Structured Patient Education and Medication Adherence in Oncology Patients Prescribed Oral Chemotherapy

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Abstract

The purpose of this research project is to design and implement a structured patient education session utilizing The Medication Oral Agent Teaching Tool (MOATT) to improve medication adherence in oncology patient’s prescribed oral chemotherapy in the outpatient setting. Medication adherence is a significant complex problem in healthcare today; currently, less than 50% of patients adhere to their prescribed medications and healthcare provider recommendation’s causing difficulties in the efficacy of treatment, management of disease, and health outcomes. Non-adherence to medication is thought to be due to many factors such as cost, access, knowledge, and complicated dosing schedules. Today approximately 25% of all new chemotherapy medications in development are oral medications mostly prescribed in the outpatient setting. These oncology patients are more at risk for non-adherence behaviors as patients treated in the outpatient setting experience less healthcare support and increased patient autonomy. The Medication Oral Agent Teaching Tool (MOATT) was developed by the Multinational Association of Supportive Care in Cancer to improve medication adherence in patients prescribed oral chemotherapy, is a standardized assessment educational tool found to be useful in identifying patients who are at risk for non-adherence behaviors. Health Belief Model will guide the project as it proposes that by assessing patients’ beliefs, knowledge, and perceptions Advance Practice Nurses can identify risks and barriers to medication adherence as well as promote and support the use of self-management skills and strategies needed to improve medication adherence. In this study the participants will receive four structured education sessions using the MOATT. The participants will complete the Adherence Starts with Knowledge -12 survey (ASK-12), demographic survey, along with a personal diary of adherence. The Advance Practice Nurse (APN) can identify risks and barriers to medication adherence as well as promote and support the use of self-management skills and strategies needed to improve medication adherence. The setting of the project will take place at an outpatient adult oncology private physician office in Brooklyn, New York. The setting provides treatment and follow-up of adult oncology patients who are currently planning treatment regimens with oral chemotherapy.


**Abstract Summary:**

Structured patient education sessions teach oncology patients about newly prescribed oral chemotherapy medication. Sessions assist patients to identify barriers that may cause non-adherence to prescribed medication. Sessions promote skills, increase knowledge and improve positive healthcare provider relationships which maintain adherence when medication regimens are given in the outpatient setting.

**Content Outline:**
Medication adherence is a significant complex problem as well as a rising concern for all healthcare organizations, providers, and third party payers in the United States as the population continues to age and grow. The World Health Organization (2003) defined medication adherence as ‘the extent to which a person’s behavior taking medication, and/or executing lifestyle changes corresponds with agreed recommendations from a health care provider” (WHO 2003, “Defining adherence”, section 1, para. 4).

To emphasize the need for medication adherence Unni, Shiyanbola, and Farris (2013) explained that 13% of the population is 65 years and older and estimates that this will rise to 20% by 2050; in addition 20% of older adults take at least ten or more medications a day. In fact, Faridi et al. (2016) asserted that successful long-term adherence requires healthcare interaction and secondary risk identification when faced with the care of the chronically ill as chronic conditions usually require long-term adherence to numerous and at times complex treatment regimens.

That being the case, Brown and Bussell (2011) asserted that currently less than 50% of patients adhere to their prescribed medications and healthcare provider recommendations leading to uncertainty in efficacy of treatment, management of disease, and health outcomes costing the healthcare system approximately $100 billion a year due to non-adherence to medication. According to Bosworth et al. (2011), non-adherence to medication causes approximately 125,000 deaths per year in the U. S. with non-adherence rates between 33% - 60% as the main contributor of poor health outcomes and increased health care costs.

Furthermore, Yagasaki and Komatsu (2013) argue that medication adherence is challenging due to changes in treatment protocols and increased prescribing of oral chemotherapy in the outpatient setting, as the outpatient setting provides more opportunity for non-adherence behaviors to occur. In addition, Yagasaki and Komatsu (2013) found that although patients experienced more autonomy, greater flexibility in daily life, and convenience, patients that are prescribed oral chemotherapy in the outpatient setting experience less healthcare support, increased responsibility, and increased risks for developing non-adherent behaviors. Irwin (2015) found that medication adherence is linked to multiple factors such as income, cost, access, knowledge, adverse effects, and complicated dosing schedules. Therefore, including patients in open effective communication that examines a patient’s perceived beliefs, susceptibility, severity, knowledge, and/or motivation to act could be the key to improving adherence when prescribed oral chemotherapy.

In a systematic review of evidence based interventions, Spoelstra and Sansoucie (2015) found no standard protocol exists for the management of oral chemotherapy medication however, the use of multicomponent interventions that incorporate patient education and counseling are recommended for practice. Equally as important, Roop (2014) discovered that 51% of nationally surveyed practices did not have established procedures for the education of patients prescribed oral chemotherapy medications. Consequently, Moody and Jackowski (2010) argued that when implementing patient education interventions nurses must be included, as they are an important component in improving medication adherence.

Moore and Brandt (2010) found that nurses have traditionally been responsible for patient education, as nurses provide patient care and are key in identifying patient needs. The nurse is a needed addition when patients are prescribed oral chemotherapy, as patients prescribed oral chemotherapy require additional support and encouragement to successfully complete oral chemotherapy treatment. Even more, Yagasaki and Komatsu (2013) explained that currently Advanced Practice Nurses (APN’s) are in a position to effectively address the needs of cancer patients, as they are generally more educated and experienced with oral chemotherapy. By the same token, Moore and Brandt (2010) acknowledged that nurses are responsible for the thorough assessment of adult cancer patients receiving oral chemotherapy and that oncology patients require individualized patient education, monitoring, and support to provide effective care. More importantly, Kean et al. (2016) emphasized that nurses provide accurate, current, and thorough information that supports patients in decision-making and planning of care; in fact, nurses encourage therapeutic relationships between patients, family, and healthcare providers.
The American Society of Clinical Oncologists (ASCO) along with The Oncology Nursing Society (ONS) recognizes that increased use and availability of oral chemotherapy warrant standardized guidelines to maintain and encourage the safe delivery of oral chemotherapy. Together the ASCO and ONS have developed a set of standards to guide the administration of both intravenous chemotherapy and oral chemotherapy. Neuss et al. (2013) acknowledges that patients prescribed oral chemotherapy experience less healthcare interaction and increased patient autonomy. Updated guidelines must now incorporate experienced oncology nurses and the increased education of patient’s prescribed oral chemotherapy. Burhenn and Smudde (2015) believe to promote and encourage medication adherence, healthcare providers must identify multicomponent interventions that explain what acceptable medication adherence levels are to reinforce both patient and provider understanding of the benefits of following prescribed oral chemotherapy.

The World Health Organization (2016) describes adherence as interactive, with at least five parts, which include: socioeconomics, therapy, patient, health system, and a combination of all as ultimately potentially impeding a patient’s ability to adhere to medication. Furthermore, Spoelstra and Rittenberg (2015) described non-adherence to prescribed medication as either taking too little or too much, for too short, or too long a period or at the wrong time or in an ineffective manner. Most non-adherence behavior is due to lack of patient knowledge, belief in drug benefits, complexity of dosing schedules, and/or severity of side effects. Oral chemotherapies are just as powerful as traditional intravenous chemotherapy, and the need for prompt identification and management of adverse effects, including the safe handling and storage of such medications, is paramount when assessing adherence behaviors. In fact, Neuss et al. (2013) indicated that most healthcare members generally assume that patients take their prescribed medications as directed, but unfortunately adherence ranges are difficult to ascertain. For that reason the use of patient education that incorporates adherence strategies that emphasize the need for continued therapeutic levels as a method to improve medication adherence has been suggested.

Patient beliefs are significant predictors when assessing risks and barriers to medication adherence, as negative beliefs are common among patients that are non-adherent. Increases in cancer treatment options and survival rates in the U.S. have created an expanding older population who many times experience multiple comorbidities that require multiple treatments and medications (Gatti, 2013). Similarly, Unni et al. (2013) recognized that patients’ perceptions and beliefs regarding their health and illness provide them with an understanding of how to handle decision making when planning care. However, Jung-Won, Baik, and Kimlin (2012) emphasized that patients who are engaged in positive healthcare communication during the planning of care, believed they were empowered and more apt to follow and adhere to healthcare recommendations. With this in mind, Unni et al. (2013) stressed that providing interventions that foster communication that provide a clear understanding of medications help identify patient concerns, perceptions, and beliefs; because of this, medication adherence hinges on patients cognitive and emotional assessment of situations to weigh risks and benefits of treatment options.

The Medication Oral Agent Teaching Tool (MOATT) was developed by the Multinational Association of Supportive Care in Cancer to improve medication adherence in patients prescribed oral chemotherapy. It is a standardized assessment educational tool found to be useful in identifying patients who are at risk for non-adherence behaviors. Moreover, the MOATT (Appendix A) provides adherence strategies to support patients in overcoming barriers when prescribed oral chemotherapy. According to Boucher et al. (2015), the MOATT tool combined with patient education promoted medication adherence when emphasis is placed on patient assessment, patient knowledge, specific drug information, general education, and follow-up care. According to, Rittenberg et al. (2012) the MOATT contains key questions that encourage APNs to participate in and encourage effective open communication when assessing patients’ adherence to medication.
Professional Experience: I have been a nurse for over thirty years with the majority dedicated to the care of the adult hematology/oncology patient. I have been a certified OCN member of the Oncology Nursing Society since 1990. I began my journey as a nurse in 1985 after an associates degree program. I realized throughout my career that to be an effective leader in the field of nursing I must continue to learn and pursue evidenced based solutions when met with any problem be it big or small. I completed a Masters degree in 2001 as well as certification as an AOCNS through my affiliation with ONS. I am currently a DNP student in Molloy Colleges Doctoral program graduating in May 2018. As a recent inductee in Sigma Theta Tau Epsilon Kappa Chapter I look forward to continuing my education by embracing both new ideas and through new experiences.

Author Summary: As Clinical Nurse Specialist in an outpatient chemotherapy private practice the need for efficient patient education is paramount when promoting adherence to medication regimens when prescribed oral chemotherapy. Incorporating the Medication Oral Agent Teaching Tool during patient education improves healthcare provider patient interaction fostering a positive relationship that assists patients in identifying barriers, skills, and strategies available to support medication adherence. Successful treatment completion leads to better health outcomes and less healthcare costs.