Facilitating Increased Treatment Adherence in Adult Mental Health Patients

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Facilitating Increased Treatment Adherence in Adult Mental Health Patients

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Honors Project Seminar

November 2015
Abstract

Treatment adherence rates are low among adult mental health patients. The purpose of this project is to utilize current literature regarding treatment adherence in adult mental health patients in order to identify nursing interventions to address treatment adherence and to create an educational presentation for mental health nurses regarding these interventions. The educational presentation will be created and presented to local mental health nurses in the Miami Valley, and a poster will be produced as a reference.

Keywords: medication compliance, adult mental health, treatment adherence, nursing
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I. INTRODUCTION

Treatment adherence is a topic addressed in many areas of health care, and can be a significant barrier to successful care for adult patients struggling with mental illness (Heise & van Servellen, 2014; Nosé, Barbui, Gray, & Tansella, 2003). Reported percentages of adherence vary widely depending on diagnosis and data collection techniques, though it is a reoccurring problem for many patients suffering with mental illness (Bollini, Tibaldi, Testa, & Munizza, 2004; Bressington, Mui, & Gray, 2012; David, 2010; Hegedüs & Kozel, 2014; Johnston, 2013). Rates of adherence in patients suffering from psychosis range from 50% to 80% (David, 2010); however rates of adherence have been reported to be as low as 28% (Hegedüs & Kozel, 2014). Patients suffering from bipolar disorder reportedly adhere to treatment plans between 35% and 65% during the first year of treatment, and are likely to end their treatment after only twelve months (McKenzie & Chang, 2015). De las Cuevas, Peñate, & Sanz (2014) report that 50% of patients with depression only adhere for one month and at three months, the percentage of patients who remain on their medications is approximately 32%. This can lead to increases in acute hospitalization as well as increased morbidity and mortality in an already vulnerable population (Barkhof, Meijer, de Sonneville, Linszen, & de Haan 2011; David, 2010). This paper examines the status of treatment adherence as it relates to adult mental health patients and will describe an undergraduate honors project. This will be accomplished through declaration of purpose and goals, clinical significance, and a literature review. This honors project was to complete an educational presentation for mental health nurses regarding the interventions identified in the current literature that can help to increase treatment adherence.

Problem
Adult mental health patients are at risk for low levels of treatment adherence. Specific nursing interventions need to be identified that can raise treatment adherence in order to increase patient satisfaction, positive outcomes, and decrease the likelihood for re-hospitalization.

**Purpose**

The purpose of this project is to utilize current literature regarding treatment adherence in adult mental health patients in order to identify effective nursing interventions to help patients in inpatient mental health settings increase treatment adherence and to provide supplemental education for nurses regarding these interventions.

**Objectives**

This project aims to identify current research regarding nursing interventions that facilitate increased patient adherence among adult mental health patients and to create an educational presentation for mental health nurses.

**Significance**

**Significance to Patients.**

In treating mental health patients, it is important, as with all patients, to take personal choice and preference into account. It is easy as health care providers to diagnose and prescribe pills and treatments; patients however have to live with the effects of these regimes. Therefore, in order to address treatment adherence, which is a complicated issue, one must understand what patients go through leading to either adherence or non-adherence. Johnston (2013) explains that patient experience is an important consideration when discussing treatment adherence. Several factors contributing to non-adherence, as found by Bollini, Tibaldi, Testa, and Munizza (2004), include decreased acceptance of a mental illness diagnosis, concerns regarding adverse drug effects, concerns that medications caused addiction, and the need for patients to determine if the
illness remained after a period of successful treatment. Alternatively, patients with high adherence cite reasons such as open communication, a team-based approach in which the patient feels to have contributed to treatment choice, as well as increased familiarity with regimes (Johnston, 2013). Failure to adequately support patient towards a goal of increased treatment adherence contributes to patients' life disruptions including hospitalizations and increased social stigma (Bollini, Tibaldi, Testa, & Munizza, 2004; David, 2010).

**Significance to Health Care and Nursing.**

Treating patients with mental illnesses can be very complicated. Medications and other therapies can be very effective, but if treatments are not followed well, then relapse can happen, incurring additional acute care (Hegedüs & Kozel, 2014). It is reported that treatment non-adherence of even one month or less can put patients at a 2.8 fold risk for hospitalization and that patients that are non-adherent for a month or more are four times more likely to be hospitalized (David, 2010). In the current healthcare climate, the quest to control costs is a high priority; Patel et al. (2013) describe that addressing treatment adherence is an effective way to manage increasing costs associated with mental health patients. Treatment costs as well as duration of hospitalization were increased in patients with poor adherence (Offord, Lin, Mirski, & Wong, 2013). Offord et al. report that approximately $983 per patient can be saved on mental health hospitalization expenses and hospitalization length of stay can be shortened by two days when treatment adherence is maintained (2013).

Nurses are often the front line care providers for patients in many health care settings. Nurses are often the first mental health professional patients turn to when reporting adverse reactions related to their medication regimes (Bollini, Tibaldi, Testa, & Munizza, 2004). Nurses are therefore in a valuable position to affect outcomes for patients regarding treatment adherence.
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(Heise & van Servellen, 2014). Nurses can work effectively as a part of an interdisciplinary team, along with the patient, in order to help patients maintain treatment adherence and reduce morbidity and mortality related to mental illness (Bissonnette, 2008; Bressington, Mui, & Gray, 2012; Johnston, 2013).

Definition of terms

The variables examined include treatment adherence versus treatment non-adherence, nursing interventions, and adult mental health patients. Bissonnette (2008, p. 641) reports that the definition of adherence that is used most often is, “the extent to which patients follow the instructions they are given for prescribed treatments”. Therefore for the purpose of this project, non-adherence shall be considered the degree to which patients do not follow prescribed treatments. Nursing interventions include any treatment technique that can be independently applied by a licensed nursing professional as defined by the Ohio Board of Nursing in section 4723.01(B) of the ORC (2011). Adult mental health patients examined in the literature review include patients that have been diagnosed with the disorders of: schizophrenia, depression, or bipolar disorder.

Summary and successive sections

In summary, adherence has long been a barrier to effectively caring for patients with mental illnesses. It can impact patients’ quality of life. Nurses can influence patients’ health outcomes by addressing treatment adherence barriers. The following sections include a review of the literature and description proposed project, which entails research into current literature and the creation of an educational presentation from the data collected.

II. Review of the Literature
The purpose of this chapter is to review existing literature related to treatment adherence in adult mental health patients. There are several components that exist within research regarding treatment adherence. These components include measuring treatment adherence, patient-focused factors influencing adherence or non-adherence, factors related to health care providers and their influence over adherence, and specific techniques used to increase treatment adherence. The level of evidence is summarized (see Appendix A). This section will use existing literature to establish a foundation for an undergraduate honors project.

**Characteristics related to patient adherence vs. non-adherence**

Treatment adherence and knowledge about one’s diagnoses and medication regimes were examined as variables in a descriptive study done by Cardoso, Miasso, Galera, Maia, & Esteves (2011). The patient population included in this study was adult mental health patients who were recently released from psychiatric hospitalization. Patients were eligible to participate in the study after being discharged, and 48 patients consented to be involved. Patients were administered two assessment tools, one to evaluate their understanding of their diagnoses and medication plan, and the “Morisky and Green adherence test” (Cardoso et al., 2011). It was found that 70.8% of patients were at least partially non-adherent to their medications; the patients were either intentionally or unintentionally non-adherent (Cardoso, 2011). Only 43.8% of patients knew what medications they were prescribed and 25% did not know anything regarding their medications. Contrarily, 81.2% of participants identified that medications were helpful and important (Cardoso, 2011). A low level of knowledge is a barrier for patients regarding medication adherence (Cardoso, 2011). Nurses need to be aware of the variety of barriers patients face concerning medication adherence in order to adequately support their patients. This study was conducted in Brazil; health literacy may not be comparable. Small
sample size is a limiting factor in this study. Adherence was only measured by a four-question survey (Cardoso, 2011). Evidence produced in this study was at a level VI.

A qualitative study was performed in order to examine treatment adherence in mood disorders (Bollini et al., 2004). Aims of this level VI evidence study included the identification of elements in patients, families, and their health care providers that influence patients’ treatment adherence as well to propose interventions designed to increase adherence. Focus groups were formed from three local mental health care facilities within a community setting consisting of patients (n=22), family members (n=13), and health care providers (n=17) (Bollini, et al., 2004). Through this study, it was identified that perceptions of the source of the disease, including personal weakness, life events, and specific triggers; the patient’s perceived path of the disease, such as temporary or lifelong; treatment preferences, including pharmacological and non-pharmacological; and the influence of family/friends as either supportive or unsupportive are all concepts that are associated with adherence (Bollini et al., 2004). Other patterns identified through this inquiry included the observation that health care providers fail to explicitly assess patients’ adherence; the rationale for which was given as an attempt to convey trust in the patient (Bollini et al., 2004). These findings are important for nurses and other health care providers to understand, because in order to design successful interventions for increasing adherence, providers must work with patients’ perceptions. Additionally, as health care providers, we must find ways to appropriately assess our patients’ adherence habits without conveying a sense of mistrust. Limitations for this study included that it was conducted in Italy, so some of these perceptions may be culturally influenced and may not carry over to perceptions within the United States. Other limitations of this study include that it was published in 2004, and that it only implied that the study received ethical approval.
Patient experiences were examined in a systematic review of the literature in relation to antidepressant treatment adherence (Johnston, 2013), which produced level I evidence. The aim of the study was to identify how patient experiences influence treatment adherence in depressed patients. Several databases were searched with the keywords, “patient adherence, experience, antidepressant, and depression” yielding 179 articles, 13 of which were selected as high quality and relevant (Johnston, 2013, p. 30). Factors that were found to increase treatment adherence in depressed patients included positive past experiences, increased age, perception that depression is an organic illness, observation of others struggling with depression, self-awareness of one's signs and symptoms of depression, and a therapeutic relationship with one's care provider. Factors that impaired treatment adherence included patient perception that medications were harmful and increased incidence of side effects (Johnston, 2013). In light of these research findings, Johnston advocates for a team-based and patient centered approach in which patient experiences are a central consideration (2013). Limitations of this study: included articles were exclusively printed in English, a large proportion of the sample included Caucasian individuals, and there were several qualitative studies examined, which could add bias (Johnston, 2013).

In order to study adherence traits in schizophrenic patients, Bressington et al. conducted an “observational cross-sectional survey” (2012, p. 36). Evidence in this study was of level VI. The patient population was selected from community nursing service recipients. Patients were included if they were: schizophrenic adults, either male or female, with enough mental capacity to consent to participation, on at least one antipsychotic medication, and ethnically Chinese, and fluent in Cantonese (Bressington et al., 2012). Potential participants were excluded if they had: a history of substance use within the past three months, were neurologically unstable, or diagnosed with an organic brain or spinal cord disorder (Bressington et al., 2012).
Territories West Cluster Clinical and Research Ethics Committee’ approved this study (Bressington et al., 2012). Interviews were conducted in order to collect data. Several tools were administered: the ‘Insight Scale for Psychosis’, the ‘Hogan Drug Attitude Inventory’, ‘Medication Adherence Rating Scale’, the ‘Brief Psychiatric Rating Scale’, and a tool modified from the ‘Liverpool University Neuroleptic Side-Effect Rating Scale’. This study included 584 patients, in which, a demographic finding related to adherence was that increasing age was related to increasing adherence. Clozapine was associated with high levels of adherence (Bressington et al., 2012). Insight into one’s condition did not translate into a pattern related to adherence. Positive attitudes were related to adherence patients. Two medication side effects were associated with reduced adherence: impaired memory and akathisia (Bressington et al., 2012). These findings can be helpful in planning the care for patients suffering with schizophrenia. It should be noted that given the patients in this study are all of Chinese descent, that the need to please the researchers was influential in the results, however, if the concepts identified by the study may still be of use. A positive attitude towards treatment could reduce barriers to treatment adherence. Nursing interventions geared towards increasing adherence should therefore take into consideration patient attitude.

Adherence was studied in 145 depressed patients using several instruments with the hope of identifying conditions that lead to adherence (De las Cuevas, Peñate, & Sanz, 2014). This cohort study produced level IV evidence. The study population was identified through two local mental health facilities in a community in Spain. Instruments included in the study conducted by De las Cuevas et al. (2014) included: ‘Morisky self-report scale’, ‘Clinical Global Impression-Severity and –Improvement scales’, ‘Beck Depression Inventory’, ‘Self-report Antidepressant Side-Effect Checklist’, ‘Drug Attitude Inventory’, ‘Beliefs about Medicine Questionnaire’, and
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the 'Leeds Attitude towards concordance Scale'. This study did not find any predictors among socio-demographic characteristics. Patients with positive treatment attitudes, low scores regarding self-harm, and milder depressive symptoms had higher rates of adherence (De las Cuevas et al., 2014). Non-adherent patients reported more side effects from medication; it is unclear whether they were non-adherent due to side effects experienced or if there were other undetected factors because the logical assumption would be that side effects would increase with more consistent dosing (De las Cuevas et al., 2014). Interventions for adherence therapy should be developed that address patient attitude as well as perceived presence of risk related to medications. Limitations of this study include that the study was conducted in Spain, cultural components cannot be ruled out as contributing to observed relationships.

Medication adherence in bipolar patients was addressed in an article, the overall purpose of which was to explain motivational interviewing as an intervention to increase treatment adherence (Laakso, 2012). As this article was educational in nature, it did not provide evidence of any level. Patient qualities specific to those suffering with bipolar disorder were discussed in the initial portion of this educational article, and will be reviewed separately from the remaining portion of the article. Bipolar patients share many characteristics with other mental illnesses regarding medication adherence such as a dislike of certain side effects, impaired insight regarding the condition, and decreased social support (Laakso, 2012). However, bipolar patients also have personal characteristics usually not found in other mental illnesses that impair adherence: bipolar disorder is characterized by rapid changes of mood, more complicated medication regimes, and the fact that many bipolar patients enjoy the manic phases of their illness (Laakso, 2012). The implication of these characteristics is that addressing adherence in
patients who suffer from bipolar disorder may be more complex than in other mental illnesses. A significant limitation of this article is that it is not research; it is educational in nature.

**Summary.** Patients with insufficient education regarding diagnoses and medication regimes are related with low treatment adherence (Cardoso et al., 2011). Attitudes regarding treatment efficacy can improve adherence in both patients with depression and schizophrenia (Bollini et al., 2004; Bressington, Mui, & Gray, 2013; De las Cuevas et al., 2014; Johnston, 2013). The patient’s past and present experiences should be taken into account by the care team in order to facilitate adherence (Johnston, 2013). Another important factor to consider, according to Bollini et al., involves the perceptions of a patient’s family and friends; it was found that patients whose family and friends were supportive of treatment had increased adherence (2004). Adequate assessment of patient adherence is another area that needs to be addressed in health care (Bollini et al., 2004). Side effects, though often identified by health care providers, may not be a primary focus for patients regarding treatment adherence (Bollini et al., 2004; Bressington et al., 2013; De las Cuevas et al., 2014). Bipolar patients are a subgroup of mental health patients that have particularly complex issues concerning medication adherence (Laakso, 2012).

**Specific techniques used to increase treatment adherence**

A meta-analysis was performed to study interventions related to treatment non-adherence by Nosé et al. (2003). Level I evidence was produced. Studies that were included were either randomized controlled trials or controlled clinical trials (n=24). Interventions were analyzed from the included studies; strong evidence supports using patient education regarding their medications and treatment appointments as well as implementing meetings/consultations with a patient’s new care team prior to discharge. Nosé et al. (2003) also report that as time progresses, interventions designed to facilitate adherence lose efficacy. Other findings reported include that
Interventions should be developed on the basis of diagnosis. Reasoning for this was cited that interventions used across multiple diagnoses were less effective in the alternative populations (Nosé et al., 2003). This implies that coordination between in-patient and outpatient services needs to happen early on in the hospitalization process and receiving care from a consistent team of providers would benefit patients. In order to maintain a therapeutic effect, patients should be given repeated exposure to adherence increasing interventions at maintenance appointments.

Limitations of this study include that the study was published in 2003 and that it was conducted in Europe.

Interventions to increase medication adherence in depressed patients was studied in a systematic review by Chong, Aslani, & Chen (2011). 26 studies were examined, and the interventions therein were focused on patient education, behavior, or were multifaceted in nature. Level I evidence was produced in this study. Studies that met the inclusion criteria were all randomized control trials. Educational interventions examined were not found to increase patient adherence. Behavioral interventions were found to address patient obstacles and increase adherence (Chong et al., 2011). Results of multifaceted interventions were mixed, though 11 of the intervention strategies studied resulted in increased adherence and more positive patient outcomes. Collaborative care models of treatment interventions as well as nurses as care managers were intervention models that resulted in positive outcomes and increased adherence (Chong et al., 2011). In practice, this would support the use of patient-centered care and increased contact with care providers in order to facilitate patient treatment adherence. One limitation noted was that the education strategies studied in this systematic review included remote techniques – those that are patient led, without the guidance of a health care provider. This may account for some of the decreased influence in relation to patient adherence.
The nurse's role in relation to patient antidepressant treatment adherence is examined in a systematic review of the literature (Heise & van Servellen, 2014), which produced level I evidence. This review was conducted in order to find effective ways for nurses to organize treatment adherence in patients undergoing treatment for depression. Four databases were searched for peer-reviewed articles, resulting in 277 articles related to medication adherence, depression, and nurse management. Studies were excluded if there was no standardized method of measuring adherence, resulting in the inclusion of ten articles all published between 2002 and 2012. Findings from this review include increased adherence using collaborative care programs facilitated by either 'nurse case managers or nurse practitioners', telemedicine programs, online messaging programs, and care managers that provided ongoing contact with the patient and acted as a liaison with the patient's practitioner (Heise & van Servellen, 2014). This review shows that important aspects of facilitating treatment adherence for patients with depression include a patient-centered approach, providing acceptable options from which patients can choose, and maintaining consistent contact throughout treatment. This review also showed that nurses were as effective as other health care providers (Heise & van Servellen, 2014). Limitations of this review included small sample size and the potential for bias.

In a randomized control trial experiment exploring the effect of adherence therapy on treatment adherence in schizophrenic patients, Schulz et al. (2013) explored whether patient adherence increased and morbidity was reduced after going through adherence therapy. This study produced level II evidence. The sample size studied included 137 schizophrenic patients, which was determined to be an adequate sample size for statistical analysis. In this study, the dependent variable was treatment adherence. The control group was given "treatment as usual", which in this case included 'medication regimes, psychotherapy, occupational therapy, as well as
medication education' (Schulz et al., 2013). Adherence therapy is a patient-centered approach that aims to engage the patient in collaboration with the health care provider, helping to ease the process of change (Schulz et al., 2013). In this study, the instrument, ‘The positive and negative syndrome scale’ was used to assess symptoms before and after interventions were applied. To assess adherence, patient blood samples were taken to measure for therapeutic levels of medication. Schultz et al. (2013) found no increase in treatment adherence when comparing the experimental and control groups, however, the experimental group was observed to have a decrease in symptoms. This result may be related to the timing of the treatment interventions; according to Schultz et al., (2013), patients in this study were all selected to participate after an acute exacerbation of their illness, and recommends further research. Adherence therapy is a new treatment that has reasonable constructs related to mental health care nursing and patient adherence, however, given inconclusive results, it would be premature to introduce its widespread use (Schultz et al., 2013).

Adherence therapy and medication adherence in schizophrenic patients were topics of investigation in a systematic review of the literature by Hegedüs & Kozel (2014), which produced level I evidence. Randomized control trials, dealing with adherence therapy and medication adherence, were reviewed including four articles. No significant effect was seen when adherence therapy was compared to treatment as usual. Hegedüs & Kozel (2014) maintain that low effect may be due to studies that include patients that are already relatively adherent with their treatment regimes. Adherence therapy needs to be examined in patient samples that have low baseline treatment adherence, which would be more representative of the population in question (Hegedüs & Kozel, 2014).
A systematic review of literature focused on interventions to increase treatment adherence in schizophrenic patients was conducted and included 15 randomized control trials (Barkhof et al., 2012). This review, which resulted in level I evidence, found several interventions that raised treatment adherence. Interventions that increased adherence and that focused on the individual patient included: cognitive adaptation training; the use of audiovisual cues such as postings and automatic reminders; weekly telephone contact with a mental health nurse; and specially packaged medication that included one dose per packet (Barkhof et al., 2012). Interventions that initially increased adherence and that focused on the individual within their family unit included monthly educational classes, though the results of these interventions eventually returned to baseline. Barkhoff et al. (2012) identified several effective community-based interventions, and showed that increasing nurse training in medication management is associated with increased patient treatment adherence. Regarding treatment interventions that are considered “mixed-modality”, ‘assertive community treatment’ as well as ‘family involvement’ and social skills support raised adherence initially, though effects diminished over time (Barkhof et al., 2012, p. 14). Adherence therapy was studied, and no effects were found over control groups (Barkhof et al., 2012). Implications of these results include that maintaining adherence is an ongoing part of treatment and that well trained nurses are more effective in facilitating increased treatment adherence. Limitations include that this reviewed many studies done in Europe and Asia; cultural components could account for effects seen.

The influence of motivational interviewing was studied in relation to treatment adherence in outpatient individuals diagnosed with bipolar disorder by McKenzie & Chang (2015). This cohort study produced level IV evidence. Participants were included on the basis of: referrals, diagnosed with bipolar disorder, over the age of 18, fluency in English, currently prescribed
more than one psychoactive medication, reported missing at least 20% of their medication in the last month, and able to give informed consent. Patients were excluded on the basis of: substance abuse, actively psychotic, and current suicidal ideation (McKenzie & Chang, 2015). Instruments used in this pretest-posttest study involving 15 patients included: the “timeline followback” survey, the “medication adherence rating scale”, the “MI Rulers”, the “self-efficacy and Appropriate Medications Use Scale”, and a ‘patient satisfaction questionnaire” (McKenzie & Chang, 2015). Patients underwent three sessions of motivational interviewing and were given a variety of home resources to document their daily condition (McKenzie & Chang, 2015). One patient failed to complete the study. Paired t-tests were used to analyze scores on the MARS: pretest values equaled “4.3±2.6” and posttest values equaled “2.2±1.6”, which was a significant change (McKenzie & Chang, 2015). Adherence as measured by the TLFB increased by 26.5% after the motivational interviewing interventions and the patients were happy with the treatments, ‘4.6 to 5.0 on a 5-point Likert scale’ (McKenzie & Chang, 2015). This study passed appropriate ethical scrutiny. Implications of this study are that motivational interviewing may be an effective way to help patients with bipolar disorder increase treatment adherence, however limitations include small sample size, no control group, and possible effects from supplemental materials used by patients at home as provided by the researchers.

Treatment adherence in bipolar patients can be facilitated by mental health nurses as described in an educational article by Laakso (2010). Motivational interviewing is a technique that is based on the Transtheoretical Model of Change as proposed by Prochaska and DiClemente (1982). This method allows the nurse to help the patient identify their own values in relation to their treatment, set goals, and prepare for change. Laakso describes four elements that are necessary to achieve success with motivational interviewing, including empathy,
identification of discrepancy between goals and current status, being accepting of resistance from the patient, and helping the patient develop self-efficacy (2012). Therapeutic communication is used throughout the process of motivational interviewing, especially ‘open-ended questions’, ‘affirmations’, ‘reflection’, and ‘summaries’ (Laakso, 2012). Laakso maintains that to effectively implement motivational interviewing in practice with patients, mental health nurses need specific training (2012).

Treatment adherence was studied in 367 adult mental health patients after the implementation of collaborative documentation and person-centered planning, which is a new treatment modality that focuses on involving the patient to use their life goals as motivators for treatment adherence (Stanhope, Ingoglia, Schmelter, & Marcus, 2013). This study produced level II evidence. Motivational interviewing, ‘Wellness Recovery Action Plans’, and the establishment of a strong therapeutic alliance are the foundational aspects used within person-centered planning (Stanhope et al., 2013, p. 76). The objective of the study was to investigate the effect of person-centered planning on the treatment adherence habits of mental health patients. This study utilized a randomized controlled design. Ten mental health centers were included in the study; each of the centers was randomized as either an experimental site or a control site. Treatment was carried out and monitored over an eleven-month period. Adherence to treatment was measured on a monthly basis. Stanhope et al. found that the experimental group increased adherence by two percent each month as opposed to the control group, and at the end of the 11 months, the experimental group was 25% more adherent than the control group. Participants in the experimental group were also more likely to attend follow-up appointments. Effects were seen predominantly in patients diagnosed with schizophrenia and bipolar disorder, whereas patients suffering from depression were less likely to benefit (Stanhope et al., 2013). Putting patient-
centered planning and collaborative documentation into effect in a practice setting can help patients feel more empowered in the treatment process and may help them maintain motivation to adhere to treatment plans. Limitations of the study include that all of the sites involved in the study participated voluntarily, and so effects may have been from unknown confounding variables (Stanhope et al., 2013).

**Summary.** Several interventions of varying complexity have been shown thus far to improve treatment adherence in mental health patients. Schizophrenic patients benefit from education dealing with medication and appointments with care providers; interventions should be tailored to patients on the basis of diagnosis for maximum efficacy and in order to maintain a high effect, repeated exposures to the interventions are helpful (Nosé et al., 2003). Depressed patients were shown to benefit from interventions that helped them to overcome behavioral and psychosocial barriers to treatment adherence (Chong et al., 2011). Depressed patients also benefitted from multifaceted interventions, which were those that included education in combination with either behavioral or psychosocial support (Chong et al., 2011). Patient centered planning and collaborative documentation seem to facilitate adherence among patients diagnosed with schizophrenia or bipolar disorder, though seems to have no effect among depressed patients (Stanhope et al., 2013). Adherence therapy is still unproven as far as its efficacy in increasing treatment adherence in schizophrenic patients, and therefore more research is required before considering its implementation (Barkhof et al., 2012; Hegedüs & Kozel, 2014; Schultz et al., 2013). Motivational interviewing uses patient declared goals to identify and reduce uncertainty regarding treatment (Laakso, 2012). Motivational interviewing is a part of adherence therapy, which shows promise in treatment of patients with bipolar disorder, however McKenzie & Chang (2015) suggest that patients in psychotic episodes are not at an appropriate stage in their
illness to benefit from motivational interviewing. This may be a source of explanation of the lack of effect regarding adherence therapy used with schizophrenic patients.

III. Description of the Project

The purpose of this project was to utilize current literature regarding treatment adherence in order to identify effective nursing interventions to help patients in mental health settings increase treatment adherence. In a review of the literature, it was identified that there are many contributing factors that lead to treatment adherence or non-adherence among patients that nurses can use to better plan interventions for patients. This section describes the executed honors project including: setting, population, project procedure, ethics and legal issues, a plan for evaluation, time frame, and a budget.

Project Setting

This project incorporated interventions used in the inpatient setting. A partnership was attained with an area hospital’s mental health unit. This 933-bed hospital was located in urban Dayton, Ohio in the Miami Valley. The mental health unit at this hospital had 33 beds divided between low acuity patients, high acuity patients, and geriatric patients. Agency permission was secured and the agency permission form is listed as appendix B.

Population

This project addressed the need to increase treatment adherence in the adult mental health population in the Miami Valley to registered nurses employed at the partnered hospital’s mental health unit.

Project Implementation

In order to combine the needs of the partnered mental health facility in the Miami Valley with the objectives of this project and the information available in current research, a
questionnaire was constructed. This questionnaire assessed educational needs of the area facility regarding treatment adherence interventions identified through the review of the literature. In order to make information presented pertinent to clinical practice, these needs were included when constructing the scholarly educational presentation. Within the educational presentation, treatment guidelines were suggested and information was included in order to educate staff regarding treatment adherence interventions included.

**Evaluation and Dissemination**

The proposed treatment guidelines with educational information were presented to faculty advisor and the nurse manager of the unit for constructive feedback and approval. All feedback was incorporated in the final presentation. The final presentation was disseminated to all available employees at a monthly staff meeting. Employees in attendance were provided with an evaluation questionnaire to evaluate clarity of material and usefulness in practice. This evaluation form is included (see Appendix C).

Final submission of the honors project will include the PowerPoint presentation with lecture notes (see Appendix D) as well as the employee feedback and analysis. A bound copy of the PowerPoint presentation was left with the facility as a resource for further reference. Results from the employee surveys will be disseminated through a brief presentation to senior nursing students.

**Ethical and Legal Considerations**

The presentation did not include materials that were copyrighted. No live patients were included in this project, and therefore IRB approval was unnecessary. All presented information was appropriately referenced. The final PowerPoint presentation included all references from the review of literature that were used to create the educational presentation.
Timeline

Identification of potential sites was completed by April 2015. The creation of the initial survey of needs (see Appendix E) was administered by June 1, 2015. Research regarding the execution of specific nursing interventions ensued upon evaluation of the needs of inpatient site and was completed by June 30, 2015. A preliminary presentation was completed by the fourth week of July 2015. This presentation was made available for evaluation and approval will be sought from the faculty advisor as well as from the contact person at the cooperating site. Feedback was incorporated into the final presentation. The final presentation was offered to employees at the November 2015 staff meeting, at which time evaluation was collected.

Budget

Items that were budgeted for included: printouts of surveys, printouts of the final presentations, poster board to be left at the unit as reference material, and refreshments offered to employees at the final presentation. All handouts were printed in black and white, which will cost no more than ten cents per page. Printouts of the final presentation will include one color copy, which cost no more than 25 cents per page. Refreshments included doughnuts, which cost $15. Expenses were less than $20 and were covered by an awarded scholarship.

Summary

Treatment adherence was researched in regards to influencing factors and nursing interventions to implement to help improve adherence. An educational seminar was created and presented to registered nurses at a local inpatient mental health facility. Resources, including the PowerPoint slides and the lecture notes, were left at the facility. These nurses evaluated the clarity and usefulness of the presented material. The coming sections will analyze the data and draw conclusions regarding the project.
IV. Project Evaluation

Presentation Execution

The educational seminar that was designed contained 15 slides. Among these slides there was one title slide, one slide for questions, nine content slides, and four reference slides. The presentation was designed to last for 15 minutes. The presentation was given at the start of a staff meeting for the partnered unit. After the presentation was given, the employees were given the evaluation form to fill out. This evaluation form utilized three questions rating the presentation with a scale of 1-5 as well as a space for comments (see Appendix C). In attendance were 12 unit employees, including the unit manager, the project faculty advisor, and eight nursing students attending mental health clinical.

Results

For the question, “The topic content was relevant to my current work”, the average response was 4.9 and the mode response was 5. For the questions, “The presentation was clear and understandable”, the average response was 4.8 and the mode response was 5. For the question, “The presented techniques could be helpful to me in my job”, the average response was 4.7 and the mode response was 5. Five staff members utilized the comments section. Comments included, “great job”, “good job”, and “good presentation; good information”.

Summary

The presentation was well received by the intended audience regarding adult mental health patients. The material presented was pertinent to the nurses’ work, was clear and understandable, and the nurses thought that the techniques could be helpful to them in their jobs. If the nurses are successfully able to integrate these techniques into their interventions with their patients, it could help adult mental health patients in the Miami Valley increase their treatment
adherence, which as discussed has many benefits for both the patient and the health care community.

V. Conclusion, Limitations, and Discussion

It can be derived, from the response data generated, that mental health nurses in the partnered hospital also see the need for increasing patients’ treatment adherence. Additionally, that this presentation was a clear and understandable way for them to learn about this material and that these techniques could be helpful to them as they work with adult mental health patients. Limitations of this project include the short time frame of the presentation: if a longer time frame were available, the techniques could have been explored in more detail and the audience could have had an opportunity to role play and/or practice the techniques presented. Another limitation was that only one group of staff from one mental health facility in the area was included; in order to reach a wider audience, additional inpatient and outpatient facilities could have been included.

Implications for nursing practice regarding this project include the introduction of these interventions to mental health nurses. To increase treatment adherence, nurses must first be aware of the interventions identified through research that are shown to be beneficial to adult mental health patients. After nurses become familiar with the interventions, nurses or nurse educators can further their proficiency by designing in-depth trainings in these techniques. Nurses, well trained in these interventions, could then be more enabled to help their patients increase treatment adherence. Further research could then be done to evaluate the effectiveness of well-trained nurses on patient treatment adherence.

In conclusion, this honors project researched current information regarding the nursing interventions available to increase the treatment adherence among adult mental health patients. An educational presentation was generated utilizing this research and presented to a group of
mental health nurses. The project was well received. Future opportunities in this area include professional development in the identified nursing interventions as well as researching the efficacy of nurse trained in these interventions.
### Appendix A

#### Level of Evidence

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<thead>
<tr>
<th>Level I – Systematic Review/ Meta-synthesis</th>
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<td>Level II – Randomized Control Trials</td>
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<td>Level III – Controlled Trial without Randomization</td>
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<td>Level IV – Case Control or Cohort Study</td>
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<td>Level V – Systematic Review of Qualitative Studies</td>
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<td>Level VI – Single Descriptive or Qualitative Study</td>
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<td>Level VII – Expert Opinion</td>
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Appendix B

Wright State University-Miami Valley College of Nursing and Health

AGENCY PERMISSION FOR CONDUCTING STUDY

THE __Miami Valley Hospital ________________________________ GRANTS

TO __Elizabeth Lavezzi ________________________________, a student

enrolled in the Departmental Honors Program in the College of Nursing & Health at Wright State University, the privilege of using its facilities in order to conduct the following project:

"Facilitating Increased Treatment Adherence in Adult Mental Health Patients"

The conditions mutually agreed upon are as follows:

1 The agency (may) (may not) be identified in the final report.

2 The names of consultative or administrative personnel in the agency (may) (may not) be identified in the final report.

3 The agency (wants) (does not want) a conference with the student when the report is completed.

4 Other:

4-27-15

Date

Signature of Agency Personnel/Title

Student Signature

Project Chair Signature
Appendix C

"Facilitating Increased Treatment Adherence in Adult Mental Health Patients" Evaluation

Please rate each statement on a scale of 1-5: 1 being "strongly disagree" and 5 being "strongly agree"

1.) The topic content was relevant to my current work.

1 2 3 4 5

2.) The presentation was clear and understandable.

1 2 3 4 5

3.) The presented techniques could be helpful to me in my job.

1 2 3 4 5

Comments:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
Facilitating Increased Treatment Adherence in Adult Mental Health Patients

Patient Population

- Schizophrenia
- Person-Centered Planning
- Education
- Depression
  - Behavioral and psychosocial support combined with education
- Bipolar Disorder
  - Person-Centered Planning
  - Motivational Interviewing

Characteristics Influencing Adherence

- Level of knowledge
- Individual and families' perceptions regarding mental illness
- The degree of assessment from health care professionals
- Patient experiences & attitude
- Medication side-effects

Patient-Centered Planning

- What is Person-Centered Planning?

Patient-Centered Planning: Key Principles

- Allow person to participate in community life as a part of their recovery
- Recovery: everyday community activities
- Allow person to participate in community life as a part of their recovery
- Therapeutic relationships are necessary
- Person-centeredness involves recovery-oriented language
- Full access to information
- Use strengths to foster treatment
- Recovery: everyday community activities
- Allow for cultural differences
- Consider the stages of change

Strategies for Patients with Depression

- Behavioral and psychosocial support programs
- Education
- Care management
ADHERENCE IN ADULT MENTAL HEALTH PATIENTS

Patient-Centered Planning: Implementation in Practice

- Assessment
- Understanding
- Prioritization
- Desired results/goals
- Strengths/Barriers
- Short-term goals/objectives
- Interventions/Action
- Outcomes

Motivational Interviewing

- Definition: "A directive, client-centered counseling style for eliciting behavior change by helping clients to explore and resolve ambivalence"

- Four Main Concepts:
  - Express Empathy
  - Support Self-Efficacy
  - Develop Discrepancy
  - Roll with Resistance

Motivational Interviewing and the Nursing Process

- Assessment
- Diagnose
- Plan
- Implement
- Evaluate

6 Traps in Motivational Interviewing

1. Question-Answer
2. Confrontation-Denial ("taking sides")
3. "Expert"
4. Labeling
5. Premature Focus
6. Blaming

Questions?...

References


Traps in Motivational Interviewing

1. Question-Answer
2. Confrontation-Denial ("taking sides")
3. "Expert"
4. Labeling
5. Premature Focus
6. Blaming

Questions?...
Lecture notes:

Slide 2:

*Many patients do not know or understand information about their medications or their
diagnoses, both of which decrease adherence

*Perceptions regarding source of the disease and the patient’s perceived path of the disease can
influence adherence. Also, the degree of buy-in the patients have from family members and
friends can be influential

*Many health care professionals do not adequately assess adherence in their patients, but rather
assume adherence or non-adherence is occurring.

*Whether patients have positive or negative experiences with their treatment will influence their
adherence: personal or observed experiences, self-awareness, and relationship with their provider
*Medication side effects can present an issue for patients that are non-adherent more so than patients that are adherent. How this is related to adherence, is still unclear. On one hand, it could result from poorly adherent patients experiencing more side effects, but on the other hand, patients who experience more side effects may be less likely to be adherent.

Slide 4:

*Programs designed to support patients on a daily basis were shown to help patients struggling with depression as their experiences have an impact on their adherence.

- Telephone follow-up, medication support
- Discussion based support groups

*Education regarding:

- Medications are also helpful: many patients were unaware of many basic facts regarding medications such as the purpose, side effects, and dosing schedules.

*Care management – good time to partner with the case workers/social services to hook the patients up with outpatient resources that will help them maintain a higher level of functioning achieved by discharge.

Slide 5:

*Abstract, flexible way of managing mental health recovery: “about respecting an individual’s human rights to participate fully in community life in a self-determined way”

*Recovery over cure is an important theme in PCP: the message is that treatment should enable to get what they want out of life

*Allows the patient to build self-efficacy and to enable building goals fosters hope and can increase compliance.
*Flexibility over time is important to support needs and fit with patient preferences as needs may shift over time.

Slide 6:
Recovery is a nonlinear process, gatekeeping work or other community activities does not further the treatment process. Active participation fosters empowerment and self-determination.

Slide 7:
*Assessment: focus on strengths; begin where the patient is. Use questions such as “What do you find helpful”, “what are your goals”, and “what would make things better”

Reframe negativity

Use patient identified strengths in the planning process

*Understanding is important; includes cultural understanding, and helping the patient to feel as though we understand their situation – many will become resistant if they don’t feel we understand them. Once we identify the what; we need to answer the why to allow moving forward

*Prioritization will break the plan down into manageable parts

*Desired results/goals – must be meaningful to the patient; many times we insert our own values, beliefs, and goals: this leads to the patient becoming disengaged with the recovery process.

*Please note, that issues of safety are ones that the provider and the patient may have to “agree to disagree”. Ensure patient safety, but do not cut the patient off from the planning process – PCP is a partnership that needs to be maintained. If they deny having goals, you may have to use group/peer work, and therapeutic communication to help the patient identify things they want to accomplish.
*Strengths/barriers, short-term goals/objectives, & interventions/actions are all things that can be discussed and planned as a team with the patient.

Strengths should be used to overcome the patient identified barriers

Short-term goals will help identify a path to longer-term recovery.

Interventions – explain what you can do as a nurse in the context of reaching their goals; it may be helpful to provide the patient with acceptable choices, in order to allow for individual preference and autonomy.

*Outcomes: Chart the plan, make progress notes, review and revise the plan as appropriate in the time-frame allowed during hospitalization.

Slide 8:

*Empathy: accept the patient where they are at, do not judge, try to put them at ease, remain objective

*Support Self-Efficacy: avoid sharing your personal beliefs, make observations that promote self-awareness, notice positives in which patient has had an active role, be encouraging without patronizing/false hope

*Develop Discrepancy: look at the patient’s current status, and have them identify future goals; have the patient identify a path to their goal, do not create do’s and don’ts for the patients

*Roll with resistance: It is unhelpful to challenge patient’s resistances because it only defense of those attachments & it leads them to hold on to them more tightly.; Help the patient explore their own resistance: this helps to foster the therapeutic relationship, builds acceptance, and promotes patient engagement
*Overall: Assess their needs to encourage adherence. Do not try and fix them: When we try and fix patients, they become dependent on us. It is the patient’s responsibility to fix themselves with tools we can provide.


Slide 9:

*Assessment: Find the patient’s concerns, what they feel is contributing to them. Point out obvious or unobvious barriers; assess goals.

*Diagnose: Which problem seems to be the priority for the patient? Does the patient seem to be motivated, ambivalent, or resistant? Look for the patient’s intrinsic (internal) motivators. When ambivalent: the patient may have a desire to move on, but there are barriers. When resistant: the patient will only increase their resistance when we are confrontational: at this stage, maintain empathy, understanding, and non-judgmental attitude; help them to explore their resistance.

*Plan: work together with the patient; we can provide direction, but allow the patients to speak for themselves.

*Implement: The patient needs to take responsibility; RN’s role should be to provide positive reinforcement or to help explore the lack of progress. Provide education and help refocus as appropriate.

*Evaluate: Reassess and determine if the goal was met or needs modification.

Slide 10:

1. Provider takes over the conversation and the patient becomes passive: to avoid, use focused open-ended questions. Two open-ended questions followed by a reflection can help keep things on track.
2. The provider states there is a need for change, resulting in the patient shutting down, becoming defensive/frustrated, and arguing. Use the four concepts of MI to help the patient realize what may already be obvious to us.

3. The provider gives advice without learning the patient’s needs or goals. This isn’t to say we cannot give advice, but ask permission before doing so. We need to let go of our own need to make things right and to fix the patient. Save the advice for when they are better prepared for change. Help guide them to a solution that they find meaningful.

4. Labels carry stigma, and they have the potential to inappropriately define the patient. They may be necessary for charting/insurance purposes, but don’t make it a focus.

5. Provider focuses on a topic before allowing the patient to choose a topic. This can result because we have many demands on our time and we try to increase our efficiency, but it can create opposition from the patient, and can therefore work against us. Instead, encourage self-exploration and self-determination; wait for the patient to show readiness for action.

6. The patient may try to blame others for their problems/situation. Maintain an attitude free of blame (on others as well as the patient). Blame doesn’t move things forward, so try and steer the conversation away from it if possible.
Please circle training topics that would benefit the unit.

Patient factors related to adherence/non-adherence

Motivational interviewing

Side Effect Management

Patient-Centered Planning and Collaborative Documentation

What presentation methods would be most beneficial?

Power-point    Interactive activities    Group discussion

What other training needs regarding treatment adherence should be addressed?
References


