

5-1-2016

# Factors that affect recidivism for psychiatric patients in emergency departments

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## Recommended Citation

Polits, Meghan, "Factors that affect recidivism for psychiatric patients in emergency departments" (2016). *Doctor of Psychology (PsyD)*. 217.  
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Factors that Affect Recidivism for Psychiatric Patients in the Emergency Department

by

Meghan Polits

Presented to the Faculty of the

Graduate Department of Clinical Psychology

George Fox University

in partial fulfillment

of the requirements for the degree of

Doctor of Psychology

in Clinical Psychology

Newberg, Oregon

May, 2016

Factors that affect recidivism for psychiatric patients in the emergency department

Meghan Polits, M.A.

has been approved

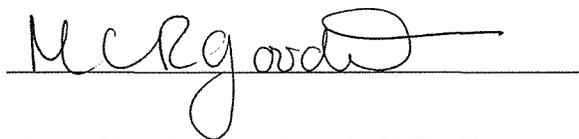
by the

Graduate School of Clinical Psychology

George Fox University

As a Dissertation for the PsyD Degree

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Factors that Affect Recidivism for Psychiatric Patients in the Emergency Department

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**Abstract**

Hospital recidivism for suicidal, homicidal, and psychiatric patients is a burden on the medical system due to the high cost associated with each visit. Factors affecting psychiatric patients in the Emergency Department (ED) in two rural hospitals in the Pacific Northwest were assessed using data routinely collected at intake in an effort to determine patient risk factors for repeat visits. Additionally, patients identified as repeat visitors were assessed for any significant differences in how quickly they were readmitted. Logistic regression results indicate having a diagnosis of a psychotic disorder or bipolar disorder, being uninsured or on Oregon Health Plan insurance (i.e., a proxy for poverty), and a referral to outpatient services are significant predictors

that a patient will return to the ED at least once. However, there is only a small likelihood of a second visit. Linear regression results indicate no significant factors predict how quickly a patient will return to the ED. Understanding these predictive factors may help inform future practice and ED consultation.

Keywords: recidivism, recidivism rates, psychiatric recidivism, high-risk patients, suicidal, homicidal, psychotic, emergency department, emergency room, hospital, psychiatric, high-utilizers.

### **Acknowledgments**

This project's completion and success would not have been possible without the amazing support and mentorship I received along the way, for which I am very thankful. First, I want to thank my husband, Jeff Polits, for your patience, comfort, and encouragement throughout this long process. I could not have made it through this experience without your love and support. I would also like to thank my mother, Lynne Malone, for her unending support, and for teaching me about perseverance and work ethic that challenged me to pursue this career. You are the best mom, mentor, and friend I could have ever asked for. Finally, thank you to my friend Kate Speck, who has been by my side encouraging and supporting me since our first day of graduate school. I will always be thankful for your friendship.

To my committee chair, Marie-Christine Goodworth, PhD, I want to sincerely thank you for your guidance, the many hours you devoted to helping me complete this project, and for being the best mentor I could have hoped for throughout this process. Your passion for the profession and your commitment to the development of your students is evident, and I am so grateful for all you have done to get me where I am. I would also like to thank my committee for their contributions, without which this project would not have been possible. Thank you Kathleen Gathercoal, PhD, for your expertise and patient guidance along the way. Finally, thank

you Mary Peterson, PhD, for this research opportunity and for the consistent support you provided me.

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## **Chapter 1**

### **Introduction**

#### **Impact of Recidivism**

The impact of repeat-visits of psychiatric patients in the Emergency Department (ED) setting and other settings has been a focus of research in past years. Though there is a good deal of research of recidivism in different settings including the ED, the impact of recidivism on psychiatric patients in medical EDs is sparse. This could be due to access to mental health services, which contribute to creating barriers to mental health treatments and, ultimately, increased recidivism. Bobo et al. (2004) defines “repeat users” as individuals who receive two or more inpatient hospital admissions. Recidivism, particularly in emergency departments, is shown to be a burden on the system in terms of financial resources and burnout and stress for hospital staff. Among the research concerning psychiatric recidivism, studies differ in a number of important ways, including: how recidivism is defined, what factors are assessed and found to be significant, duration of the study, amount of repeat visits, how long from initial visit recidivism takes place, where the study takes place, and research design. The aim of this study is to identify factors that affect ED recidivism for psychiatric patients in the ED overall, as well as length of

time between ED visits, and will compare the results found with other studies to make conclusions more widely generalizable. More specifically, this study aims to understand recidivism for psychiatric patients in the ED in order to predict high utilizers in an effort to remediate the problem.

### **Cost of Recidivism**

It is clear that the impact of the increasing number of mental health patients in hospital and ED settings is a burden on the system. Bobo et al. (2004) found that a relatively small number of repeat patients account for a disproportionately high number of inpatient bed-stays. Patients who visit the ED more than once increase the difficult hospital workload, and these patients continue to visit despite previous interventions (Dhossche & Ghani, 1998). Repeat patients account for many of the hospital admissions and use a disproportionately high amount of available resources, making it difficult to keep up with other single-visit patients. Emergency room visits in general have increased 23% in 10 years, from 1997 to 2007 (Niska, Bhuiya, & Xu, 2010). Reducing recidivism would drastically cut costs of hospital emergency room visits, and leave more available resources for one-time patients. Emergency room physicians have expressed concern that the increased number of mental health patients is negatively impacting access to healthcare for all patients, causing longer wait times for patients, and frustration felt by

both staff and patients (Salinsky & Loftis, 2007). In addition, at-risk individuals often use the ED as their primary place to receive healthcare (Dhossche & Ghani, 1998).

In addition to the overloaded system, the financial strain of psychiatric ED visits is increasing and has become a burden on the system as well. In 2010, an estimated 6.4 million emergency room visits were due to a mental health condition or substance abuse (Creswell, 2013). Patients who visit the emergency room with a primary diagnosis of a mental health condition or substance abuse are projected to cost general hospitals \$38.5 billion this year (Creswell, 2013), and when adjusted for inflation the cost would be about \$40 billion today. The cost of these patients has nearly doubled since 2003 (Creswell, 2013). Over 26% of American adults have a diagnosable mental disorder, and many of these individuals have comorbid disorders (National Institute of Mental Health [NIMH], 2013), indicating there is a high need for mental health care accessibility. When looking at this issue projectively, the financial cost of treating these individuals is rising and it is a reasonable assumption that the cost will continue to rise with time if no new interventions are implemented.

Many of the patients seen by the Behavioral Health Crisis Consultation Team (BHCCT), a team of behavioral health consultants who assess/evaluate patients at two rural Oregon hospital emergency departments, are admitted for suicide attempts or suicidal ideation. In addition to the

actual ED visit, treatment costs include any hospital services utilized such as inpatient physician costs and transport to the hospital (The Cost of Suicide, 2010). The average cost of a patient who attempted suicide and was taken to the hospital for assessment and treatment is estimated to be \$13,690 per patient, and can be as high as \$68,150 (Yang & Lester, 2007), and when adjusted for inflation would now cost between \$14,205 and \$70,716. According to Yang and Lester (2007), there is a great societal cost of treating suicidal individuals due to psychological and psychiatric treatment, medical care due to attempted suicides, and lost labor force during their attempt period. Most suicidal individuals have a depression diagnosis and many have co-occurring mental health disorders, which are likely chronic and therefore costly to treat. Over the course of a lifetime, it will be costly to treat these individuals as they will incur financial strain on the system from ED visits, treating their psychiatric disorders, paying pensions, and the cost of nursing homes (Yang & Lester, 2007). In addition, the number of mental health patients treated in EDs increased from 6.4% in 2002 to 7% in 2008 (Chakravarthy et al., 2013). Psychiatric EDs often see underprivileged patients. Homelessness and low SES may affect the recidivism rate in particular hospitals (Dhossche & Ghani, 1998). Homeless individuals are found to be almost twice as likely to visit the ED as individuals living in private residences (Niska et al., 2010), making them a vulnerable population for ED use. Additionally, many of the underprivileged

patients seeking care in the ED are uninsured, thus contributing to the overall cost of repeat patients, as the system will be responsible for the financial cost of the uninsured patient and any aftercare they may need.

### **Factors Affecting Recidivism**

Past literature describes a variety of factors that affect psychiatric recidivism in a hospital setting. For instance, certain studies have focused on specific factors that contribute to repeat stays over both short and long periods of time. Some studies have found correlations between recidivism and gender, some on psychiatric diagnosis, some on length of stay, demographic information, and many studies focus on several factors which may affect repeat visits. Some studies look at recidivism generally over a period of time, such as Dhossche and Ghani (1998) examine recidivistic factors over a 7-month period in one suburban psychiatric emergency room, whereas others, such as Aubin (2004) and Craig, Fennig, Tanenberg-Karant and Bromet, (2000) compare recidivism over three specific periods of time. A comparison of the different bodies of research indicates that many factors affect recidivism of high-risk patients in hospitals depending on the setting and other aspects. Some trends have been found to affect repeat visits across studies, though many studies look at such differing variables that it is unclear what the common factors affecting recidivism are across different hospital settings. Though this topic is widely

researched, this study will focus on finding the similarities and differences in recidivism rates and factors that affect recidivism at two rural hospitals in Oregon, as compared to other studies.

A comparison of the different bodies of research indicates that many factors affect recidivism of high-risk patients in hospitals depending on the setting and other aspects. Some trends have been found to affect repeat visits across studies, though many studies look at such differing variables that it is unclear what the common factors affecting recidivism are across different hospital settings. These differing factors will be addressed with studies that support the effect of each factor.

### **Demographics**

Specific demographic factors have been found to affect ED recidivism. For instance, Pfeiffer, O'Malley, and Shott (1996) analyzed data from several different studies from 1975 to 1992 and found that age of onset of illness, use of medications, and marital status are strong predictors for outcome of patients treated in a psychiatric hospital. Having a marital status of "single" (Hall, 2012; Pfeiffer et al., 1996) or "divorced" (Bernardo & Forchuk, 2001) puts people at higher risk of readmission. The impact of education levels on ED recidivism is less clear. Although Bobo et al (2004) found that having an education which is less than high school level is a risk factor for repeat use of the ED, Bernardo and Forchuk (2001) found that patients who

had a secondary school education rather than only a primary, vocational, or technical school education were more likely to be readmitted. Additionally, patients who are unemployed typically use the ED more often than those who are employed (Bernardo & Forchuk, 2001; Dhossche & Ghani 1998). Doerfler, Moran and Hannigan (2010) found that younger patients with a mean age of 40.6 were readmitted more often within 30 days than older patients with a mean age of 48.4, and also had more psychiatric hospitalizations in a one-year period. Several studies have found that males are more likely than females to have repeat visits (Bernardo & Forchuk, 2001; Pfeiffer et al., 1996), though Bobo et al. (2004) found that active duty females were at greater risk of readmission than were non-active duty females.

### **Psychosocial Stressors**

Certain psychosocial stressors put patients at a higher risk of repeat visits. Stressful life events including financial problems and interpersonal problems with family members or others, often precipitate admission to a hospital, particularly for patients admitted for suicide risk (Doerfler et al., 2010). Similarly, patients who are homeless are more likely to repeat ED visits frequently (Dhossche & Ghani 1998). Patients experiencing interpersonal problems, “such as physical abuse, family problems, and environmental stressors” (Pfeiffer et al., 1996, p. 267) are more likely to use the ED repeatedly (Doerfler et al., 2010). Individuals with a history of

childhood physical and sexual abuse have been shown to be more likely to be readmitted to the ED (Aubin, 2004). Higher risk of readmission is also true for patients whose families had low involvement in their treatment (Durbin, Lin, Layne, & Teed, 2007). Patients who had difficulty coping with their symptoms, as well as patients who had difficulty with relationships, were found to be readmitted more frequently (Bernardo & Forchuk, 2001). Doerfler et al. (2010) found that patients who were readmitted within 30 days of initial admission more often experienced serious housing problem in the week preceding their re-hospitalization.

### **Diagnosis**

Various diagnoses have been found to impact psychiatric ED recidivism, the results vary somewhat across studies. Aubin (2004) found that borderline personality disorder and psychotic disorder diagnoses correlate highly with recidivism in a partial psychiatric hospitalization program. Psychotic disorders and personality disorders have both been found to correlate with recidivism independently as well (Aubin, 2004; Bernardo & Forchuk, 2001; Bobo et al., 2004; Durbin et al., 2007; Hall, 2012). According to Dhossche and Ghani (1998, p.60), a repeat visit to the ED was “six times more likely” in patients who are diagnosed with schizophrenia. Bernardo and Forchuk (2001) found that a diagnosis of schizophrenia was the most common primary diagnosis for high utilizers, followed by personality disorder, mood disorder, and schizoaffective

disorder. Evidence on the impact of bipolar disorder is mixed. Aubin (2004) and Durbin et al. (2007), found that patients admitted more frequently to the ED included patients with a diagnosis of bipolar disorder. Contrastingly, Bobo et al. (2004) found that patients who had a diagnosis of bipolar disorder were significantly less likely to be readmitted, though “non-bipolar mood disorders” were predictive of recidivism. Those who had a diagnosis of depression also had higher rates of early readmission (Durbin et al., 2007).

Disorders with a lasting and profound effect on patient functioning would fall into the cluster of severe and persistent mental illness (SPMI). These include schizophrenia, schizoaffective disorder, bipolar disorder, and major depressive disorder (Carey & Carey, 1999). In fact, about 6% of individuals in the United States are diagnosed with a severe and persistent mental illness such as this, making the burden of prolonged treatment of mental health patients very concentrated (NIMH, 2013). Individuals with SPMI are seen frequently in the ED, as it has become their “primary point of entry into health care”, mainly because they tend to be admitted to the ED when in crisis (Brennaman, 2012). This indicates a lack of adequate resources available to these patients, and patients tend to wait until they are in crisis to seek out help for their condition. This can easily cause unnecessary strain on the system, as these patients take up resources, may stay longer due to being in crisis, and hospitals may not be equipped to provide

adequate mental healthcare and crisis management services. Galon and Graor (2012) found that even when a patient with SMPI has a good relationship with their primary care provider, they are still more likely to seek care from an ED. A study conducted by Salsberry, Chipps, and Kennedy (2005) found that of individuals with SPMI, many utilized the ED for treatment at least once over the course of their 3-year study. The researchers found that 69 percent of patient with schizophrenia SPMI went to the ED at least once, and 83% of patients with anxiety SPMI went to the ED at least once. Regardless of the specific diagnosis, it is clear that individuals who have SPMI are at a higher risk of being admitted to the ED. As the number of mental health ED visits continues to increase resulting in frustrations by ED physicians (Salinsky & Loftis, 2007), it is becoming increasingly important to find alternative resources for patients who have an SPMI diagnosis.

Pfeiffer et al. (1996) showed that patients whose disorders were more severe or who had more than one mental health diagnosis were more likely to be repeat users. Patients who had active symptoms and unstable behaviors before they were discharged from the hospital were more likely to return quickly (Durbin et al., 2007), as were patients whose symptoms were worsening (Bernardo & Forchuk, 2001). Alternatively, patients who were older when their mental health illness began were less likely to be repeat users (Bobo et al., 2004; Pfeiffer et al.,

1996). Likewise, patients with acute onset of illness were less likely to be repeat users (Pfeiffer et al., 1996). Shorter duration of illness predicted more successful outcomes for repeat visits (Pfeiffer et al., 1996). For those patients who have a mental health illness, the patients who had more severe diagnoses or symptoms were more likely to be readmitted (Durbin et al., 2007).

### **Substance Use**

Substance use in its varying forms has been shown to affect recidivism. For example, Dhossche and Ghani (1998) found that recurrent intoxication and drug seeking behavior affect recidivism. Another study found that substance abuse increases the likelihood of repeat visits in young schizophrenic patients (Doerfler et al., 2010). Several studies have also found substance abuse to be a predictive factor for readmission (Bernardo & Forchuk, 2001; Dhossche & Ghani 1998; Doerfler et al., 2010), and Bobo, et al. (2004) found even a history of substance abuse resulted in greater risk for readmission.

### **Resources and Engagement in Services**

Differing aspects of patients' available resources and their engagement in the services provided also affect recidivism. For instance, Bernardo and Forchuk (2001) found that history of admission, or being admitted previously, was the only significant difference in their study between patients who were readmitted at least once and those who were not. A strong predicting

factor for re-hospitalization in other studies was previous hospitalization (Aubin, 2004; Bernardo & Forchuk, 2001; Bobo et al., 2004; Doerfler et al., 2010; Durbin et al., 2007; Pfeiffer et al., 1996). In one study, rapid readmission of psychiatric patients, defined as readmission less than three months after patient is discharged, is associated with instability of the patient's clinical condition at first discharge as well as not prescribing specific medication for patients with psychosis (Craig et al., 2000).

For patients with psychiatric diagnoses, and for the overall population, as the length of the hospital stay decreases, the number of subsequent hospital stays increases. This is most likely due to the fact that with longer hospital stays, the patient has more time to stabilize on medication, have the most accurate diagnosis, and time for an aftercare plan to become implemented (Hall, 2012). Durbin et al. (2007) found similar results: Attending to the stability of the patient's clinical condition and better preparing them for life after they are discharged from the hospital can be protective factors against quick readmission. If hospital staff discharges patients hastily, they may run the risk of using less effective measures and creating future hospital stays. In contrast, other studies show that a longer length of hospital stay predicts higher rates of recidivism (Bobo et al., 2004). Likewise, patients who take medications have better outcomes for not being readmitted to the ED than those who do not (Pfeiffer et al., 1996).

Hospital readmission was higher for patients who have managed care than it was for patients who had a fee-for-service payer (Durbin et al, 2007).

Patients who were not prescribed their expected medications had a high risk of being readmitted quickly (Durbin et al., 2007). Similarly, Craig et al. (2000) found that not prescribing medication for patients with psychosis and discontinuing medication were predictive factors for recidivism. Craig et al. (2000) found that the instability of a patient's clinical condition at their initial visit discharge, mood symptoms in particular, impacted their rate of readmission.

### **History of Suicidal or Homicidal Ideation**

Patients who have a history of suicidal ideation or homicidal ideation have been shown to be more at risk for ED recidivism. Similar to history of admission, those patients who have a history of suicide attempts are more likely to be readmitted to the ED in the future (Aubin, 2004). Likewise, patients who exhibit self-harm behaviors, and those who show both suicidal ideation and a plan for suicide are highly likely to be readmitted (Aubin, 2004). Patients who have a history of aggression, as well as those who have a history of behavior problems, are more likely to be readmitted (Bernardo & Forchuk, 2001). Suicidal patients were more often readmitted within 30 days if they experienced distress about suicidal thoughts. It was also found

that the intensity of patients' emotional distress led to quicker readmission (Doerfler et al., 2010).

When considering the factors listed above which affect hospital recidivism, it is clear that there are common trends. For instance: history of admission, current substance abuse, psychotic disorder diagnosis - particularly schizophrenia, interpersonal problems, being male, and shorter length of hospital stay were the most common factors found to affect hospital recidivism across studies. There are many other factors that appear in only one study, which may be due to the fact that other studies did not inclusively consider all factors listed above. It is difficult to decipher if these less commonly found factors are generalizable due to the fact that they appear less often. Some factors do not align across studies and are actually contradictory to one another. For example, different studies found that shorter length of hospital stay correlated with recidivism, while another found that longer length of hospital stay correlated with recidivism. Likewise, one study found that diagnoses of non-bipolar mood disorders predicted recidivism while another found that bipolar disorders were predictors. This discrepancy may be due to the different environments and populations that were studied, which shows that not all factors in studies are generalizable.

In addition to analyzing all of the different variables routinely collected during patient intake, this study aims to see if there are differences between rapid and delayed recidivism.

Durbin et al. (2007) found that risk for readmission is highest within 30 days of discharge. Craig et al. (2000), looked at differences between rapid readmission, which is readmission less than 3 months after discharge of initial visit, and delayed readmission, which is readmission 3 to 12 months after initial discharge. Similar studies have used differing amounts of time in which they have studied recidivism, many of which were close to one year. Likewise, Aubin (2004) assessed recidivism factors based on the amount of time elapsed since initial visit, and looked at who would be more at risk for returning immediately versus a delay.

A comparison of the different bodies of research indicates that many factors affect recidivism of high-risk patients in hospitals depending on the setting and other aspects. Some trends have been found to affect repeat visits across studies, though many studies look at such differing variables that it is unclear what the common factors affecting recidivism are across different hospital settings. This study will focus on finding the similarities and differences in recidivism rates and factors that affect recidivism at two rural hospitals in Oregon, as compared to other studies.

In summary, this study is designed to assess factors which contribute to recidivism in a general sense, as well as what contributes to length of time between readmission, which may help results to be more generalizable with respect to variables and time constraints being assessed. Based on findings from previous research, the predictions of this study are as follows: Hypothesis 1 states that patients who have a psychotic disorder diagnosis will predict recidivism, Hypothesis 2 states substance use or abuse predicts recidivism, Hypothesis 3 states male patients as more likely to return to the ED than female, Hypothesis 4 states that there will be differences in how quickly patients are readmitted, though no specific prediction will be made as length of time between readmission varies widely across studies, and Hypothesis 5 predicts that previous ED visits will predict recidivism.

## **Chapter 2**

### **Methods**

#### **Participants**

This study employed archival data collected at two hospitals in a rural county in Oregon over a period of twenty months, from January 2013 to August 2014. The records reflect patients who are admitted to the ED at these two hospitals displaying suicidal ideation, homicidal ideation, or psychosis, and who are assessed by mental health professionals from the BHCCT at these two hospitals. There was no exclusionary criteria regarding age, ethnicity, or gender.

Records of patients who were admitted to the ED for a health condition or any other reason were excluded from the study.

#### **Instruments**

The archival data analyzed for this study came from patient chart records for patients who met inclusion criteria. Upon admission to either hospital, a series of standardized information was gathered for each patient, including the independent variables assessed, was put into 16 categories include age, male and female gender, ethnicity, depression, bipolar disorder, anxiety, psychosis, substance use, eating disorder, PTSD, neurocognitive disorders, other diagnoses,

presenting problem, discharge plan, type of insurance, and hospital location. Each hospital readmission was measured by calculating the number of days from first admission to the date of readmission. This information is routinely collected and recorded by members of the hospital's BHCCT team via a semi-structured risk assessment interview template and data sheets provided by the hospitals. Each of these routinely collected items was analyzed, as well as the length of time between visits for repeat visitors.

### **Procedure**

A large sample of mental health ED visitors were obtained from archival data collected from January 2013 to August 2014 by members working for the ED at two rural hospitals. Data sheets and semi-structured risk assessment interview templates developed by the hospitals was routinely collected and were input into a working Excel document. Data were de-identified and then imported into SPSS for analysis for the purposes of this study.

In this study, repeat users were defined as individuals who receive two or more inpatient admissions to the hospitals being studied (Bobo et al., 2004). An extensive analysis of all of the factors which contribute to recidivism were conducted by analyzing specific information collected for each patient seen at these two hospitals, including age, gender, ethnicity, depression, bipolar disorder, anxiety, psychosis, substance use, PTSD, eating disorders,

neurocognitive disorders, other diagnoses, presenting problem, discharge plan, type of insurance, and hospital location in order to find any trends specific to these two hospitals. For the patients who qualify as repeat users, length of time between ED visits for each patient were recorded to determine impact of time on recidivism.

## **Chapter 3**

### **Results**

#### **Participant Demographics**

A sample of 580 participants were included in the study, 334 female and 231 male (five participants' sex was excluded from the demographics, as it was not listed in the archival data, or it was deleted after being listed in one entry as male and in another entry as female and was therefore considered an invalid entry). A total of 28 cases included in the data were not used due to insufficient identifying medical record number, which was required for inclusion as it was used to identify whether a patient had a repeat visit. A total of 68 participants, 11.7% of the sample, had at least one repeat visit within the timeframe of the study. Demographic information including sex, ethnicity, type of insurance, and diagnosis for the patients with two or more ED visits are detailed in Table 1.

Table 1  
*Demographic Information*

Sex	<i>N</i>	Percentage
Female	334	58%
Male	241	42%
<b>Ethnicity</b>		
European American	508	88%
Hispanic	38	7%
African American	8	1%
Native American	10	2%
Asian American	6	1%
Other	7	1%
<b>Insurance</b>		
Private Insurance	178	31%
OHP/Medicaid/YCCO	213	37%
Medicare	8	1%
Indigent	142	25%
Medicare/Medicaid	13	2%
Other	3	<1%
<b>Diagnosis</b>		
Depression	299	52%
Anxiety	128	22%
Psychosis	114	20%
Bipolar	77	13%
Neurocognitive	30	5%
PTSD	72	12%
Substance Use	115	20%
Eating Disorder	6	1%
Other	104	18%

**Data Analyses**

The purpose of this study was to assess which factors contribute to psychiatric ED visits in two rural hospitals, the length of time between ED visits for each patient, and whether the results are consistent with previous studies on psychiatric ED recidivism. The hypotheses of this study were that previous ED visits, substance abuse, patients who have a psychotic disorder diagnosis, and male patients would be predictive factors contributing to recidivism, which is consistent with previous studies' findings. It was also hypothesized that there would be differences in how quickly patients are readmitted, though no specific prediction was made because length of time between readmission varies widely across studies. A linear regression was used with beta weights, which allowed for a rank value of the predicting variables. This permitted for assessment of the differing significance of each variable. This test was run to determine the significance of days between the initial and second visit, and all predictive variables. In addition, a binary logistic regression was used to determine the significance between whether a patient had at least one repeat visit, and all predictive variables. This permitted use of a dichotomous dependent variable that is categorical, assessing whether or not a patient had at least one repeat visit, as well as analyzing predictor variables that are both continuous and dichotomous.

Hypothesis 5 was unable to be assessed in this study, which stated that previous ED visits would predict recidivism. ED visits that occurred prior to this study were not recorded and the researchers did not have access to this information. Consequently, this variable had to be removed as a predictive factor. Likewise, though length of initial hospital stay was found as a consistent predictor in previous research, this variable was unable to be assessed in this study and was not listed as a hypothesized predictor. The length of time of the entire hospital stay was not recorded in the archival data. Rather, the length of time of the crisis response team member's consultation with the patient was recorded, which shows very little variation between patients, as there is a standardized semi-structured interview format used with all patients. As there was no access to the length of time of the entire hospital stay, and the consultation time varied little between different visits, this could not be used as a predictive factor in this study.

### **Logistic Regression**

A correlation was run to determine *relationship between the likelihood of at least 2 ED visits and the presence of predictor variables*, which can be referenced in Table 2. Crosstabs were also run, which were used to calculate the odds ratio, Yule's Q. With the odds ratio, it was found that PTSD was moderately significant (Yule's Q= .262), and type of hospital was modestly significant (Yule's Q= .135). These variables were included in the logistic regression. Forward

Table 2

*Correlations (Contingency Coefficients) Showing the Relationship between the Likelihood of at Least 2 ED Visits and the Presence of Predictor Variables*

	Psychosis	Bipolar	Outpatient Services	Inpatient Services	Poverty (Uninsured or OHP)
Had at Least 2 Visits	.133**	.012*	-.163**	.133**	.092*
<i>N</i>	113	75	365	158	353

logistic regression was conducted to determine which independent variables (psychosis; bipolar; PTSD; hospital; poverty – uninsured or OHP; outpatient services; and inpatient services) were predictors of whether or not a patient returned to the ED at least one time. Data screening did not lead to an elimination of any outliers. Regression results indicated that the overall model of seven predictors (*psychosis, bipolar, PTSD, poverty – uninsured or OHP, hospital, inpatient services, and outpatient services*) was statistically reliable in distinguishing between whether or not a patient returned to the ED at least once ( $-2 \text{ Log Likelihood} = 385.967, X^2(2) = 31.238, p < .0001$ ). The model correctly classified 88.1% of the cases. Regression coefficients are presented in Table 3, referenced below. Wald statistics indicate that four variables (psychosis, bipolar, poverty – uninsured or OHP, and outpatient services) significantly predict whether a person will return to the ED at least once. However, odds ratios for these variables indicate little change in the likelihood of a second visit to the ED. Therefore, Hypothesis 1 stating that having a psychotic

disorder diagnosis would be a significant predictor of recidivism was verified ( $p = .043$ ).

Hypothesis 2 predicting that substance abuse would be a significant predictor of recidivism was not verified. Lastly, Hypothesis 3 predicting that patients whose sex is male would be a significant predictor of recidivism was not verified.

Table 3  
*Regression Coefficients*

	<i>B</i>	<i>Wald</i>	<i>df</i>	<i>p</i>	Odds Ratio
Psychosis	-.624	4.114	1	.043	.536
Bipolar	-.786	5.533	1	.019	.456
PTSD	-.393	1.189	1	.276	.675
Hospital	.080	.082	1	.775	1.083
Poverty (Uninsured or OHP)	-.712	5.404	1	.020	.491
Outpatient Services	.795	4.114	1	.043	2.215
Inpatient Services	-.054	.017	1	.895	.948
Constant	-.768	1.001	1	.317	.464

### **Linear Regression**

A multiple regression analysis was conducted to evaluate which factors impacted how quickly a patient returned to the ED, referencing Hypothesis 4. A correlation was run with all the predictor variables and nothing was found to be significant. All predictors were included in the regression analysis to establish whether there was an aggregate effect on days between ED visits.

The linear combination of all possible predictor variables was not significantly related to how quickly a patient returned to the ED,  $F(19, 45) = .651, p > .05$ . The sample multiple correlation coefficient was .46, indicating that approximately 22% of the variance of how quickly a patient returned to the ED in the sample can be accounted for by the linear combination of all the predictive factors. None of the indices measured were statistically significant ( $p < .05$ ). With regards to Hypothesis 4 predicting that there would be differences in how quickly patients are readmitted, results from the linear regression indicate that no factors assessed were significant in predicting how quickly a patient returned to the ED.

## Chapter 4

### Discussion

#### Discussion of Results

Although odds ratios indicate that there is little change in the likelihood that a patient will have at least one repeat visit to the ED, significant predictors for psychiatric ED recidivism were found in this study. In terms of diagnoses, having a psychotic disorder or bipolar disorder significantly predicts whether patients will have at least one repeat visit to the ED. These conditions can be chronic and severe, making patients with these diagnoses more likely to return to the ED for suicidality, homicidality, or psychosis. Furthermore, the correlation between the number of visits and time between visits is significant, ( $r = .29$ ). This significant correlation shows that patients who took longer to return to the ED had more total visits than those who returned more quickly. This correlate relationship shows that it is likely patients have chronic problems and diagnoses rather than acute, which causes them to return to the ED again. As these problems are complex, they likely cannot be fixed quickly with medications or short inpatient hospitalizations. For these patients, more specialized aftercare may be needed, such as in-home care (Creswell, 2013).

Though the variable ‘inpatient services’ was not found to be statistically significant in the logistic regression, it should not be overlooked that it had a significantly positive correlation with patients returning at least once to the ED. A referral to outpatient services had a significant negative correlation with whether a patient had a second ED visit. This shows that patients who were referred to outpatient services were less likely to return to the ED for a second visit, and those who were referred to inpatient services were more likely to return to the ED for a second visit. It can be assumed with these findings that those who return to the ED have more chronic mental health conditions than those who do not return. These patients are likely high needs due to the chronicity of their conditions and likely do not get the care they need from the ED, and may benefit from wraparound services specific to mental healthcare. For instance, patients with SPMI have been found to benefit from various types of behavioral therapies in addition to medication, which increase compliance to treatment and rehabilitative outcomes (Carey & Carey, 1999). They have also been shown to benefit from supportive comprehensive services provided by community based multidisciplinary teams (Carey & Carey, 1999).

The prediction that there would be differences in how quickly a patient returned to the ED was insignificant across all factors assessed. This finding, and the relative overall insignificance of this study, may be accounted for by the fact that there were too few repeat visits

to account for much significance. With 580 patients, only 68, or 11.7%, had at least one repeat visit to the ED. This may be because the setting in which the data was collected is unique; only patients who were admitted to the ED and assessed due to being suicidal, homicidal, or psychotic were included. In comparison to other similar studies it is notable that unlike this study, previous research on recidivism for psychiatric patients mainly takes place in facilities that are affiliated with psychiatric treatment, including Aubin (2004), Dhossche and Ghani (1998), Bernardo and Forchuk (2001), Bobo et al. (2004), Craig et al. (2000), and Doerfler et al. (2010). Because much of the previous research took place in either large suburban or urban areas, and provided mental health-specific treatment, the settings represented by the literature review and the setting in which this study took place differed a great deal. For instance, this study took place in two rural hospitals in the Pacific Northwest, included many Medicaid and uninsured patients with little access to healthcare services, and were primarily medical treatment centers that did not offer psychiatric treatment on-site. Mental health patients are not the target of either ED included in the study. As the two ED hospitals included in the study were rural, patients may have used the ED in mental health emergencies due to limited access or knowledge of other options for mental health crises. Most of the studies in the literature review took place in the Northeast region of the United States (Aubin, 2004; Bobo et al., 2004; Craig et al., 2000; Dhossche & Ghani, 1998;

Doerfler et al., 2010; Hall, 2012), while a few others took place in Canada (Bernardo & Forchuk, 2001; Durbin et al., 2007), whereas this study took place in a rural area of the Northwest region of the United States. Due to the geographic trends in the literature review, there may be differences in how psychiatric and ED services are utilized.

Sample sizes used in studies from the literature review varied widely. Compared to the studies reviewed in the literature, this study had a moderately large sample size ( $N = 580$ ). For example, Doerfler et al. (2010) had a relatively small sample size in comparison ( $N = 97$ ), several studies had sample sizes with an  $N$  of between 200 and 400, and Bobo et al. (2004) had a comparatively large sample size of 814. The number of patients who had a repeat visit varied widely as well, with varying ranges of significance, indicating this study's sample size alone likely did not contribute to the overall insignificant findings in this study. Rather, the ratio of patients who had at least one repeat visit was small in this study, which may have accounted for some of the insignificant findings. In addition, if data could have been used from whether there were previous visits prior to the start of the data set, more significant results may have been found, as patients may have had a history of ED visits prior to the start of this study.

**Clinical Implications**

Though significant results were found predicting whether a patient was likely to return to the ED, it is notable that the results indicate the likelihood of a repeat visit is unlikely. For patients who present to a regular medical ED with suicidality, homicidality, or psychosis, it is apparent that there is a tendency not to return. This may be due to good referrals and discharge plans, particularly to outpatient services. The unique service that both of these hospitals have is use of round the clock crisis response team members determining whether a patients needs to be hospitalized, which is likely effective in preventing repeat visits for psychiatric patients in the ED.

Regarding patients who do have repeat visits to the ED, there were significant identifiers that may help to determine risk of returning. It is notable that the two hospitals in this study were in rural areas in Oregon, where access to psychological specialty care is more limited and may be more difficult to get to. Patients who were labeled “poverty,” having Medicaid insurance or being uninsured, were found to be significantly more likely to have repeat visits, which may indicate that patients who return do not have access or means for specialty mental healthcare. For perspective, individuals who have Medicaid insurance account for about 25% of all ED visits, and uninsured patients account for about 15% of all ED visits nation-wide, overall making up

less than half of all patients (Niska et al., 2010). For these patients, use of the ED may be their only access to care, which may be why they use it for mental healthcare as well. This is consistent with previous research, as mental health patients in rural EDs have been found to have limited access to specialty mental health care, and may have to leave their communities to access it (Hartley et al., 2007). In addition, research shows that at-risk patients often use the ED as their primary source of healthcare (Dhossche & Ghani, 1998). For these patients, preventative care including wraparound services with social work and mental health agencies to address issues with access to basic needs, and services to address mental health needs including therapy and medication management for patients with psychotic disorders and bipolar disorder in particular may help to prevent these patients from returning to the ED. Previous research indicates that health promotion and risk reduction strategies, as well as use of behavioral therapies with medications, are both helpful strategies in managing treatment of patients with SPMI (Carey & Carey, 1999).

### **Limitations**

This study differed from others previously in several ways. Firstly, this study was limited in that it did not include personality disorders. Some studies in the literature review had included patients who had a personality disorder diagnosis, including Durbin et al. (2007), Aubin (2004),

Bernardo and Forchuk (2001), Bobo et al. (2004), and the results were inconsistent across studies, which is why it was not listed as a common predictor for returning to the ED. Other studies may have had access to patient records, but in the ED setting where the data for this study was obtained, crisis response team members on the BHCCT only documented what they had seen in the ED during the crisis screen, and only recorded what was on their documentation sheet. Patients were only diagnosed with the presentation of the patient as they were seen in the ED. Sometimes crisis response team members had access to prior diagnoses and were able to document these in the diagnosis section of their reports, but only when it was reported by the patient, their family, or if another medical professional was consulted during a screen. Diagnoses of personality disorders were inconsistent since outside information about previous diagnoses were not always available. As previous medical and psychological history was inconsistently available to crisis response team members at the time of diagnosis, personality disorder traits were rarely recorded or diagnosed, as the patient is seen for only a short period of time and diagnosing personality disorders in this short timespan is discouraged.

Whether or not the call was emergent was not included in the study as a potential factor. Nationally, ED visits labeled “emergent” account for about 11% of all visits (Niska et al., 2010), and could have possibly been a significant factor in this study. However, after discussion with

the committee, this variable varies widely between crisis response team members, and likely is not accurately reported, as it was unclear whether the crisis response team members consistently knew the difference between emergent and non-emergent calls. Additionally, the length of time of the consult was not included in the study either. With the use of a semi-structured interview form, the length of time of the actual consult varied very little between visits, and was therefore excluded from the study.

As the data assessed were only over a period of 20 months, the study was limited in that there was no information about whether there were previous visits prior to the beginning of the data set and after. Crisis response team members did not have access to whether or not the patients had been to the ED previously. The patients may have had repeat visits to the ED prior to this study, but we did not have any documentation of prior visits, so it could not be considered a predictor, though we had originally listed it as a hypothesized predictor for repeat visits.

The study was also limited in that the archival data only included visits that occurred after hours and on weekends, excluding 40 hours per week of potential visits. This may be confounding, as patients may have had a repeat visit that was not recorded due to the time of day. Research has found that a majority of visits, about 65% of all ED visits, occur during these non-

business hours (Niska et al., 2010). This research is limiting in that it potentially excludes about 35% of potential repeat visits.

### **Future Research**

Future research may benefit from looking at whether patients who had multiple mental health diagnoses were more likely to return to the ED, and whether that impacted how quickly they returned. This study was limited in that it looked at single diagnoses as predictors only, rather than diagnoses combined. Having a more in-depth assessment of which combined diagnoses may impact recidivism in the ED and how quickly a patient is likely to return would be useful for future research. It can also be beneficial to use a data set including a longer length of time for a more accurate depiction of whether patients return to the ED. With a longer length of time, there would be a larger window of opportunity to determine whether a patient returned for a second visit. This may allow for more cases and possibly more significant findings. With more patients who had a repeat visit, it would also be beneficial for future research to focus on the amount of times a repeat user returns to the ED. High utilizers strain the ED's resources, and more research focusing on factors that predict high utilization could be beneficial. For this study, there was insufficient data to be able to predict high utilization.

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Yang, B., & Lester, D. (2007). Recalculating the economic cost of suicide. *Death Studies*, 31(4),

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## Appendix A

**Meghan Mary Polits**

**Formerly Meghan Malone**

Phone: 503.869.6821 Email: mpolits12@georgefox.edu

### EDUCATION

**Doctorate of Psychology, Clinical Psychology** *Expected* July 2017

*Emphasis:* Health Psychology

George Fox University, *Newberg, OR*

**Doctoral Dissertation:** Final defense passed May 2016.

Graduate Department of Clinical Psychology: APA accredited

**Master of Arts, Clinical Psychology** May 2014

George Fox University, *Newberg, OR*

Graduate Department of Clinical Psychology: APA accredited

**Bachelor of Science, Psychology, Cum Laude** March 2011

Portland State University, *Portland, OR*

Gonzaga University, *Spokane, WA* 2007-2009

### CLINICAL EXPERIENCE

**APA Accredited Internship** July 2016 -

**Cheyenne VA Medical Center** Current

*Clinical Psychology Predoctoral Intern*

**Cheyenne, Wyoming & Fort Collins, Colorado**

**Setting:** generalist training model, with competencies including outpatient mental health, PTSD clinic, community living center, primary care health integration, consultation, assessment, systems, integrated healthcare, multidisciplinary

**Populations:** veterans, seniors, adults, racial minorities, physically disabled

**Treatments:** trauma/PTSD, depression, anxiety, personality disorders, behavior planning, crisis intervention, health, individual and group interventions

- July 2016 -  
Nov 2016
- **Outpatient Mental Health Major Rotation**
    - Provide outpatient individual therapy for patients with a variety of disorders, including depression, anxiety, conversion disorder, borderline personality disorder, suicidal and homicidal ideation. Emphasis on evidence based therapies including CBT, DBT, and ACT.
    - Facilitate group therapies, leading weekly group sessions and preparing lesson plans for groups including DBT, CBT for depression, and suicide prevention. Aid in creating curriculum for evidence based CBT for depression group.
    - Weekly DBT consultation team meetings.
    - Provide DBT pre-treatment sessions for patients.
- Supervisor:* Rebecca Bailly, PhD
- July 2016 -  
July 2017
- **Primary Care Health Integration Minor Rotation**
    - Conduct rapid triage of mental health needs in same day walk-in clinic.
    - Provide pre-surgery assessments for bariatric surgery patients.
    - Administer mental and behavioral health screeners to patients to screen for a variety of disorders, and provide appropriate referrals.
    - Facilitate CBT for insomnia group, Diabetes shared medical appointment multidisciplinary group, MOVE! weight management group, CBT for chronic pain group, and Smoking cessation group.
    - Patient consultation with interdisciplinary treatment team.
- Supervisor:* Lavina Sanders, PhD
- July 2016 -  
Jan 2017
- **Motivational Interviewing Minor Rotation**
    - Participated in training to learn motivational interviewing techniques.
    - Weekly consultation with MI trainer.
    - Audio record patient sessions and submit for evaluation by MI trainer.
    - Anticipated MI certification at completion of rotation.
- Supervisor:* Lavina Sanders, PhD
- July 2016 -  
March 2017
- **Psychological Assessment Minor Rotation**
    - Administer psychological assessments to patients with a variety of complaints.

- Write comprehensive reports.
- Provide feedback to clients including recommendations and diagnoses.

*Supervisor:* Brian Daskivich, PhD

Dec 2016 -

- **PTSD Clinic Major Rotation**

March 2017

- Provide evidence-based treatments to veterans with PTSD, including Cognitive Processing therapy and Prolonged Exposure therapy.
- Administer screeners to aid in PTSD diagnostic clarification.

*Supervisor:* Courtney Reinfeld, PsyD

April 2017 -

- **Geropsychology Major Rotation**

July 2017

- Provide individual and group therapy to geriatric patients living in a community living center.
- Patient consultation on an interdisciplinary treatment team.
- Conduct neuropsychological assessments for memory disorders and decisional capacity.
- Screening for memory and cognitive impairments.
- Create behavioral management plans for patients diagnosed with memory disorders.

*Supervisor:* Kyle Page, PhD

**Oregon Health and Science University:**

June 2014 -

**Family Medicine at Richmond**

June 2016

*Primary Care Behavioral Health Consultant*

**Portland, Oregon**

**Setting:** primary care, consultation, assessment, systems, integrated healthcare, multidisciplinary

**Populations:** seniors, adults, adolescents, racial minorities, various socioeconomic classes, sexual minorities, physically disabled, developmentally disabled

**Treatments:** mood and anxiety, substance abuse, personality disorders, cognitive and developmental disorders, behavior planning, acute and chronic pain management, parenting techniques, trauma-informed treatment, crisis response, health, community outreach, individual and group interventions.

- Provide brief behavioral health consultation and evidence-based interventions for patients experiencing mental health disorders with a broad spectrum of diagnoses.

- Utilize Cognitive-Behavioral and Person-Centered strategies including psychoeducation and tools to address a broad spectrum of diagnoses.
- Administer neuropsychological assessments and complete both brief and integrated reports for cognitive, learning, personality, and behavioral functioning deficits.
- Integrate treatment planning and interventions with on-site primary healthcare providers to provide collaborative patient care.
- Assist primary care health system to transition into a more fully integrated behavioral health system.
- Create curriculum and conduct treatment groups for smoking cessation.
- Facilitate and lead Dialectical Behavioral Therapy treatment groups for women.
- Respond to patient crisis, escalation, and immediate behavioral issues.

*Supervisors:* Joan Fleishman, PsyD; Glenna Andrews, PhD; Marie-Christine Goodworth, PhD;  
Darren Janzen, PsyD

**Behavioral Health Consultation & Liaison**

May 2015 -

**Providence Newberg Medical Center**

May 2016

**Willamette Valley Medical Center**

*Behavioral Health Crisis Consultant, QMHP*

**Newberg & McMinnville, Oregon**

*Setting:* medical consultation, multidisciplinary, crisis management, systems

*Populations:* seniors, adults, adolescents

*Treatment:* crisis assessment and medical consultation

- Conduct structured risk assessments, cognitive evaluations, and other assessments of patients with suicidality, homicidality, and psychosis for the Emergency Department, Intensive Care Unit, and Medical/Surgical Unit at local hospitals.
- Collaborate with physicians and multi-disciplinary team to provide recommendations regarding patient risk and discharge plan, coordinate with inpatient hospitals and respite care facilities for patient placement, document evaluations in electronic medical charts, and coordinate resources with county mental health providers.

*Supervisors:* Mary Peterson, PhD; Joel Gregor, PsyD; William Buhrow, PsyD

**School Based Behavioral Health**

September 2013 -

**North Clackamas School District**

June 2014

***Graduate Student Behaviorist Intern*****Milwaukie, Oregon**

**Setting:** individual, systems, consultation, assessment

**Populations:** children, adolescents, young adults, racial minorities, SES diversity, intellectually disabled, developmentally disabled

**Treatment:** mood, anxiety, adjustment disorders, family systems, ADHD, panic, crisis, learning disability

- Provided evidence-based short-term psychotherapeutic interventions, primarily Cognitive-Behavioral and Person-Centered Rogerian psychotherapy, for high-risk and high-needs students, learning disabled students, and intellectually disabled students.
- Administered neuropsychological assessments and brief screens and wrote both brief and comprehensive reports concerning cognitive, achievement, and personality factors as part of a multi-systemic Individual Educational Plan (IEP) team.
- Established and managed working relationships with administrators, staff, and parents/caregivers.

**Supervisors:** Leslie Franklin, PsyD; Fiorella Kassab, PhD

**George Fox University Graduate Department of Clinical Psychology**

September 2012 -

***Pre-Practicum Student Therapist***

April 2013

**Newberg, Oregon**

**Setting:** individual therapy

**Population:** undergraduate students, adult students

**Treatment:** adjustment difficulties, family systems, psychoeducation, adjustment difficulties

- Conduct intake interviews and treatment plans
- Present written reports, case presentations, and consultations with supervisors and clinical team members.
- Provide individual outpatient psychotherapy services for two undergraduate student volunteers
- All sessions were taped and reviewed with supervisors and clinical team members

**Supervisors:** Carlos Taloyo, PsyD; Tyler Gerdin, PsyD

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**RESEARCH EXPERIENCE & PRESENTATIONS**

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**Primary Care and Population Health Program Evaluation**

August 2014 - May 2016

*Smoking cessation in primary care: Group treatment using PAM and ACT*

- Create smoking cessation program targeting short-term group treatment
- Utilize multiple program and patient tracking tools for pre-test and post-test measurements
- Base treatment protocol on Acceptance and Commitment Therapy principles

*Supervisor:* Joan Fleishman, PsyD

**Research Vertical Team**

March 2013 - May 2016

*Emphasis:* Health Psychology

- Meet twice monthly to discuss, collaborate on and evaluate the design, methodology, and progress of research projects

*Supervisor:* Marie-Christine Goodworth, PhD

**Doctorate Dissertation Research**

November 2013 - May 2016

*Factors that predict recidivism for psychiatric patients in emergency departments*

- Coded archival data and conducted analysis of recidivism factors using SPSS
- **Preliminary defense passed November 2014. Final defense passed May 2016.**

*Supervisor:* Marie-Christine Goodworth, PhD

**Peer-Reviewed Presentations**

- **Meghan Malone, MA**, Marie-Christine Goodworth, PhD, Erin Gelien, MA, MA (August 2016). *Components that Influence Repeat Visits for Psychiatric Patients in Emergency Departments*. Poster presented at the annual meeting of the American Psychological Association. Denver, CO.
- **Meghan Malone, MA**, Nate Goins, MA. (October 2015) *Factors that Affect Recidivism for Psychiatric Patients in Emergency Departments*. Poster presented for presentation at the annual meeting of the Collaborative Family Healthcare Association. Portland, Oregon.
- Corie Holbjerg, MA, **Meghan Malone, MA**, Nate Goins, MA. (April 2014) *Persistent Pain Patient Program in Primary Care*. Poster presented at the annual meeting of the Oregon Psychological Association. Portland, Oregon.

- Shaun Davis, MA, Julia Terman, MA, Caitlin Speck, MA, **Meghan Malone, MA**, Nate Goins, MA (May 2016). *Assessment of Pediatric Behavioral Health Services in a Primary Care Setting*. Poster presented at the annual meeting of Oregon Psychological Association. Portland, OR.

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## RELEVANT EXPERIENCE

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**OHSU: Primary Care Behavioral Health Forum Presenter** September 2015  
*Oregon Health and Science University: Family Medicine*

- Presented on smoking cessation in integrated primary care.

**Oregon Psychological Association (OPA)** August 2012 - June 2016

- Served as a member of the OPA Student Committee.
- Worked with a team of professionals to develop student communication, coordinate poster submissions, awards, and student breakout sessions for the OPA annual conference.
- Promoted membership in OPA and awareness of professional news at a local and national level.
- Co-wrote an article published in the Oregon Psychological Association newsletter, 2013.

**Oregon Partnership** October 2010 - July 2012

- Crisis intervention specialist for the National Suicide Prevention Lifeline, Drug and Alcohol Helpline, Youthline, and Military Helpline.
- Completed crisis intervention training program, including the ASIST Crisis Intervention Workshop.
- Assessed risk for callers presenting with suicidal ideation.
- Worked with the police department to provide welfare checks to callers presenting with suicidal ideation.
- Assisted callers with a wide range of issues including suicidal ideation, suicide attempt, psychotic episodes, intellectual disability, drug addiction, drug withdrawal, depression, manic episodes, anxiety, panic attacks, abusive relationships, PTSD, and homelessness.

**Gonzaga in Zambia Summer Abroad** June - July 2009

- Summer abroad doing research in Chimfunshi, Zambia for applied child psychology.

- Focus on naturalistic observation and child interaction.
- Created lesson plans for children and taught at the local school.
- Worked in the Muchinchi Women's Center learning about women's issues in Zambia.

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## UNIVERSITY INVOLVEMENT

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### **Co-Founder of the Clinical Health Psychology Network**

September 2014 -

*George Fox University Graduate Department of Clinical Psychology* June 2016

- Created a centralized student network meant to advance the exchange of professional resources and clinical tools in addition to providing peer-to-peer consultation, encouragement, and fostering professional camaraderie.
- Facilitate bi-annual networking events for members.
- Created and continually maintain social media site for members to share resources, network with each other, ask questions, and communicate about all things related to clinical health psychology.