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Graduate Student Level Behavioral Health Consultation in a Primary Care Setting: An Outcome Study

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Graduate Student Level Behavioral Health Consultation in a Primary Care Setting: An Outcome Study

by

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Graduate Student Level Behavioral Health Consultation in a Primary Care Setting:

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Approval

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Abstract

The primary care system has been referred to as the *de facto* system for all types of mental and behavioral health difficulties as there are a significant number of barriers that keep patients from seeking treatment in other settings. As a result, the integrated primary care model has been implemented to meet the psychological needs of patients. With this implementation there is a need for adequately trained psychologists, however there is a limited number of programs that can provide this training. The medical records of 628 patients of an integrated primary care setting were reviewed to determine if seeing a behavioral health consultant (BHC) showed efficacy at decreasing primary care utilization rates and if certain factors influence utilization (such as presenting problem and gender). All BHCs were clinical psychology doctoral students in a practicum in integrated primary care. This study found that patients were likely to begin meeting with a BHC at approximately the same time that their visits with their primary care physician (PCP) increase. Additionally, after meeting with a BHC, the mean number of PCP
visits per month began to decrease as soon as the first month. Other results in this study suggested that the utilization of PCP and BHC services significantly differ by presenting problems, however not by gender. These results suggest that graduate level BHCs are likely able to assist patients with significant change that results in a decrease of utilization of both PCP and BHC services. This makes a case for implementation of more integrated primary care training programs to better meet the current workforce demand.
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Chapter 1

Introduction

Within the United States healthcare system, it is inevitable that one will find patients presenting with symptoms that are not biologically based (Blount, 2003). Research has shown that approximately 70-85% of appointments made within a primary care setting are due to psychological and/or behavioral problems (Gatchel & Oordt, 2003; James, 2006; Kroenke & Mangelsdorf, 1989; Pruitt, Klapow, Epping-Jordan, & Dresselhaus, 1998; Ray-Sannerud, et al., 2012). Sixty-seven percent of psychotropic medications are prescribed by primary care physicians, and there are no organic foundations in 90% of the 10 most common complaints in primary care (James, 2006). This number does not always include the significant number of individuals seeking treatment who are participating in negative behaviors that affect their medical health, such as cigarette smoking or physical inactivity (Howard, Kopta, Krause, & Orlinsky, 1986). In general, it is common practice for the primary care physician (PCP) to not only be the first person patient reaches to for mental health services (Ray-Sannerud, et al., 2012), but also the only person the patient will receive mental health services from (James, 2006; Reiger, Narrow, Rae, Manderscheid, & Locke, & Goodwin, 1993). As a result, the primary care system has been referred to as the de facto system for all types of mental and behavioral health difficulties (James, 2006; O'Donohue, Byrd, Cummings, & Henderson, 2005; Ray-Sannerud, et al., 2012; Strosahl, 1998).
The cause for this trend can be associated with many factors, including stigma associated with mental health clinics, inaccessibility of behavioral health care, referral network problems, poor quality of care, and access to care concerns (James, 2006). It is for this reason, that integrating mental health services in primary care has been a model that has been suggested and implemented to address the problems listed above (Ray-Sannerud, et al., 2012; Robinson & Reiter, 2007; Strosahl, 1998).

**Integrated Primary Care as a Solution**

While there are many models of integrated primary care, including the co-located model and the psychologist as a provider model, the model referred to for the remainder of this paper is the integrated care model, frequently referred to as the Primary Mental Health Care (PMHC) or the Behavioral Health Consultant model (Bryan, Corso, Neal-Walden, & Rudd, 2009; Bryan, Morrow, & Appolonio, 2009; Gatchel & Oordt, 2003). Within this model, integrated primary care provider is a psychologist, referred to as a *behavioral health consultant* (BHC). He or she becomes a part of a multidisciplinary team and works side by side with primary care provider in order to provide comprehensive care from a biopsychosocial perspective (Robinson & Reiter, 2007).

The general structure and format of integrated primary care healthcare is as follows. When the PCP meets with a patient with psychological issues he or she will refer the patient to a BHC, many times performing a warm-hand off in order to smooth the brief transition. The BHC meets with the client for approximately 15-30 minutes, often in the physical exam room, in order to assess and provide some behavior management skills if need. Because the BHC always remains in the role of consultant he or she provide recommendations to the PCP, which allows
the PCP to then provide a more holistic type of care for the patient. Although the patient may have one to a few follow-up visits with the BHC, his or her care is consistent with the PCP (Bryan, Corso, et al., 2009; Bryan, Morrow, et al., 2009; Gatchel & Oordt, 2003).

**Benefits of Integrated Primary Care**

This model of care has been evaluated since its beginnings in primary care settings. Much of this research has focused on efficacy as well as the benefits that are received by the integrated primary care site, health plan administrations, and more importantly, the patient. The following paragraphs explore these benefits (Peterson & Turgesen, 2011).

**Access to care.** As noted in the research presented above, the primary care setting has allowed patients to uniquely access services for their behavioral health needs. The most common practice in primary care clinics is to refer patients with any behavioral or psychological needs to mental health specialist. Of these referrals, it was found that many of the decision-makers in clinics were unsure of whether or not patients were following through with the referral. Research has shown that only 15% of those referred were likely to actually attend an appointment with an outside agency due to various barriers. These barriers commonly include socioeconomic factors (Kouyoumdjian, Zamboanga, & Hansen, 2003; Santiago & Wilder, 1991), transportation issues (Pumariega, Glover, Holzer, & Nguyen, 1998), scheduling conflicts (Sandoval & De la Roza, 1986), lack of healthcare insurance (Angel & Angel, 1996; Berk, Albers, & Schur, 1996; Garfield, 1994), gender (Leaf & Bruce, 1987), and stigma (Alvidrez, 1999; James & O'Donohue, 2009; Sandoval & De la Rosa, 1986).

These follow-through results are vastly different from data gathered from an integrated primary care setting. It has been found that 90% of the patients referred to receive behavioral
health services in an integrated primary care setting actually established contact with a BHC (Strohsal, 1998). This may be related to physical access, in that patients find it easier to access their primary care clinic compared to a specialty mental health provider; this is particularly true in rural areas (Peterson & Turgesen, 2011). Additionally, an integrated primary care setting may also lessen the stigma and alleviate hesitancy that is associated with seeking out mental health services (Gatchel & Oordt 2003; Lang, 2005). Patient access is also increased because the fees applied to the client are limited as patients are not typically charged an additional fee (Peterson & Turgesen, 2011).

Another factor to take into consideration is the utilization of medical and mental health services by groups that would find these services to be stigmatizing. Specifically, both males and members of certain ethnic groups have been found to utilize services less often than their female and European-American counterparts. Regarding gender, Bertakis, Azari, Helms, Callahan, and Robbins (1999) found that, overall, women had a higher mean number of medical visits when compared to men and another study indicated that women are more likely to use services at mental health hospitals, community mental health centers, general hospital inpatient units, and outpatient psychiatric facilities (Russo & Sobel, 1981). Men, however, are more likely to utilize services at state and county mental hospitals, public general hospitals, and Veterans Administration hospitals. Despite this research, there is limited research related to the utilization of BHC services in an integrated primary care setting in regards to utilization. In reference to ethnicity, research has shown that ethnic groups including Latinos and African Americans, are less likely to utilize mental health services. Specifically, research by Alegría et al. (2002), found that low-income Latinos and non-poor African Americans were less likely to seek mental health
services when compared to their white non-Latino white counterparts. These under-utilizing patients are typically held back from utilizing services due to socioeconomic factors and cultural factors (Kouyoumdjian et al., 2003).

**Communication and consultation.** Collaboration and communication between physicians and psychologists is essentials in order to provide a comprehensive understanding of a patient's problem and plan for the most effective route of treatment (Miller, Hall, & Hunley, 2004). However, since many primary care providers and outside mental health providers are often located in different settings, there is a limited amount of communication that passes providers. This has been linked to difficulties in providing care and is one of the most frequent complaints that primary care providers have when referring a patient to an outside mental health provider (Gatchel & Oordt, 2003). Specifically, the separation that is traditionally found between physicians and psychologists often leaves both providers frustrated with the lack of feedback and responses from the other providers. It is for this reason that communication and consultation is both a benefit and necessity for both primary care providers and behavioral health consultants alike.

Within integrated primary care settings, the primary care providers are able to immediately access behavioral health consultants' notes, diagnostic impressions, and recommendations, and both mental health and medical providers are able to participate in hallway consultations that provide bi-directional communication (Robinson & Reiter, 2007). This type of immediate communication and consultation encourages and promotes effective collaboration between physicians and psychologist, which in turn allows for maximized effectiveness and optimal level of care.
**Patient outcomes.** What is most important when providing treatment of any kind is the decrease of symptoms and improvement of functioning. Overall, research has shown that the treatment of psychological problems tends to show improvement in psychological functioning and physical health (O'Donohue et al., 2005). Specifically patients seen in the integrated primary care setting, varying from adolescents to older adults, experience a greater decrease in symptoms of depression, anxiety, panic, and PTSD, when compared to clients who are only seen for routine physical appointments in the primary care setting (Bryan, Morrow, et al., 2009; Corso et al., 2009; Katon, Roy-Byrne, Russo, & Cowley, 2002; Unutzer et al., 2002). Additionally, patients have been able to not only experience a decrease in symptoms, but also an increase in life functioning, life satisfaction, and hope as early as after the first appointment with a BHC (Bryan, Morrow, et al., 2009). Bryan, Morrow, et al. (2009), also noted that patients seen by a BHC were more likely to learn new skills and behavioral patterns; the use of these skills taught by BHCs is linked to “enhanced daily functioning” (p. 289). The changes in symptoms and functioning also suggest that patients are able to maintain their improvements. Various longitudinal studies indicate that maintenance of improvements have lasted anywhere from three to thirty months (Bryan, Morrow, et al., 2009; Davis, Corrin-Pendry, Savill, 2008; Kadera, Lambert, & Andrews, 1996).

**Use of services and healthcare costs.** A concern by both PCPs and healthcare administrators is the fact that psychological distress issues influence individuals to seek out medical consultation (Gatchel & Oordt, 2003). Additionally, there are a number of patients who experience chronic medical conditions and participate in health-threatening behaviors that can easily be addressed by BHC. These patients typically experience disability, inappropriate use of
expensive medical resources, and are worrisome due to the cost of prolonged treatment (Howard et al., 1986; Simon, 1992). Additionally, one in four primary care patients are likely to be high utilizers of primary care services for more than one year (Ford, Trestman, Tennen, & Allen, 2005). Research has shown that those with anxiety and medical morbidity are likely to be persistent high utilizers of primary care services (Ford et. al., 2005); this may be similar to mental health utilization trends. This research study is focused on this specific benefit, as utilization trends, which are directly related to healthcare costs, are a significant benefit to patients, primary care physicians and clinics, and healthcare administrators.

Overall, the integration of primary care and mental health services has been found to reduce the number of services a client is likely to utilize (Hunter, Goodies, Oordt, & Dobmeyer, 2009). The reduction of physical health services may be as a result of the exact issue being addressed (i.e., mental health) by a BHC, rather than continued focus on the somatic complaints by the PCP. Specifically, Blount (1998) suggested that that over 50% of those who are considered high utilizers of primary care services were actually in distress due to psychological issues. By allowing a BHC to properly assess and provide psychological interventions, the client is able to learn skills and experience a decrease in symptoms distress and an increase in functioning, as noted above (Bryan, Morrow, et al., 2009).

The reduction of service utilization numbers plays a large role in the cost-effectiveness of integrated primary care services. Generally speaking, the integrated primary care model can lead to a reduction in health care costs (Bryan, Morrow, et al., 2009). In an article evaluating the cost-effectiveness, it was found that the amount paid for outpatient treatment in a collaborative setting was significantly lower than the amount paid for outpatient treatment provided solely by a
physical health provider (Katon et al., 2002) when treating anxiety problems. Additionally, interventions provided by BHCs, typically provide “net cost savings for a number of health problems including arthritis, hypertension, heart disease, and chronic pain” (Howard et al., 1986).

**Increased Opportunities for Psychologists**

As discussed, integrated primary care adequately addresses and provides a solution to the issues described in the introduction of this paper, while providing other benefits to both the healthcare system and patient's overall wellbeing. This integration undoubtedly provides great opportunities for primary care psychologists due to the fact that the issues being presented in primary care settings cannot be approached from a biomedical framework, but rather need to be addressed from a biopsychosocial model (Beacham, Kinman, Harris, & Masters, 2012; Howard et al., 1986). The increase of opportunities is already being witnessed in various settings. Specifically, the Veterans Administration (VA) is now requiring their medical center and community based outpatient clinics to have integrated mental health services. These clinics typically see more than 10,000 veterans a year and mental health evaluations and consultations are necessary for treatment (Veterans Health Administration, 2008). Additionally, Beacham et al. (2012) reported that “various national behavioral health programs and PCMH initiatives already are increasing the demand for psychologists who are trained in primary care, or will increase in the near future” (p. 18) and that it is suspected that the United States Department of Defense has estimated that they will need to hire more than 400 behavioral health professionals between now and 2016 in order to meet the growing demands.
These emerging opportunities are best filled by psychologists who have obtained behavioral medicine training. According to Pruitt et al. (1998),

These psychologists' training extends clinical psychology to include specialized knowledge of medical conditions, including chronic pain, obesity, asthma, hypertension, diabetes, and coronary heart disease, and behavioral components of medical illness. Behavioral medicine specialists also address health-related behaviors, such as smoking, physical inactivity, noncompliance, analgesic dependence, and inappropriate use of medical services. They have knowledge of basic physiology, medical terminology, and medical conditions and their treatments. These specialists are familiar with the physician culture and the organization of medical practice. They have training in professional and ethical issues, such as patient confidentiality and informed consent with medical patients, which is one of the most complex areas of expertise for psychologists in medical settings. (p. 234).

It is these psychologists who are being considered the mental health care providers of the 21st century (Beachman et al., 2012; Levant, 2005).

Need for Graduate Training in Primary Care Setting

Despite the increased opportunity and need for psychologists, there is a lack of adequate training in integrated primary care. There are a limited number of current psychologists who have received an adequate level of academic training and workforce experience to enter into the integrated primary care setting (Beachman et al., 2012). In addition to the sparseness of psychologists trained to fill the BHC positions, there is an evidential lack of clinical psychology programs that offer primary care tracks; however, this may not account for programs that have
practicum experiences and training, but do not offer a specialized track. Without adequate training, psychologists will be unable to meet the expanding needs occurring in the current workforce.

It is for this reason that a Doctorate of Clinical Psychology program, located within a private, liberal arts college in rural Oregon, has developed competency-based integrated primary care practicum positions and training program. It is within this practicum that graduate level practicum students are able to learn the assessment, evidenced-based interventions, and consultation skills to meet the demand. Additionally, the students exit the program with a competitive edge to obtain one of the opportunities being offered within the field.

**Effectiveness of Graduate Students in Primary Care Practicum Settings**

This study was designed to examine whether psychology graduate students currently working as BHCs in an integrated primary care practicum for their clinical training were effective in reducing PCP utilization. Specifically, this study aimed to determine whether there was a change in the number of times the patients met with their primary care physician before and after meeting with their behavioral health consultant. Additionally, type of diagnosis at referral, and gender were examined to see if there was an effect on utilization of services.

The hypotheses for this study were as follows:

**Hypothesis One:** Patients who saw a graduate level BHC for one or more sessions will have a decrease in PCP visits.

**Hypothesis Two:** Patients referred for anxiety or health problems will have a significantly higher mean number of PCP visits when compared to patients referred for other reasons.
Hypothesis Three: Patients referred for anxiety or health problems will have a significantly higher mean number of BHC visits when compared to patients referred for other reasons.

Hypothesis Four: Males will have significant lower mean number of BHC visits when compared to females.
Chapter 2

Methods

Participants

In this study, there was an examination of 628 medical records of patients seen at three separate primary care clinics within a medical center in a rural Northwestern area near Portland, Oregon. All patients who were seen by a behavioral health consultant during the 2011 calendar year were included in this study. The mean age of individuals whose files were included in the review was 42.11 (SD = 21.54). A chart review identified 184 males and 390 females; 54 patients' gender was unidentified. Due to the medical center's chart system not containing race and ethnicity this information was not available for the sample. However, when mirroring the demographics of this rural area suggests the following ethnic breakdown: 79% were European American, 10% were Hispanic/Latino, and 11% were other.

Procedure

After obtaining the approval from the University's Institutional Review Board, data began to be gathered by a current BHC working within the medical system at the time. The following information was gathered for each patient: date of birth, reason(s) for referral, number of times the patient was seen by his or her primary care physician during each month in 2011, number of times the patient was seen by his or her behavioral health consultant during each month in 2011, and number of times the patient was seen in the Emergency Department during each month in 2011. The data was collected and entered in to a password protected excel file. This file was then given to the primary researcher.
The primary researcher added the following variables into the data set: age, coded first referral question, multiple referral question, coded referring primary care provider, total number of primary care physician visits in 2011, totally number of behavioral health consultant visits in 2011, total number of emergency department visits in 2011, and trimester the patient began seeing a behavioral health consultant.

**Age.** Each patient’s age was calculated from the date of birth that was originally recorded. All ages were calculated to show the patient's age on January 1, 2011, rather than at the time of their first behavioral health appointment.

**Coded referral question.** In examining the data, there were 72 different referral questions. These were condensed into six categories based on categories found in the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR)*; American Psychiatric Association, 2000). The categories include: Learning Disabilities (LD), Attention Deficit/Hyperactivity Disorders (ADHD) and Cognitive Disorders, Adjustment Disorders, Anxiety Disorders, Health Problems, Mood Disorders, and Substance Related Disorders (See Appendix A). For participants who were referred with multiple referral questions, the first was considered more persistent and was use to categorize. To differentiate between patients with one referral question and those with two, patients with one referral question were given a zero and patients with multiple referral questions were given a one.

**Total number of primary care provider, behavioral health consultant, and emergency department visits.** The total number of times that a patient visited his or her primary care provider, behavioral health consultant, or the emergency department was calculated by adding the number of visits in the calendar year.
Trimester patient began seeing behavioral health consultant. Patients were placed into one of three groups depending on when they began meeting with a behavioral health consultant. Patients who began meeting with a behavioral health consultant between the months of January and April were considered first trimester patients. Patients who began meeting with a behavioral health consultant between the months of May and August were considered second trimester patients. Patients who began meeting with a behavioral health consultant between the months of September and December were considered third trimester patients.
Chapter 3

Results

The charts of 628 primary care patients were reviewed. There were 184 identified males, 390 identified females, and 54 individuals whose gender was unidentified, with a mean age of 42.10 ($SD = 21.55$). Approximately 34.7% ($n = 218$) were referred to BHC services due to anxiety related issues, 30.4% ($n = 191$) for mood related issues, 10.8% ($n = 68$) for adjustment related issues, 13.9% ($n = 87$) for learning disability and attention deficit/hyperactivity related issues, 8.8% ($n = 55$) for health related issues, and 1.8% ($n = 11$) for substance related issues (Figure 1).

![Figure 1](image-url)  
**Reason for Referral**

*Figure 1. Frequency distribution of patients' reasons for referral.*
Hypothesis One

Patients who saw a graduate level BHC for one or more sessions will have a decrease in PCP visits. All patients were grouped and the number of PCP and BHC visits was compared on whether it was the patient's first month seeing a BHC, second month, and so forth. All the “first month” data would be from January for an individual who first visited the BHC in January but would be from June for another whose first BHC visit was in June. These results showed a decrease in both PCP and BHC visits over the length of one year, specifically for those who began utilizing BHC services in January 2011 (Figure 2).

![Figure 2](image_url)

*Figure 2.* Mean number of PCP and BHC visits in the first month of BHC use through the twelfth month.

Next, trimester groups were created in order to examine whether there was a difference in mean visits with a PCP before and after meeting with a BHC. Participants were split into three groups dependent on when they began meeting with a BHC; these three groups were first trimester ($n = 247$), second trimester ($n = 215$), and third trimester ($n = 166$). The second
trimester group (e.g., those who began meeting with a BHC between May and August), was the only group that had both pre- and post-BHC utilization statistics. The mean age for each of the groups was 42. The mean number of PCP visits for each month in 2011 was determined for each trimester group. The mean number of PCP visits per trimester was also determined for each trimester group (Figure 3). When overlying the three trimesters, an estimated sequential view of a patient’s use of services can be seen over a 20-month period (Figure 4). This view allows for one to see the increase of PCP service use up to two trimesters prior to utilizing BHC services and the decrease of PCP service use up to two semesters after being referred.

![Graph showing the mean number of PCP visits per trimester for first, second, and third semester groups.](image)

**Figure 3.** Mean number of PCP visits per trimester for first, second, and third semester groups.
Figure 4: Estimated sequential view of a patient’s mean number of PCP visits over 20 months.

The mean number of PCP visits per month was significantly higher in the first trimester for the group that began BHC visits in the first trimester as compared with those who started in the second and third trimesters, $t(633) = -5.03, p < .001$. The mean number of PCP visits per month was significantly higher in the second trimester for the group that began BHC visits in the second trimester as compared with those who started in the first and third trimesters, $t(633) = 5.21, p < .001$. The mean number of PCP visits per month was significantly higher in the third trimester for the group that began BHC visits in the third trimester as compared with those who started in the first and second trimesters, $t(633) = 4.76, p < .001$.

The mean number of PCP visits per month did not differ significantly in the first trimester for the groups that began BHC visits in the second and third trimesters, $t(379) = 1.93, p = .054$. The mean number of PCP visits per month did not differ significantly in the second trimester for the groups that began BHC visits in the first and third trimesters, $t(411) = .99, p = .324$. The
mean number of PCP visits per month are significantly different in the third trimester for the
groups that began BHC visits in the first and second trimesters, \( t(460) = -2.84, p = .005 \).

**Hypothesis Two**

*Patients referred for anxiety or health problems will have a significantly higher mean
number of PCP visits when compared to patients referred for other reasons.* The original data set
was altered in order to address the small number of patients referred for substance use; this group
was excluded from the analyses. A box-plot was then created in order to exclude any outliers
beyond two standard deviations of PCP visits. The remaining patients \( n = 587 \) were included in
the following groups: LD, ADHD, and Cognitive Disorders \( n = 80 \), Adjustment Disorders \( n = 65 \), Anxiety Disorders \( n = 211 \), Health Problems \( n = 54 \), and Mood Disorders \( n = 177 \).

In order to compare the mean number of PCP visits for each group of reasons for referral
an ANOVA was used. Levene’s test shows that the assumption of equal variance was not met,
Levene’s \( F(4, 582) = 6.37, p < .001 \). Therefore, a Welch's ANOVA was used. The ANOVA
shows that there were significant differences, \( F(4, 195.31) = 9.74, p < .001 \). A Dunnett C post hoc
analysis revealed that the mean number of PCP visits was significantly different between the
following pairs: Adjustment Disorders and Anxiety Disorders, Adjustment Disorders and Health
Problems, Adjustment Disorders and Mood Disorders, and LD, ADHD, and Cognitive Disorders
and Health Problems (Table 1).
### Hypothesis Three

*Patients referred for anxiety or health problems will have a significantly higher mean number of BHC visits when compared to patients referred for other reasons.* As with hypothesis two, the original data set was altered in order to address the small number of patients referred for substance use; this group was excluded from the analyses. A box-plot was then created in order to exclude any outliers beyond two standard deviations of BHC visits. The remaining patients ($n = 564$) were included in the following groups: LD, ADHD, and Cognitive Disorders ($n = 81$), Adjustment Disorders ($n = 65$), Anxiety Disorders ($n = 205$), Health Problems ($n = 54$), and Mood Disorders ($n = 159$).

In order to compare the mean number of BHC visits for each group of reasons for referral an ANOVA was used. Levene’s test shows that assumption of equal variance was not met, Levene’s $F(4, 559) = 5.65, p<.001$. Therefore, a Welch's ANOVA was used. The ANOVA shows that there were significant differences, $F(4, 188.85) = 3.22, p = .01$. A Dunnett C post hoc

### Table 1

*Comparison of Mean BHC and PCP Visits Between Reasons For Referral Groups*

<table>
<thead>
<tr>
<th>Visit Types</th>
<th>Adjustment Disorders</th>
<th>LD, ADHD, Cognitive Disorders</th>
<th>Anxiety Disorders</th>
<th>Health Problems</th>
<th>Mood Disorders</th>
<th>$F$</th>
<th>$\eta^2$</th>
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</thead>
<tbody>
<tr>
<td>PCP</td>
<td>3.31&lt;sub&gt;abc&lt;/sub&gt;</td>
<td>4.45&lt;sub&gt;d&lt;/sub&gt;</td>
<td>5.15&lt;sub&gt;a&lt;/sub&gt;</td>
<td>6.30&lt;sub&gt;bd&lt;/sub&gt;</td>
<td>5.43&lt;sub&gt;c&lt;/sub&gt;</td>
<td>9.74***</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td>(2.52)</td>
<td>(2.40)</td>
<td>(3.36)</td>
<td>(4.30)</td>
<td>(3.41)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BHC</td>
<td>2.83&lt;sub&gt;a&lt;/sub&gt;</td>
<td>2.15&lt;sub&gt;a&lt;/sub&gt;</td>
<td>2.73(1.84)</td>
<td>2.50(1.69)</td>
<td>2.28(1.40)</td>
<td>3.22***</td>
<td>0.02</td>
</tr>
<tr>
<td></td>
<td>(2.05)</td>
<td>(1.42)</td>
<td></td>
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</tr>
</tbody>
</table>

Note. * = $p \leq .05$, *** = $p \leq .001$. Standard deviations appear in parentheses below means. Means with differing subscripts within rows are significantly different at the $p \leq .05$ based on Dunnett C post hoc paired comparisons.
analysis revealed that the mean number of PCP visits was significantly different between the following pairs: LD, ADHD, and Cognitive Problems and Anxiety Disorders (Table 1).

**Hypothesis Four**

*Males will have significant lower mean number of BHC visits when compared to females.*

In order to compare the mean number of BHC visits between males ($n = 184$) and females ($n = 390$), an independent $t$-test was used. The results demonstrated that the assumption for equal variance was met but there was no significant difference between groups. Males who utilized BHC services had a mean of 3.64 visits per year ($SD = 4.30$). Females who utilized BHC services had a mean of 3.42 visits per year ($SD = 3.74$). The assumption of equal variances was met, Levene’s $F = .92$, $p = .34$. The difference in the mean number of BHC visits is not statistically significant $t(572) = -.62$, $p = .54$ (Table 2).

<table>
<thead>
<tr>
<th>Gender</th>
<th>Number of BHC Visits</th>
<th>$t(572)$</th>
<th>$p$</th>
<th>Cohen's $d$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>3.64</td>
<td>0.62</td>
<td>0.54</td>
<td>0.05</td>
</tr>
<tr>
<td>Females</td>
<td>3.42</td>
<td></td>
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</tr>
</tbody>
</table>
Chapter 4

Discussion

It is without doubt that the primary care system in the United States is presented with a problem related to the percentage of patients seeking treatment for psychological and/or behavioral problems (Gatchel & Oordt, 2003; James, 2006; Kroenke & Mangelsdorf, 1989; Pruitt et al., 1998; Ray-Sannerud et al., 2012). A way to address this problem has already been addressed through the use of the integrated primary care model; however the training for this is minimal within the graduate level setting. In areas where training has been implemented there is limited research regarding the efficacy of the training, specifically in regards to how graduate student BHCs affect that utilization of both BHC and PCP services.

Research has shown that when a patient experiences distress due to biological, psychological, or social stressors, they are likely to seek out medical consultation (Gatchel & Oordt, 2003) and use medical services in lieu of mental health services. Howard et al., (1986), Simon, (1992), and Hunter et al., (2009) found that the integration of primary care and mental health services has been found to reduce the number of services a patient is likely to utilize and the results of the current study found that during the month and trimester in which a patient started seeing a BHC was around the time that the patient was utilizing more PCP services in a significantly manner. However, once a patient starts seeing a BHC, it does not take long for the PCP visits to decrease and for the BHC visits to decrease. This may indicate that seeing a BHC is effective in reducing PCP visits, but also that patients do not require many long-term visits to
start seeing a reduction in their PCP utilization. After the first three months of utilizing services, BHC utilization drops significantly well. After another three months, both PCP and BHC visits continue to drop (see Figure 2). This is consistent with previous studies that have been proponents of the efficacy of short-term integrated care model (Bryan, Morrow, et al., 2009; Davis et al., 2008; Kadera et al., 1996).

Another issue regarding utilization is related to the research that suggests that those with anxiety and medical morbidity are likely to be persistent high utilizers of primary care services (Ford et. al., 2005). The results from this study are consistent with this finding, in that compared to patients whose problems were related to adjustments issues (e.g., work problems, behavioral problems, changes in the family system, etc.), patients with problems related to anxiety, mood, or health issues utilized PCP services at a higher rate. Additionally, those with health problems are more likely to utilize PCP services at a higher rate. This study also evaluated whether similar trends could be seen in the utilization of BHC services. Unlike PCP utilization trends, only those who were referred to a BHC for anxiety problems utilized BHC services significantly higher than those with LD, ADHD, or Cognitive problems; all other groups utilized BHC services in a similar manner. Understanding these patterns of physical and mental health care utilization may help tailor screening patients for anxiety and mood disorders on a routine basis, so as to identify patients prior to their increase in services utilization and refer to a BHC earlier.

Studies regarding the use of mental health and primary care services by men and women have typically concluded that men use these services less frequently than women (Leaf & Bruce, 1987). Within this study it was evident that more women use mental health services more than men; however, there is no significant difference in the mean number of BHC visits between men
and women. This suggests that men are likely to see a BHC in the same manner as women, and therefore an integrated primary care clinic may reduce barriers for mental health services for men.

**Implications**

A main purpose for completing this study was to evaluate if a practicum program at a small rural the a current practicum program at a medical center in a rural Northwestern area near Portland, Oregon area, while also evaluating trends for the purpose to suggesting possible changes that could be made in providing services. The importance of this study was due to the fact that there is a high need for psychologists with integrated primary care training (Beachman et al., 2012; Veterans Health Administration, 2008), but a limited number of programs offering this specific experience (Beachman et al., 2012). The results of this study suggest that students who receive this training are able to make similar differences in a healthcare system, specifically in regards the decrease of utilization of services, as have been cited in integrated primary care systems where the BHC is a psychologist. This implies that students are not only providing a service to an agency in need by creating change in patients, but also are learning the skills and having the experience that will make them ready and qualified to enter the workforce.

The evaluation of utilization trends of PCP services, in relation to utilization of BHC services, also suggests that there is a point during the primary care treatment where the patient may be benefited from being referred. Specifically, it may be beneficial for primary care physicians to participate in early detection and intervention by referring patients when their mean number of visits starts to increase to approximately one visit every other month.
Additionally, when evaluating the data it was determined that patients with certain reasons for referrals were more likely than those with other referral reasons to have significantly more number of visits when compared to others with differing reasons for referral. This information not only assists the healthcare professionals in these three clinics, but also at other integrated primary care settings by suggesting the use of screening tools for mood, anxiety, and health issues, as patients with these issues are likely to use PCP services significantly more than patients with different issues.

Limitations

The main issues of limitation that can be assumed in this study are primarily related to the data collection. Specifically, during the data collection phase of this study there was a lack of a stringent structure for collecting information. This appears to have resulted in gender not being collected despite the information being readily available. As a result the gender for a majority of the clients was assumed, while some individuals were left with an “unknown” gender label. Additionally, specific instructions or categories for gathering information such as referral reason, was not addressed prior to collecting the data which may have played a part in having an extensive number of referral questions/diagnosis. This lack of structure may have resulted in results that are not completely accurate. Lastly, due to the organization's procedures ethnicity was completely disregarded. In evaluating programs, especially those related to mental health utilization, gathering and analyzing data about multicultural factors is important for a better understanding current functions and possible changes that could be made. A further limitation is only having chart data as means of evaluating the programs efficacy.
Directions for Future Research

Future research can easily focus on addressing the limitations listed above, in order to gain a clearer understanding of how gender, ethnicity, and reason for referral effect utilization of both PCP and BHC services. Another addition to the research could come from the use of a control group. A control group could be used to examine whether a similar decrease in PCP use would happen for those who did not see a mental health provider or saw a mental health provider that was not associated with the primary care clinic. Based on the research and the results of this study, the patients would either maintain their relatively high use of PCP services or may also increase their use of PCP services.

Conclusion

Overall, this study supports previous research that has identified the decrease in use of services in an integrated primary care setting after visiting with a BHC consultation. This study also showed the benefit in having a graduate level student in the role of a BHC not only for the benefits received by the primary care setting and the patients, but also for the graduate student who will be entering the workforce in the years to come. This study showed that students in training not only gain experience with consultation, but also learn the behavioral health intervention skills to make effective change.
References


Peterson, M. & Turgesen, J. (2011). *Developing practica in integrated care: Meeting the needs of future clinicians*. Unpublished manuscript, Graduate Department of Clinical Psychology, George Fox University, Newberg, Oregon.


Appendix A

Coded Referral Reason Groups
1. Learning Disabilities, Attention Deficit/Hyperactivity Disorders, and Cognitive Disorders
   (Total: 87 cases)
   - ADHD (60 Cases)
   - ADHD/Depression (1 Case)
   - Cognitive (1 Case)
   - Cognitive Impairment (1 Case)
   - Dementia (4 Cases)
   - Inattention (1 Case)
   - Learning Disability (2 Cases)
   - Memory (17 Cases)

2. Adjustment Disorders (Total: 68 Cases)
   - Adjustment Disorder (11 Cases)
   - Behavioral Problems (18 Cases)
   - Bullied (1 Case)
   - Caregiver Support (4 Cases)
   - Couples (3 Cases)
   - Family Issues (2 Cases)
   - Grief (10 Cases)
   - Occupational Problems (1 Case)
   - Parent Divorce (2 Cases)
   - Parent-Child Relation (4 Cases)
   - Parent/Child (1 Case)
Phase of Life (1 Case)
Relationship Issues (8 Cases)
Social Problems (1 Case)
Social Skills (1 Case)

3. Anxiety Disorders (Total: 218 Cases)
   Acute Trauma (1 Case)
   Anxiety (109 Cases)
   Anxiety/Anger (1 Case)
   Anxiety/Chronic Pain (1 Case)
   Anxiety/Depression (77 Cases)
   Anxiety/OCD (1 Case)
   Anxiety/Social Phobia (1 Case)
   OCD (1 Case)
   Panic Attack (10 Cases)
   PTSD (1 Case)
   Separation Anxiety (1 Case)
   Social Phobia (2 Cases)
   Stress (9 Cases)
   Stress Management (2 Cases)
   Stress/Behavioral Problems (1 Case)

4. Health Problems (Total: 59 Cases)
   Chronic Fatigue (1 Case)
Chronic Pain (22 Cases)
Chronic Pain/Anxiety (3 Cases)
Chronic Pain/Depression (8 Cases)
Eating Disorder (2 Cases)
Encopresis (1 Case)
Fecal Incontinence (1 Case)
Hypertension (1 Case)
Insomnia (6 Cases)
Obesity (2 Cases)
Overeating (2 Cases)
Pain (2 Cases)
Smoking (4 Cases)
Somatic (1 Case)
TBI (2 Cases)
Weight Management (1 Case)

5. Mood Disorders (Total: 192 Cases)
   Anger (1 Case)
   Anger Management (8 Cases)
   Anger/Anxiety (1 Case)
   Anger Grief (1 Case)
   Bipolar (3 Cases)
   Bipolar Disorder (1 Case)
Bipolar/Anxiety (1 Case)

Depression (164 Cases)

Depression/Anger (3 Cases)

Depression/Anxiety (1 Case)

Depression/Bipolar (2 Cases)

Depression/Chronic Pain (2 Cases)

Depression/Eating Disorder (1 Case)

Mood Swing (1 Case)

Postpartum Depression (1 Case)

Schizoaffective Disorder (1 Case)

6. Substance Related Disorders (Total: 11 Cases)

ETOH Abuse (1 Case)

Substance Abuse (10 Cases)
Appendix B

Curriculum Vitae
**S Y R E T T  Y V O N N E  T O R R E S**

**CURRICULUM VITAE**

### EDUCATION

<table>
<thead>
<tr>
<th>Year</th>
<th>Institution</th>
<th>Location</th>
<th>Major</th>
<th>Degree</th>
<th>Graduation Date</th>
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<tbody>
<tr>
<td>2010 - Present</td>
<td><strong>George Fox University</strong></td>
<td>Newberg, Oregon</td>
<td>Graduate Department of Clinical Psychology: APA Accredited</td>
<td>Doctorate of Psychology in Clinical Psychology</td>
<td>August 2013</td>
<td>3.9</td>
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<tr>
<td>2008 - 2010</td>
<td><strong>George Fox University</strong></td>
<td>Newberg, Oregon</td>
<td>Graduate Department of Clinical Psychology: APA Accredited</td>
<td>Master of Arts in Clinical Psychology</td>
<td>May 2010</td>
<td>3.9</td>
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<tr>
<td>2004 - 2008</td>
<td><strong>Hope International University</strong></td>
<td>Fullerton, California</td>
<td>Pacific Christian College</td>
<td>Bachelor of Arts in Psychology</td>
<td>May 2008</td>
<td>3.6 (Cum Laude)</td>
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### HONORS & AWARDS

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<tr>
<td>2012</td>
<td>George Fox University Graduate Department of Clinical Psychology: Special Commendation for Accomplishments and Contributions to the Program</td>
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<tr>
<td>2010</td>
<td>George Fox University Graduate Department of Clinical Psychology: Special Commendation for Accomplishments and Contributions to the Program</td>
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<td>2008</td>
<td>Hope International University: Cum Laude</td>
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<td>Hope International University Dean’s List: 7 semesters</td>
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<td>2005</td>
<td>Hope International University Education Scholarship</td>
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<td>2004</td>
<td>Hope International University Dean’s Scholarship</td>
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PROFESSIONAL AFFILIATIONS

2011 – Present  
Association of Contextual Behavioral Science  
Student Affiliate

2008 – Present  
American Psychological Association  
Graduate Student Affiliate

2007 – 2011  
Western Psychological Association  
Student Member

ORGANIZATION INVOLVEMENT

2012 – Present  
Wasatch Mental Health  
Internship Cohort Representative

2011 – 2012  
George Fox University Graduate Department of Clinical Psychology  
Student Council President

2010 – 2012  
George Fox University Graduate Department of Clinical Psychology  
Student Council Member – Cohort Representative

2009 – 2011  
George Fox University Graduate Department of Clinical Psychology  
New Student Orientation Facilitator

2009 – 2010  
George Fox University Graduate Department of Clinical Psychology  
Admissions Committee Member

2009 – 2010  
George Fox University Graduate Department of Clinical Psychology  
Peer Mentor

2007 – 2008  
Pacific Christian College (HIU) Psychology Club  
Co-Founder & Senator

2006 – 2007  
Pacific Christian College (HIU)  
Barnabas (Small Group) Leader
**Clinical Experience**

8/12 – Present  
**Wasatch Mental Health**  
Provo, Utah  
*Predoctoral Psychology Intern*  
Training Director: Dr. Randal Pennington, Psy.D.  
Primary Supervisor: Dr. Geri Alldredge, Ph.D.  
Responsibilities: Provide psychological services, including individual and group psychotherapy, mental health evaluations for disability services, and psychological assessments to a wide varied to individuals with severe and persistent mental illnesses within an outpatient setting and through wrap around services for the severe population. Psychotherapy includes diagnosis interview, diagnosis, treatment planning, intervention, and termination with evidenced based practices. Psychological assessment include the use to personality, cognitive/intellectual, neuropsychological, projective, adaptive, and behavioral measures. Chosen by psychology staff as the Internship Cohort Representative for the remainder of the internship year.

5/11 – 6/12  
**Evergreen Clinical**  
Portland, Oregon  
*Preintern Therapist*  
Supervisor: Dr. Brian Goff, Ph.D.  
Responsibilities: Provided psychological services, including individual and couples psychotherapy and psychological assessment, to a wide variety of underinsured or uninsured individuals with diverse concerns within a private practice setting. Psychotherapy included diagnostic interview, diagnosis, treatment planning, intervention, and termination with the primary therapeutic approach being Acceptance and Commitment Therapy and other third-wave modalities. Primary psychological assessments included the use of personality measures. Worked with individuals in the community to provide information about the psychological services offered, as well as psycho-educational information regarding common psychological problems. Managed the office independently by communicating with referral sources, organizing finances, and developing the client caseload. Attended weekly individual supervision with a licensed clinical psychologist.
12/10 – 4/12  
**George Fox Behavioral Health Clinic**  
Newberg, Oregon  
*Psychological Assessor*  
Supervisor: Dr. Joel Gregor, Psy.D.

**Responsibilities:** Conducted psychological assessments at a minimal-cost community mental health clinic serving underinsured and uninsured individuals in the surrounding area, as needed. Psychological assessments performed included the use cognitive/intellectual, neuropsychological, personality, adaptive, behavioral, and projective measures, depending the referral question. Results were primarily used to diagnostic and treatment planning purposes.

7/10 – 7/11  
**Willamette Family Medical Center**  
Salem, Oregon  
*Practicum II Therapist*  
Supervisors: Dr. Charity Benham, Psy.D.; Dr. Joel Gregor, Psy.D.

**Responsibilities:** Provided psychological services, including individual and family psychotherapy and psychological assessment, to a wide variety of underinsured and uninsured individuals with diverse concerns within a co-location primary care setting. Psychotherapy included diagnostic interview, diagnosis, treatment planning, intervention, and termination with the primary therapeutic approach being Cognitive Behavioral Therapy. Psychological assessments performed included the use of cognitive/intellectual, adaptive, behavioral, and projective measures, depending the referral question. Common referral questions included memory problems, dementia screeners, and ADHD/ADD problems. Served as a mental health specialist on a multidisciplinary team consisting of primary care providers, social workers, and a psychiatric nurse practitioner. Attended weekly individual supervision with a licensed clinical psychologist and weekly group supervision with a licensed mental health provider. Assisted in program development.

9/09 – 6/10  
**North Clackamas Unified School District**  
Clackamas, Oregon  
*Practicum I Therapist*  
Supervisors: Dr. Fiorella Kassab, Ph.D.; Stacy Rager, M.S.

**Responsibilities:** Provided psychological services, including individual and group psychotherapy and psychological assessment, to a wide variety of students with diverse concerns and problems within a school setting. Psychotherapy included treatment planning and intervention with the primary therapeutic approach being Behavioral Therapy. Group therapy covered topics such as Adult Life Skills, Social Skills, and Coping and Support Skills. Psychological assessments performed included the use of cognitive/intellectual, adaptive, and behavioral measures, depending the
referral question. Common referral questions included qualification for a variety of learning disabilities. Psychological assessment also consisted of semi-structured interviews with students, teachers, and parents/guardians. Attended weekly individual supervision with a school psychologist, weekly supplemental supervision with a licensed clinical psychologist and weekly group supervision with a licensed clinical psychologist. Assisted in program development at primary site.

1/09 – 4/09

**George Fox University Counseling Center**
Newberg, Oregon

*Prepracticum Therapist*

Graduate Student Supervisor: Hillary Lambert, M.A.
Licensed Supervisor: Dr. Clark Campbell, Ph.D.

**Responsibilities:** Provided individual psychotherapy to two undergraduate students within a university counseling center setting. Psychotherapy included diagnostic interview, diagnosis, treatment planning, intervention, and termination with the primary therapeutic approach being Client Centered Therapy. Attended weekly group supervision with an advanced graduate student who was supervised by a licensed clinical psychologist. Reviewed videotaped sessions and presented cases.

**Research Experience**

2012 – Present

**Research Team: Wasatch Mental Health**

Supervisors: Dr. Randal Pennington, Psy.D.
Dr. Jaime Housekeeper, Psy.D.

**Responsibilities:** The purpose of this study is to complete an internal evaluation of barriers that contribute to early drop out, including the internal issues (i.e., intake process, lack of availability, etc.) and external issues (i.e., transportation, lack of child care, etc.). Primary role on team is to collect, analyze, and professionally present the data. Intend to publish.

2012 – 2013

**Dissertation: George Fox University**

Chairperson: Dr. Marie-Christine Goodworth, Ph.D.

**Responsibilities:** Designed and executed an original evaluative study to examine the efficacy of graduate level behavioral health consultants (BHCs) and areas of possible change in a local primary care practicum. Successfully defended on February 14, 2013. Intend to publish.
Research Team: George Fox University/Georgia Health Sciences University/Multiple Sclerosis Center of Atlanta
Supervisor: Dr. Marie-Christine Goodworth, Ph.D.

Responsibilities: The purpose of the study was to investigate the various distress levels and health behaviors of caregivers of people with Multiple Sclerosis. Contributed towards data analysis, final write-ups of methods, results and discussion, and preparation of presentation materials. Poster session presented at the annual meeting of the American Psychological Association, Washington, D.C.

Research Team: George Fox University
Supervisor: Dr. Rodger Bufford, Ph.D.

Responsibilities: The purpose of the study was to investigate the need for stronger supervision guidelines within the American Psychological Association’s (APA) ethical code. Contributed towards literature review, information organization, and preparation of presentation materials. Poster session presented at the annual meeting of the Western Psychological Association, Portland, Oregon.

Research Team: Hope International University
Supervisor: Dr. Elliott Lawless, Psy.D.

Responsibilities: Designed a quantitative study to investigate the effects of coping strategies on frustration tolerance in college students. Poster session presented at the annual meeting of the Western Psychological Association, Irvine, CA.

Professional Presentations


## Teaching Experience

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<th>Period</th>
<th>Institution</th>
<th>Location</th>
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<tr>
<td>9/11 – 5/11</td>
<td>George Fox University</td>
<td>Newberg, Oregon</td>
<td>Graduate Assistant for Dr. Mary Peterson, Ph.D.</td>
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<tr>
<td></td>
<td>Course: Clinical Foundations</td>
<td></td>
<td>Semesters: Fall 2011, Spring 2012</td>
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<td></td>
<td>Responsibilities:</td>
<td></td>
<td>Worked approximately eight hours per week supervising four prepracticum students and receiving supervision. Supervision provided consisted of weekly group training sessions, bi-weekly individual feedback sessions, watching and critiquing of therapeutic videos, and grading assignments. Attended weekly supervision with a licensed clinical psychologist.</td>
</tr>
<tr>
<td>1/10 – 4/11</td>
<td>George Fox University</td>
<td>Newberg, Oregon</td>
<td>Graduate Assistant for Dr. Kathleen Gathercoal, Ph.D.</td>
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<tr>
<td></td>
<td>Course: Statistics</td>
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<td>Semesters: Spring 2010, Spring 2011</td>
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<td></td>
<td>Responsibilities:</td>
<td></td>
<td>Worked approximately four hours per week completing a variety of tasks. Scheduled appointments with students requiring individual or group assistance. Developed and presented lectures regarding correlations and regressions. Presented demonstrations in regards to running and interpreting statistical measures. Assisted in the grading of homework assignments, quizzes, the final exam, and final project. Proctored exams and quizzes.</td>
</tr>
<tr>
<td>8/07 – 12/07</td>
<td>Hope International University</td>
<td>Fullerton, California</td>
<td>Professor’s Assistant for Dr. Elliott Lawless, Psy.D.</td>
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<td></td>
<td>Course: Introduction to Psychology</td>
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<td>Semester: Fall 2007</td>
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<tr>
<td></td>
<td>Responsibilities:</td>
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<td>Worked approximately two hours per week completing a variety of tasks. Led monthly study groups for students needing extra assistance. Assisted in classroom discussions. Assisted professor with classroom needs.</td>
</tr>
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**VOLUNTEER WORK**

6/11  
**Royal Family Kids Camp**  
*Relief Counselor*  
Silverton, Oregon

Responsibilities: Resumed the role of a camp counselor for two hours a night in order to provide relief for primary counselors. Worked with children, ages 9 to 11, currently within the foster care system or had a history of being a part of the foster care system.

9/04 – 3/08  
**New Day Christian Church**  
*Youth Leader/Youth Sponsor*  
Norco, California

Responsibilities: Mentored school age to adolescent students within a church setting. Acted as the primary female leader at seven off-site retreats and co-led three long-term female small groups. Provided social and spiritual support for both males and female students. Prepared and presented sermons.

9/06 – 5/07  
**Hope International University**  
*Barnabas (Small Group) Leader*  
Fullerton, California

Responsibilities: Mentored four freshmen students during their first year of undergraduate. Led weekly group meetings focusing on social, emotional, and spiritual support. Met with students individually.

**CLINICAL TRAININGS**

1/13  
*Understand & Treating Sexual Compulsivity*  
Dr. Mark Chamberlain, Ph.D.  
Wasatch Mental Health, Provo, Utah

12/12  
*Ethics: Elder and Vulnerable Adult Abuse*  
Dr. Michael Wilkins, Ph.D.  
Wasatch Mental Health, Provo, Utah

10/12  
*Neurocognitive Screen & Remediation*  
Dr. Larry Dunning, Ph.D.  
Wasatch Mental Health, Provo, Utah

10/12  
*Emotionally Focused Therapy and Hold Me Tight*  
Dr. Sue Johnson  
Brigham Young University, Provo, Utah
8/12  *Cultural Sensitivity and Competence in Working with LDS Clients*  
Dr. Micahel Wilkins, Ph.D.  
Wasatch Mental Health, Provo, Utah

11/11  *Cross-Cultural Psychological Assessment*  
Dr. Tedd Judd, Ph.D.  
George Fox University, Newberg, Oregon

10/11  *Clinical Applications of Motivational Interviewing*  
Dr. Michael Fulop, Ph.D.  
George Fox University, Newberg, Oregon

8/11  *2011 American Psychological Association Convention*  
Washington D.C.

6/11  *Assessment of ADHD in Children and Adults: Update 2011*  
Dr. Steven J. Hughes, Ph.D., LP, ABPdN  
George Fox University, Newberg, Oregon

3/11  *Neurobiological Effects of Trauma*  
Dr. Anna Berardi, Ph.D.  
George Fox University, Newberg, Oregon

2/11  *Child Custody Evaluations: Not for Everyone. Review of Recent APA Practice Guidelines*  
Dr. Wendy Bourg Ransford, Ph.D.  
George Fox University, Newberg, Oregon

2/11  *Current Research and Best Practices for Treatment When Working with the LGBT Population*  
Jennifer Bearse, M.A.  
George Fox University, Newberg, Oregon

10/10  *Best Practices in Multi-cultural Assessment*  
Dr. Eleanor Gil-Kashiwabara, Psy.D.  
George Fox University, Newberg, Oregon

10/10  *Trends and Opportunities in the Field of Professional Psychology*  
Dr. Judy Hall, Ph.D.  
George Fox University, Newberg, Oregon

10/10  *Primary Care Behavioral Health: Where Body, Mind, (& Spirit) Meet*  
Dr. Neftali Serrano, Psy.D.  
George Fox University, Newberg, Oregon
6/10  "Outcomes Measures, Reimbursement, and the Future of Psychotherapy"
Dr. Jeb Brown, Ph.D.
George Fox University, Newberg, Oregon

6/10  "The Wechsler Memory Scale-4th Edition: Overview and Use with the Advanced Clinical Solutions for the Wechsler Scales"
Dr. James A. Holdnack, Ph.D.
George Fox University, Newberg, Oregon

Dr. Carol Carver, Ph.D.
George Fox University, Newberg, Oregon

2/10  "Integrative and Clinical Dimensions of Gratitude"
Dr. Philip Watkins, Ph.D.
George Fox University, Newberg, Oregon

11/09  "Consultations and Collaboration with the Emergency Department"
Dr. John Mitchell
George Fox University, Newberg, Oregon

9/09  "Multi-cultural Counseling: An Alternative Conceptualization"
Carlos Taloyo, Ph.D.
George Fox University, Newberg, Oregon

6/09  "2009 Annual Northwest Assessment Conference: An Introduction to the MMPI-2-RF"
Yossef S. Ben-Porath, Ph.D.
George Fox University, Newberg, Oregon

4/09  "Western Psychological Association 89th Annual Convention"
Portland, Oregon

4/09  "Treatment and Teaching Interventions for Children with Autism"
Gary Mesibov, Ph.D.
George Fox University, Newberg, Oregon

3/09  "Pacific Northwest Neuropsychological Society 22nd Annual Conference"
University of Washington, Seattle, Washington

1/09  "Clinical Case Discussion Regarding a Battered Woman"
Patty Warford, Psy.D.
George Fox University, Newberg, Oregon
<table>
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<th>Title</th>
<th>Authors</th>
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<tr>
<td>11/08</td>
<td>Practicing in Primary Care Psychology</td>
<td>Julie Oyemaja, Psy.D.</td>
<td>George Fox University, Newberg, Oregon</td>
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<td>10/08</td>
<td>Towards a Global Christian Psychology: Re-considering Culture and Context</td>
<td>Dr. Derek McNeil, Ph.D.</td>
<td>George Fox University, Newberg, Oregon</td>
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<tr>
<td>4/08</td>
<td>Western Psychological Association 88th Annual Convention</td>
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<td>Irvine, California</td>
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REFERENCES

Available upon request.