

A PROGRAM EVALUATION OF A PARTIAL HOSPITALIZATION PROGRAM  
APPLYING A BIOPSYCHOSOCIAL-SPIRITUAL MODEL

By Gary D. Hole

A dissertation to fulfill the requirements for a  
DOCTOR OF PSYCHOLOGY IN COUNSELING PSYCHOLOGY

at

NORTHWEST UNIVERSITY

2016

Signatures omitted for security purposes.

Approval Signatures:

---

Larry W. Bailey, Ph.D., Dissertation Chair Date

---

K. Kim Lampson, Ph.D., Committee Member Date

---

Jeffrey Stover, Psy.D., Committee Member Date

---

Matt Nelson, Ph.D., Dean of College of Social and Behavioral Sciences Date

### Abstract

This study evaluated the efficacy of a partial hospitalization (PH) program based in the Meier Clinic's private counseling center in Bothell, Washington, which was originally developed in the late 1980s. PH programs became popular from the 1960s to 1990s and were supported by significant research in validation and standardization during this time. PH program development was intended to offer a more cost effective and practical transition between psychiatric hospital inpatient and outpatient care. Three proposed hypotheses for this research study were proved true; (a) the Meier Clinics PH program under evaluation was effective in reducing depression and anxiety, (b) the Meier Clinics PH program under evaluation was effective in improving the overall mental health of the patient, and (c) varying the 5 interns that provide therapy in the Meier Clinics program each year have no significant affect on the program effectiveness. A logical expectation of efficacy was based on the literature review for PH programs and clarifying how the Meier Clinics program followed the structural parameters of the standardized PH program. The study included 87 participants, 53 female and 34 males, which went through the PH program from 2012 through 2015. The participants were diagnosed for depression and/or anxiety, commonly comorbid with other axis I and/or II disorders, as defined by the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., text rev.; *DSM-IV-TR*; American Psychiatric Association, 2000). Each of the clients filled out the Behavior and Symptom Identification Scale (BASIS-32) questionnaire (Eisen, Wilcox, Left, Schaefer & Culhane, 1999) both before and after the PH program.

*Keywords:* partial hospitalization program, depression, anxiety, acute, brief

**Table of Contents**

Abstract .....	2
Chapter 1 .....	6
Definition: Partial Hospitalization Program .....	7
Introduction .....	8
Historical/Literature Review .....	11
Literature Review Summary .....	17
Description: Evaluated Partial Hospitalization Program .....	18
Partial Hospitalization Program Didactics: Foundational Core of Program .....	22
Rationale .....	23
Hypotheses .....	27
Chapter 2 .....	29
Introduction .....	29
Participants .....	29
Procedure For Testing .....	30
Materials .....	31
Behavior and Symptom Identification Scale .....	31
Statistical Analysis .....	33
Summary .....	34
Chapter 3 .....	35
Results .....	35
Data Analysis .....	35
Findings .....	36

Summary.....42

Chapter 4.....44

    Interpretation.....44

    Integration.....45

    Exploration.....48

    Future Directions and Recommendations.....49

    Conclusions.....50

References.....52

Appendix A.....60

**List of Tables**

Table 1: <i>Descriptive Statistics of Mean Test Scores for the BASIS-32 Questionnaire, Depression/Anxiety Subscale</i> .....	37
Table 2: <i>Descriptive Statistics of Differences in Mean Test Scores for the BASIS-32 Questionnaire, Depression/Anxiety Subscale</i> .....	39
Table 3: <i>Descriptive Statistics of Mean Test Scores for the BASIS-32 Questionnaire, Overall Full-scale Average</i> .....	40
Table 4: <i>Descriptive Statistics of Differences in Mean Test Scores for the BASIS-32 Questionnaire, Overall Full-scale Average</i> .....	42

## Chapter 1

Partial Hospitalization (PH) programs were developed and became popular in the 1960s through the 1980s. The objectives for the development of PH programs were two fold; to find an alternative cost effective mode of patient treatment over hospital inpatient treatment for a significant part of the population attending inpatient centers and provide for a transitional therapeutic holding environment between the hospital inpatient and outpatient setting. After leaving an inpatient setting, the patient was not necessarily emotionally ready to enter back into their naturalistic environment and seeing an outpatient therapist once a week. The literature review reflects a historical overview of PH programs because they were developed over an extended period of time in the 1960s through 1980s, with fewer studies from 1990 to present.

PH programs treated patients with comorbid mental disorders. A common thread throughout the literature review was that PH programs treated patients with various types of depression and anxiety (Bjorgvinsson et al., 2014; Horvitz-Lennon, et al., 2001; Kallert, et al., 2002; Mazza et al., 2004; McQuillan et al., 2005; Neuhaus, et al., 2007; Neuhaus, 2006; Ritschel, et al., 2012; Waddell & Demi, 1993). This was also the author's experience when serving as an intern for over three years in the Meier Clinics PH program. The majority of patients evaluated in the Meier Clinics PH program suffered from depression, comorbid with other axis I and/or II disorders, which were often part of the key focus of treatment. Therefore, the intent of this research study was to document how the Meier Clinics program was significantly supported by the historical PH program literature and attempt to verify the hypotheses that this program was effective in reducing depression and anxiety, and improving the overall mental health of the patient. The

literature review on PH programs also documented that relatively few studies had been done recently and more were needed, especially in treating depression and anxiety. The Meier Clinics program evaluation did therefore help fill the need for more present studies on PH programs for reducing depression and anxiety, and for evaluating the program for improving the overall mental health of the patient.

**Definition: Partial Hospitalization Program**

Partial hospitalization (PH) programs bridged the gap between inpatient hospitalization and outpatient treatment of a client. Inpatient hospitals, outpatient treatment centers, self, family or friends referred clients to a PH program. Clients attended a PH program during the weekdays. PH programs were intended to mirror an inpatient hospital setting in form and content, however were not intended for clients that required 24 hr care due to harm to self or others, or in need of constant medication monitoring for stabilization (Khawaja & Westermeyer, 2010). A key focus of the PH program was to provide a naturalistic milieu (providing an experience closer to home as compared to an inpatient hospital setting) that supported a client's ties to home and community. The standard goal of PH treatment was to maintain (for chronic patients) or improve an acute patient's functioning in order to return the client home in a pre-morbid condition with outpatient support, instead of needing to refer the client to inpatient treatment (The National Association of Private Psychiatric Hospitals & the American Association for Partial Hospitalization, 1990). Major diagnostic, psychopharmacology support, acute stabilization, interactive group therapy, family therapy, individual therapy, psychoeducation, occupational counseling and support in returning to or finding work were all included in the program structure. Clients were encouraged to continue the daily

program training at home or in the community. The patient would then return to the program to discuss and process their experiences the following day (Block & Lefkowitz, 1991; West, Casarino, DiBella & Gross, 1980).

Through the foundational work of the American Association for Partial Hospitalization (AAPH), a group of dedicated researchers condensed the research accumulated over the previous 20 years and established the Standards and Guidelines for Partial Hospitalization (Casarino, Wilner, & Maxey, 1982). The group provided the broad definition of a PH program as follows:

Partial hospitalization is an ambulatory treatment program that includes the major diagnostic, medical, psychiatric, psychosocial, and prevocational treatment modalities designed for patients with serious mental disorders who require coordinated intensive, comprehensive, and multidisciplinary treatment not provided in an outpatient clinic setting. It allows for a more flexible and less restrictive treatment program by offering an alternative to inpatient treatment (Task Force on Partial Hospitalization, 1980).

### **Introduction**

PH programs have historically proven to be valuable and varied in structure in order to manage a broad spectrum of client psychiatric, emotional and relational needs (Khawaja & Westermeyer, 2010; McNabola, 1975). PH programs treat a client holistically and intended to provide the equivalent functionality of an inpatient setting, without the beds and 24 hr care for safety and medication management (Russell, Mai, Busby, Attwood, Davis & Brown, 1996). The PH program was born out of recognition that clients often did not need full inpatient services, which was a significant reason that



mental health costs were burgeoning in state run mental health hospitals. Researchers realized that unless the patient needed full-time observational support for medication regimen, or were harm to self or others, the client did not necessarily need full inpatient services (Neuhaus, 2006; Russell et al., 1996). Hoge, Davidson, Hill, Turner and Ameli (1992) and Parker and Knoll III (1990) stated that anywhere from 15 - 66% of historical inpatient clients could be properly treated using a PH program depending on the study used. The inpatient experience was often seen as disruptive to the client because inpatient stays often lasted several months to more than a year (Casarino et al., 1980; Parker & Knoll III, 1990). The client would be isolated from their normal family and community while in the hospital. Because of the isolation, there was growing concern that the transition from inpatient services back into the community was tenuous (Casarino, Wilner & Maxey, 1980). Chances were high that the client would regress and end up back in inpatient care (Kallert, Priebe, McCabe, Kiejna, Rymaszewska, Nawka, Ladislav, Raboch, Stárková-Kalisová, Koch & Schützwohl, 2007). Hoge, Farrell, Munchel and Strauss (1988) suggested that PH programs might have been therapeutically effective because they provided both autonomy and structure. Inpatient hospitals stressed structure, and due to the basic nature of outpatient services, they supported patient autonomy. Thus, clients in PH programs received structure while they faced their issues and the autonomy to take responsibility for resolving those issues (Neuhaus, 2006; Rosie, Hassan, Piper & Joyce, 1995).

In PH treatment, clients were treated during weekdays and sent home to be with family and community at night and weekends. By sending clients home each night, the transition from treatment to home and community was much less disruptive to the client

(Kallert, et al., 2007). In other words, PH programs provide a community milieu much closer to their natural environment (Parker & Knoll, 1990). The structure of the PH program more easily provides for family and friend involvement and allows the clients opportunities to work part time or receive support for career development and finding work (Casarino, et al., 1980). Thus, PH programs resolved the three key problems with inpatient care by: (a) reducing costs by keeping patients out of the hospital, (b) providing for a healthier transition from treatment to family and community, and (c) documenting detrimental effects from state run institutionalized hospitals (Casarino, et al., 1980; Schwartz & Thyer, 2008).

PH programs appear to be an ideal fit between inpatient hospitalization and outpatient care (Khawaja & Westermeyer, 2010). Conversely, there were several forces resisting early PH proliferation. The inpatient medical infrastructure, specifically psychiatry, questioned the health safety and professional support clients would receive when being removed from the hospital setting (Mason et al., 1981). Questions were asked: Would clients receive the varied program support (e.g., art, exercise, training, group therapy, occupational therapy, physical therapy programs) that the average hospital provided? Would clients receive the medical and psychopharmacology support that was periodically needed? Because of these questions, psychiatrists were concerned about ultimate ethical and safety responsibilities for their clients when referred to PH programs. Psychiatrists and hospital management were also concerned about monetary loss if clients were removed from the inpatient setting (Mason et al., 1981; Parker & Knoll, 1990).

Ultimately, a deciding factor that favored the PH program was the federal government. The federal government was acutely aware of the burgeoning costs of state

funded mental hospitals. They believed PH programs to be the answer. The federal government was less concerned about the efficacy of mental health services and more concerned about monetary savings. They legitimized the support of PH programs through the mental health legal mandate, the Mental Retardation and Community Mental Health Center Construction Act of 1963 (Casarino, et al., 1980; Parker and Knoll, 1990).

### **Historical/Literature Review**

The first PH program was established in the United States in 1935 at the Adams House in Boston (McNabola, 1975). Later, the Joint Commission on Mental Illness and Health released a national study in 1961, recognizing the importance of moving towards expanded community resources (McNabola, 1975). Years of research had been released validating the value and significance of PH programs (Hoge, Farrell, Munchel & Strauss, 1988). Soon after, in 1963, with support from John F. Kennedy, the Mental Retardation Facilities and Community Mental Health Centers Construction Act was put into law. The law dictated that funds would be provided to mental health services at a community level and more specifically, PH programs were made mandatory. The intention of the act was to end the more than 100-year-old institutionalized hospital establishment for treating serious mental illness, and to improve the overall mental health care services in the United States (McNabola, 1975; Parker & Knoll, 1990). Parker, et al. (1990) also pointed out that civil rights and the advent of psychotropic medications were strongly influential in support of the deinstitutionalization of mental health (Casarino et al., 1980).

In parallel with the momentum gained from government involvement, further research added support for PH programs as they continued to proliferate through the 1960s onward (Casarino et al., 1982; Parker et al., 1990; Russell et al., 1996). During the

1970s, many PH study groups formed and ultimately coalesced into the Federation of Partial Hospitalization Study Groups. As part of the earlier PH groups, West et al. (1980) established the first organized guidelines for a PH program. As support grew on a national level, the groups officially formed the American Association for Partial Hospitalization (AAPH) (Casarino et al., 1982).

One of the original priorities of the AAPH was concern for the proliferation of the myriad programs and program definitions developed under the umbrella of PH programs. Standardization was needed in order to further authenticate PH programs (West et al., 1980). In fact, the lack of standardization of PH programs was considered one of the strongest reasons for limited acceptance from the medical and insurance institutions. Casarino et al. (1982) established the officially recognized documentation for the standardization of the PH program as part of the AAPH infrastructure.

Even with documented standardization, Mason et al. (1981) expressed that historical PH programs in general might not have been growing as quickly as expected for several reasons. Even with the standardized guidelines, there was still a broad spectrum of variation in PH program structure (Parker et al., 1990). Because PH programs remained non-standardized, medical clinicians questioned whether any given PH program would provide the mental health care they expected. In addition, there was still reluctance by third-party payers to pay for an alternative option to inpatient treatment (Casarino, et al., 1980). Hospitals were still seeking to maintain a fuller occupancy level. There was also confusion as to which patients qualified for PH programs, clinician bias, and family reluctance to support a newer modality, as well as concern that the family

would need to take greater responsibility for their family member (Hoge et al., 1992; Mason et al., 1981; Parker et al., 1990).

Due to significant ongoing resistance from medical institutions to PH programs, the AAPH (Casarino et al. 1982; West et al. 1980) and many others (Horvitz-Lennon, Normand, Gaccione & Frank, 2001) encouraged continued research to help validate the important niche the PH program provided between inpatient hospitalization and outpatient treatment. Block and Lefkowitz (1991) provided the first serious revision to the AAPH partial hospitalization program guidelines released in 1982. The intent was to provide a more detailed version based on newer research. Updated mental health care models prompted the revision. The update was also driven by a desire to continue to guide the development of quality treatment programs and encourage increased development and funding of PH programs. After the release of this update there appears to be little documented support by the AAPH for PH programs.

The majority of the available research on PH programs was published beginning in the 1960s through the 1980s. By the early 1990s, new research was relatively minimal on PH programs. Horvitz-Lennon et al., (2001) performed a comprehensive meta-analysis review comparing all relevant research on partial and full hospitalization, from 1957 through 1997. The authors pointed out that over two thirds of their references that fit their screening criteria were over a decade old. The authors also validated the need for PH program standardization (Casarino et al., 1982; Horvitz-Lennon et al., 2001). They found that a significant portion of research on PH programs remained sub-standard in controlling the research; there were large variations in evaluated program focus and a large spectrum in the diagnosis of treated clients (Mason et al., 1981; Neuhaus, 2006).

The authors explained that the meta-analysis review allowed for the validation of broad characteristics of PH programs, but one had to be careful in interpreting the results due to the subpar research available. Hoge et al. (1992) also documented the lack of ongoing research refinement over the past decade. There were two reasons in their argument for the lack of ongoing experienced researcher interest. Researchers were acutely aware that a large amount of research data over the previous two decades had already demonstrated PH programs were as effective as inpatient treatment, and that PH was definitely more cost effective over inpatient treatment, yet PH programs were still underutilized.

Hoge et al. (1992) also showed that newer publications appeared to be explaining their specific program structure and the methods used in their respective programs, yet was still based on old research. More recent research by Horvitz-Lennon, et al. (2001) expressed similar comments. Other recent researchers also used literature to support their publications that often came from the 1960s through the 1990s (Karterud & Urnes, 2004; Mazza, Barbarino, Capitani, Sarchiapone & Derisio, 2004; Khawaja & Westermeyer, 2010; Neuhaus, Christopher, Jacob, Guillaumot & Burns, 2007; Neuhaus, 2006).

Hoge et al. (1992) gave another reason for the continued underutilization of PH programs, which was the extensive length of stay of the standard PH program that often lasted months to years (Mason et al., 1981; West et al., 1980). Managed care did not approve of the cost versus benefit of long-term PH programs. Some research data appeared to validate short-term (2 to 4 weeks) PH programs that were most effective in stabilizing acutely ill clients, who supported managed care economics (Hoge, et al., 1988; Neuhaus, 2006; Waddell & Demi, 1993). Managed care key treatment goals were focused on treating the client for ambulatory stabilization, and quickly preparing the

client to enter back into the community. Acute PH programs were considered concurrent with treatment in outpatient settings, which was shown, could be accomplished within 4 weeks (Neuhaus et al. 2007; Neuhaus, 2006). Third party payers appeared to feel that extended psychosocial treatment that might normally run for months was no longer economically feasible for its value (Russell, et al., 1996). After acute stabilization in a short time frame, there was an apparent diminishment of treatment benefit (Hoge et al., 1992) that third party payers would not support because they argued it was no longer considered medical treatment.

Hoge et al. (1992) provided a brief history and suggested a future direction of PH programs. Because of the many unresolved issues, including lack of third party financial support, questionably long treatment trends, clinician bias, lack of general acceptance due to poor structural definition, and hospital need for higher use rates, PH programs in the public sector were in serious decline from the mid 1980s on (Rosie, Hassan, Piper & Joyce, 1995; Schwartz, et al., 2000). As the public sector declined, Hoge et al. (1992) explained the private sector grew in the area of PH programs treating the acutely mentally ill patient (Khawaja et al., 2010; Russell et al., 1996). The main thrust was economic in nature. During the same time, managed care became the main driver to control financial costs. Thus, the private sector was seriously pressured to control costs as they were expanding. Managed care recognized short-term PH programs as a cost-efficient way to stabilize acutely ill patients over inpatient services (Parker & Knoll, 1990; Neuhaus et al., 2007; Neuhaus, 2006).

Therefore, private sector PH programs continued to grow through the 1990s, yet with a morphed infrastructure in comparison with the original intent of the PH programs

(Hoge, et al., 1992). The initial intent of the PH program was to stabilize clients, treating with therapeutic pharmacology as needed, and then providing extended psychosocial treatment in preparing the client to return to the community. The short-term PH version was stabilizing the patient using the same methods as long-term, and then as quickly as was reasonable, support transition to either intensive or standard outpatient care as the client entered back into the community (Hoge et al., 1988; Horvitz-Lennon, et al., 2001; Russell et al., 1996). Little new research seems to appear on PH programs from 1992 to the present in the American arena for specifically treating depression and anxiety (Bjorgvinsson et al., 2014; Horvitz-Lennon, et al., 2001; Kallert, et al., 2002; Mazza et al., 2004; McQuillan et al., 2005; Neuhaus, et al., 2007; Neuhaus, 2006; Ritschel, et al., 2012; Waddell & Demi, 1993). What appears in the literature going forward are specific program presentations and evaluations in support of any given specialized program, within a general historical context of the PH program that was defined in the 1960's through 1991 (Björgvinsson, Kertz, Bigda-Peyton, Rosmarin, Aderka & Neuhaus, 2014; Neuhaus et al., 2007; Neuhaus, 2006). Although in more recent evaluations, the length of the majority of the programs remained significantly longer than 4 weeks. An apparent reason for the longer treatment ranges in research were because the PH programs evaluated were generally for treating more specialized cases like borderline personality and eating disorders, where longer stays have proven more effective (Crino & Djokvucic, 2010; Henderson, 2014; Hepburn & Wilson, 2014; Karterud & Urnes, 2004; Lazaro, et al., 2011; Nowoweiski, Arthery & Bosanac, 2011; Olmsted, McFarlane, Trottier & Rockert, 2013; Ritschel, Cheavens & Nelson, 2012). There have been few American articles written for short-term PH programs in treating depression and anxiety since the



mid 1990's (McQuillan, Rosetta, Guenot, Girand, & Lissner, 2005; Neuhaus et al. 2007; Neuhaus 2006; Ritschel, et al., 2012).

In more recent years, the Europeans appear to have taken over the lead in acute PH program research (Hoge et al., 1992; Kallert, et al., 2007, 2004, 2002). Europeans also have recognized and adjusted for many of the methodological shortfalls of the American research. The testing in Europe was much broader and more controlled for generalizability (Priebe et al., 2011). However, overall their conclusions were similar to historical American research; PH programs were more cost effective than inpatient treatment by up to 37%, the treatment was at par with inpatient treatment for psychopathology, treatment satisfaction, and subjective quality of life, while social disabilities were more improved than inpatient treatment. The researchers also found that the standard European treatment time was 78 days on average as identified in a large sample size evaluation across many treatment centers in multiple countries (Kallert et al., 2007). The authors pointed out that most PH programs in Europe were significantly funded by public services, which supported longer-term treatment.

### **Literature Review Summary**

In summary of the historical research on PH programs, it appears an argument could be made for either shorter or longer-term care based on the research chosen to support specific PH program goals. It appears that economics play a defining role in determining the general length of PH programs for any given psychological treatment regimen. It also seems that there will be a tensional balance between clinicians pushing for longer optimal treatment periods and managed care for expecting economically shorter time constraints. In the United States, managed care and supporting research leans

towards shorter-term acute PH programs for mood and anxiety disorders (Khawaja, et al., 2010; McHugh et al., 2013; Mazza et al., 2004; Neuhaus et al., 2007; Neuhaus, 2006; Ritschel, et al., 2012; Waddell & Demi, 1993), and in some cases for borderline personality disorder (Björgvinsson, et al., 2014; Karterud et al., 2004; McQuillan et al., 2005). Many of the recent American authors on PH programs encourage more research in this field to help define optimal treatment times and refined testing controls to determine cause and effect for optimizing treatment methods (Björgvinsson et al., 2014; Khawaja, et al., 2010; Mazza et al., 2004; McQuillan et al., 2005; Neuhaus et al., 2007; Neuhaus, 2006; Zaretsky, Lancee, Miller, Harris & Parikh, 2008).

#### **Description: Evaluated Partial Hospitalization Program**

The Meier Clinics PH program evaluated in this study applies the same basic methodology and structure that was established in the late 1980's. Two privately practicing psychologists created the didactics used as the core foundation of the program. A third psychologist, working with the other two, helped develop the program structure around the didactics, and has acted as the director of the program since its inception. The PH program is presently based in the Meier Clinic's private counseling center in Bothell, Washington.

As was discussed in the literature review, economics play a significant role in how the program is structured. Only a portion of managed care providers cover the contracted cost of the program. To help maintain costs in part, the director runs the program as an educational internship site for doctoral candidates and for a minority of qualified master level students.

The Meier Clinics program runs year-round, except for key holidays. Each year, the director handpicks five students through an intensive interviewing process, with a requirement that they commit to a full year term for consistency in maintaining the structure of the program. The director methodically chooses the 5 candidates that he determines to be the best mix of personalities with respective therapeutic approaches so that every client that goes through the Meier Clinics program has the best reasonable chance to form a solid therapeutic alliance with at least one therapist. Also, because the Meier Clinics program is highly structured and applies cognitive behavioral, object relations, and some dialectical behavior therapy as part of the treatment modality, the variation in intern relationship to patient development proves important in helping the clients gain insight into their emotional and relational needs.

For admittance into the Meier Clinics program, during the time period of this program evaluation, the director executed a detailed intake evaluation of each client. The director evaluated each client's psychopathology based on the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., text rev.; *DSM-IV-TR*; American Psychiatric Association, 2000). The director sequentially assigned the client to one of 5 interns to act as their case manager through the entirety of the program. The director reviewed the assessment with the staff, which included the 5 interns and the clinic administrator. The director provided 3 to 5 specific goals he desired the interns to focus on to best treat the client. The case manager created a treatment plan and presented it to the client for encouraged negotiation with the intension of obtaining a buy-in to help the client take responsibility for their treatment. The treatment plan was regularly reviewed with each client to evaluate progress and negotiate adjustments as appropriate.

The Meier Clinics program is three weeks long. The program structure perpetually repeats every three weeks. New clients might start anytime during the three weeks. Thus, new clients start with other clients that may have been finishing up with their three weeks. The total program client count at any given time was generally two to seven clients. Six to nine clients were considered optimal.

The three-week Meier Clinics program format is based on the structured core didactics being taught. The didactics are broken up into 29, one-hour sessions, twice per day. In addition, a one-hour didactic is taught twice to each client to complete the 30 total sessions. A different family-focused didactic is taught on Saturday mornings as part of the family group therapy session.

The weekly schedule for the program is from 9 am to 4 pm, Monday through Friday and from 9 am to 12 pm on Saturday. The day begins with a one-hour session that is freely determined by the therapist running the program that day (e.g., psychoeducation, art therapy, group therapy or bible study), followed by a one-hour didactic, ending the morning session with a one and one half hour group therapy session before lunch break that lasts for an hour. Clients are expected to return promptly at 1:30 pm for a second one-hour didactic, culminating in a second group therapy session ending at 4 pm. The Saturday session encompasses a one hour didactic followed by a 2 hour family group therapy session, which includes family and or friends of the clients.

The case manager is expected to meet with his or her client for individual therapy at least three times a week. The case manager works with the client to include family and or friends for at least one of the three sessions each week.

Because the Meier Clinics program is considered an acute PH program, the top priority is to ensure each client is supported for stabilization and safety. This includes both emotional and biological stabilization. If a client is receiving medical and or pharmacological intervention, the case manager is responsible to maintain direct and regular communication with their doctor. If the director, or the case manager, under the supervision of the director, deems it necessary for the client to be evaluated by a medical doctor, the case manager works with the client to encourage treatment. Depending on the functional capability of each patient, the treatment plan is organized to focus first on the patient's biological needs, then psychological, followed by sociological and spiritual. Clients experience the same overall program structure, regardless of their emotional stability. The difference is in individual client treatment by fine-tuning the relational/emotional/therapeutic interaction level with the client, based on the functional stability of each client. Some less functional clients receive little more than nurtured therapeutic stabilization, while others are able to take full responsibility for their overall growth. The overarching concept is to stabilize the patient as quickly as reasonable and then provide the full spectrum of biopsychosocial and spiritual tools to prepare the patient for returning to their family, friends and community. It is recognized that the average client would only be ready to apply a portion of what they had learned when leaving the program beyond stabilization. The longer-term goal is that patients smoothly enter back into their community while concurrently taking appropriate responsibility for their continued growth, by using the program-provided teaching and tools, as they are ready. The case manager seeks to help the client do so not only in the program, but also working with their family, friends, doctors and outpatient therapist as they are preparing to leave

the program. Often, the case manager continues to support the client in transition indirectly for up to several weeks after leaving the Meier Clinics program.

### **Partial Hospitalization Program Didactics: Foundational Core of Program**

The foundational structure of the Meier Clinics program is comprised of 30 one-hour didactics taught twice daily throughout the length of the program. The authors intended that the didactics provided the realistic and practical framework for teaching how a person developed into an emotionally and relationally healthy adult. Conversely, the didactics teach how and why a person might experience emotional dysfunction. Many psychoeducation concepts, biblical principles and psychological definitions are explained and discussed throughout the didactics (e.g., reasons for addictions, various mental health disorders, personality traits and family of origin issues, and application from a biblical perspective.)

The theoretical framework used in the didactics for human development is based on Object Relations Theory (ORT). Core concepts applied are: (a) the human need for bonding, attachment and connection versus isolation with key objects/relationships, (b) the human need for developing boundaries, separateness, autonomy and choice versus fusion with others, differentiating self from others, (c) resolving good and bad splitting of self and others, versus polarizing the good and bad parts of self and others, and (d) adult authority, mutuality or equality in relationship, versus child/parent positions.

In parallel with teaching the concepts of ORT, cognitive behavioral therapy (CBT) is used to help the client understand and apply key concepts (e.g., psychoeducation, general relaxation/calming methods, mindfulness, role playing, some art forms, cognitive reframing, some aspects of dialectical behavior therapy (DBT),

recognizing concepts of rumination, cognitive restructuring and taking responsibility for choices).

The concepts are taught and applied during all parts of the program. All clients are taught the same didactics with the same structure. Only the therapist that teaches any given day varies in the teaching of the didactics. The level of emotional and mental functioning and stabilization of each client individually dictates the level of expectation of the client for understanding and applying the didactics. The impetus for change and growth of the program is in its natural ability to vary optimized treatment for each client across a broad spectrum of emotional and relational dysfunction, while maintaining a rigid program structure. The program structure allows for treating varied acute and comorbid combinations of anxiety, depression and personality traits/disorders with respect to any given client and within a group setting. The clients are constantly challenged to take responsibility for their own growth by the choices they make, based on the negotiations they have with their case manager. The only clients that are not accepted into the program are those that are too emotionally unstable, causing danger to self or others, or their psychosis is too great to manage even with psychopharmacology, as supported by a medical doctor. They are referred to the local hospital for inpatient treatment.

### **Rationale**

The Meier Clinics PH program being evaluated met the majority of the criteria that were supported by the historical research that defined PH programs (Block & Lefkovitz, 1991; Casarino, et al., 1980; Hoge, et al., 1988; Khawaja & Westermeyer, 2010; Neuhaus, et al., 2007; Neuhaus, 2006; Russell, et al., 1996; West, et al., 1980). The

structure of the program fell well within the documented parameters. More specifically, the Meier Clinics PH program is defined as a short term PH program with a focus on stabilizing acutely ill patients, as needed, and secondarily focuses on an overall biopsychosocial and spiritual model (Björgvinsson, et al., 2014; Hoge, et al., 1988; Khawaja & Westermeyer, 2010; Neuhaus, et al., 2007; Neuhaus, 2006; Ritschel, et al., 2012).

The Meier Clinics PH program's overall structure is solidly supported by research that has shown the program to be within the accepted standard organizational and therapeutic structure for a PH program in general (Neuhaus, 2006). Neuhaus provides a well-researched explanation of what the standard PH program needs to represent and makes the statement, "Nothing can occur without containment and safety." (Neuhaus, 2006, p. 5). Neuhaus provides a ten-point list of fixed values every PH program needs for maximizing effectiveness. The Meier Clinics PH program was structured with all ten items, and in addition this program provided an acute biological (especially medication support) support system with a strong biblical/spiritual focus. There are three significant program traits that are incorporated into the Meier Clinics PH program that do not appear in the presented literature review that has been compared to this program. These are a biblical spirituality component, methodical screening of the 5 interns each year by the director of the program, and Object Relations Theory with respect to human development in terms of relational boundary development, which have been incorporated into the Meier Clinics program didactics.

McQuillan et al. (2005), Neuhaus et al. (2007) and Ritschel et al. (2012) showed significant decreases in depression and in some cases anxiety, and improvement in



overall health of the patients through PH programs. All three PH programs were 1 to 4 weeks in length, directly comparable to the Meier Clinics PH program. Neuhaus et al. provided CBT as the main therapeutic approach. McQuillan et al. and Ritschel et al. provided dialectical behavior therapy (DBT) as the main therapeutic approach. All three programs were presented as similar to the Meier Clinics program approach that embodies CBT as the main therapy, while integrating to a lesser extent object relations and DBT. Neuhaus et al. used other assessments, the Beck Depression Inventory II and the SCL-90-R as their basis for effective change. Validating their program's effectiveness through other assessments helps to support this program's effect when only using the BASIS-32 questionnaire.

Bjorgvinsson et al. (2014) found that applying CBT in a naturalistic short term, 2-week PH program was effective in treating depression and improving the overall mental health of the patient. Bjorgvinsson et al. also compared their findings to many other benchmark research projects and concluded that their results were comparable to the results of applying CBT in other environments.

As identified by multiple reviews, American research for supporting the validity of well-documented and structured PH programs remained limited (Björgvinsson, et al., 2014; Khawaja & Westermeyer, 2010; Neuhaus, et al., 2007; Neuhaus, 2006; Ritschel, et al., 2012). The researchers have suggested various reasons, although specific and definite reasons have remained unclear. This author suggested, based on his Meier Clinics PH program experience and the literature review, at least part of the reason had to do with the complexity of a PH program. There can be a myriad of interrelated and some confounding variables in a PH program. Therapists, supporting staff, and program

structure could vary from program to program. Also, interactions of the clinical day therapy groups, therapeutic approaches, and the differences in the pathological makeup and comorbidity of the client population may change day to day. Thus, establishing controlled design of experiment studies that identify key variables with well-controlled constraints is complicated. This author believed that relative to the available research for PH program structure, the Meier Clinics program was consistently well-structured and controlled for maximum therapeutic efficacy. The Meier Clinics program has lasted over 25 years in its basic form. The program repeatedly used the same didactics that create the core of the program. The same director has run the program and maintained rigid and repeated daily and weekly routines and sought to fine-tune the program for maximum efficacy. The program maintained rigid and repeatable documentation structure. The director, through weekly staff meetings, ensured that the staff worked together as a team, performed as expected, and resolved any splitting or disagreements between therapists and or clients. The staff met weekly to evaluate clients and learn from the director and each other how to improve their therapeutic support. The program maintained optimal communication with external clinicians, third party payers, family, friends, and outpatient services, seeking to work as an extended team, when possible.

Meier Clinics is a Christian biblically-based, psychologically evidence based national clinical counseling center that treats the whole person from a biopsychosocial and spiritual (BPSS) model. Including spirituality into the biopsychosocial model potentially makes the Meier Clinics program more powerful in reducing depression and anxiety than without a spirituality component.

Much research has historically supported and validated the use of spirituality when added to the biopsychosocial and spiritual (BPSS) model. Researchers have shown that religion and spirituality form a significant role in providing treatment and understanding into the integrative therapeutic approach (Beard & Björgvinsson, 2013; Galanter, 2010; Hodge, 2013; Katerndahl, 2008; Prest & Robinson, 2006).

Spirituality in the Meier Clinics program is defined as general biblical concepts that are integrated with CBT and ORT, are interwoven into the didactics. The program makes clear that spirituality is not a requisite for getting the most out of the program, but was supported and available relative to the desired needs of each client.

Even though the limits of this study did not allow for the control of many interrelated variables and constraints, the controls applied were no less than what has been documented in the literature, if not more so. It was difficult to find detailed and well-controlled program structure used for research testing that added definitive clarity between cause and effect of various test parameters. As with the majority of the documented research, the Meier Clinics PH program was evaluated as a whole for its efficacy and in this specific case, decreasing depression and anxiety and improving the overall health of the patient. In addition, the stated theses help provide research in support of a very specific set of therapeutic parameters and structure, founded on the didactics, that have not been present in the literature to this author's knowledge.

### **Hypotheses**

Partial hospitalization (PH) programs have proven effective in reducing depression and anxiety and improvement in overall mental health (Bjorgvinsson et al., 2014; Horvitz-Lennon, et al., 2001; Kallert, et al., 2002; Mazza et al., 2004; McQuillan et

al., 2005; Neuhaus, et al., 2007; Neuhaus, 2006; Ritschel, et al., 2012; Waddell & Demi, 1993). In light of the fact that the Meier Clinics PH program meets the majority of the standardized criteria identified by Block and Lefkovitz (1991) for a PH program, three hypotheses for this research study are: (a) the Meier Clinics PH program under evaluation is effective in reducing depression and anxiety; and (b) the Meier Clinics PH program under evaluation is effective in improving the overall mental health of the patient, and (c) varying the 5 interns that provide therapy in the program each year have no significant effect on the Meier Clinics program effectiveness.

## Chapter 2

### Introduction

As discussed in the previous literature review, partial hospitalization programs have shown their effectiveness in stabilizing acutely mentally ill patients, and for decreasing depression and anxiety. Since the original standardization of PH programs during the 1960s to 1990s little new research has been accomplished. Existing research on PH programs suggests more statistically validated research is recommended.

The following discussion presents the methodology used for evaluating the Meier Clinics PH program for lowering depression and anxiety, and for overall improvement in mental health using the Behavior and Symptom Identification Scale (BASIS-32). Clients diagnosed with a depressive and/or anxiety disorder based on the *DSM-IV-TR*, who entered the PH program between 2012 and 2015, received both a pretest and posttest BASIS-32 questionnaire.

Three hypotheses for this research study are: (a) the Meier Clinics PH program under evaluation is effective in reducing depression and anxiety; and (b) the Meier Clinics PH program under evaluation is effective in improving the overall mental health of the patient, and (c) varying the 5 interns that provide therapy in the program each year have no significant effect on the Meier Clinics program effectiveness.

### Participants

Participants accepted into the PH program and diagnosed with depression and or anxiety defined the population sample. The director of the program evaluated each client during the intake screening process for diagnosis using the *DSM-IV-TR*. The client population included male or female over 18 years old. Other comorbid mental illnesses

did not necessarily limit acceptance into the testing population. Clients with psychosis that limited the required level of psychological functioning to receive proper treatment even with medication management, or clients that were deemed harmful to self or others were not accepted into the Meier Clinics PH program, which disqualified them from the test population. There were no other limiting screening factors with respect to client demographics.

There was no compensation offered by Meier Clinics other than asking clients to participate in aiding ongoing research for PH program evaluation and more specifically helping this program determine treatment performance, and to provide feedback for improvement. Meier Clinics interns told all patients that they had the choice to opt out in filling out the BASIS-32 questionnaire. Only patients that had completed at least two weeks of the PH program and had completed both the pre and posttest BASIS-32 questionnaire were considered part of the test population.

### **Procedure for Testing**

The prospective test participant was first assessed by the director of the PH program based on the *DSM-IV-TR*, prior to entering into the PH program. Once the patient entered the program, an intern that was a member of the PH program, offered each patient the opportunity to fill out the BASIS-32 questionnaire by self-reporting at pretest. At the end of the PH program, those patients that agreed to participate in filling out the BASIS-32 questionnaire were again asked to self-report.

A Meier Clinics' employee screened historical data collected for each patient between 2012 and 2015. The screening criteria provided to the employee was to verify that the patient completed both the pretest and posttest BASIS-32 questionnaire, that they

were diagnosed with a major depression or anxiety disorder by the director of the program using *DSM-IV-TR*, and had completed at least two weeks of the Meier Clinics PH program.

This researcher was given all sets of pre and posttest BASIS-32 questionnaires by Meier Clinics' employees with complete anonymity as to who the patients were. Once the researcher completed his statistical analysis of the population test data, all questionnaires were destroyed.

### **Materials**

**Behavior and Symptom Identification Scale (BASIS-32).** The BASIS-32 is a 32-item self-report questionnaire. The self-report is a problem rating scale designed to comprehensively evaluate program effectiveness from a patient's point of view. The self-report was empirically developed to generalize across psychiatric diagnoses. Recognizing that any given patient's mental health symptoms were often complex and comorbid with different disorders, the BASIS-32 was designed to provide a reliable, brief and easily administered and standardized self-report to a broad range of mentally ill patients (Eisen & Dickey, 1996).

The questionnaire consists of 32 questions on symptom and behavior. Each question allows for a 5-point Likert degree of difficulty; 0 is no difficulty, 1 is a little difficulty, 2 is moderate difficulty, 3 is quite a bit of difficulty, and 4 is extreme difficulty. The 32 items of the questionnaire are broken down and scored in 5 subscales: a) relation to self and others, b) depression/anxiety, c) daily living and role functioning skills, d) impulsive/addictive behavior, and e) psychosis (Eisen & Dickey, 1996). The

self-report has now been validated for inpatient hospital and outpatient populations (Eisen, Dill & Grob, 1994; Eisen, Wilcox, Leff, Schaefer & Culhane, 1999).

The 32 questions are scored using the BASIS-32 scoring sheet (Eisen & Youngman, 1992). The resultant scoring provides an average score for the 5 subscales listed above and provides an overall full-scale score for the entire program. The lower the posttest scores are relative to the original pretest scores, the greater the effectiveness is to program performance.

**Reliability.** Test-retest reliability was performed on 40 inpatients over a 3-day period where they were interviewed twice. The reliability for the depression and anxiety subscale was .78 and .85 for the overall program score (Eisen, Dill & Grob, 1994). Internal consistency coefficients using self-reporting were .95 for overall program and .85 on the depression/anxiety subscale when screening 120 adults enrolled in an acutely ill rehabilitation program (Klinkenberg, Cho & Vieweg, 1998). Eisen, Wilcox, Leff, Schaefer and Culhane (1999), screened 399 outpatient adults with the BASIS-32 and found an internal consistency reliability of .87 for the depression/anxiety subscale and an overall full-scale reliability of 0.95. Another study performed by Chow, Snowden and McConnell (2001), evaluated the reliability of the BASIS-32 with respect to racial and ethnic populations. The sample contained 1207 participants, 52% white, 24% African American, 16% Asian American and 7% Latino American. On the depression/anxiety subscale the reliability numbers were, .88, .88, .89 and .88, respectively.

**Construct validity.** The BASIS-32 was correlated with other scores on other assessments. The BASIS-32 was positively correlated to the Hopkins Symptom Checklist (MSCL-43), ( $r = .86$ ,  $n = 120$ ) for the full-scale comparison and ( $r = .79$ ,  $n =$



120) for the depression/anxiety subscale self-reports, and positively correlated to the Brief Psychiatric Rating Scale (BPRS), ( $r = .59$ ,  $n = 120$ ) on the depression/anxiety subscale interview (Klinkenberg, et al., 1998). The BASIS-32 was positively correlated to the Symptom Checklist 90 (SCL-90), ( $r = .73$ ,  $n = 211$ ), on the full-scale measurement (Hoffmann, Capelli & Mastrianni, 1997). The BASIS-32 was negatively correlated to the Short Form Health Status Profile (SF-36), ( $r = -.68$  on the depression/anxiety subscale,  $r = -.69$  on the full-scale,  $n = 399$ )(Eisen, et al., 1999).

*Sensitivity to change.* In order for the BASIS-32 to be useful for an outcome measure it needs to be sensitive to change. Eisen, et al. (1999) used multivariate analysis of variance to measure sensitivity to change. Their results were for depression/anxiety subscale ( $t = 8.71$ , effect size = 0.53,  $p < .001$ ,  $n = 1348$ ) and for the full-scale measure ( $t = 8.94$ , effect size = 0.53,  $p < .001$ ,  $n = 1348$ ). This validated that the measures were highly significant. Hoffman, Capelli and Mastrianni (1997) also showed that sensitivity to change was also significant for ( $p < .001$ ,  $n = 188$ ).

### **Statistical Analysis**

A paired-samples t-test was conducted to determine whether there were statistically significant differences between populations mean scores in the BASIS-32 questionnaire over the course of testing for the depression/anxiety subscale and the overall full-scale measurements, which included pretest and posttest of the Meier Clinics PH program. The research study hypotheses were proven to be statistically significant by the analysis that showed that  $p < .05$ , using 95% confidence intervals for the BASIS-32 populations mean test score differences.

**Summary**

A total of 87 patients that were accepted into the Meier Clinics PH program under evaluation, that were diagnosed with depression and/or anxiety, received the BASIS-32 questionnaire at the beginning and end of the program treatment, which were between 2 to 3 weeks apart.

The BASIS-32 data for the depression/anxiety subscale and the overall full-scale measurement were evaluated for significance in support of program evaluation.

### Chapter 3

#### Results

This research project evaluated the Meier Clinic's PH program for reducing depression and anxiety, for overall improvement in mental health and for whether varying interns each year have a significant effect on the effectiveness of the program, using the Behavior and Symptom Identification Scale (BASIS-32) (Eisen, Wilcox, Left, Schaefer & Culhane, 1999). Clients diagnosed with a depressive and/or anxiety disorder based on the *DSM-IV-TR*, who entered the PH program between 2012 and 2015, were requested to take both a pretest and posttest BASIS-32 questionnaire.

Three hypotheses for this research study are: (a) the Meier Clinics PH program under evaluation is effective in reducing depression and anxiety; and (b) the Meier Clinics PH program under evaluation is effective in improving the overall mental health of the patient, and (c) varying the 5 interns that provide therapy in the program each year have no significant effect on the Meier Clinics program effectiveness.

#### Data Analysis

During years of 2012 through 2015, patients entering the Meier Clinics PH program were given the option to take the self-administered BASIS-32 questionnaire prior to entering the program and again at the end of the PH program. A total of 87 adult patients, 53 females, 34 males, completed both the pretest and posttest questionnaire.

Each of the BASIS-32 questionnaires was scored for the depression/anxiety subscale and for the overall full-scale average measurement. The depression/anxiety subscale was used for evaluating the efficacy of the PH program for reducing depression and anxiety, and the overall full-scale measurement was used for evaluating the PH program

for improving the overall mental health of the patient. Both subscales were used to evaluate whether there was a significant effect from varying the interns each year.

Paired-samples t-test statistics were conducted to determine whether there were statistically significant differences between pretest and posttest population mean scores in the BASIS-32 questionnaire, over the course of testing for the depression/anxiety subscale and the overall full-scale measurements.

The paired samples t-test was performed on the depression/anxiety sub-scale and the overall full-scale measurement data with several sub-groupings which were (a) the total population of 87 patients from 2012 through 2015, (b) the total population of 53 female patients from 2012 through 2015, (c) the total population of 34 male patients from 2012 through 2015, and (d) the four parsed populations (combination of female and male) for each of the 4 years that the data was collected. A value of  $p < .05$ , using 95% confidence intervals for the BASIS-32 population mean test score differences was used for establishing statistical significance.

### **Findings**

Using a paired samples t-test, the BASIS-32 questionnaire pretest and posttest scored data was evaluated for statistically significant differences in mean scores.

All pretest and posttest mean scores were normally distributed, as assessed by Shapiro-Wilk's, whereas all scores were much larger than  $p = .05$ .

See Table 1 below for a summary of all depression/anxiety subscale mean, pretest and posttest scores along with respective standard deviations.

Table 1

*Descriptive Statistics of Mean Test Scores for the BASIS-32 Questionnaire, Depression/Anxiety Subscale*

Variable	N	Pretest		Posttest	
		M	SD	M	SD
Depression/anxiety subscale Total population	87	2.35	.83	1.2	.69
Depression/anxiety subscale Total female population	53	2.43	.82	1.18	.67
Depression/anxiety subscale Total male population	34	2.22	.85	1.22	.73
Depression/anxiety subscale Total 2012 population	19	2.17	.90	1.05	.71
Depression/anxiety subscale Total 2013 population	24	2.21	.70	1.04	.65
Depression/anxiety subscale Total 2014 population	18	2.43	.84	1.48	.59
Depression/anxiety subscale Total 2015 population	26	2.54	.88	1.25	.73

*Note:* N = population sample size; M = mean; SD = standard deviation.

As presented in Table 1, regardless of how the BASIS-32 depression/anxiety subscale means were parsed relative to the total population of mean data from 2012 through 2015, (M = 2.35, SD = 0.83) for pretest and (M = 1.20, SD = 0.69) for posttest, the parsed means were statistically similar. In other words, whether the mean data was parsed by gender or year, the means were well within one standard deviation of the total pretest and posttest populations.

Evaluating the pretest and posttest differences in mean test scores for the BASIS-32 depression/anxiety subscale (See Tables 1 and 2), the total population of participants presented as statistically more depressed prior to entering the PH program ( $M = 2.35$ ,  $SD = 0.83$ ), versus posttest ( $M = 1.2$ ,  $SD = 0.69$ ), a statistically significant mean decrease of 1.15, 95% CI [0.963, 1.34],  $t(86) = 12.2$ ,  $p < .001$ ,  $d = 1.3$ . See Table 2 below. As can also be seen in table 2, all differences in mean data, whether parsed for gender or year, have similar statistically significant mean decreases.

The overall female population exhibited a higher mean for pretest and lower mean for posttest depression/anxiety scores, ( $M = 2.43$ ,  $SD = 0.82$ ) and ( $M = 1.18$ ,  $SD = 0.67$ ), than did males with a pretest score of ( $M = 2.22$ ,  $SD = 0.85$ ) and posttest of ( $M = 1.22$ ,  $SD = 0.73$ ). See Table 2.

Table 2

*Descriptive Statistics of Differences in Mean Test Scores for the BASIS-32 Questionnaire, Depression/Anxiety Subscale*

Variable	D/M	95% CI	t	df	Sig.	d
Depression/anxiety subscale Total population	1.15	[.963, 1.34]	12.2	86	.001	1.30
Depression/anxiety subscale Total female population	1.25	[1.00, 1.51]	9.8	52	.001	1.34
Depression/anxiety subscale Total male population	0.99	[0.72, 1.27]	7.3	33	.001	1.24
Depression/anxiety subscale Total 2012 population	1.22	[0.63, 1.62]	4.8	18	.001	1.09
Depression/anxiety subscale Total 2013 population	1.17	[0.81, 1.53]	6.7	23	.001	1.37
Depression/anxiety subscale Total 2014 population	0.95	[0.53, 1.38]	4.7	17	.001	1.10
Depression/anxiety subscale Total 2015 population	1.29	[0.95, 1.64]	7.8	25	.001	1.53

*Note.* D/M = differences in mean; CI = confidence interval; t = t-value; df = degrees of freedom; Sig. =  $p < .001$  (2-tailed); d =  $M/SD^*$ , (Cohen's d for effect size).

\* M = difference in means, SD = standard deviation of mean.

See Table 3 below for a summary of all BASIS-32 overall full-scale average means, pretest and posttest scores along with respective standard deviations.

Table 3

*Descriptive Statistics of Mean Test Scores for the BASIS-32 Questionnaire, Overall Full-scale Average*

Variable	N	Pretest		Posttest	
		M	SD	M	SD
Overall full-scale average Total population	87	1.62	0.57	0.72	0.42
Overall full-scale average Total female population	53	1.67	0.55	0.69	0.40
Overall full-scale average Total male population	34	1.54	0.61	0.76	0.46
Overall full-scale average Total 2012 population	19	1.43	0.57	0.66	0.50
Overall full-scale average Total 2013 population	24	1.60	0.60	0.64	0.39
Overall full-scale average Total 2014 population	18	1.71	.606	0.75	0.35
Overall full-scale average Total 2015 population	26	1.72	0.51	0.81	0.44

*Note:* N = population sample size; M = mean; SD = standard deviation.

Regardless of how the BASIS-32 overall full-scale average means were parsed for gender or year, relative to the total population of mean data from 2012 through 2015, (M = 1.62, SD = 0.57) for pretest, and (M = 0.72, SD = 0.42) for posttest, all parsed means were statistically similar, by recognizing that all parsed means were well within the standard deviation of the overall population means.

Evaluating the pretest and posttest differences in mean test scores for the BASIS-32 overall full-scale average (see Tables 3 and 4), the total population of participants



presented as statistically more depressed prior to entering the PH program ( $M = 1.62$ ,  $SD = 0.57$ ) for pretest, and ( $M = 0.72$ ,  $SD = 0.42$ ), a statistically significant mean decrease of 0.90, 95% CI [0.78, 1.03],  $t(86) = 14.3$ ,  $p < .001$ ,  $d = 1.53$ . See Table 4 below. As can also be seen in table 4, all differences in mean statistical data, whether parsed for gender or year, have similar statistically significant mean decreases.

The overall female population exhibited a higher mean for pretest and lower mean for posttest overall full-scale average scores, ( $M = 1.67$ ,  $SD = 0.55$ ) and ( $M = 0.69$ ,  $SD = 0.40$ ), than did males with a pretest score of ( $M = 1.54$ ,  $SD = 0.61$ ) and posttest of ( $M = 0.76$ ,  $SD = 0.46$ ). See Table 3.

Table 4

*Descriptive Statistics of Differences in Mean Test Scores for the BASIS-32 Questionnaire, Overall Full-scale Average*

Variable	D/M	95% CI	t	df	Sig.	d
Overall full-scale avg. Total population	0.90	[0.78, 1.03]	14.3	86	.001	1.53
Overall full-scale avg. Total female population	0.98	[0.82, 1.14]	12.4	52	.001	1.69
Overall full-scale avg. Total male population	0.78	[0.57, 0.99]	7.6	33	.001	1.30
Overall full-scale avg. Total 2012 population	0.76	[0.46, 1.07]	5.3	18	.001	1.21
Overall full-scale avg. Total 2013 population	0.96	[0.72, 1.20]	8.3	23	.001	1.68
Overall full-scale avg. Total 2014 population	0.96	[0.64, 1.28]	6.4	17	.001	1.50
Overall full-scale avg. Total 2015 population	0.91	[0.68, 1.13]	8.3	25	.001	1.63

*Note.* D/M = differences in mean; CI = confidence interval; t = t-value; df = degrees of freedom; Sig. =  $p < .001$  (2-tailed); d =  $M/SD^*$ , (Cohen's d for effect size).

\*SD = standard deviation of mean.

### Summary

The data shows a large statistical effect,  $d = 1$  or greater and  $p < .001$ , a decrease in all depression/anxiety sub-scale population differences in mean (See table 2 above), both female and male patients, which signifies that the PH program under evaluation shows as effective in reducing patient depression and anxiety.

The data also shows a large statistical effect,  $d = 1$  or greater and  $p < .001$ , a decrease in measurement for overall full-scale average population differences in mean (See table 4 above), for both female and male patients, which signifies an improvement in the overall mental health of the patient.

Regardless of how the patient population data was partitioned, by gender or year, the data correlated well with respect to the overall patient population for both the depression/anxiety subscale and the overall full-scale average scores (See Tables 2 and 4 above) in relative magnitude, decreasing direction, significance of  $p < .001$  and  $d > 1$ .

Females appear to present with a higher pretest score for both the depression/anxiety subscale and for the overall full-scale average score than males, yet have a lower score for both measures at posttest. In other words, females appear to report at pretest with a higher level of depression and poorer overall mental health, and appear to experience a relatively greater improvement in both depression and overall mental health at posttest.

## Chapter 4

### Interpretation

As presented in the literature review, PH programs offer an important niche in the treatment of mental health patients. PH programs function as a balance between cost effective and short-term acute mental health treatment, in a more naturalistic environment, as few other mental health treatments provide. PH programs are a needed bridge between inpatient hospitalization and outpatient mental health treatment. PH programs provide comprehensive emotional caring and holding of the patient while they seek to help stabilize the emotional and mental trauma experienced.

The Meier Clinics PH program evaluation was intended to show that it was also effective in reducing depression and anxiety, and improving the patient's overall mental health.

Three hypotheses for this research study are: (a) the Meier Clinics PH program under evaluation is effective in reducing depression and anxiety; and (b) the Meier Clinics PH program under evaluation is effective in improving the overall mental health of the patient, and (c) varying the 5 interns that provide therapy in the program each year have no significant effect on the Meier Clinics program effectiveness. The statistical analysis has shown that all three hypotheses are true for this PH program, as well as helping to add to the scarcity of documented literature for PH programs (Bjorgvinsson et al., 2014; Horvitz-Lennon, et al., 2001; Kallert, et al., 2002; Mazza et al., 2004; McQuillan et al., 2005; Neuhaus, et al., 2007; Neuhaus, 2006; Ritschel, et al., 2012; Waddell & Demi, 1993). Patients that were part of the test population did experience a statistically significant decrease in depression and anxiety and their overall mental health

did reportedly improve. Varying the interns providing therapy in the Meier Clinics PH program each year did not significantly affect the overall effectiveness of the PH program.

### **Integration**

The statistical results from the BASIS-32 questionnaire used to evaluate the Meier Clinics program, are supported by results reported by other researchers as discussed below. With respect to the overall population mean for the depression/anxiety subscale for the PH program being evaluated ( $M = 2.35$ ,  $SD = .83$ ) for pretest and ( $M = 1.20$ ,  $SD = .69$ ) for posttest, various other researches (Eisen & Dickey, 1996; Eisen et al., 1999; Russo et al., 1997) obtained a range in mean scores from ( $M = 2.05$ ,  $SD = 1.03$ ) to ( $M = 2.75$ ,  $SD = .85$ ) for pretest, and ( $M = 1.51$ ,  $SD = 1.01$ ) to ( $M = 1.86$ ,  $SD = 1.01$ ) for posttest. When comparing this program's overall population means for the overall full-scale average score ( $M = 1.62$ ,  $SD = 0.57$ ) for pretest and ( $M = 0.72$ ,  $SD = 0.42$ ) for posttest, other researchers obtained a range of means ( $M = 1.58$ ,  $SD = 0.78$ ) to ( $M = 2.31$ ,  $SD = 0.67$ ) for pretest and ( $M = 1.18$ ,  $SD = 0.74$ ) to ( $M = 1.48$ ,  $SD = 0.79$ ) for posttest (Eisen & Dickey, 1996; Eisen et al., 1999; Russo et al., 1997).

When comparing the differences in mean (D/M) of the BASIS-32 depression/anxiety subscale for the full population of the Meier Clinics PH program under evaluation  $D/M = 1.15$  and  $p < .001$ , other authors obtained a spread in differences in mean from  $D/M = 0.54$  to  $0.9$  with similar  $p$  values (Eisen & Dickey, 1996; Eisen et al., 1999; Russo et al., 1997). By reviewing the presented spread in the means above, it appears that the differences in means for this program evaluation was slightly larger than the other author's D/M spread in values, which may be because the other authors had

much larger populations to evaluate and because there may be a difference in the severity of the mental health of the patients going through this program versus the other author's programs (Eisen & Dickey, 1996; Eisen et al., 1999; Russo et al., 1997). There are also different lengths of time between pretest and posttest scoring of means that likely have an effect between this program and the other research programs.

While evaluating the Meier Clinics PH program for its effectiveness based on the theses, a common finding noted in this PH program's analysis as compared to other research is in the difference in the mean scores with respect to gender, both in the depression/anxiety subscale and in the overall full-scale average. As with this program evaluation, the female pretest mean scores were higher than the male mean scores in other research available (Eisen & Dickey, 1996; Uttaro & Gonzalez, 2002). Although Uttaro and Gonzalez further explain that other research has shown that the higher mean scores for females relate to women being more honest and willing to share their health problems than males. Therefore, Uttaro and Gonzalez findings may support the gender differences observed in the Meier Clinics PH program.

The effect sizes of this program evaluation for the depression/anxiety scale and the overall full-scale average scores appear to be large with values of  $d = 1.30$  and  $d = 1.53$ , respectively. In one other research case, the effect sizes were 0.43 to 0.53, much smaller in effect (Eisen et al., 1999). This may be in part due to this programs controlled structure along with the added therapeutic value of the spirituality component that was not observed in other research on PH programs.

Another possibility for the greater effect may have to do with the director of the program pointing out that he chooses the 5 interns each year for optimum variation in

their therapeutic approaches, which includes their personalities. The director explains that he feels that every patient going through the program will more likely experience an optimum therapeutic alliance with at least one of the 5 interns, providing for greater emotional healing.

In relation to evaluating the Meier Clinics PH program for its effectiveness in reducing depression and anxiety and improving the overall mental health of the patient, it was recognized that there was a significant variable that was not being controlled due to the pragmatic intent of the program. Over the more recent history of the Meier Clinics PH program, the program was restructured to be an intern teaching and training program in support of the local universities, which also helped to reduce the cost of running the program instead of hiring professional therapists. These costs were significantly affected by managed health care. Therefore, the uncontrolled variable was that up to 5 interns were enlisted into the program each year.

It is possible that varying the interns each year had a significant effect on the two hypotheses that were being measured for evaluating the program. Therefore, as presented earlier, the overall patient population data was also broken down and evaluated for each of the 4 years that BASIS-32 questionnaire data was collected. As can be seen by the statistical data on Tables 2 and 4 above, there was only a small variation in effect size in each year, from 2012 through 2015, where Cohen's  $d$  was greater than 1.0 in all cases, as compared to the overall total population for both the depression/anxiety subscale,  $d = 1.3$ , and the overall full-scale total population average,  $d = 1.53$ . There was no measurable difference in significance,  $p < .001$  in all measurements. Therefore, varying the interns each year can be ruled out as having a significant effect on the hypotheses employed for

evaluating this PH program. Thus, the third theses, varying the 5 interns that provide therapy in the program each year have no significant effect on the program effectiveness is true.

### **Exploration**

Research accomplished by Horvitz-Lennon et al. (2001) show that PH programs are effective in treating various psychopathologies, especially depression and improving the overall mental health of the patients. Horvitz-Lennon et al. also makes clear that more work needs to be accomplished to go beyond the generalized research historically accomplished for the historically standardized structure of the PH program. Thus, the historical research, as presented in the literature review, seldom delineates cause and effect for specific variables (e.g., Which structural parts or therapeutic treatments were effective and to what degree). What appears to happen is that each program is initially established based on historical research and within the standard definition of a PH program and then the creators flexibly fine-tune their program based on their own experience and or trial and error. Then they validate the program (Neuhaus (2006) and Neuhaus et al. (2007).

Research supported by the literature review, clarifies that detailed design of experiment studies determining cause and effect of key elements of the PH program are seldom accomplished because of time and expense. PH programs in general are complex with multiple variable interactions and likely even confounding variables. Thus, the least expensive and time consuming approach is accomplished which often is simplified/generalized testing of the overall PH program.



Basically, the simplified/generalized research approach of the entire Meier Clinics PH program is what has been accomplished in this evaluation. The overall Meier Clinics program structure and therapeutic approaches were defined and presented. Then the program was evaluated as a whole using the BASIS-32 questionnaire for determining its effectiveness.

Three significant variables that were not presented in other program evaluations, that need to be evaluated for cause and effect would be the Meier Clinics program's incorporation of a spirituality component, methodically hand selecting the interns each year by the director, and Object Relations Theory into the program didactic. Do these variables have a significant effect on the program?

### **Future Directions and Recommendations**

The Meier Clinics PH program has been fine-tuned for program structure and therapeutic application over a 35-year period. In other words, the Meier Clinics program is well defined and established. Only the interns that provide therapy in the program change every year or two.

The Meier Clinics program has now been validated for overall program effectiveness by proving the three theses in this dissertation. Future recommendations might include recommending performing controlled design of experiments that would isolate elements of the program for cause and effect.

One recommendation would be to team up with one or more universities to establish doctoral studies to piece together the research in an organized manner until the entire project is accomplished. The results could be used for supporting Meier Clinics in providing continuous quality improvement for the PH program and more generally,

provide needed research to fill the known gap of limited design of experiment cause and effect data for improving the overall knowledge base in support of optimizing PH programs in general.

Another significant recommendation might be to create a standard questionnaire to provide to each patient's outpatient therapist or doctor, and using the data collected for quality improvement and maximum therapeutic effect.

### **Conclusions**

This PH program evaluation has statistically proven the three hypotheses for this research study which are: (a) the Meier Clinics PH program under evaluation is effective in reducing depression and anxiety, (b) the Meier Clinics PH program under evaluation is effective in improving the overall mental health of the patient, and (c) varying the 5 interns that provide therapy in the Meier Clinics PH program each year have no significant effect on the program effectiveness.

The statistical results for this program are supported well by other historical research for treating depression and improving the overall mental health of the patient. In fact, the results obtained in this program evaluation appear to show an effect size that is as large or larger than several of the other research programs that were compared.

It has been recognized that the overall structure and therapeutic approaches used in the Meier Clinics PH program are similar overall to the compared research programs as presented throughout this dissertation. What appears as different from the compared research literature is incorporation of biblically oriented psychoeducation principles through the program didactics, thus adding a spirituality component to the standard PH program biopsychosocial model. Another difference is that this PH program also applies

Object relations to the program didactics. A third variable that appears different is that the director of this PH program selects interns that create an optimum diversity of theoretical therapeutic treatments combined with different personality traits.

Ideally, all three variables of spirituality, Object Relations and intern selection should be evaluated for significance and effect size in order to provide research information as to their validity in possibly improving the overall effect of the standard PH program as defined in the literature review, for treating depression, anxiety, and overall mental health.

### References

- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders: DSM-IV-TR*. Washington, DC: American Psychiatric Association.
- American Psychiatric Association. (January 01, 1994). *Diagnostic and statistical manual of mental disorders: DSM-IV*. Washington, DC: American Psychiatric Association.
- American Psychiatric Association. (1987). *Diagnostic and statistical manual of mental disorders: DSM-III-R*. Washington, DC: American Psychiatric Association.
- American Psychiatric Association. (1980). *DSM III: Diagnostic and statistical manual of mental disorders*. Washington: American Psychiatric Association.
- Beard, C., & Björgvinsson, T. (2013). Psychological vulnerability: An integrative approach. *Journal of Psychotherapy Integration, 23*(3), 281-283.  
doi:10.1037/a0032361.
- Björgvinsson, T., Kertz, S. J., Bigda-Peyton, J. S., Rosmarin, D. H., Aderka, I. M., & Neuhaus, E. C. (2014). Effectiveness of cognitive behavior therapy for severe mood disorders in an acute psychiatric naturalistic setting: A benchmarking study. *Cognitive Behaviour Therapy, 43*(3), 209-220.  
doi:10.1080/16506073.2014.901988.
- Block, B. M., & Lefkowitz, P. M. (1991). American Association for Partial Hospitalization Standards and Guidelines for Partial Hospitalization. *International Journal of Partial Hospitalization, 7*(1), 3-11.

- Casarino, J. P., Wilner, M., & Maxey, J. T. (1982). American Association for Partial Hospitalization (AAPH) standards and guidelines for partial hospitalization. *International Journal of Partial Hospitalization*, *1*(1), 5-21.
- Crino, N., & Djokvucic, I. (2010). Cohesion to the group and its association with attendance and early treatment response in an adult day-hospital program for eating disorders: A preliminary clinical investigation. *Clinical Psychologist*, *14*(2), 54-61. doi:10.1080/13284207.2010.500308.
- Chow, J. C., Snowden, L. R., & McConnell, W. (2001). A confirmatory factor analysis of the BASIS-32 in racial and ethnic samples. *The Journal of Behavioral Health Services and Research*, *28*(4), 400-411. doi:10.1007/BF02287771
- Definition of partial hospitalization. The National Association of Private Psychiatric Hospitals and the American Association for Partial Hospitalization. (1990). *The Psychiatric Hospital*, *21*(2), 89-90.
- Eisen, S. V., Youngman D. (1992). Instruction Manual for BASIS-32. Belmont, MA. Evaluation Services Unit, McLean Hospital.
- Eisen, S. V., Dill, D. L., & Grob, M. C. (1994). Reliability and validity of a brief patient-report instrument for psychiatric outcome evaluation. *Hospital & Community Psychiatry*, *45*(3), 242-247.
- Eisen, S. V., & Dickey, B. (1996). Mental health outcome assessment: The new agenda. *Psychotherapy: Theory, Research, Practice, Training*, *33*(2), 181-189. doi:10.1037/0033-3204.33.2.181

- Eisen, S. V., Wilcox, M., Left, H. S., Schaefer, E., Culhane, M. A (1999). Assessing behavioral health outcomes in outpatient programs: Reliability and validity of the BASIS-32. *Journal of Behavioral Health Services & Research*, 26(1), 5-17.
- Galanter, M. (2010). Spirituality in psychiatry: a biopsychosocial perspective. *Psychiatry*, 73(2), 145-157. doi:10.1521/psyc.2010.73.2.145.
- Henderson, K. W. (2014). A family-based eating disorder day treatment program for youth: Examining the clinical and statistical significance of short-term treatment outcomes. *Eating Disorders*, 22(1), 1-18.
- Hepburn, Z., & Wilson, K. (2014). Effectiveness of adult day treatment for eating disorders. *Mental Health Review Journal*, 19(2), 131-144. doi:10.1108/MHRJ-01-2013-0003.
- Hodge, D. R. (2013). Assessing spirituality and religion in the context of counseling and psychotherapy. In K. I. Pargament, A. Mahoney, E. P. Shafranske, K. I. Pargament, A. Mahoney, E. P. Shafranske (Eds.), *APA handbook of psychology, religion, and spirituality (Vol 2): An applied psychology of religion and spirituality* (pp. 93-123). Washington, DC, US: American Psychological Association. doi:10.1037/14046-005.
- Hoffmann, F. L., Capelli, K., & Mastrianni, X. (1997). Measuring treatment outcome for adults and adolescents: Reliability and validity of BASIS-32. *Journal of Mental Health Administration*, 24(3), 316-331. doi:10.1007/BF02832665
- Hoge, M. A., Davidson, L., Hill, W. L., & Turner, V. E. (1992). The promise of partial hospitalization: A reassessment. *Hospital & Community Psychiatry*, 43(4), 345-354.

- Hoge, M. A., Farrell, S. P., Munchel, M. E., & Strauss, J. S. (1988). Therapeutic factors in partial hospitalization. *Psychiatry: Interpersonal and Biological Processes*, *51*(2), 199-210.
- Horvitz-Lennon, M., Normand, S. T., Gaccione, P., & Frank, R. G. (2001). Partial versus full hospitalization for adults in psychiatric distress: A systematic review of published literature (1957–1997). *The American Journal of Psychiatry*, *158*(5), 676-685. doi:10.1176/appi.ajp.158.5.676.
- IBM SPSS Statistics for Macintosh (Version 24.0) [Computer software]. Armonk, NY: IBM Corp.
- Jerrell, J. M. (2005). Behavior and symptom identification scale 32: Sensitivity to change over time. *The Journal of Behavioral Health Services & Research*, *32*(3), 341-346. doi:10.1007/BF02291833
- Kallert, T. W., Priebe, S., McCabe, R., Kiejna, A., Rymaszewska, J., Nawka, P., & ... Schützwahl, M. (2007). Are day hospitals effective for acutely ill psychiatric patients? A European multicenter randomized controlled trial. *Journal of Clinical Psychiatry*, *68*(2), 278-287. doi:10.4088/JCP.v68n0214.
- Kallert, T. W., Glöckner, M., Priebe, S., Briscoe, J., Rymaszewska, J., Adamowski, T., & Schützwahl, M. (2004). A comparison of psychiatric day hospitals in five European countries: Implications of their diversity for day hospital research. *Social Psychiatry and Psychiatric Epidemiology*, *39*(10), 777-788.

- Kallert, T. W., Schützwohl, M., Kiejna, A., Nawka, P., Priebe, S., & Raboch, J. (2002). Efficacy of psychiatric day hospital treatment: Review of research findings and design of a European multi-centre study. *Archives of Psychiatry and Psychotherapy*, 4(2), 55-71.
- Karterud, S., & Urnes, Ø. (2004). Short-term day treatment programmes for patients with personality disorders. What is the optimal composition?. *Nordic Journal of Psychiatry*, 58(3), 243-249. doi:10.1080/08039480410006304.
- Katerndahl, D. (2008). Impact of spiritual symptoms and their interactions on health services and life satisfaction. *Annals Of Family Medicine*, 6(5), 412-420 9p.
- Khawaja, I. S., & Westermeyer, J. J. (2010). Providing crisis-oriented and recovery-based treatment in partial hospitalization programs. *Psychiatry (Edgmont (Pa.: Township))*, 7(2), 28-31.
- Klinkenberg, W. D., Cho, D. W., & Vieweg, B. (1998). Reliability and validity of the interview and self-report versions of the BASIS-32. *Psychiatric Services*, 49(9), 1229-1231. doi:10.1176/ps.49.9.1229
- Lázaro, L., Font, E., Moreno, E., Calvo, R., Vila, M., Andrés-Perpina, S., & ... Castro-Fornieles, J. (2011). Effectiveness of self-esteem and social skills group therapy in adolescent eating disorder patients attending a day hospital treatment programme. *European Eating Disorders Review*, 19(5), 398-406.
- Mazza, M., Barbarlno, E., Capitanl, S., Satchiapone, M., & De Risio, S. (2004). Day Hospital Treatment for Mood Disorders. *Psychiatric Services*, 55(4), 436-438. doi:10.1176/appi.ps.55.4.436.



- McHugh, R. K., Kertz, S. J., Weiss, R. B., Baskin-Sommers, A. R., Hearon, B. A., & Björgvinsson, T. (March 01, 2014). Changes in distress intolerance and treatment outcome in a partial hospital setting. *Behavior Therapy, 45*, 2, 232-240.
- McNabola, M. (1975). Partial hospitalization: A national overview. *Journal of The National Association of Private Psychiatric Hospitals, 7*(1), 10-16.
- McQuillan, A., Nicastro, R., Guenot, F., Girard, M., Lissner, C., & Ferrero, F. (2005). Intensive dialectical behavior therapy for outpatients with borderline personality disorder who are in crisis. *Psychiatric Services, 56*(2), 193-197.  
doi:10.1176/appi.ps.56.2.193.
- Neuhaus, E. C., Christopher, M., Jacob, K., Guillaumot, J., & Burns, J. P. (2007). Short-term cognitive behavioral partial hospital treatment: A pilot study. *Journal of Psychiatric Practice, 13*(5), 298-307. doi:10.1097/01.pra.0000290668.10107.f3.
- Neuhaus, E. C. (2006). Fixed values and a flexible partial hospital program model. *Harvard Review of Psychiatry, 14*(1), 1-14. doi:10.1080/106732205005197.
- Nowoweiski, D., Arthey, S., & Bosanac, P. (2011). Evaluation of an Australian day treatment program for eating disorders. *Behaviour Change, 28*(4), 206-220.  
doi:10.1375/bech.28.4.206.
- Olmsted, M. P., McFarlane, T., Trottier, K., & Rockert, W. (2013). Efficacy and intensity of day hospital treatment for eating disorders. *Psychotherapy Research, 23*(3), 277-286. doi:10.1080/10503307.2012.721937.
- Parker, S., & Knoll, J. L. (1990). Partial hospitalization: An update. *The American Journal of Psychiatry, 147*(2), 156-160.

- Prest, L. A., & Robinson, W. D. (2006). Systemic assessment and treatment of depression and anxiety in families: The BPSS model in practice. *Journal of Systemic Therapies, 25*(3), 4-24. doi:10.1521/jsyt.2006.25.3.4.
- Priebe, S., McCabe, R., Schützwahl, M., Kiejna, A., Nawka, P., Raboch, J., & ... Kallert, T. W. (2011). Patient characteristics predicting better treatment outcomes in day hospitals compared with inpatient wards. *Psychiatric Services, 62*(3), 278-284. doi:10.1176/appi.ps.62.3.278.
- Ritschel, L. A., Cheavens, J. S., & Nelson, J. (2012). Dialectical behavior therapy in an intensive outpatient program with a mixed-diagnostic sample. *Journal of Clinical Psychology, 68*(3), 221-235. doi:10.1002/jclp.20863.
- Rosie, J. S., Azim, H. A., Piper, W. E., & Joyce, A. S. (1995). Effective psychiatric day treatment: Historical lessons. *Psychiatric Services, 46*(10), 1019-1026.
- Russell, V., Mai, F., Busby, K., & Attwood, D. (1996). Acute day hospitalization as an alternative to inpatient treatment. *The Canadian Journal of Psychiatry / La Revue Canadienne De Psychiatrie, 41*(10), 629-637.
- Russo, J., Roy-Byrne, P., Jaffe, C., Ries, R., Dagadakis, C., Dwyer-O'Connor, E., & Reeder, D. (1997). The relationship of patient-administered outcome assessments to quality of life and physician ratings: Validity of the BASIS-32. *Journal of Mental Health Administration, 24*(2), 200-214. doi:10.1007/BF02898514
- Schwartz, W., Thyer, B. (2000). Partial hospitalization treatment for clinical depression: a pilot evaluation. *Journal of Human Behavior in the Social Environment, 3*, 2, 13-21. ISSN: 1091-1359.

- Uttaro, T., & González, A. (2002). Psychometric properties of the behavior and symptom identification scale administered in a crisis residential mental health treatment setting. *Psychological Reports, 91*(2), 439-443. doi:10.2466/PR0.91.6.439-443
- Waddell, K. L., & Demi, A. S. (1993). Effectiveness of an intensive partial hospitalization program for treatment of anxiety disorders. *Archives of Psychiatric Nursing, 7*(1), 2-10. doi:10.1016/0883-9417(93)90016-P.
- West O, Casarino J, DiBella G, Gross R. (1980). Partial hospitalization: Guidelines for standards. *Psychiatry Annals*; 10: 43-55. doi: 10.3928/0048-5713-19800801-06.
- Zaretsky, A., Lancee, W., Miller, C., Harris, A., & Parikh, S. V. (January 01, 2008). Is cognitive-behavioral therapy more effective than psychoeducation in bipolar disorder?. *Canadian Journal of Psychiatry. Revue Canadienne De Psychiatrie, 53*, 7, 441-8.

Appendix A

Behavior And Symptom Identification Scale (BASIS-32)

Questionnaire

**BASIS-32 Questionnaire**

**BASIS-32™ (Behavior And Symptom Identification Scale)**

**Staff: Please Fill in the Following Information**

Account No. <input style="width: 100%;" type="text"/>	Facility <input style="width: 100%;" type="text"/>	Date of Test Month: <input style="width: 20px;" type="text"/> / Day: <input style="width: 20px;" type="text"/> / Year: <input style="width: 20px;" type="text"/>
Visit Type 1= Admission/Intake 2= Mid-Treatment 3= Discharge/Termination 4= Post-Treatment/Follow up Admission/Intake Date: Month: <input style="width: 20px;" type="text"/> / Day: <input style="width: 20px;" type="text"/> / Year: <input style="width: 20px;" type="text"/>	Provider No. <input style="width: 100%;" type="text"/>	Level of Care: 1= Inpatient 2= Outpatient 3= Day Program # Days in Program <input style="width: 20px;" type="text"/>
Use Medsys Provider #		Day Program Only

**Instructions to Respondent:** Below is a list of problems and areas of life functioning in which some people experience difficulties. Using the scale below, fill in the circle with the answer that best describes how much difficulty you have been having in each area **DURING THE PAST WEEK**.

- 0= No Difficulty
- 1= A Little Difficulty
- 2= Moderate Difficulty
- 3= Quite A Bit of Difficulty
- 4= Extreme Difficulty

**Note:** Please do not leave any questions blank. If there is an area that you consider to be inapplicable, indicate that it is 0= No Difficulty

	0	1	2	3	4
1. Managing day-to-day life. (For example, getting to places on time, handling money, making everyday decisions)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Household responsibilities. (for example, shopping, cooking, laundry, cleaning, and other chores)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Work. (For example, completing tasks, performance level, finding/keeping a job)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. School. (For example, academic performance, completing assignments, attendance)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Leisure time or recreational activities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Adjusting to major life stresses. (For example, separation, divorce, moving, new job, new school, a death)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Relationships with Family members.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Getting along with people outside of the family.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Isolation or feelings of loneliness.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Being able to feel close to others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Being realistic about yourself or others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Recognizing and expressing emotions appropriately.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. Developing independence, autonomy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. Goals or direction in life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. Lack of self-confidence, feeling bad about yourself.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. Apathy, lack of interest in things.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. Depression, Loneliness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



00E

Patient Name: XXXXXXXXXX

DOB: XXXXXX

Please do not leave any questions blank. If there is an area that you consider to be inapplicable, indicate that it is  
 0= No Difficulty

0= No Difficulty  
 1= A Little Difficulty  
 2= Moderate Difficulty  
 3= Quite A Bit of Difficulty  
 4= Extreme Difficulty

IN THE PAST WEEK, how much difficulty have you been having in the area of:

	0	1	2	3	4
18. Suicidal feelings or behavior.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. Physical symptoms. (For example, headaches, aches and pains, sleep disturbance, stomach aches, and dizziness)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. Fear, anxiety, or panic.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21. Confusion, concentration, memory.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. Disturbing or unreal thoughts or beliefs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. Hearing voices, seeing things.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24. Manic, bizarre behavior.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25. Mood swings, unstable moods.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
26. Uncontrollable, compulsive behavior. (For example, eating disorder, hand-washing, hurting yourself)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
27. Sexual activity or preoccupation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
28. Drinking alcoholic beverages.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
29. Taking illegal drugs, misusing drugs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
30. Controlling temper, outbursts of anger, violence.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
31. Impulsive, illegal, or reckless behavior.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
32. Feeling satisfaction with your life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

33. What is your Race?

- Black/African American
- White/Caucasian
- Asian/Pacific Islander
- American Indian/Alaskan
- Hispanic
- Latino
- Other

34. Sex:  Male  Female

35. Marital Status

- Never Married
- Married
- Separated
- Divorced
- Widowed

00E



Patient Name: [REDACTED]

DOB [REDACTED]