

Effect of Educational Guidelines on Patients' Outcomes Undergoing Urinary Diversion

Thesis

Submitted for Partial Fulfillment of the
Requirement of the Doctorate Degree in Nursing
Science

(Medical–Surgical Nursing)

By

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List of Abbreviations

BCG	Bacillus Calmette-Guérin
CT	Computerized tomography
IVP	Intravenous pyelogram
IVs	Intravenous lines
IVU	Intravenous urogram
MRI	Magnetic resonance imaging
NCCN	National Comprehensive Cancer Network
NIC	National cancer institute
QOL	Quality of life
TUR	Transurethral
BUN	Blood urea nitrogen
UDS	Urinary diversion surgery
UTI	Urinary tract infection
UD	Urinary diversion

Abstract

Urinary diversion surgery is a major surgery and life- changing event that can be highly distressing physically and psychologically for patients. **Aim:** this study was aiming to evaluate the effect of educational guidelines on the patient's outcomes undergoing urinary diversion. **Study design:** A quasi-experimental design was utilized to meet the aim of the study. **Subject:** A purposive sample of 100 patients with bladder cancer requiring radical cystectomy accompanied with urinary diversion. The study subjects were divided into two groups (study and control group). **Setting:** The study was conducted at urologic department and the urologic outpatient clinic in National Cancer Institute, cairo University. **Data collection tools:** 1) Demographic characteristics tool 2) patient's Clinical data tool ,3) Patient's interview questionnaire 4) Patient's self-care practice observational checklists 5) Patient's outcome assessment tool (which include patient's complications assessment tool , Hamilton anxiety scale, social dysfunction scale). **Results:** the present study revealed that there was a statistically significant difference between study and control groups regarding their knowledge, practice and anxiety post and follow up educational guidelines implementation ($p < 0.001$). As well, the study group subjects showed significant lesser complications as compared to the control group during the follow up periods. As well there was a statistically significant difference between two groups regarding social dysfunction at follow up phase only. **Conclusion:** Application of educational guidelines has statistically significant positive effect and an improvement of patients' outcomes among studied patients with urinary diversion through enhancement of their knowledge and practice. **Recommendations:** Regular follow up for all patients with urinary diversion surgery to evaluate their health conditions and detect the complications early. Awareness programs should be held periodically for such group of patients to improve physical, psychosocial, and economic conditions.

Key words: Urinary diversion, Patients' Outcomes, educational guidelines.

INTRODUCTION

Bladder cancer is a disease in which abnormal cells Multiply without control in the bladder. Cancer of the urinary bladder is more common in people aged 50 to 70 years. It affects men more than women (3: 1) and is more common in whites than in african americans (**Aria, 2015**).

Bladder cancer in the united states estimates that for About 74, 000 new cases of bladder cancer diagnosed (about 56, 320 in men and 17, 680 in women). About 16, 000 deaths from bladder cancer (about 11, 510 in men and 4, 490 in women (**American Cancer Society's, 2015**). In Egypt, carcinoma of the bladder is the foremost oncologic problem, at the hospital of National cancer institute (NCI) in Cairo, indicated that it constitutes about 37.3% of all cancers (ranging 40.65% for male & 14.3% for female type).In egypt, bladder cancer is the most common cancer followed by lymphoma and breast cancer (**National Cancer Institute, 2015**).

A cystectomy is an operation in which the bladder, prostate, seminal vesicles and lymph nodes are removed in men.While, in women, the bladder, urethra, part of the vagina and lymph nodes are removed. In addition the uterus, fallopian tubes and ovaries may be removed (**lee et al, 2014**).

Radical cystectomy is considered to be a major surgical procedure. As a result, various complications may occur during both the early and late postoperative period. Complications are associated with the procedure include possible early postoperative complications such as wound infection, deep vein thrombosis, pulmonary embolus, ileus or bowel obstruction, anastomosis breakdown death, possible delayed complications strictures and stenosis, urinary tract infections, metabolic problems, parastomal hernia (**Liedberg, 2013**).

Urinary diversion involves providing an alternate path for urine to exit the body other than the normal ureter, bladder, and urethra route. This can be accomplished by creating a pouch for collecting urine that then exits through a stoma, or by diverting the ureters to a stoma and allowing urine to free-flow through an opening in the abdomen (**Colwell & Carmel, 2012**).

There are four major reasons for having a urinary diversion: Bladder cancer (this is the most common reason), neurologic dysfunction of the bladder, birth defects, and chronic inflammation of the bladder, after urostomy surgery, patient will no longer have voluntary control over urination. Urine will pass through stoma, the opening on abdomen, and empty into a pouch. Common types of urinary diversions, classified into three categories noncontinent urinary diversions, continent cutaneous urinary diversions, and orthotopic ileal (**Tal et al., 2012**).

The nurse plays an important role in the preoperative and postoperative management of the patient with a urinary diversion. The patients undergoing stoma formation require specialist nursing care to support both their physical and psychological needs **(Stewart, 2013)**.

Preoperative guidelines for patients who are undergoing elective formation of a stoma can relieve patients' fears and help with post operative adaptation, and can help reduce post operative problems such as leakage, skin irritation, pain, and hernia, laceration, necrosis, prolapse, retraction, and stenosis **(Vujnovich, 2011)**.

Patient and family should receive education regarding what to expect after surgery. The functions of the body systems involved, the creation of the stoma, what the stoma will look like, how it will function and when it will function. Pictures are helpful to assist the patient with visualizing the operation. It is important that patients realize that they can live perfectly fine without body organs such as the bladder and colon **(Ilkay et al., 2016)**.

The nurse teaches the patient preoperative about the anticipated type of urinary diversion, self-care practices, number and type of postoperative drains, methods of pouching, how to apply appliance and use equipment, control of urinary drainage,

and minimization of odor because knowledge before surgery reduces patient's postoperative concerns. The nurse has to answer questions honestly and provide emotional support to reduce fear of the unknown and convey a caring attitude **(Holmes, 2009)**.

Any educational intervention can change patient's outcomes including knowledge, skills, attitudes, behaviors, condition or status, resulting from their involvement in a program or service. The changes may be positive or negative, intentional or unintentional and may be short-term, intermediate-term or long-term. Also, end results include prevention of complications and improve the social function and quality of life of the patients as well as health improvements of an individual patient and community **(Lantz et al, 2010)**.

Significance of the study

Bladder cancer represents a significant worldwide health problem. Bladder cancer is the 9th most common cancer diagnosis worldwide with more than 70, 000 new cases will be diagnosed each year with an estimated 15, 000 deaths. In Egypt, carcinoma of the bladder is the most prevalent cancer, accounting for as many as 31% of all cancer cases. Currently, it ranks first in males representing 16.2% of male cancer. The estimated incidence in males in rural areas in Egypt is about 32

per 100.000 (**American cancer society 2014**). Number of patients with bladder cancer requiring radical cystectomy accompanied with urinary diversion are approximately 500 patients (**Annual Statistics Of The National Cancer Institute, 2014**). Poor management and follow up after urinary diversion surgery can cause physical, social, psychological, and financial problems so implementing educational guidelines for those patients will lead to improve their quality of life, prevent complications and improve social dysfunction.

Aim of the Study

The study aims to evaluate the effect of educational guidelines on patient s' outcomes undergoing urinary diversion. Through the following:

- 1- Assess the knowledge and self care practical skills for patients with urinary diversion pre intervention.
- 2- Develop and implement educational guidelines for patient based on assessment.
- 3- Evaluat the effect of educational guidelines on patients' outcome pre, post and follow up.

Hypothesis Research:

The current study hypothesized that: Patients with urinary diversion who received educational guidelines will have better outcomes than patients who did not receive.

Operational definitions:

Educational guidelines: a standardized body of knowledge for a specific nursing practice .They specifies the minimum level of instruction required to ensure competent practice, additionally provided to assist directors in implementing the education rules (**Danielsen et al., 2013**).

Patient outcomes: are the end results of particular health care practices and interventions. End results including the degree of wellness and the need for continuing care, medication, support, counseling, or education (**Tim, 2015**)

Review of Literature

Bladder cancer is the rapid, uncontrolled growth of abnormal cells in the bladder. Cancer usually begins in the lining of the bladder. The cancerous cells may spread through the lining into the muscular wall of the bladder. Invasive bladder cancer may spread to lymph nodes, other organs in the pelvis (causing problems with kidney and bowel function), or other organs in the body, such as the liver and lungs (**Burger et al., 2013**).

Etiology and Risk Factors

Abern et al., 2013 mentioned that, the causes of bladder cancer are: Tobacco smoking is the main known contributor to urinary bladder cancer; in most populations, smoking is associated with over half of bladder cancer cases in men and one-third of cases among women. Environmental factors including certain chemicals once used in the rubber, paint, dye, printing and textile industries can also increase the risk of developing bladder cancer. In the developing world, a chronic infection with the tropical disease bilharzias increases the risk of bladder cancer. There is currently limited evidence that diet plays a part in the development of bladder cancer.