involve proper evaluation, diagnosis, statement of goals, informed consent, documentation of side effects, proper dosing, and clinician follow up (AACAP, 2001a, 2001b, 2004; Crismon et al., 2007).

In this study's findings youth experienced an average of eight placements during their time in care. Improved oversight could have positive effects for continuity of care, placement stability, reduced need for hospitalization, and decreased incidence of drug reactions and interactions (Naylor et al. 2007). Youth placed in foster care would benefit from a consistent interested party, for managing multiple services, this agent would ensure the safety and well-being of the child throughout the duration of their time in care. This is often not the case with

high turnover rates with workers, placements, and limited interaction with GAL and judges. A consistent party would provide further protection of youth in care particularly, their mental health and well-being.

Michigan has already adopted guidelines for psychotropic medication use to ensure adequate oversight for children in care, which includes a mechanism for medication review if guidelines are exceeded (DHHS, 2015). For Michigan to be able to appropriately enforce these guidelines there needs to be allocation of monies to these oversight committees. These policies in Michigan are as follows:

- prescribed four or more concomitant psychotropic medications
- prescribed two or more concomitant anti-psychotics
- prescribed two or more concomitant mood stabilizer medications
- prescribed two or more concomitant anti-depressants
- prescribed two or more concomitant stimulant medications
- prescribed two or more concomitant alpha agonst medications
- prescribed psychotropic medications in doses above recommended doses

There can be many barriers to creating more oversight of psychotropic medication. For implementation to occur there must be resources allocated to enhance consent and finance oversight processes. Resources need to be created such as practice guidelines, formularies, and information on policies and procedures.

Social work education. There are two important implications of the study relating to social work education. First, findings demonstrate the importance of considering human behavior in the social environment. Symptoms of mental health do not occur in isolation, but are impacted by environment. The outside environment is encompassing and not limited to relationships with

family, peers, and romantic relationships. This would also include broader relationships with schools, institutions and the community. This education would understand a youth in care in the context in which they reside. This theoretical training teaches the importance of understanding the social environment from which these youths come from. All of the variables reviewed in this study are situated within this expansive context of the social environment experienced by each youth in care. Understanding the implications of human behavior in social environment can help social workers to understand that there are a multitude of experiences that has facilitated this youth in care residence. This would help prepare future social workers in more effectively working with children who been involved in multiple systems of care and underscore the importance of cross system collaboration.

Recommendations for Future Research

Further research is needed with a larger sample of foster youth to understand if there is a relationship between medication use and incidence of misconduct. While a quantitative study provides statistical numerical evidence and possible correlations, there is also a need to understand the mental health and medication experience from the youth's perspective. The findings of this study indicating high rates of medication use and multiple diagnoses, which could be further understood through qualitative methods. Understanding the youth's experience of medication management, experience of side effects and the youth's concerns about their use of medication while in care, may provide greater insight in mental health experience of foster youth. A mixed methods study would help elucidate the experiential part of mental health and medication use for youth. Using both quantitative and qualitative methods would help researchers to understand medication rates and statistical significant while concurrently using an interview or a focus group with foster care youth to give first hand insight into their mental

health experiences. The quantitative data can be triangulated with the qualitative, to gain further understanding of medication use and mental health services in care.

Additionally, research providing an intervention such as mindfulness would be a useful tool to understand not only medication use in this population but other non-pharmaceutical interventions to assist in the healing or the trauma many foster youth have experienced (Coholic & Eys, 2016). There is a limited body of research available regarding the use of mindfulness with foster care youth. Researching alternative interventions and understanding the effect experienced, could lead to the development of evidence-based practices around mindfulness interventions. Providing more holistic means to care for traumatized individuals. These practices may also reduce the number of medications foster youth are prescribed.

This exploratory study provides a brief examination of mental health and medication use of foster care youth. Findings from this study provide a starting point for focusing on vulnerable populations involved in multiple service systems of care, enabling a greater understanding of what having mental health and well-being can be for this population.

APPENDIX A
IRB Approval of Research Study

**WAYNE STATE
UNIVERSITY**

IRB Administration Office
87 East Canfield, Second Floor
Detroit, Michigan 48201
Phone: (313) 577-1628
FAX: (313) 993-7122
<http://irb.wayne.edu>

NOTICE OF EXPEDITED APPROVAL

To: Caitlin Waters
Social Work Instruction Un

From: Dr. Deborah Ellis or designee D- Ellis / 2-2
Chairperson, Behavioral Institutional Review Board (B3)

Date: February 16, 2016

RE: IRB #: 014216B3E
Protocol Title: The mental health experiences of youth in foster care: perspectives from foster care alumni and caregivers
Funding Source: Unit: Graduate School
Unit: Social Work Instruction Un
Protocol #: 1601014586

Expiration Date: February 15, 2017

Risk Level / Category: Research not involving greater than minimal risk

The above-referenced protocol and items listed below (if applicable) were **APPROVED** following *Expedited Review* Category (#7)* by the Chairperson/designee for the Wayne State University Institutional Review Board (B3) for the period of 02/16/2016 through 02/15/2017. This approval does not replace any departmental or other approvals that may be required.

- Revised Protocol Summary Form (revision received in the IRB office 02/05/16)
- Research Protocol - Thesis (received in the IRB office 1/11/16)
- Medical records are not being accessed therefore HIPAA does not apply
- A waiver of consent and waiver of written documentation of consent for chart review has been granted according to 45CFR 46 116(d) and 45CFR 46 117(c) and justification provided by the Principal Investigator in the Protocol Summary Form. This waiver satisfies: 1) risk is no more than minimal, 2) the waiver does not adversely affect the rights and welfare of research participants, 3) the research could not be practicably carried out without the waiver and 4) providing participants additional pertinent information after participation is not appropriate.
- A waiver of written documentation of consent has been granted according to 45CFR 46 117(c) and justification provided by the Principal Investigator in the Protocol Summary Form. This waiver satisfies: 1) risk is no more than minimal, data are survey responses with minimal risk content, 2) That the research involved no procedures for which written consent is normally required outside the research context, consent would not be required for these procedures outside the research context. 3) The consent process is appropriate, 4) An information sheet disclosing the required and appropriate additional elements of consent disclosure will be provided to participants.
- Research Information Sheet (revision dated 1/29/2016)
- Internet / Social Media Recruitment message
- Study Flyers (2): i) Foster Care Alumni flyer, ii) Caregivers for youth living in residential care flyer
- Data Collection tools (3): i) Interview Guide: Foster Care Alumni from House of Providence, ii) Interview Guide: Caregivers at House of Providence and iii) Qualtrics Survey

* Federal regulations require that all research be reviewed at least annually. You may receive a "Continuation Renewal Reminder" approximately two months prior to the expiration date; however, it is the Principal Investigator's responsibility to obtain review and continued approval **before** the expiration date. Data collected during a period of lapsed approval is unapproved research and can never be reported or published as research data.

APPENDIX B
Case Record Review

Default Question Block

Case Record Review Form

Unique Identifier

Month of Birth

Year of Birth

Date of Intake

Date of Discharge

Length of time in out-of-home placement

 Years

<https://waynestate.az1.qualtrics.com/CP/Ajax.php?action=GetSurveyPrintPreview>

APPROVED

FEB 16 2016

WAYNE STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD ^{1/7}

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1/10/2010

 Months Days

Number of:

Previous placements

Previous psychiatrists

Previous counselors

Previous hospitalizations

Gender

Male

Female

Race/Ethnicity

Black or African American

American Indian/Alaska Native

Asian

Hispanic or Latino(a)

Two or more races

Native Hawaiian/ Pacific Islander

White/Caucasian

Unknown/Unable to Determine

Mental Health Diagnosis/Changes

			Oppositional		
	Bipolar	Anxiety	Defiant	Conduct	
ADHD	Disorder	Disorder	Disorder	Disorder	Schizophrenia



Date of Intake/Diagnosis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>						
Date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>						
Date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>						
Date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>						
Date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>						
Date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>						

Psychotropic medication/changes

	Alprazolam	Aripiprazole	Benzodiazepine	Bupropion	Buspiron
Intake Date	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>					
Date	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>					
Date	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>					
Date	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>					
Date	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>					

Click to write the question text

Click to write Choice 1

Click to write Choice 2

Click to write Choice 3

Number of Conduct Reports 2014

January	<input type="text" value="0"/>
Feburary	<input type="text" value="0"/>
March	<input type="text" value="0"/>
April	<input type="text" value="0"/>
May	<input type="text" value="0"/>
June	<input type="text" value="0"/>
July	<input type="text" value="0"/>
August	<input type="text" value="0"/>
September	<input type="text" value="0"/>
October	<input type="text" value="0"/>
November	<input type="text" value="0"/>
December	<input type="text" value="0"/>
Total	<input type="text" value="0"/>

Number of Conduct Reports 2015

January	<input type="text" value="0"/>
Feburary	<input type="text" value="0"/>
March	<input type="text" value="0"/>

April	0
May	0
June	0
July	0
August	0
September	0
October	0
November	0
December	0
Total	0

Incident Reports 2014

	Types						An
	Incident	Accident	Illness	Medication	AWOL	Enter Text here	
January	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
February	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
March	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
April	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
May	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
June	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
July	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
August	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
September	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
October	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
November	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
December	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Incident Reports 2015

	Types					Enter Text here
	Incident	Accident	Illness	Medication	AWOL	
January	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
February	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
March	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
April	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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ABSTRACT
THE MENTAL HEALTH AND MEDICATION EXPERIENCES
OF YOUTH IN FOSTER CARE

by

CAITLIN WATERS

May 2016

Advisor: Dr. Megan Hayes Piel

Major: Social Work

Degree: Master of Social Work

Nearly half of children in the child welfare system have clinically significant emotional or behavioral issues (Bums et al., 2004; Leslie et al.,2004), and are medicated at higher rates than their non-foster peers (e.g. Leslie et al., 2011; Zito et al.,2003). Research shows prescription of multiple medications is also a common occurrence in foster care. The proposed study seeks to answer the question: what are foster care youth's mental health and medication use while in placement? This research employs a quantitative descriptive study to examine medication and conduct reports for foster youth in a residential placement. Findings suggest there is no correlation between medication use and conduct reports, although further research is needed to understand what impact medication has on conduct and placement stability. Understanding medication use and the presentation of behaviors provides insight into practices of medication management and mental health support, which impacts youth in care.

AUTOBIOGRAPHICAL STATEMENT

Caitlin Waters is from Harrison Township, Michigan where she graduated from Cardinal Mooney Catholic College Preparatory High School. Thereafter, she pursued her Bachelor's degree in Sociology from Oakland University, where she graduated in 2011. In May, 2016, she will receive her Masters degree in Social Work from Wayne State University. In the coming years, Caitlin plans to continue her education at Wayne State University to obtain a Doctorate Degree in Social Work. After graduating she plans to focus on research around policy development for foster care mental health.